# AN ASSESSMENT OF DAMS IN INDIA'S NORTH EAST SEEKING CARBON CREDITS FROM CLEAN DEVELOPMENT MECHANISM OF THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE



A Report prepared By

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#### **GLOSSARY OF TERMS**

**ACT:** Affected Citizens of Teesta

**CDM:** Clean Development Mechanism

CC: Carbon Credits

**CER:** Certified Emissions Reductions

**CWC:** Central Water Commission

**DPR:** Detailed Project Report

**DOE:** Designated Operating Entity

**DNA:** Designated Nodal Agency

**EAC:** Expert Appraisal Committee

**FPIC:** Free, Prior and Informed Consent

GHGs: Green House Gases such as Carbon Dioxide, Methane which causes global warming

**HEP:** Hydroelectric Power Project

**MoEF:** Ministry of Environment and Forest

MeSEB: Meghalaya State Electricity Board

MW: Mega Watt

**NEWNE** New Power Grid comprising the Eastern, Northern, North East and Central Power Grids)

**NE:** India's North East comprising the States of Arunachal Pradesh, Sikkim, Manipur,

Nagaland, Assam, Mizoram, Meghalaya and Mizoram

**NHPC:** National Hydroelectric Power Cooperation

**NCDMA:** National Clean Development Mechanism Authority

PDD: Project Design Document

**TUL:** Teesta Urja Limited

**UNDRIP:** UN Declaration on the Rights of Indigenous Peoples

**UNFCCC:** United Nations Framework Convention on Climate Change

### I. INTRODUCTION: OVERVIEW OF DAMS AND CDM PROJECTS IN INDIA'S NORTH EAST

India's North East region (NE) is located in the transition zone between the Indian, Indo-Malayan and Indo-Chinese bio-geographic regions and a meeting place of the Himalayan Mountain and Peninsular India. Each of the eight States of the region, namely Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura has rich presence of several endemics in flora as well as fauna. This region represents an important part of the Indo-Myanmar biodiversity hotspot, one of the 25 global biodiversity hotspots recognized currently<sup>1</sup>. However, the NE region of India has been identified by the Central Government as the country's 'future powerhouse' and the Central Electricity Authority has identified potential for 168 large dams in the Northeast with an installed capacity of 63,328 MW.

In India's NE, there has been an increasing trend of dam development patronized by the Government to seek carbon credits from the Clean Development Mechanism (CDM) of the UN Framework Convention on Climate Change (UNFCCC). Increasing number of hydropower projects in India's NE are being pursued by both public and private corporate bodies such as the National Hydroelectric Power Corporation (NHPC), Athena Power Private Limited, Lanco Energy Private Limited, Teesta Urja Limited Delhi etc, to seek carbon credits under the CDM of UNFCCC in the pretext of combating climate change. Hydro power is among large scale projects such as oil and gas exploration projects, cement producing units etc seeking carbon credits by projects developers in India's North East.

Some of the hydro power projects seeking CDM certifications for carbon credits includes the 96 MW Jorethang Loop Hydroelectric Project (HEP) by DANS Energy Private Ltd on Rangit River in Sikkim, Rangit IV HEP over Rangit River and the Teesta III HEP over Teesta River in Sikkim and the Khuitam HEP in Arunachal Pradesh. The Jorethang HEP has already been registered with CDM but no carbon credits have been issued as there's no buyer yet. The other two has been validated but still in the process of seeking registration. Likewise, the National Hydroelectric Power Cooperation (NHPC) is also preparing to seek carbon credits with its renovation plan of the Loktak Power Station of the Loktak Multipurpose Hydroelectric Project. Other private power developers such as Dans Energy also pursue dam construction to seek carbon credits from such projects. Some projects include the Ting Ting Hydro Electric Project to be taken up by TT Energy Pvt. Ltd. in 2006, subsidiary of Dans Energy created for the project. The 97 MW Tashiding HEP t will also be taken up by the DANs Energy. <sup>2</sup>.

Other dams in the NE region which dam developers endeavours all efforts to register as CDM project includes the Myntdu Leshka Project in Meghalaya, 21 MW Kamlang HEP, 45 MW Tirap HEP, 750 MW Tawang HEP I in Arunachal Pradesh, the 60 MW Lethang HEP in Sikkim etc. NHPC's 510 MW Teesta-V Project has been validated and verified under Voluntary Emission Reduction during 2009-10 and as a result, emission reduction of 204.4 crores tonne C02 is envisaged to be achieved within the 10 years renewable crediting period<sup>3</sup>. The Ministry of Environment and Forest, has approved all the dam projects applied by dam developers to consider as CDM projects. However, except for Jorethang Loop, none of the projects has been approved by the CDM Executive Board of UNFCCC.

CUK1188881385.79/ReviewInitialComments/YWQAF6Z3QYTZHHDTQSFZ7SSU0RHBBQ

<sup>&</sup>lt;sup>1</sup> "BIODIVERSITY OF NORTHEAST INDIA: AN OVERVIEW", - V.Ramakantha, A.K.Gupta, Ajith Kumar <a href="http://oldwww.wii.gov.in/envis/rain\_forest/chapter1.htm">http://oldwww.wii.gov.in/envis/rain\_forest/chapter1.htm</a>

https://cdm.unfccc.int/Projects/DB/DNV-

<sup>&</sup>lt;sup>3</sup> NHPC, Annual Review 2009-10 Report

#### PROJECT APPROVAL PROCESS IN CLEAN DEVELOPMENT MECHANISM

The United Nations Framework Convention on Climate Change (UNFCCC)—adopted in 1992 and bought into force in 1994—established an international framework to address global climate change through stabilization of greenhouse gas concentrations in the earth's atmosphere. In 1997, at Kyoto, Japan, the world's industrialized countries agreed, in principle, to cut their emissions of greenhouse gases by about five per cent from 1990 levels, by implementing any of these three mechanisms—joint implementation, Clean Development Mechanism (CDM) and emission trading.

The CDM is part of the Kyoto Protocol which promotes carbon reducing projects in developing countries. By implementing such projects, countries sell Certified Emission Reductions (CER) credits, hereafter "Carbon Credits", where one CER is equal to one tonne of CO2 and these CERs are traded by industrialized countries to meet part of their emission reduction targets under Kyoto Protocol.

The CDM project cycle includes feasibility assessment and development of a Project Design Document (PDD) by the project proponent, host country approval by the Designated National Authority (DNA), project validation by Designated Operational Entity (DOE) at CDM and registration by the CDM executive board. Another DOE need to verify the project activity for the issuance of CERs<sup>4</sup>. Any proposed CDM project has to use an approved baseline and monitoring methodology to be validated, approved and registered.

The DNA in India is the National Clean Development Mechanism Authority (NCDMA), which consists of 6 ministries and agencies and the Planning Commission<sup>5</sup>. India has ratified the Kyoto Protocol to the UNFCCC on 26th August 2002<sup>6</sup>. Projects developers usually gets host country approval letters approved within 60 days. The main approval criteria for CDM project includes that the project:

- Does not result in significant social and environmental impacts, undertakes public consultation
- Project should be additional i.e., delivers reductions in emissions that are additional to any that would occur in the absence of the project activity.
- Financial additionality, CERs should not be procured from Official Development Assistance
- Presentation of a clear Baseline from which emission reduction can be gauged, which may be estimated through reference to emissions from similar activities and technologies in the same country or other countries, or to actual emissions prior to project implementation

The Marrakesh Accord governs rules for CDM projects and outlined that to receive CDM credits, a project must be 'sustainable' and 'additional' meaning that emissions of GHGs by sources are reduced below those that would have occurred in absence of the registered CDM project. The concept of additionality of CDM project is that only with additional income, the project proponent will be able to implement the project. The CDM executive board has developed "the tool for the demonstration and assessment of additionality" to assess additionality. The Project Proponent need to determine whether the project is financially less attractive without CERs and explain how the registration of the project with CDM will enable the project to be undertaken.

<sup>6</sup> http://www.downtoearth.org.in/content/indian-companies-cdm-projects-pollute-environment

<sup>&</sup>lt;sup>4</sup> http://agneyablog.wordpress.com/2011/08/02/an-introductory-guide-on-cdmvcs-project-execution/

<sup>&</sup>lt;sup>5</sup> Source: NCDMA < http://www.cdmindia.in/constitution.php >

#### MEGA DAMS IN INDIA'S NORTH EAST UNDER PROCESS FOR CDM CER

LIST OF DAM PROJECTS IN INDIA'S NE APPLYING CDM CC	PROJECT DEVELOPER	AVAILABILITY OF PDD & ADDITIONAL INFORMATION EIA/DPR/EMP	DOE/AE	PROJECT STATUS VALIDATION/ REGISTRATION
500 MW Teesta VI Hydroelectric Project (India), Sikkim	Lanco Energy Private Limited	PDD	DNV Climate Change Services AS	Validated
Teesta Stage – III, Run-of-The-River, Hydro Electric Project	Teesta Urja Ltd, Delhi	PDD	DNV Climate Change Services AS	Validated
105 Loktak Project HEP  Renovation and Modernization (R&M) of Loktak Power Station.	National Hydroelectric Power Cooperation NHPC	No PDD prepared as of now	Consultants did not turn up in the last global tender bid in 2010	GLOBAL BID
Jorethang Loop HEP 96 MW	DANS Energy Private Ltd	PDD	DNV Certification, International Climate Change Services	Registered
1750 MW Demwe Lower HEP, Lohit HEP, Arunachal Pradesh	M/S Athena Energy Ventures Pvt Ltd	PDD	Bureau Veritas Certification Holding SAS	Validated
Myntdu Leshka Project, Meghalaya	Meghalaya State Electricity Board (A public entity)	PDD	TÜV NORD CERT GmbH	Validated
Rangit IV HEP 120 MW Sikkim	Jal Power Corporation Limited (Private Entity)	PDD	TÜV NORD CERT GmbH	Validated
510 Teesta V, Sikkim	NHPC	Voluntary		Validated

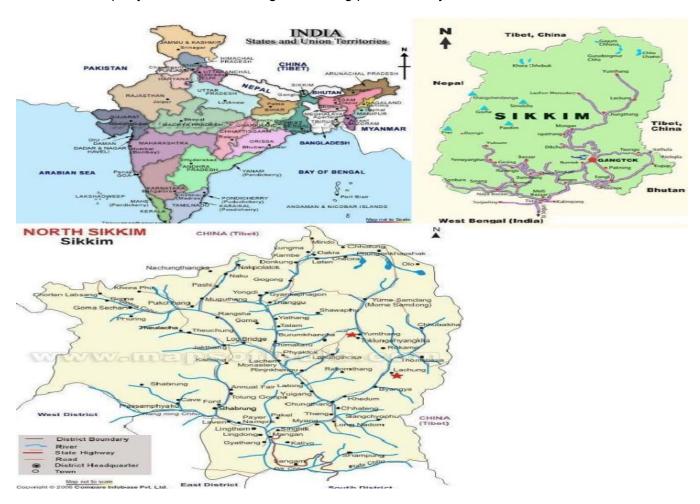
LIST OF DAM PROJECTS IN INDIA'S NE APPLYING CDM CC	PROJECT DEVELOPER	AVAILABILITY OF PDD & ADDITIONAL INFORMATION EIA/DPR/EMP	DOE/AE	PROJECT STATUS VALIDATION/ REGISTRATION
		Emissions Reduction Scheme		(Securing & Sale of Voluntary Emission Reductions (VERs ongoing)
99 MW Chuzachen HEP, Sikkim	M/w. Gati Infrastructure Pvt. Ltd	PDD, Sep 08	TÜV NORD CERT GmbH	Validated
Khuitam Hydro Electric Project, Arunachal West Kameng	Adhishankar Khuitam Power Private Limited	PDD	Lloyd's Register Quality Assurance Ltd.	Validated
Ting Ting HEP 99 MW, Sikkim	Ting Ting Energy Private Limited (Subsidiary of Dans Energy)	PDD	DNV Climate Change Services AS	The Government of Sikkim scrapped the project on 25 January 2012
Tashiding Hydro Electric Project (88 MW), Sikkim	Dans Energy Pvt Ltd and Shiga Energy Pvt. Ltd	PDD	DNV Climate Change Services AS	Validated
Rongnichu 96 MW HEP	Madhya Bharat Power Corporation Ltd	PDD	TÜV NORD CERT GmbH	Validated

# II. BRIEF PROJECT DETAILS AND KEY ISSUES AND CHALLENGES PERTAINING TO DAMS IN INDIA'S NORTH EAST SEEKING CARBON CREDITS FROM CDM MECHANISMS OF UNFCCC

#### 1. TEESTA STAGE III HYDROELECTRIC PROJECT:

The Teesta III Run of the River Hydroelectric Project in North Sikkim district, Sikkim, India implemented by M/s Teesta Urja Limited (TUL), has been submitted for CDM clearance on 20 May 2008. The Project Design Document (PDD) for Teesta Stage III HEP outlined that the project intends to utilize drop of about 800 m, between the Chungtang and Sankalan village to generate electricity and that the project will lead to sustainable development.

The Teesta III HEP project will comprises of a Concrete Face Rock Dam of 60 m height across Teesta River at about 400 m downstream of confluence of river Lachen Chu and Lachung Chu near Chungtang village. As per the implementation Agreement, 12% of the total generated power will be supplied to Sikkim, which is connected to Eastern Region (ER) Grid, as royalty and the rest 88% will be fed to the Northern Region Grid. The PDD also outlined that the project will reduce total 4,333, 658 tonnes of CO2 per year over the envisaged crediting period of 10 years from 2011 till 2021.



Map Teesta III HEP Site (Source: PDD of Teesta III HEP)

#### A controversial Validation of Teesta III

The Teesta stage III hydro project is a huge mega dam in Sikkim which has seen multi-faceted impacts on the indigenous Lepcha people of Sikkim and to the biodiversity of Teesta Riverine Ecosystem.. The project has serious issues of misinformation, incomplete or absence of impact assessments or disregard of these studies findings by the project developer, denial of information to affected communities and other socio, economic and cultural impacts etc.

Violation of Free Prior and Informed Consent: The indigenous Lepcha people were denied the right to rightful participation in the decision making of the project on the basis of recognition of their rights over their land, rivers and resources and especially, their right to free, prior and informed consent on all development activities affecting their land and future. For example, The Public Hearing conducted by Sikkim Pollution Control Board on Teesta III at Chungtang is highlighted by inadequate studies and denial of information, procedural violations, such as in terms of issuing notice, false assurances and issuance of threats, intimidations and false charges against affected communities. The project proponent continues to propagate lies and misinformation among the affected communities denying that the project will not cause displacement and affect Chungtang Village. The impact of the rising level of waters in Lachen Chu and Lachung Chu due to the Reservoir has not been studied nor revealed. Even without the Reservoir, Chungtang Village had already experience flood in 1970s several times due to glacial outburst. Neither the public hearing nor the report of the public hearing highlights the intentions of the project proponents to seek carbon credits from CDM of the UNFCCC.



Destruction Galore at Teesta III Dam site, Pic by: Jiten Yumnam

**Inadequate Impact Assessment:** A holistic impact assessment ascertaining the impacts on ecology, wildlife, flora and fauna, other risk factor such as dam break analysis, seismic impacts, and impact of reduced flow based on the four seasons and in both upstream and downstream portion of Teesta River has not been carried out. The issue of Muck disposal in rivers and the question of impact of dam on aquatic ecology have not been addressed adequately. Nor has the report dealt with the impact of the project on Wildlife in the main corridor from Theng and Toong to Pakal and Rahi Chu of the Project area. The Environment Impact Assessment (EIA) Report has not assessed the impact of the project on the indigenous tribal population, their displacement from their natural habitat and social, economic, cultural impact.

The EIA for Teesta III HEP did not cover the mandatory four seasonal studies. The Carrying Capacity Study of Teesta Basin in Sikkim by Centre for Inter Disciplinary Studies of Mountain & Hill Environment (CISMHE) notes that Chungtang region has very high diversity of mammals, birds and reptiles. Further, study also revealed that Chungtang also lies in a very sensitive zone as per the existence of exclusive and endangered species and hence, any implementation of Teesta III HEP is executed in the zone will lead to an irreversible ecological damage with respect biological environs. However, the EIA of the project contradict with its report that there is no wildlife in the project area. The Khangchendzonga National Park and Biosphere Reserve is located at a distance of less than 1km from the project site and the project will have devastating impact on two protected zones.

Violation of MoEF's own norms: The environmental clearance granted to the project in August 2006 for Teesta III is in violation of the MoEF's own stipulation while clearing the Teesta Stage V hydroelectric project in May 1999, which stated that: "No other project in Sikkim will be considered for environmental clearance till the carrying capacity (CC) study is completed." However, Ministry of Environment and Forests (MoEF) went against its own decision and granted Environmental Clearance to the project. The EIA for Teesta III wrongly mentioned that "no monuments of cultural/religious/historical/archaeological importance is reported in the project as well as the study area", which is against the indigenous peoples belief that their land is sacred and crucial for their physical and spiritual survival. The issue of glacial lake outburst in Himalayan region and possible impact on downstream areas is also not provided. These outbursts caused sudden increases in the flows into the respective river systems. But there is no mention of such a phenomenon in the EIA reports of the projects on the Teesta, which is sustained by glacial melt<sup>7</sup>.

**Deviation from provisions in DPR:** In December 2008, the Central Electricity Authority, Government of India observed that Teesta Urja Limited had made serious deviations from the approved DPR for the Teesta III HEP and this was brought to the notice of the Expert Appraisal Committee (EAC) for River Valley and Hydro Electric Projects of Ministry of Environment and Forests on January 1, 2009 by civil society groups. This issue was discussed in the April 21, 2009 EAC meeting and the minutes note that changes adopted by Teesta Urja Limited contravene environmental clearance and condition accorded on 3rd August, 2006, that in any circumstances of changing the scope of the project, the project would require a fresh appraisal. However, no fresh appraisal has been sought by the dam developer, TUL.

<sup>&</sup>lt;sup>7</sup> "Testing times for the Teesta", by Manju Menon, The Hindu, 6 June 2004



The Adit V and surge shaft area of Teesta III, 1200 MW HEP after the 18th September 2011 earthquake Photo Source: http://weepingsikkim.blogspot.in/

Impact of Blasting and tunnelling: The massive blasting of hills for tunnelling work involved in the construction of project at Chungtang village has already led to drying up of water sources and the impact of the project on villages such as Theng Village lying in the Buffer Zone of Biosphere Reserve have not been addressed. Teesta Urja has already signed a joint venture agreement with the Power Grid Corporation India Ltd. (PGCIL) for building transmission lines to evacuate power from Teesta Stage III project and again there is no mention of the impacts of transmission lines which will be used to evacuate the power from the project and also the issue of land to be acquired for the purpose. The impacts of tunnelling in the adits on areas located above and below these tunnels, including drying up of water sources, impacts of blasting on agricultural fields and on residential areas are also sidelined.

Seismic Impacts undermined: As per the Seismic Zonation map of India, Sikkim, alongside with other states of India's North East is located in Seismic Zone IV, one of the most seismically vulnerable regions<sup>8</sup>. In fact, Chungtang Village, the dam site of Teesta III HEP suffers huge destruction during the Earthquake in end 2011, with loss of lives. Several buildings and residential homes were completely destroyed in Chungtang. One of the reasons cited for the destruction is due to the huge destruction caused by dam building near the village which includes massive blasting of nearby hills for diversion of the rivers and for tunnels to take water to power stations. Interestingly, the PDD report only refers to seismicity with respect to the dam structure and does not talk of other environmental risks associated with hydroelectric projects vis vis seismicity. Professor Jeta Sankrityayan, former member State Planning Board, West Bengal and also a member of the landslide expert committee 1998, has opined that the presence of multiple dams on the river Teesta and its tributaries could either induce or accelerate earthquakes. In early 1970 a major earthquake in Maharashtra had been triggered by the Koyna dam located on the Sahyadri Hills. Though the role of the dams on the River Teesta in the

<sup>&</sup>lt;sup>8</sup> BIS, 2002. Criteria for earthquake resistant design of structures: General provisions and buildings, Bureau of Indian Standards (BIS) IS 1893:2002 (Part I).

recent quake is yet to be studied, the professor feels that the earthquake could have been induced or accelerated by the dams<sup>9</sup>.

**Influx of non indigenous populations:** The construction of mega dams in India's North East has also led to unabated influx of migrant workers. The migration of non indigenous populations for dams construction and related infrastructure has already affected the social, economic and political balance of the state and has put great pressure on the sparse resources and space within the state. The unique culture, tradition and way of life of the indigenous peoples of Sikkim, the Lepchas in particular are getting diluted. The Lepchas of Dzongu are mainly vulnerable as they still adhere to their old cultural practices. This influx of migrants is despite the Sikkim government Notification No 3069 prohibits the settlement of Non-Indigenous people in the Dzongu Areas, inhabited primarily by the Lepchas.

**Community Responses:** The indigenous Lepcha people, affected by Teesta III project have been staging a series of protest to protect their livelihood and the biodiversity of the region from devastation by the project. The affected peoples association, Affected Citizens of Teesta (ACT) has been struggling for peoples' livelihood and to protect environmental sustainability. ACT has been making continuous efforts and has even filed cases in the Indian Supreme Court to protect the natives and affected Citizens and their environment from the harmful effects of construction of such large power projects in the region. Affected citizens also issued a Legal Notice challenging the Public Hearing and seeking to declare it null and void. Despite this these projects are accorded environmental clearance by the MoEF

Despite the significant socio, economic and environmental impacts of dams on Lepcha people of Sikkim, mostly residing in Dzongu Reserve area, the communities are not aware of the ongoing process to gain carbon credits from the CDM concerning both Teesta III and VI projects.

Mr. Tseten Lepcha of the Action Committee of Teesta said during the public hearing on Teesta III, the dam developer did not mention anything on preparing PDD for seeking carbon credits nor do they mentioned that the dam is climate friendly and will not lead to any emission of green house gases.

Mr. Chungchung Lepcha of Chungthang Village, the dam site of Teesta III said that the blasting for tunnelling in the hills of dam sites has caused serious inconvenience to the people of Chungthang. He also said the Indigenous Lepcha People are far outnumbered by migrant workers. Initially, there used to be around 70 Lepcha families now after the dam construction work, there is only 7 families remaining while the non indigenous families has increased to more than 100 families. Lepchas has become minorities in their own land. Migrant workers and officials of the dam construction companies had also started marrying increasing number of indigenous women too.

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<sup>&</sup>lt;sup>9</sup> "Sikkim quake may have been induced by dams across Teesta", The Darjeeling Times, 22 September 2011 http://www.darjeelingtimes.com/main-news/politics/3565-sikkim-quake-may-have-been-induced-by-dams-across-teesta.html

#### 2. TEESTA STAGE VI HEP (500 MW):

The Teesta VI HEP intends to generate 500 MW electric powers in Teesta River in Sikkim. The project is a run-of-the river scheme with a small reservoir, with the project barrage located on the Teesta River at Subin Khor village of South Sikkim District of Sikkim with the Lanco Energy Private Limited as the project proponent.

The PDD of the project submitted by the project proponent estimated that the project activity would generate 202, 60,270 Certified Emission Reductions during the crediting period of 10 years.



Teesta VI dam site: Picture by Dawa Lepcha

#### TEESTA VI PROJECT AS CLEAR CASE OF NON ADDITIONAL PROJECT

The TEESTA VI is a HEP project with evidence of not being 'additional'. It is a business as usual large hydro project, which have been implemented before, without CDM credits. The Detailed Project Report submitted by the Project Proponent to the Central Electricity Authority in March 2006 has no mention of CDM credits while establishing economic viability of the project. Similarly the Clearance accorded by the Central Electricity Authority of Govt of India has no mention of CDM credits and the Power Purchase Agreement (PPA) signed by the Project Proponent with the Maharashtra State Electricity Distribution Company in August 2006 has no mention of CDM credits. The PPA was approved by the Maharashtra Electricity Regulatory Commission on June 26, 2007, without any mention of CDM credits. The Project Implementation Agreement was signed on Dec 7, 2005. It is clear that none of the official, statutory documents and process establishing the viability of the project throughout 2005-2007 has any mention of the CDM credits required for the project to achieve viability. All the claims for CDM put forward by the project proponent in the PDD are thus prepared at a much later stage, with intentions to claim profits. The financial resources are already in place for Teesta VI with the financial closure achieved in July 2007 and all the power to be generated already sold for next 25 years with 14% return on equity. Thus the project authorities are giving a misleading picture to UNFCCC to seek profits.<sup>10</sup>

The Teesta VI HEP is another case of violation of indigenous peoples' right to rightful participation in all development decision making processes. The MoU on construction of the Teesta VI has been signed without taking the consent of indigenous peoples of Sikkim. The public hearings of the project were procedurally flawed as the relevant project documents were not provided and whatever provided such as executive summary of EIA is incomplete in terms of addressing the diverse range of impact assessment. The impact of Teesta VI, gauged from a cumulative impact study in Teesta River Basin, where more than 10 dams are being built both in Sikkim and West Bengal States has been absent.

The construction of Teesta VI HEP, Teesta III HEP along with Teesta V HEP will directly impact at least 71 km. of the main Teesta river. This includes 63 km. due to bypassed stretches of the river in which the flow will be minimal and at least 7.6 km being the cumulative length of the reservoirs in the main Teesta river<sup>11</sup>. The blasting for construction of the project has led to severe landslides of hills and development of crack and destruction of several houses near the dam site. A stretch of road which villagers used along the Teesta River gave way due to the construction.

Mr. Dawa Lepcha of ACT said the affected people of Teesta VI HEP and the indigenous peoples of Sikkim, in general are not aware of the dam developer making claims that the project is climate friendly and subsequent efforts to claim carbon credits from CDM. He further said there is no consultation with the people on this regard and that targetting the waters, forest and land of Sikkim for gaining profits in the name of combating climate change will be committing injustice to the people of Sikkim. Destructive projects like mega dams can never be even considered as solution to climate change.

Mr Tenzing Lepcha of Dzongu said the Teesta and Rangit Rivers are heart and soul of Lepcha people, source of their livelihood, cultures and traditions and that much damage has been wrought on the two rivers despite strong and consistent opposition and condemnation of Lepcha People of these projects.

<sup>&</sup>lt;sup>10</sup> SANDRP Comments About the Proposed CDM Credits for the Teesta VI Hydroelectric Project (India), April 2, 2010 http://www.internationalrivers.org/south-asia/india/sandrp-comments-about-proposed-cdm-credits-teesta-vi-hydroelectric-project-india

<sup>&</sup>lt;sup>11</sup> http://weepingsikkim.blogspot.com/2009/04/teesta-iv-last-nail-in-rivers-coffin.html

#### 3. RANGIT IV HYDRO POWER PROJECT, SIKKIM (Date: 08/07/2010):

The Rangit I Hydro Power Project is being developed under joint venture scheme between Jal Power Corporation Limited (JPCL) and Sikkim Power Development Corporation (SPDC) with an installed capacity of 120 MW in the River Rangit at Reshi in West district of Sikkim. The project is run-of-river scheme utilizing the water of Rangit Stage-III HEP as well as discharge of Kalej-Khola, tributary of Rangit River. The Government of Sikkim awarded building rights of Rangit IV HEP to JPCL on 1<sup>st</sup> Nov. 2004. An agreement for setting up of Rangit IV HEP was signed with the Sikkim Government on 9<sup>th</sup> December, 2005 on Build, Own, Operate and Transfer basis with SPDC. Project proponent projects that the project will reduce the GHG emissions in the Northern Eastern Western and North Eastern grid mix.

Rangit Stage-IV HEP was identified as a part of the master plan evolved in 1974 for the development of hydro power potential of Teesta and Rangit rivers of Sikkim. Detailed field investigations and office studies were taken up on this project by the Central Water Commission (CWC) in 2003. A Detailed Project Report (DPR) has been brought out by CWC in August, 2006.



Dam site of Rangit IV HEP in October 2011: Pic by: Jiten Yumnam

The project envisages construction of a 44m high Concrete Gravity Dam and has been accorded Techno-Economic Clearance (TEC) by Central Electricity Authority (CEA) on 6th July, 2007. The project has been accorded environmental clearance on 16th May 2007 and Forest clearance on 26 December 2007 by MoEF. The project is proposed to avail CDM benefits for the project and Host country approval has already been accorded by the MoEF on 2nd August, 2010.



Untreated Sludge from Adit III of Rangit IV HEP seeps into the Rangit River at Rohtak<sup>12</sup>

#### Killing of Rangit River: Rangit Stage-IV project

The Rangit Stage IV HEP has wrought environmental havoc in Sikkim and is contributing with other mega dams in Sikkim to kill the life of Rangit River and depriving community rights to live in harmony with the river. There are clear cases of violation of sustainable development criteria of CDM as the project proponent of the project; the Coastal Project Private Limited has caused environmental impacts to undermine the health of Rangit River and its aquatic life. This violation is also acknowledged by Sikkim Government and in February 2011, the Coastal Project Private Limited, contracted by Jal Power Development Corporation and engaged in boring tunnels, including the Adit-II tunnels for the project at Rothak, has been show-caused by the Department of Forests and the West district administration of Sikkim for "illegally dumping untreated waste" from the tunnels into Rangit river.

A team of senior officials of the district administration, State Pollution Control Board, including the District Collector, [West] Santa Pradhan and DFO (T), Mr. Binod Yonzon visited the area on 25 February 2011 in follow-up of complaints filed by the locals of Rothak and found that all norms for environment conservation to be initiated by the power developer at the site have been violated and also confirmed the "negative impact" of untreated dumping to all aquatic life in the river.

A major violation of environmental criteria at the dam site is the direct release of slush and construction material from the under-construction tunnel into the river. The continuous flow of the muck into the river

<sup>&</sup>lt;sup>12</sup> "Complain of Depleted Aquatic Life and Polluted Water at Rohtak" by ANAND OBEROI, Sikkim Now, 28 February, 2012 http://sikkimnow.blogspot.com/2011/02/rangit-stage-iv-project-developer.html

since the project work started has led to the manifestation of the rocks and the riverbed turning a greyish black impacting on the entire aquatic flora. Even the fish ponds maintained by the local residents nearby which source water from the river are recording high mortality of fish. Villagers complained that the marine life at Rothak has seen a drastic decline over recent years and the river water and the riverbed have turned black. The DFO (T) confirmed that the project developer had violated all norms of the Sikkim Pollution Control Board norms and regulations in the area and said that this had led to the West District Collector ordering that the work be shut down for three days after the visit on 25 February 2011. "During our inspection we found that they were not processing the sludge before releasing the muck into the water. The disinfection tank was not being used, thus the DC ordered that all works be shut down for three days till the developer gets the disinfection tank operational," explained the DFO (T)<sup>13</sup>. The disinfection tank at the site is so small and cannot handle the uninterrupted flow of muck and debris from inside the tunnels. The muck from the tunnels keeps on flowing untreated into the river. It takes almost two days to clean the disinfection tanks which are also not constructed in a "scientific manner". The huge cement mixer machines are also washed on the roadside with all the left-over cement and gravel being dumped directly into the forested area below the road, causing serious damage to the flora. The DFO (T) stated that the district administration has given the project developer time till 0I March 2011 to segregate all "foreign components" in the water before releasing the muck into the river, which has not been complied with.

#### 4. JORETHANG LOOP HYDROELECTRIC PROJECT (29 August 2006):

The Jorethang Loop Hydroelectric project (JLHEP) is proposed for development by DANS Energy Private Ltd on the Rangit River in the state of Sikkim. The Rangit River is a tributary of the Teesta River, which is the main river traversing the state of Sikkim. The project will have an installed capacity of 96 MW and envisaged to generate approximately 441.2 GWh (net) per annum. The PDD maintained that the Jorethang Loop Hydroelectric project will generate electricity without the emission of greenhouse gases and that the power generated will be exported to the Eastern Regional grid and further claimed that it will reduce the carbon intensity of the Eastern Regional grid and consequently reduce the quantity of greenhouse gases emitted.

#### **Keys Issues and Concerns of Jorethang Loop HEP**

The Jorethang HEP in Sikkim is the only HEP project from India's North East to be registered successfully with the CDM as of February 2012, even though there has been no buyers of the carbon credits generated as of yet.

Lack of Free, Prior and Informed Consent: The introduction of the project has been with serious exclusion of affected communities and inconsideration of their concerns. There were limited information provided concerning the project and the affected villagers were not informed adequately. The public hearing for Jorethang Loop HEP project held on 9th April, 2006 by the State Pollution Control Board of Sikkim, in Pipley village, figures negligible participation from Manjhitar village, where the pumping station would be constructed. Villagers reside in the vicinity of different villages such as Salghari Basti,

<sup>&</sup>lt;sup>13</sup> " Complain of Depleted Aquatic Life and Polluted Water at Rohtak" by ANAND OBEROI, Sikkim Now, 28 February, 2012 http://sikkimnow.blogspot.com/2011/02/rangit-stage-iv-project-developer.html

Bharikhala Basti and Loorgoom, where water from the reservoir to reach the powerhouse are not aware of the public hearing and hence no participation in the public hearing.

**Land Acquisition:** The PDD for Jorethang HEP in the sections under contribution of sustainable development outlined to create a greenbelt of approximately 22.72 ha around the reservoir. However, according to Mr. H.B. Rai, Ex-Block officer of Majhitar Bazar, no such amount of land is available near the proposed reservoir site for block plantation, as it is already surrounded by forest and it is impossible to create such amount of land around the proposed reservoir site for the plantation<sup>14</sup>.



Jorethang Loop Dam construction over Misty Rangit River: Pic by: Jiten Yumnam

Non disclosure of Information and inadequate Studies: The affected people were not provided with the Environment Impact Assessment Report, which limits them to determine the nature and extent of the impact of this project on the aquatic life-forms of the Rangit River. The affected local populations are also not informed about project's details and possible impacts on the ecology, habitat and wildlife in project area. The local people have not been given any of the project documents like the detailed project report, the full environment impact assessment or environment management plan in the language they understand. This is clear violation of the CDM norms for consultation of the stakeholders and the local people<sup>15</sup>. One serious flaw in the environment impact assessment and mitigation measures described in the PDD is the total lack of mention of the frequent landslides, mudslides and

<sup>&</sup>lt;sup>14</sup> NESPON Comments on PDD for the Jorethang Loop Hydroelectric Project on the Rangit River in the state of Sikkim, India Submitted to Det Norske Veritas (DNV), 1 September, 2006

<sup>&</sup>lt;sup>15</sup> SANDRP Letter to CDM Executive Board re. Jorethang Loop Review, January 24, 2008 http://www.internationalrivers.org/climate-change/carbon-trading-cdm/sandrp-letter-cdm-executive-board-re-jorethang-loop-review

seismicity of this young and frangible mountain region, which plagues the region and indeed, there is has been no efforts for a Disaster Management Plan by the dam developer.

The PDD of Jorethang HEP does not mention the extent of forested land to be acquired for the project and whether consent from the communities has been taken or not. Many of the claims about the contribution of the project to sustainable development are misleading. For example, the project plans to supply electricity to the Eastern Grid and not to the local people.

**Reservoir Emissions not counted:** The project proponent, the DANS Energy Private Ltd has not informed the local people regarding their involvement in the CDM activity at all. The claim that the project will not generate any greenhouse gases is contrary to evidence available that reservoirs do emit GHGs that vary considerably seasonally and that generation activities of the turbines also emit GHGs. The claim that the project is in compliance with the future plans of the Ministry of Non Conventional Energy Sources (MNES) of the Govt of India is false claim as the MNES only deals with hydroelectric projects that have less than 25MW installed capacity. But, the proposed project has an installed capacity of 96MW<sup>16</sup>.

Additionality clause misrepresented: The project cannot be taken as additionality, as many viable alternatives exist. Moreover, Sikkim along with other North Eastern States has seen series of hydroelectricity project proposals and projects, which has been planned without the due participation and consent of the people living in this region and hence, irrelevant and incompatible development priorities introduced in the region.

**Sustainable development criteria violated:** The project development also stated that local employment will be created and will contribute to sustainable development. However, one wonders how creation of local employment leads to sustainable development, when the people in the region has been practicing sustainable livelihood for so long and the actual employment of the dam project goes to non locals, migrant workers. The project proponent also misrepresented that there will no appreciable flow changes downstream of the proposed dam. Flow change figures in the PDD of Jorethang Loop Project do not give more details other than a simplistic figure of 15%. The Rangit River is a glacier fed river. Glacial changes, mainly retreating glaciers and formation of GLOFs, due to rapidly increasing warming in the Himalayas has been documented by WWF as early as 2001-2002. Tremendous seasonal as well as year to year flow fluctuations are anticipated. The simplistic assertion that downstream flow and access will not be affected is unsubstantiated and cannot be accepted as contributing to sustainable development.<sup>17</sup>

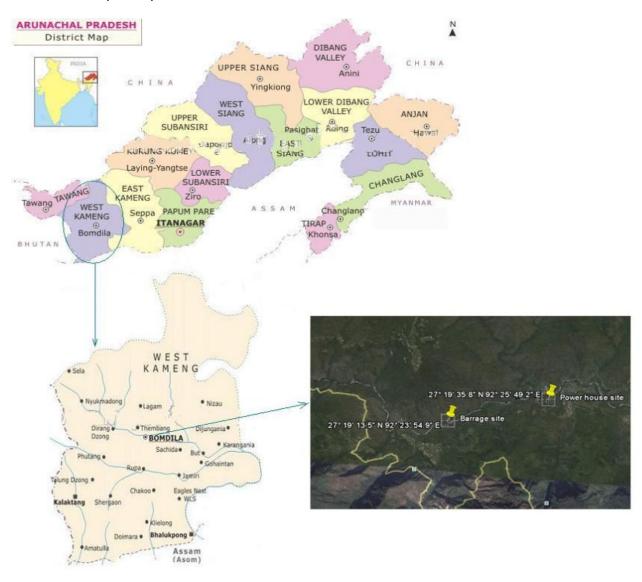
Even as the Jorethang HEP project is registered with CDM, a major concern with its registration is not only failing to address the key community concerns by the project proponents but also that the CDM Mechanism currently does not have a grievance mechanism to allow stakeholders to address problems after a project has been registered. With clear cut evidences of violations of sustainable development, additionality clauses of CDM already and potential concerns of further violations, denying the affected people to raise these issues with the absence of a redressal mechanisms only reinforces this violations and indeed constitutes a perpetuation of injustice for the affected indigenous peoples of Sikkim.

<sup>&</sup>lt;sup>16</sup> CORE Comments on Project Design Document for the Jorethang Loop Hydroelectric project, Sikkim, India Submitted to Det Norske Veritas (DNV), September 2006

<sup>&</sup>lt;sup>17</sup> CORE Comments on Project Design Document for the Jorethang Loop Hydroelectric project, Sikkim, India Submitted to Det Norske Veritas (DNV), September 2006

#### 5. The KHUITAM HYDROELECTRIC POWER PROJECT, ARUNACHAL PRADESH

The Khuitam Hydro Electric Project is a run-of-the river project, proposed to be established on Gang River near Bomdila town in West Kameng District, Arunachal Pradesh. The project envisages generation of 66 MW (3×22 MW) and the estimated annual energy generation is 279.27 Million Units (MU). The Adhishankar Khuitam Power Private Limited, a private company is the project proponent and the project involves construction of a 19 m high barrage across Gang River near village Rahung. The PDD maintained the main purpose of the project activity is to produce environment friendly electricity by tapping the hydro potential of Gang River and to supply the net quantum of energy generated to the North Eastern Grid. The PDD also maintained that in the absence of the project, same amount of electricity would have been supplied from the NEWNE grid which it further claimed to be dominated by thermal based power plants.



Proposed Site of Khuitam HEP in Arunachal Pradesh West Kameng District Source: PDD of Khuitam HEP

#### Issues and Challenge of Khuitam HEP

The process and reasons of seeking additionality for Khuitam HEP to seek CDM is highly problematic and based on misrepresentation of facts and realities in India's NE and in particular, Arunachal Pradesh. As for instance, the reference in PDD that the supply of electricity in the absence of this project activity would have led to the emission of Greenhouse Gases, represents a highly misleading statement as the same energy could also have been supplied with due exploration of other viable alternative sources of energy.

Non disclosure of Information: The Executive Summary of the EIA and EMP for Khuitam HEP, prepared by the Energy Infratech Pvt. Ltd, Gurgaon and also the deliberations by project authorities and the officials of the Arunachal Pradesh State Pollution Control Board at the Public hearing on 11 October 2010 on the project at West Kameng did not outline and mention the needs and ongoing efforts for seeking CDM benefits to pursue the project. These constitute a serious denial of information and disrespecting the right to free prior and informed consent of the indigenous peoples of Arunachal Pradesh. And here comes the glaring case of how process of seeking carbon credits functions without any rules governing the process.

Free, Prior and Informed Consent of Communities undermined: The Executive Summary of the EIA prepared for Khuitam had underestimated the forest area coverage of areas to be affected by the dam. Neither has the PDD mentioned that the total land requirement for the project is 49.14 Hectares as stated in the EIA nor has there been indication of the extent of forest land to be acquired for the project. During the public hearing on Khuitam HEP on 11 October 2010, affected villagers raised objections to forest area being identified as only 1.28 hectares. Neither has the detailed project report, the EIA and the PDD prepared has not been formulated with the local communities nor has holistic impact assessment been conducted with their due participation. The PDD also wrongly informed that no one will be affected by the dam but at least 94 families will be affected by the Khuitam project as testified and raised by villagers during the public hearing on 11 October 2010 at Government Middle School, Salari, West Kameng District. This is a social impact which the PDD fails to mention. Rather for Khuitam HEP, under social well being contribution, it's mentioned that the project activity will help in meeting the demand supply gap of electricity of the entire region. This is a complete underestimation of the social impact issues and also a diversion of the social impact dimensions.

Arbitrary calculation of Power needs: Indeed, there is no specific assessment of the power needs of the people of the State. Rather, the entire statement is based on the power needs of other parts of India. And considering the series of dams built in the region which is very much in excess of the power needs of the people in the region, it is clear that the regions resources are only targeted to meet the energy needs of people outside the region, while peoples livelihood sources and their future is being destroyed. The power need is also not defined by the people as the objectives of the project is only defined by the project authorities without the due participation and consent of the people in the region. The EIA Executive Summary also did not specify on any downstream impact of the project. Under economic well being, the PDD outlined again that the project will benefit local people both in construction and operational phase but in reality the construction of mega dams in India's North East involves bringing in non locals, which has already led to social tensions and also serious impact on the demographic composition and other health impacts.

#### 6. 105 MW LOKTAK MULTIPURPOSE HYDROELECTRIC PROJECT, MANIPUR;

The National Hydroelectric Power Corporation (NHPC) had called a Global Invitation for Identification of Prospective Consultant / Firms for Securing and Sale of VER for Renovation and Modernization (R&M) of Loktak Power Station on 3 September 2010. The invitation is for identification of a foreign and Indian consultation firm and consultants primarily with firms administered by private sector, bilateral or Multilateral Firms/ Independent Organizations & Consultants dealing with CDM activities and with the broad scope of work to Secure & Sale of VER for Renovation and Modernization (R&M) of Loktak Power Station. The Terms & Conditions of the services to be provided by the bidders includes for i) PDD Development, ii) Validation services, iii) Monitoring Support, iv) Verification services and v) VER Selling Support. The NHPC has maintained that as of August 30, 2011, no consultant has so far been identified to prepare PDD for renovation and modernization of Loktak Power Station and since consultancy contract has not been awarded, no validation process has taken place 18.

The construction of Loktak Multipurpose Hydro Electric Project was taken up by the Ministry of Irrigation and Power in 1971 and was commissioned by the Government of India in 1983 with the National Hydro Electric Power Corporation (NHPC) executing the project. The Ithai Dam or barrage was constructed in the downstream of Manipur River (Imphal River) as a part of the Loktak Multipurpose Hydro Electric Project, to maintain sufficient water volume in the Loktak Lake by converting it into a reservoir for maintenance of the project, which was installed to generate 105 MW of power by 3 units (each producing 35 MW) and to provide Lift irrigation facilities for 24,000 hectares of land. In fact, the Imphal River is the only outlet of draining water from the central valley of Manipur, regulating the fragile ecosystem of this valley, which is part of the Chindwin-Irrawaddy basin of Burma.

#### As Unaccountable as ever: NHPC and its Loktak HEP Project

It will be double injustice and disregard of the indigenous peoples of Manipur if the NHPC proceeds with its preparation to seek carbon credits from CDM of UNFCCC in the name of renovation of Loktak Power Project. The company has been refusing to adhere to the repeated calls and demands of the community affected by its 105 MW Loktak HEP project in Manipur, concerning rehabilitation and resettlement, decommissioning of Ithai Barrage and restoration of Loktak Wetlands Ecosystem etc. NHPC has remained unaccountable to the devastations and violation of human rights in Manipur.

**Submergence of Agricultural land and displacement:** The Ithai barrage constructed as part of the Loktak HEP has already become a major problem for the socio economic life and environment of Manipur, threatening the very survival of the valley as a viable and sustainable ecosystem<sup>19</sup>. The construction of the Ithai Dam has brought a reverse picture in economic status of Manipur from a self sufficient to borrowers position with a large number of agricultural land submerged under water. It is estimated that about 83,450 hectares of agricultural lands of both sides of Ithai Dam have been affected. Out of this total area, about 20,000 hectares were used for double cropping purposes. Paddy

("Ithai Barrages, A Danger to the Identity of the peoples of Manipur", Dr Naorem Joykumar as contained in "India: Manipur: A Preliminary report on Human Rights in the North East" compiled by INDEGENE, 1996.

<sup>&</sup>lt;sup>18</sup> Letter from Mr. SK Dubey, Chief Engineer (Civil) and Public Information officer, National Hydroelectric Power Corporation to Mr. Jiten Yumnam dated 2 September 2011 in response to an RTI (Letter Reference No. NH/RTI/283/2011/1046) <sup>19</sup> ("Impact of the Ithai Barrage on the Environment of Manipur: an overview" prof Hijam Tombi, Ex VC, Manipur University from Ithai Barrage, A Boon or Scourge for Manipur, Edited by Professor Gangumei Kamei, 1993)

<sup>(</sup>S. Ibomcha, Ithai Damgi Ithil, P.3)

fields in terms of thousands of hectares which are situated in the periphery of the Loktak Pat, Pumlen pat and Lamjaokhong (Khoidum Lamjao) pats which have been in existence for hundreds of years and used as high yielding fields by our forefathers are all submerged. The submergence also includes thousands of hectares of land where wild edible and medicinal plants grow. Around 30,000 indigenous peoples, mainly belonging to the Meitei community were affected. Many families were displaced and till date there is no resettlement or rehabilitation for these people.

**Unaccountability of NHPC:** The NHPC, fully aware of the extent of the damages inflicted to the indigenous peoples has failed to take any action for preventing such damages or rehabilitating the affected indigenous peoples since the commissioning of the project in 1984. The NHPC earns huge profits while depriving affected indigenous peoples and in disregard of the traditional ownership, enjoyment and possession of their respective paddy fields and ingkhols (homesteads) arising directly out of the operation of the Loktak Hydro Electric Project<sup>20</sup>.

Loss of Indigenous flora and fauna species: Several indigenous fishes have disappeared from Loktak Lake such as the Ngaton, Khabak, Pengba, Tharaak, Ngaaraa, Ngaatin, etc due to Ithai Dam. It has been observed that these fishes migrated from the Chindwin-Irrawady river system of Burma to the course of Imphal/Manipur River for breeding in the adjoining lakes and streams of Manipur valley. The increase in the water level of Loktak due to Ithai Dam has caused a great damage to the production of aquatic plants of food and commercial importance. As for instance, the production of about 23 indigenous varieties of aquatic edible plants, e.g Heikak, Thaangjing, Tharo, Thambaal, Loklei and Pulei had been significantly reduced due to the failure in the germination and extension of their feet to the bottom soil of the lake.

**Increasing Floods:** The Ithai Barrage has been responsible for series of floods in Manipur as the NHPC in several occasions; refuse to open the sluice gates of Ithai Barrage, leading to widespread submergence of agricultural areas. The Loktak Project has also contributed to the intensification of militarization of Manipur as several paramilitary forces are deployed to protect the facilities of the project. There are several human rights violations where military officials manning the Loktak Project facilities committed human rights violations, including killing, torture.<sup>21</sup>

Continued violations targetting displaced people: Many of the displaced people are forced to seek refuge in Loktak Lake, building floating huts over phumdis, floating vegetation mass formed due to seasonal fluctuation of water level of the Lake. However, the Government of Manipur, unleashed a reign of state terror by burning down these floating huts in Loktak Wetlands in the November 2011, the arsoning process carried out by personnel of the Loktak Development Authority (LDA) and the Manipur Police forces based on the LDA eviction notification issued on 11 November 2011 under the Manipur Loktak Lake Protection Act, 2006. Nearly one thousand floating huts have already been burnt displacing nearly 2000 family members living in all these floating huts in localities like Khuman Yangbi, Nambul Machin and Karang Sabal within the Loktak Lake. The Manipur Loktak Lake (Protection) Act, 2006, in particular Article 19 and 20 of the Act, which divides the 236.21 sq km Loktak Lake into two zones - a core zone comprising 70.30 sq km, which is a 'no development zone', or 'totally protected

<sup>&</sup>lt;sup>20</sup> Petition filed by the Loktak Project Affected Areas Action Committee to Gauhati High Court, Civil Rule No. 32 of 1994

<sup>&</sup>lt;sup>21</sup> "Operation Summer Storm faces criticism", 20 April 2009, The Assam Tribune http://www.assamtribune.com/scripts/details.asp?id=apr2009/ne7

zone', and a buffer zone of other areas of the lake excluding the core zone, which further conscripts community rights over the Loktak Wetlands in Manipur.



Women Protest Manipur Loktak Lake Protection Act, 2006: Pic by: Jiten Yumnam

Community Responses: Mr. Haobijam Kula and Oinam Rajen of the All Loktak Lake Fishermen's Union, who's campaigning against the eviction of fishermen from within and peripheral areas of Loktak Lake in the aftermath of the arsoning and destruction of floating huts over floating vegetation masses in the Lake are not aware of the NHPC's Plan to prepare PDD for renovation of Loktak Power project. Mr. Haobijam Joy of the Loktak Project Affected Areas Action Committee and Mr. Haobijam Brojen of Loktak Peoples Forum, Thanga said that the NHPC should resolve the outstanding issues of Loktak Lake due to the Loktak HEP project, such as rehabilitation of affected peoples, destruction of Loktak wetlands ecosystem, loss of traditional food and plant species native to Loktak Lake after commission of the project etc. He further contended that no public hearing or open consultation with the people of Manipur has ever been carried out by NHPC on its move to prepare PDD for renovation of Loktak Power Station. He further asserted that the communities affected by Loktak HEP project and the people of Manipur in general should be involved and allowed to participate in all decisions in framing any development plans affecting Loktak Lake and people who's depending on it for survival. Ms. Ningthoujam Thasana of Thanga who was one of the victims of displacement in the arsoning spree of November 2011 said that the Loktak Project has been a curse for the people of Manipur, leading to enormous scale of suffering, impoverishment of the people, especially for those depending on the Loktak wetlands for survival.

#### 7. CHUZACHEN HYDROLECTRIC PROJECT (99 MW), Dated 17/09/2008, SIKKIM:

Chuzachen Hydroelectric Project (99 MW) is a Run-of-river type project with small reservoirs formed on the Rangpo and Rongli streams, tributaries of Teesta river. The project intends to utilize waters from the Rangpo and Rongli rivers by separate Headrace tunnels (Rangpo HRT and Rongli HRT) to a common surface penstock. The Gati Infrastructure Limited is the project proponent for the Chuzachen HEP project. The PDD outlined that the project intends to generate electrical power utilizing naturally available potential energy in the form of hydraulic head and water at the location. Natural bed fall and water available at the location are the inputs for power generation. For Chuzachen HEP, the project proponents outlined that power would be generated through sustainable means without causing any

negative impact on the environment. In the process, the project activity would support GHG emission reduction and thus mitigation of climate change. The project is expected to export 413.23 GWh power to India's Eastern Power Grid and further to reduce 4,91,178 tons CO2 equivalent of anthropogenic emissions of greenhouse gases. The dam was being built by Gati Infrastructure Ltd, a courier company that has limited experience in dam building. The project has two intakes one on Rangpo Chhu and another in Rongli Chhu and each with a dam and headrace tunnel and then join together to a common headrace tunnel. Chief Minister of Sikkim laid the Foundation Stone for the Chuzachen HEP on February 6, 2007. The project received environment clearance on Sept 9, 2005. In Sept 2008 the project applied for CDM under UNFCCC.



Rongli Dam of Chuzachen HEP: Picture by Jiten Yumnam

#### **Undermining Social Concerns: Chuzachen HEP**

At least 12 labourers lost their lives after a coffer dam of Chuzachen HEP project collapsed in Rongli subdivision of East Sikkim on April 16, 2009<sup>22</sup>. The coffer dam is being built for the 99 MW Chuzachen hydro electric projects developed by GATI Infrastructure. The labourers were working in the coffer dam in the night shift when the dam suddenly burst due to a surge in the water level of Rongli river triggered by heavy rainfall. A one km tunnel between Lamaten and Rolleck areas was also flooded after the collapse of the dam. Superintendent of Police M S Tuli said that they have registered a case under section 304(A) of the IPC against the private developer and another company to which the dam construction work was awarded for causing unintentional death of the labourers<sup>23</sup>.

During the public hearing for the project on Sept 30, 2004, several people expressed fear about disaster that may happen due to the tunnel passing through Rongli bazaar as the area is vulnerable to landslides. They desired that tunnel should be shifted, as noted at the Project Design Document submitted for the CDM status. This incident shows that the fear expressed by people then was timely and by not heeding it the project authorities, the Sikkim Pollution Control Board and the Union Ministry of Environment and Forests, have invited this disaster. They all must be held accountable for this disaster, along the contractor building the project<sup>24</sup>.



Rangpo Dam of Chuzachen HEP: Pic by Jiten Yumnam

This dam break and also the loss of human lives indicate the Dam Developer's lack of safety concerns and security for workers. There is no policy of these companies to ensure the safety and protection of the rights and lives of the workers who are mostly migrant workers and often come for impoverished communities. The Chuzachen project cannot qualify to become a CDM project as evidence by the social impact of loss of lives during dam construction and for failing to heed to the concerns raised by the affected people, which also constitute the violation of the right to Free, Prior and Informed Consent.

<sup>&</sup>lt;sup>22</sup> "Dozen laborers feared killed in Sikkim dam collapse", The United News of India (UNI), April 17 2009 http://news.webindia123.com/news/articles/India/20090417/1229105.html

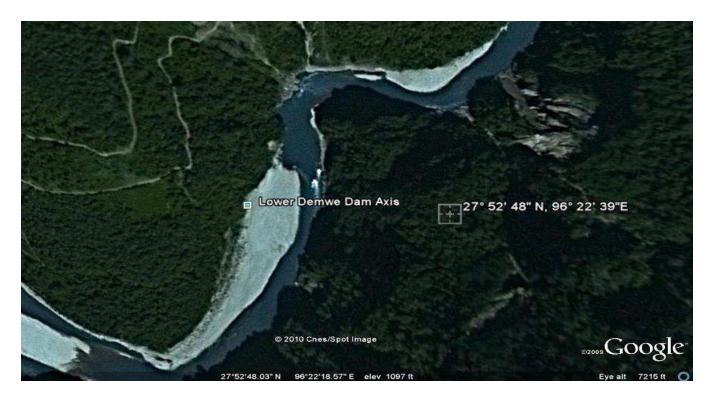
<sup>&</sup>lt;sup>23</sup> Sikkim: 12 labourers killed in dam collapse, The Indian Express, 17 April 2009, http://www.indianexpress.com/news/sikkim-12-labourers-killed-in-dam-collapse/448205/

<sup>&</sup>lt;sup>24</sup> Publication Dams, Rivers and Peoples, SANDRP, April 17, 2009 http://www.sandrp.in/dams/Chuzachen Hydro Dam Collapse in Sikkim April 2009.pdf

#### 8. LOWER DEMWE HYDROELECTRIC PROJECT, ARUNACHAL PRADESH:

The 1750 MW Lower Demwe HEP is a run-of-the-river hydro power development scheme located in the Lohit district of Arunachal Pradesh, envisages to utilize the waters of Lohit River, a major tributary of Brahmaputra River through the installation of five units of 342 MW & one unit of 40 MW capacities near Parasuramkund<sup>25</sup>. The Government of Arunachal Pradesh awarded the Demwe Hydro Electric Project with an installed capacity of 3000 MW, under Public Private Partnership model through bidding process on Built Operate Own and Transfer basis for a period of 40 years to M/s Athena Energy Ventures Pvt Ltd. The State Government signed a Memorandum of Agreement (MoA) with AEVPL on 9th July, 2007. AEVPL has formed a Special Purpose Vehicle (SPV) company namely M/s Athena Demwe Power Limited (ADPL) to implement the project. In February 2010, the MoEF granted environmental clearance to the project.<sup>26</sup>

The project developer has prepared the project as CDM Project and for registration at CDM Executive Board of UNFCCC and subsequently, the PDD Development has been prepared. Prior CDM intimation to UNFCCC and National CDM Authority (NCDMA) has been provided in December, 2010 and subsequently, the PDD of the Project has been webhosted in the UNFCCC website by the appointed DOE, for the period of 31st May to 29th June 2011 for Global Stakeholders' Consultation.



Lower Demwe Dam site (Source: PDD of Lower Demwe HEP)

<sup>&</sup>lt;sup>25</sup> http://www.ath-demwe.in/about-the-project.html

<sup>&</sup>lt;sup>26</sup> "Demwe dam awaits nod", The Telegraph, 29 December 2010

#### Issues and Challenges of Lower Demwe HEP

Environment clearance without cumulative impact assessment: The Lower Demwe HEP is a mega project ineligible to fulfil the sustainable development criteria of CDM for seeking CC as it will have adverse socio, economic, cultural and environmental impacts in Lohit valley in Arunachal Pradesh and also further downstream in Assam. The Ministry of Environment and Forest granted environmental clearance without detailed downstream impact assessment and public consultation in Assam. No cumulative impact assessment encompassing holistic impacts in Arunachal and Assam portion of the River has ever been conducted, when it is extremely crucial for the people of Lohit and Anjaw districts to fully understand the cumulative impacts of the 11 hydro projects planned in the Lohit river basin before a decision on the Demwe Lower project. For example, the impact of boulder mining which will be done in the downstream areas for dam construction has not been studied, undermining the important of boulders serving as defence against floods. The EIA collected data only 10 km. downstream of the project and analyses downstream impacts only between the dam and the powerhouse, which is a piecemeal approach. The estimation of the EIA report listing only 1590 hectares as impacted area is grossly underestimated.

Loss of Land and Forest: More than 43,000 trees will be felled for the Lower Demwe project; the submergence area would be no less than 1,131.09 hectares, including 969.44 hectares of forestland. The dam building process would involve heavy excavation, tunnelling and blasting over 100 Lakh cubic meters of rock and debris very close to Parasuram Kund. Locals from the area, particularly from the Mishmi tribe, have already expressed their concerns. The project proposed diversion of 1,415.92 hectares of forestland for the construction of the project, which will involve felling of over 1.24 Lakh trees. The compensatory afforestation of the project will also require nearly 3000 ha of "degraded forest land", which will also impact on peoples' traditional livelihood practices such as Jhum Cultivation and taking away land from the indigenous peoples of Arunachal Pradesh.

**Displacement:** The project will also involve eviction of people from the Riverine islands of Lohit River and also from the settlements along the Dibru Saikhowa National Park<sup>27</sup>. **Impact on Parshuram Kund:** The project will submerge parts of the Parshuram Kund Medicinal Plant Conservation Area identified for the conservation of Globally Significant Medicinal Plants by the environment ministry. The project will cause serious fragmentation of the aquatic habitat in the Lohit River due to the breakage of longitudinal connectivity of the river. No migration of fish such as the Golden Mahseer would be able to take place in the uplands as Lower Demwe is located just before river enters the plains.<sup>28</sup>.

**Arbitrary Wildlife Clearances:** Another serious impact of the Lower Demwe HEP will be on the wildlife, flora and fauna of at least three national parks, both in Arunachal Pradesh and Assam and this impact is officially noted when the standing committee of National Board for Wildlife (NBWL) has kept

<sup>&</sup>lt;sup>27</sup> "Giving a Dam to Forests, Holy Site", Ratnadip Choudhury, *Tehelka Magazine*, *Vol* 9, *Issue* 06, *Dated* 11 Feb 2012 http://www.tehelka.com/story main51.asp?filename=Ne110212Giving.asp

<sup>&</sup>lt;sup>28</sup> "Environment ministry to clear controversial Demwe hydroelectric project", Kumar Sambhav, 31 Jan 2011, Down to Earth http://www.downtoearth.org.in/content/environment-ministry-clear-controversial-demwe-hydroelectric-project

the proposal for construction of the 1,750MW Lower Demwe project in Arunachal Pradesh on hold in October 2011 to assess all possible impact on aquatic life and other fauna downstream of the Lohit River, A two-member panel, consisting of NBWL Standing Committee member Asad Rahmani and Chief Conservator of Forests of Arunachal Pradesh, Mr Pratap Singh, had inspected the site and prepared two separate reports about the impact of the proposed project, which was considered in December 2011 by the MoEF. The report explored the effect of peaking power generation by Siang Lower HEP, Demwe Lower HEP and Dibang Multipurpose HEP on Dibru-Saikhowa national park, both of which were designated as Important Bird Areas, and home to some "critically endangered" bird species, such as Bengal Florican, a Schedule One species under the Wildlife Protection Act. The project will impact on the on the grasslands of Dibru Saikhowa National Park and the Riverine islands of Lohit river<sup>29</sup>. In the report, Asad Rahmani concluded that the dam would have a serious impact on Kamlang Wildlife Sanctuary while the State Government says that the dam will not have any impact. India is however pushing for the clearance to secure first users rights to counter China's claim over rivers in Arunachal Pradesh<sup>30</sup>. Despite these objections and views against construction of the project, the Ministry of Environment and Forest (Wild Life Division) has granted wildlife clearance for the project on 11 February 2012<sup>31</sup>.

Further, the existence of Kaziranga National Park, famous for its one-horned rhinoceros, elephants and tigers is also threatened by the cumulative impact of power projects in Arunachal Pradesh, which includes the Demwe Lower HEP, Lower Subansiri Hydroelectric Project (2000 MW) on river Subansiri, the Lower Siang HEP (2700 MW) on river Siang as any increase in bank erosion along the riparian stretch of Kaziranga will lead to loss of area of the wildlife habitat. It can also cause excessive sedimentation of inland water bodies and grasslands during annual peak floods<sup>32</sup>.

<sup>&</sup>lt;sup>29</sup> "Demwe project kept on hold", The Telegraph, 5 November 2011

<sup>&</sup>lt;sup>30</sup> Centre to take call on Lohit mega dam, 30 January 2012, the Assam Tribune http://www.assamtribune.com/scripts/detailsnew.asp?id=jan3012/at06

<sup>&</sup>lt;sup>31</sup> F. No. 6-79/2011.WL, Government of India, Ministry of Environment and Forests, (Wildlife Division), 11/2/2012 "Heritage sites face threat from projects on Brahmaputra", Friday, 20 January 2012, the Pioneer



Dam Site of Lower Demwe Pic by Urmi Bhattacharjee (Tehelka, Vol 9, Issue 06, Dated 11 Feb 2012)

**Violation of FPIC**: The absence of taking the free, prior and informed consent of the affected people is another key concern as the opposition to the project is growing. Affected villagers complained that the public hearings for the project did not provide necessary information and that notice for public hearings were not timely provided. Many of the community leaders in the two states of Arunachal Pradesh and Assam are not even aware of the dam developer claiming carbon credits from CDM.

Mr. Sunil Mow of the Human Rights Law Network, Arunachal Pradesh Unit said he is not aware that the Lower Demwe HEP is proposed to seek carbon credits from CDM. Mr. Ojing Tashing of Pashighat, Arunachal who's campaigning against the Middle Siang Project also expressed his surprise that the Lower Demwe is preparing to seek carbon credits. Mr. Bhai of the PMSV said that the impact on communities in the downstream portion of the Lohit River further down in Assam is completely ignored during the efforts to seek carbon credits from CDM. The Government of Assam admitted in a December 2009 reply to MLA Bhubon Pegu in the State Assembly that it was unaware of the fact that the project was recommended for clearance by the MoEF expert committee.<sup>33</sup>

<sup>33 &</sup>quot;KMSS movement against Demwe dam", the Sentinel, 25 February 2010



Parshuram Kund on Lohit River (Photo source: http://www.aborcountrytravels.com/LureOfLohit.htm)

Social Cultural Impacts and community responses: The project implementation process completely ignored the impacts on social and cultural impact of the indigenous peoples of the state. Two sacred sites for the Mishmi people, the Nimkey will be submerged and Tailung, in immediately downstream of the dam will be impacted due to massive alteration of natural flow regimes in the river. The Anti-Dam Committee of Lohit – Anjaw District (ADCLAD) raised apprehensions with the authorities concerned considering the proximity of the proposed dam with the holy Parsuram Kund, a sacred cultural site for the Idu Mishmi People and inadequate downstream impact study beyond 10 KMs. The Krishak Mukti Sangram Samiti (KMSS), based in Assam, which has been campaigning against the Lower Demwe HEP, rejected the environment clearance and the wildlife clearance granted by the MoEF.

## 9. MYNTDU LESHKA HYDROELECTRIC PROJECT, MEGHALAYA (CDM application date: 22/08/2008)

The Myntdu Leshka HEP is a 2 X 42 MW Run-Of-the-River hydro power plant in Jaintia Hills district in Meghalaya and will be located at 100 m. downstream of Leshka, the tri-junction of Umshaking, Myntdu and Lamu rivers and close to Pdengshakap village. The Jaintia people are indigenous in project area.

The project proponents claimed that the project activity has already led to creation of road of nearly 40 km to reach Suchen villagers and that other benefits include provision of water supply, business opportunities to land owners and local people. As part of environmental well-being, the project proponent listed that hydro power generation is an emission-nil activity and there are no GHG emissions into the atmosphere and that the project reduces the import of power from fossil fuel intensive grid and import of the fossil fuels for power generation. The project proponent also claimed that the project implementation will add about 2000 ha of new Forest cover.

#### The crisis Ridden Myntdu Leshka Dam as CDM project

Violation of Additionality Clause: The Myntdu Leshka Dam has seen series of crisis, cost overruns, flooding of dam and powerhouse and tunnel in the year 2009 and 2010 several times, loss of lives of labourers working in the dam construction, controversies of financial and environmental implications of adding an additional power generating unit than originally planned. Other than the reason of the dam a clear cut case of violating the additionality criteria clause for CDM projects, the dam also presents a case where a debt ridden dam developer actually seeks carbon credits from CDM to recuperate their cost overrun of their project.



Myntdu Dam and the Reservoir: Pic by Jiten Yumnam

The construction process of the project commenced without considering the need for CDM. The construction of the project was started during May 2004 and granted environmental clearance by the MoEF on September 26, 2001 after a public hearing held by the Meghalaya Pollution Control Board (MPCB) in March 1999. Necessary site clearance from MOEF to take up the pre construction works of the Project was given in August 1999. The Forest Clearance, subject to certain conditions, has been accorded by the MOEF<sup>34</sup>. The MOEF accorded Environmental Clearance for this project in 2001<sup>35</sup>. The contention of MeSEB in the PDD that, "....... the implementation of project activity is not feasible without CDM benefits as the additional funds for the project has been mobilized by the project participant only based on serious consideration of CDM revenues" is baseless. The investigation work of the Myntdu Leshka Stage I Hydro Electric Project (2 x 42) MW was taken up by the MeSEB 1975-76 and the final Revised Detailed Project report (DPR) was submitted to the Central Electricity Authority (CEA) for clearance in October 1998 and the MeSEB also accorded Administrative Approval for the construction of the project with a total project cost of Rs 363.08 Crores, including the Interest During

<sup>34</sup> MoEF letter No.8-33/2000-FC dated 19.6.2001

<sup>&</sup>lt;sup>35</sup> MoEF notification Ref.No.J-12011/4/99-IA- Dt.20/9/2001<sup>35</sup>.

Construction<sup>36</sup>. It is clear that all these processes were finalized much before February 2005 when the UNFCCC got legal status and CDM came into existence, which also proves that the project has violated the additional criteria to become a CDM project.

The Meghalaya State Electricity Board, the project authority outlined that the implementation of the project activity has contributed positively towards the sustainable development of the region by increasing employment opportunities for both skilled and unskilled labourers in the surrounding areas due to the project, improving the living standards of people and increasing their access to electricity. But the MeSEB did not inform that CDM that many labourers were killed in series of dam accidents and floodings due to technical flaws of the dam design and lack of safety concerns for labourers.

**Technically Flawed project:** The Myntdu Leshka has been criticized widely as technical flawed project, lacking adequate appraisal as its dam, power house and tunnel continues to be flooded repeatedly in the year 2009 and 2010. In the 2007 and 2008, heavy rainfall in the catchment area of the river led to flooding of the dam, badly affecting its electrical system. There were reports that the high acidic content of the Myntdu River had damaged certain machinery being used in the project, further delaying the project completion.<sup>37</sup> Again in May 2010, rainfall destroyed equipment of the project with water overflowing from the Lynriang, which many believed it is due to encroachment of the third unit of the project into the river bed.<sup>38</sup> Another concern is that the dam will be built on a limestone foundation, threatening its long-term viability. Indeed, the MoEF had initially sent back the proposal for environmental clearance of the project to MeSEB, citing concerns about the very low pH value of the water, which indicates high acidity due to upstream coal mining.<sup>39</sup>

**Social Impacts:** The flooding of dam and power station on 8 October 2009 claimed the lives of ten labourers of the SEW Construction Limited working at the dam<sup>40</sup>. The MeSEB admitted that the gushing water from catchment areas of the Myntdu Leshka Dam caused wide damage to the tunnel and the power house.<sup>41</sup> An inquiry instituted in the aftermath of the incident by the Government remains concealed till now. The All MeSEB Union and Association Coordination Committee has been demanding a public release of the report of the inquiry committee into the two incidents of flash floods causing "heavy damage" to the Power House and also to ascertain as to how the Central Electricity Authority had given its clearance for creation of the third unit.<sup>42</sup> The incident itself and subsequent non disclosure of the inquiry report revealed the lack of concern for safety, security and human rights of the workers of the dam, the lack of adequate appraisal of the project, the lack of transparency and accountability of the project authorities and denying space and opportunity to make initiate appropriate rectifications of the project with due participation of the people. One wonders what remedial actions have been taken to prevent recurrent flooding. It is indeed unfortunate that such project which has poor safety records and social concerns for the labourers has been seeking carbon credits from CDM.

<sup>&</sup>lt;sup>36</sup> MeSEB Letter No.U/o No.GAP/258/97/vol.I/152 Dt.12/6/02

<sup>&</sup>lt;sup>37</sup> "March 19 flood delayed commissioning of Leshka project" 15 June 2011, The Meghalaya Times

<sup>38 &</sup>quot;Hydel project inundated", The Telegraph, 23 March 2011

http://www.telegraphindia.com/1110323/jsp/northeast/story 13751583.jsp

<sup>&</sup>lt;sup>39</sup> "Meghalaya – Biodiversity Conservation and Dams", The Ecologist, 2003

http://www.northeastvigil.in/specials/the-dams-issue/ecologist-2003/475.html

<sup>&</sup>lt;sup>40</sup> Meghalaya dam toll touches nine, six workers still missing

The Times of India, the 14<sup>th</sup> October 2009

<sup>&</sup>lt;sup>41</sup> Rescue operation resumes to trace missing people in Dam accident, 11 October 2009

<sup>42</sup> http://www.neinews.com/probe-into-leshka-incidents-demanded.html

CDM as mechanism to recuperate loss: The project authorities are more concerned with securing financial compensation from CDM to bail itself out from the huge financial pandemonium that has gone into Myntdu Leshka Hydro Electric Project rather than considering for social concerns and to ensure participatory development processes in Meghalaya. MeSEB is pursuing CDM benefits for MLHEP project. If the proposal is approved by the UNFCCC, MeSEB will get 160,000 units of Carbon Credits every year which it can sell every year for a period of 10 years from the date of commissioning of the project. The expected revenue envisaged from the sale of these carbon credits is approximately Rs 150 crores spread over 10 years<sup>43</sup>. Meghalaya government is now banking on the Clean Development Mechanism (CDM) credits to help it recuperate some cost. If the Project Design Document (PDD) submitted by the erstwhile Meghalaya State Electricity Board (MeSEB) is approved by United Nations Framework Convention on Climate Change (UNFCCC), one tenth of the total cost of the project will be recovered. Till November 2011, the Myntdu Leshka project has consumed more than Rs. 900 Crores, an almost three fold increase from its original estimate of Rs 363.08 Crores. However, the cost overrun due to incomplete and irrational assessment and appraisal cannot be a factor to claim for CDM money.

Changing Rules and DPR: As against the original plan to generate 84 MW (2x42) from the project and without conducting any further impact assessment, the Central Electricity Authority approved the contention of the MeSEB to add a third unit for power generation to have combined generation of 126 MW. Indeed, Mr. A Dkhar, Secretary of the Association of Power Engineers (APW) and Associations Coordination Committee (ACC) warned against the third unit earlier opining that the Meghalava Energy Corporation Limited (MeECL) which is already in financial debt will be in deep crisis if the Corporation goes ahead with the creation of third unit of the project. He further said the Myntdu Leshka Dam has been designed for only two power generating units and the MeECL will surely collapse if the third unit is added to the project. The project will cost more than Rs 1200 Crore due to an increase in the cost and as loans were availed from various financial institutions, such as Standard Chartered Bank, Canara Bank etc and the MeECL would have to pay Rs 30 Crore annually as debt. The ACC Secretary said the creation of the third unit would also hamper the functioning of the first two units and will be impossible to generate 126 mw as its maximum generation capacity is 90 MW, especially during the rainy season. The Meghalaya Government is planning to commission all three units of the project by March, 2012.44

FPIC undermined: And in a glaring case of lack of transparency and failure to take the consent of the people, the project authorities failed to inform the people of Meghalaya on its efforts to seek CDM revenue. Indeed, the media reported on the CDM revenue move of MeSEB two years after the validation. The editor of the Meghalaya Times reported the MeSEB move in November 2011<sup>45</sup>. Ms. Agnes Kharshiing, General Secretary of the Civil Society Women's Organization said that the Myntdu Leshka is a technically flawed project, which has not only led to unnecessary loss of lives of labourers working in the dam and there is no justice done yet to those affected. She further said that there is no consultation, nor any efforts to inform the civil societies of Meghalaya by the Meghalaya State Electricity Board concerning the preparatory process of targetting Myntdu Leshka for seeking carbon credits from CDM.

November 8th, 2011, the Shillong Times

<sup>&</sup>lt;sup>43</sup> INFORMATION MEMORANDUM OF PRIVATE PLACEMENT OF 300 UNSECURED REDEEMABLE NONCONVERTIBLE BONDS OF RS. 10, 00,000/- EACH FOR CASH AT PAR AGGREGATING RS. 30 CRORES WITH AN OPTION TO RETAIN AMOUNT UPTO RS 100 CRORES Issued by MeSEB with issue opening from 14/11/2008 & closing on 19/11/2008 44 'Leshka 3rd unit to put MeECL in financial mess'

http://theshillongtimes.com/2011/11/08/%E2%80%98leshka-3rd-unit-to-put-meecl-in-financial-mess%E2%80%99/ "Meghalaya eyes CDM credits to recuperate loss under Leshka project" The Meghalaya Times, 12 November 2011 http://meghalayatimes.info/index.php?option=com content&view=article&id=23179:meghalaya-eyes-cdm-credits-torecuperate-loss-under-leshka-project&catid=44:front-page&Itemid=28

#### 10. TING TING HEP 99 MW OVER RANGIT RIVER, SIKKIM:

The Ting Ting Hydro Electric Power Project (TTHEP) is a run of river hydro electric power project proposed for development on the Rathang chu river, a tributary of Rangit River, in the west district of Sikkim. The project will have an installed capacity of 99 MW and will generate approximately 402.05 GWh electricity. The project is being developed by TT Energy Pvt. Ltd. Ting Ting Dam site is located on Rathang Chhu river about 13 Km before Yuksum town on the Melli-Pelling-Yuksum State Highway and the Power house is about 5 Km further downstream. The project has received environmental clearance. The project proponent claims that the electricity to be generated by the project will be exported to the NEWNE to contribute in displacing emission-intensive grid sourced electricity and therefore result in a reduction in GHG emissions of approximately 359,629 tonnes CO2e per annum. The TTHEP project aims to reduce associated emission of GHG as well as the country's dependence on fossil fuels<sup>46</sup>. The Sikkim government has scrapped the Ting Ting HEP and Lethang HEP in a Cabinet Meeting on 25 January 2012.

#### 11. 97 MW TASHIDING HEP, Sikkim:

The Tashiding Hydroelectric Project (THEP) is a 97 MW run-of river hydroelectric project to be implemented by Shiga Energy Pvt. Ltd. (SEPL) on Rathang Chu River, about 140 m downstream of the confluence of Rimbi Khola with Rathang Chu in the West District of Sikkim. The proposed project activity will utilize the waters of the Rathang Chu River, a tributary of the Rangit River. The proposed project is being implemented by Shiga Energy Pvt.td. SEPL. THEP was allotted to SEPL by the Government of Sikkim under the policy for private sector participation in the implementation of power projects. The project is envisaged to reduce GHG emissions of approximately 393,863 tonnes CO2 per annum and the project will acquire 16.6670 hectare from Gerethang, Labing, Chumbong & Omlok block of West Sikkim<sup>47</sup>.

This project is located in an ecologically fragile area and is situated near Kanchenjunga national park. The EIAs are done with little site visit.. The river on which the HEP is going to be built is considered scared by the Buddhist community and hence there is protest against it by the monasteries and the monks as well as others. Another HEP was stopped previously on the same river due to protests carried out on the same issue. There are excess numbers of HEP in the region which are killing the ecology and the environment of the area as well as the rivers. This will have a devastating cumulative impact in the long run. No mitigating measures will help in the long run and thus the project should not be given any approval<sup>48</sup>. The 96 MW Tashiding HEP which has completed the land acquisition process and is presently engaged in construction of Adit tunnels and road network, etc. The Yuksom-Tashiding region, where the Tashiding HEP along with other two projects the Ting Ting HEP and Lethang HEP has been planned has a number of glacial lakes in the higher reaches. The Buddhists considers these as sacred lakes and the Rathong Chu, itself is considered a highly sacred river. Besides, the river in the Yoksum region itself is considered to have 109 hidden lakes by the people of the region.

Version 03 - in effect as of: 28 July 2006 of Ting Ting HEP project http://cdm.unfccc.int/filestorage/9/K/A/9KATIDPBWUSCRL7G6VQXFMYN8O031E/Ting%20Ting-%20PDD.pdf?t=eWd8bHl0MmZ4fDAHiAMjSWeJCVn6wW-GB UA

<sup>&</sup>lt;sup>46</sup> CLEAN DEVELOPMENT MECHANISM, PROJECT DESIGN DOCUMENT FORM (CDM-PDD)

Land Acquisition order, Government of Sikkim Gazette, Dated: Friday 27th May 2011 No. 275, NOTIFICATION NO.18/1138/LR&DMD(S) DATED: 26/05/2011

<sup>&</sup>lt;sup>48</sup> Submitted by Mr. Dawa Lepcha in response to the call for public comments on Tashiding PDD, which is made available on UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/57BEQYQMJFUANO57X50DJEKYN61FCJ/view.html

#### Opposition against Tashiding HEP in West Sikkim

The people of west Sikkim, especially the residents of Tashiding, Yangthang and the adjoining areas under the banner of "Save Sikkim Organization" (SSO) have been opposing the Shiga Tashiding Hydel project after a wide crack has appeared on the land surface above the under-construction tunnel at the Tashiding project in Amblok village after the strong Earthquake that hit Sikkim on September 18, 2011. The crack is wide and deep enough to swallow a person or cattle. People of 11 villages under Yangtey gram panchayat, over which the tunnel passes, are affected by Tashiding Project. The SSO organization informed that there is illegal land acquisition as they were not well and properly informed of the reasons of acquisition, maintaining that Government had acquired their land claiming the acquisition to be for the construction of road which they later found out was for the tunnel. There are around 200 household in the area which will be affected by the commencement of the project<sup>49</sup>. The villagers also met and appraised the Governor of Sikkim; Mr. B.P. Singh on 17 November 2011 pleading him to stop work on the two power projects on the Rathong Chu till a review was completed. They also maintained that despite peoples' opposition to the project, the construction company has been adamant in starting the project. The affected villagers from West Sikkim Three mega projects had been proposed on the Rathong Chu considered sacred by the Buddhists. The work on the 97 MW Tashiding power project started six months ago<sup>50</sup>.

The villages of Sakyong, Bhaluthang, Kageythang, Sinrekthang and Omluk are situated right above the project area and this area falls under a sinking zone and if the tunnelling work continues it will further aggravate the fragile nature of the area which may lead to natural disasters. The land above the project site has cultivated fields where local farmers are involved in the cultivation of paddy which requires water and there has been a decline in the supply of water and it is clear that once this project starts, there will be an even more acute shortage of water. This will affect cultivation and thus directly affect the farmers of the area. The villagers also demanded the tunnelling work at the site to be stopped immediately until the exercise of the High Powered Committee constituted by the Union Home Ministry to reassess these projects over sacred Rathang chu is completed," said Mr. PR Kharka, a member of Save Sikkim Organization. Around 400 to 500 families from 10 to 11 villages will be affected<sup>51</sup>. Seven Jhakris, who were protesting against the Tashiding Hydro Power Project in West Sikkim on 11th December 2011, were arrested by the police. The Joint Action Committee, Sikkim has strongly condemned the incident. In a press conference, held on 12th December at Gangtok, Mr. Tseten Tashi Bhutia, media Convener of Sikkim Bhutia Lepcha Apex Committee said everyone has the right to protest in democratic set up but police treated them like terrorists<sup>52</sup>.

A high-powered committee constituted by Sikkim Government in the wake of the project and headed by Chief Secretary, Karma Gyatso to examine issues related to implementation of three hydel projects in West Sikkim has finalized its report in early January 2012 and concluded that the three hydel power projects in West District, Ting Ting HEP, Lethang HEP and Tashiding HEP be 'scrapped'53. The Sikkim government acting on this report, has scrapped the Ting Ting HEP and Lethang HEP in a Cabinet Meeting on 25 January 2012 and the Tashiding HEP has been kept under further investigation.

<sup>&</sup>lt;sup>49</sup> SSO opposes Shiga Tashiding Hydel Project in West Sikkim, 18 November 2011, ISikkim, http://isikkim.com/2011-11ssoopposes-shiga-tashiding-hydel-project-in-west-sikkim-19-05/
<sup>50</sup> "Plea to stall work on power projects", by Bijoy Gurung, The Telegraph, 19 November 2011

<sup>&</sup>lt;sup>51</sup> "Tashiding HEP protestors approach Governor", 20 November, Sikkim Now, http://sikkimnow.blogspot.in/2011/11/tashidinghep-protestors-approach.html#!http://sikkimnow.blogspot.com/2011/11/tashiding-hep-protestors-approach.html 
<sup>52</sup> http://isikkim.com/2011-12-jac-condemns-west-sikkim-admins-arrest-of-7-jhakris-13-05/

<sup>&</sup>lt;sup>53</sup> Experts for scrapping 3 Sikkim hydel projects, Assam Tribune, 5 January 2012 http://sikkimtimes.com/?p=3536

#### 12. RONGNICHU 96 MW HEP, SIKKIM:

The Rongnichu Hydroelectric Project (RHEP) is a run-of-river hydro project proposed for development on the Rongnichu stream, a tributary of the Teesta River, in the East Sikkim district of Sikkim state in India. The project will have an installed capacity of 96 MW. The project is being developed by Madhya Bharat Power Corporation Ltd. (MBPCL). The RHEP was allotted to MBPCL by the Government of Sikkim under the policy for private sector participation in the implementation of power projects. Voith Hydro Private Limited, a group company of Germany-based industrial equipment major Voith AG, made a media release on 28 September 2011 that it has received an order from Madhya Bharat Power Corporation Limited to supply complete plant equipment for Sikkim's Rongnichu Hydro-Electric Project. Voith Hydro will supply turbines, generators and electrical and mechanical auxiliaries for the plant<sup>54</sup>.

# 13. 96 MW DIKCHU HEP, SIKKIM:

The Dikchu Hydro Electric Project is a run-of-river hydro-electric project intended to generate electricity to an extent of 96 MW utilizing hydro potential energy in the River Dikchu, a tributary of river Teesta and for exporting the generated electricity to grid in Sikkim, India. The project proponent of the 96 MW Dikchu HEP of Sikkim has applied for CDM status and the CDM has stipulated the deadline for submission of comments as on March 2, 2012.

# III. KEY ISSUES OF MEGA DAMS IN INDIA'S NORTH EAST SEEKING CARBON CREDIT FOR CDM

#### Projection of Mega dams as solutions of Climate Change:

All the hydroelectric power projects proposed for carbon credits from CDM are mega projects as the generating power capacity of all these projects are more than 10 megawatts. Despite the increasing voices globally to exclude mega dams from seeking carbon credits under CDM, mega dams in India's North East are projected to seek carbon credits. In particular, the 1200 MW Teesta III HEP in Sikkim and the 1750 MW Lower Demwe HEP in Arunachal Pradesh has been projected as solutions to climate change. These are dams which will and already have huge socio, economic and environmental sustainability issues due to the massive destruction and potential multi-faceted impacts, and in fact also led to huge division and polarization of communities, both within and beyond. Several studies has already confirmed that mega dams has actually contributed in deepening the global climate crisis as dams actually emitted greenhouse gases from the reservoirs and due to destruction of forests.

<sup>&</sup>lt;sup>54</sup> Voith Hydro Receives Order for Sikkim's Rongnichu Hydro Electric Project, 8 November 2011 http://www.prlog.org/11724075-voith-hydro-receives-order-for-sikkims-rongnichu-hydro-electric-project.html

#### MEGA DAMS CONTRIBUTING TO CLIMATE CHANGE

A study by researchers at Tennessee Tech University, the University of Colorado and the University of Georgia, Pacific Northwest National Laboratory and Hellenic Center for Marine Research concluded that artificial reservoirs can modify rainfall patterns, which means dams has clear and direct impact on climate change. The study—published in Geophysical Research Letters— marks the first time researchers have documented large dams having a clear, strong influence on the climate around artificial reservoirs, an influence markedly different from the climate around natural lakes and wetlands. Faisal Hossain, Tennessee Tech University civil engineering professor said the study results give a better idea of which dams are most likely to gradually change local climate." Also according to the World Commission on Dams report, gross emissions from dam reservoirs could account for between 1 and 28 percent of the global-warming potential of greenhouse gases (GHGs). Estimates by the South Asia Network for Dams, Rivers and People, based on findings by Brazil's National Institute for Space Research, suggest that large dams in India are responsible for 20 percent of the country's total global-warming impact. The GHGs from a reservoir could be more that it's sequestering capacity. 

6 Colorado Andrews Andre

# - Lack of participation of communities in decision making on dams and also in application and approval process of mega dams for carbon credits:

Visits to communities affected by the dams seeking carbon credits in India's North East has confirmed that none of the project developers has actually tried to reach out to the communities, for a participatory decision on dams in the region seeking carbon credits and provision of information concerning the socio-economic, environmental benefits for the communities and on the ways of finding solutions to energy crisis which will minimize impact on communities and nature. The projects proponents and the respective State Pollution Control Boards organizing public hearings for mega dams projects has failed to inform the communities on the plans for seeking carbon credits from CDM, such as in the case of Teesta III and Khuitam HEP. No public hearing ever has conducted with the communities specific on all necessary preparation for seeking carbon credits from CDM of UNFCCC, as testified in the case of NHPC's effort to renovate the Loktak Power Station and seek carbon credits. The same is the case with the Myntdu Leshka HEP where some media bodies of the State only reported the submission of the Meghalaya State Electricity Board to UNFCCC only in November 2011 after two years of submission. Such process of non information of affected communities on the efforts of the dam developers to seek carbon credits is a serious violation of their right to free, prior and informed consent as upheld by various international laws.

# - Undermining Recommendations of the World Commission on Dams

In India's North East, where more than 168 dams has been planned all over the eight States, mostly in Arunachal Pradesh, there is very little reference to progressive guidelines that respect the rights of indigenous peoples and other progressive principles concerning mega dams and protection of their

<sup>&</sup>lt;sup>55</sup> Large dams can affect local climates, alter rainfall, says TTU-led study, www.tntech.edu/pressreleases/large-dams-can-affect-local-climates-alter-rainfall-says-ttu-led-study/

<sup>&</sup>lt;sup>56</sup> "Have river, will dam", Himal South Asian September 2007 By Shripad Dharmadhikary

land and resources which they depend for their physical and spiritual survival. There are also concerns over the adherence to recommendations of the World Commission of Dams (WCD) both for dam construction and for seeking carbon credits from hydro projects with the increasing moves of project developers to seek carbon credits from hydro projects. The WCD has recommendations that set guidelines to determine whether a dam qualifies to sell carbon credits through the UN's Clean Development Mechanism.

The WCD also has guidelines for construction of mega hydro projects, which includes comprehensive and participative assessments of water and energy needs and options for meeting these needs, developers held legally accountable to negotiated agreements with affected communities, free, prior and informed consent of indigenous communities, full access to relevant project information, feasibility studies to include sensitivity analyses of potential cost and time overruns and shortfalls in production, agreement at the design stage of participative monitoring and adaptive management procedures to be followed through project lifetime.

# The EU Linking Directive concerning Dams and CDM

In November 2004, the European Union adopted legislation regulating the admission of CDM credits (CERs) into the EU's greenhouse gas Emissions Trading Scheme (ETS). The legislation, known as the "Linking Directive" states that CERs from large hydro projects can only be used in the ETS if the projects meet the standards and guidelines of the Word Commission on Dams. The section of the directive dealing with hydro projects states: "In the case of hydro–electric power production project activities with a generating capacity exceeding 20MW, Member States shall, when approving such project activities, ensure that relevant international criteria and guidelines, including those contained in the World Commission on Dams year 2000 Final Report, will be respected during the development of such project activities."

Carbon industry news service Point Carbon reported in October 2007 that Europe's largest carbon exchange will prohibit trading in CERs from hydro projects over 20 MW. In October 2007, the German government issued a guideline for determining whether CDM projects comply with the WCD recommendations.<sup>57</sup>

### - Lack of Adherence of Human Rights Based Approach to Development

The dams in the NE region seeking carbon credits all shows glaring cases of violation of indigenous peoples rights with clear cut violation of their community rights over their land and resources. The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) adopted by the UN in 2007 clearly outlined that all indigenous peoples have the right to control, manage and develop their land, territories and resources for their survival and for their ancestors. However, the continued onslaught by dam developers only constitutes a violation of indigenous peoples' right to develop and determine their rights to define their developmental priorities and needs in accordance to their wishes and aspiration to ensure their survival, sustenance of their ecosystem and its wise use. The violation of the right to free, prior and informed consent (FPIC), again outlined in the UNDRIP is further testified by non provision of project related documents, such as the Detailed Project Report, the Environment Impact Assessment and the Environment Management Plan. Also often, there is absence of environment Impact

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<sup>&</sup>lt;sup>57</sup> http://www.internationalrivers.org/node/1786

Assessment Report to determine the nature and extent of the impacts of the projects. In all the projects studied, the project developer has failed to conduct any satisfactory consultation with the people in affected villages and the people been not been informed of the adverse impacts of the project.

For example, both the NHPC and the Government of Manipur continues to deny provision of the DPR of Loktak HEP Project and the MoU between the Government of Manipur and the NHPC on the Project. The Manipur State Electricity Department has admitted that there are no official records of agreements or contracts of the transfer of the Loktak Project to NHPC in the department. The matter was disclosed by Chief Engineer (Power) in reply to an RTI application made by one Kambam Seityajit of Khurai Chingangbam Leikai. The Chief Engineer contended that formalities might have been carried out before the establishment of the Electricity Department. Moreover the Detail Project Report of the Loktak Project which was commissioned in 1984 is also not available in the department's office<sup>58</sup>.

The hydrological data in India, particularly for international river basins, that includes entire North East is not in public domain, which has been a stated policy of the Ministry of Water Resources (MWR), Government of India. On North East, the Ministry is even more secretive and uses all kinds of excuses including national security issues, national economic and commercial interests even in efforts to seek information under Right to Information Act, 2005.

The need for accepting and adhering to the universally accepted principles of the Right to Free Prior and Informed Consent in all development projects in India's NE has repeatedly been emphasized by several UN Human Rights bodies, such as in the recommendation of the UN Committee on Elimination of Racial Discrimination during the consideration of India's Periodic report to the UN CERD in 2007 with respect to Tipaimukh Dam and other mega dams in India's NE<sup>59</sup>. And moreover, India has taken an official position not to implement the UN Declaration on the Rights of Indigenous Peoples as it considers all people in India are indigenous, which only facilitates plunder of their land.

#### - Carbon Credits as Subsidies means for dams:

Carbon credits are increasingly turning CDM into a subsidy mechanism for hydro developers instead of becoming tools for climate protection. Interestingly, the main purpose of buying and trading carbon credits by companies would not be to achieve economically efficient climate benefits but rather to increase profits to project developers. Hydro developers are repeatedly justifying their applications to the CDM with tacit arguments, such as that projects that are already completed will only be completed if they receive CDM revenue. Even companies supposed to monitor and audit the developers' claims and the CDM's Executive Board readily endorses fraudulent plans of project developers.

The Myntdu Leshka HEP has been experiencing cost overrun, especially after the repeated flooding of the dam, tunnels and the power house in the year 2009 and 2010, leading to wide damage of equipment in the three project components. However, the MeSEB is trying to recuperate the cost overrun by seeking carbon credits from CDM despite this fact; it continues to remain irresponsible for the social impacts caused by the dam such as the loss of lives of dam workers in 2009.

#### Violation of Approval Criteria of dams for CDM carbon credits

<sup>&</sup>lt;sup>58</sup> "Copies of DPR on Loktak project not available with electricity department" The Imphal Free Press, July 1, 2011 http://kanglaonline.com/2011/07/copies-of-dpr-on-loktak-project-not-available-with-electricity-department/

<sup>&</sup>lt;sup>59</sup> 'Mapithel Dam amidst Militaristic Development in Manipur' Imphal Free Press, 6 December 2008, Imphal by Jiten Yumnam

Sustainability Issues (Social, Economic, and Environmental): The mega dams seeking carbon credits all have socio, economic, cultural and environment concerns. The social and environmental damage that will be caused by some of these projects also means that they are in breach of the CDM's mandate to promote sustainable development. For example, the dam developers for Rangit IV HEP outlined the project sustainability in the PDD as to provide short term employment opportunities to about 500 workers and 2002 technical staff during construction phase. And concerning environmental wellbeing, the project developer further claimed that the project will generate clean and green power and supply to the NEWNE grid and to reduce GHG emission. Similarly, the Jorethang Loop HEP in the PDD prepared to seek carbon credits certification envisaged to contribute to sustainable development by reducing reliance on non renewable energy, reduction in emission of air borne pollutants, provision of local employment, ensure accessibility of communities to Rangit River etc.

However, destruction of hills, massive felling of trees and inundation of forest for dam construction, road construction, curtailing the life of rivers and loss of habitat for many exotic plant and endemic animal species due to mega dam construction claiming carbon credits, as evident in many of the dam project areas cannot be considered as promoting environment wellbeing in the region. Projects such as Teesta VI HEP and Teesta III cannot be defined as sustainable development, since it already adversely affected the local environment and the communities.

Any benefits entailed the locals as outlined in almost all the PDD is misleading as the actual benefits goes only to the non locals, which only led to social tensions, demographic impacts on indigenous populations and other health impacts and the PDD prepared for seeking CC did not address these concerns. The region is envisaged to supply the increasing needs of "growing economy" of metros of India and this efforts to target the rivers of NE will only lead to an unsustainable and destruction of the land, rivers and survival of the indigenous peoples of the region.

For instance, the consideration for receiving support from CDM has never been discussed with the people of Arunachal Pradesh, nor there is understanding of such complex and dubious carbon markets. The project proponents failed to introduce the participants that the Khuitam HEP is in the process of seeking CDM credits even during the public hearing process of 11 October 2010. Almost all the Dam Project in India's North East seeking carbon credits under the current context cannot be defined as sustainable development, since it adversely affect the local environment and the communities.

**Displacement:** Most of the mega dams already caused widespread destruction in the region, like the NHPC's Loktak Project in Manipur, which had rendered more than 80,000 people lose their land and livelihood sources after inundation of their home and agricultural fields. Teesta III HEP will also cause displacement of the villagers of Chungtang despite project authorities denying any displacement and impact on Chungtang village. The NHPC's Teesta Stage V HEP caused displacement of Lepcha people who are yet to be rehabilitated. The Lower Demwe HEP will cause displacement in the river islands of Lohit River and also those residing in the Dibru-Saikhowa national park.

Impact of blasting and Tunnelling during dam construction: The impacts of blasting are a serious issue in all the dam sites. Cracks built up in creeks which serves as water sources for affected villagers led to drying up of streams in many places, such as in Teesta III HEP, Teesta VI, and Teesta V in Sikkim. Houses near dam sites developed cracks as in Chungtang Village and the project authorities continue to deny impact due to dam construction. Blasting also impacts the local wildlife, such as deer and monkeys got killed by both the sound and direct hits. The impact of tunnelling, boring of series of tunnels through the hills of Sikkim, using blasting has already caused serious impacts. Water sources

get dried up as creeks and houses above hills where tunnels are bored developed cracks. Several villagers find it difficult to get access to clean and regular supply of water.

As the entire Sikkim Himalaya has a fragile geology, the construction of dams using heavy blasting for excavation in road building, shaft construction and tunnels puts heavy stress on this fragile environment. The Government agencies had already taken note of the impact of blasting, for example, the Department of Mines, Minerals & Geology of the Government of India which conducted studies on "Damage caused at surface due to tunnel excavation and other activities by Teesta V HEP in Sikkim observed and concluded that there are ample evidence of damages caused by surface & subsurface blasting due to geology and hydrology of the area, concentrating only on progress of work and its cost effectiveness rather than paying equal attention to geological details of the area as a whole and behaviour of fragile and complex geo-environmental conditions.

The Department also noted further that in such conditions, the impact of the use of explosives may not show up immediately after such explosions but at later stage negative side effects from such activities always become evident and further, there is sufficient evidence of negligence in disposing off huge amount of spoils/muck generated during excavation. In case of Teesta Stage V, spoils are thrown along the river bank, instead of disposing off at designated places. This resulted in rising of river bed leading to change in flood behaviour of river and further observed that such action not only accelerates the erosion endangering the upslope but also degrades the overall geo-environmental setting.

Additionality and Business as Usual approach of dam developers: The concept of the 'additionality' of the emission reduction to be achieved by a CDM project lies at the heart of the CDM rules. The essential idea of additionality concept is that the emissions reductions of a CDM project would not have happened under 'business-as-usual'. The project proponent have to identify barriers as to why the project cannot implement the project with CDM money, such as (a) Investment barrier, (b) Technological barrier, (c) Barrier due to prevailing practice and (d) Other barriers. For example, under investment barrier, the PP need to show that there is a financially more viable alternative to the project activity and that the activity would have led to higher emissions with CDM money.

Often, the dam developers claimed that there are a limited number of feasible opportunities to develop hydroelectric power in India. For example, the project proponent for Jorethang HEP maintained that the high installed cost of the Jorethang HEP clearly indicates its non-viability without the additional revenue from the sale of CERs and also that the project is not financially attractive. The project authorities are giving a wrong and misleading picture to the UNFCCC for gaining undue CDM benefits, even when the dam projects are clearly not additional. It is the government policy to push large hydro projects to the maximum possible extent, with provision of all the available resources.

At least two mega dams in India's North East are clearly not additional as their project cost are already sanctioned and in place before seeking the carbon credits. The Teesta VI project in Sikkim is clearly not additional as the financial resources are already in place with financial closure achieved in July 2007 and all the power to be generated already sold for next 25 years with 14% return on equity. The Myntdu Leshka HEP in Meghalaya is another case where the project proponent, the MeSEB applies for Carbon Credit when the project has long started construction with clear financial allocations for the project. For Myntdu Leshka, the project proponents also added another unit to the project which is not even outlined in the Detailed Project Report, thereby increasing the project cost.

As some of the hydro projects claimed for emissions credit under CDM are already under development, they are "business as usual projects" that would go ahead without the CDM. Giving these projects

approval to generate carbon credits would turn the CDM into a subsidy mechanism for hydro developers and a carbon accounting loophole for industrialized countries, instead of a tool for climate protection. No project in India has been stopped due to additional funds required after the project work has stopped, additional funds are required in every project, and project authorities manage them without any recourse to CDM requirements<sup>60</sup>. WikiLeaks also released a cable sent by the US Consulate in Mumbai, India that candidly states that Indian CDM projects do not depend on CDM funding and are therefore not additional. Additionality testing is usually inaccurate for hydropower. Assessment of financial return cannot be a wise option for a decision whether a large hydropower project will be built or not, because non-financial factors such as government policies have a large influence on decisions to develop these projects. In addition, PDDs often underestimate the impact of reservoir emissions particularly from hydropower projects with storage in tropical regions.<sup>61</sup>

Misleading Baseline Projections: In most of the dam projects seeking carbon credits, the dam developers stated that in the absence of the project activity, it is most likely that the required capacity additions to the grid will be met through the development of large thermal power stations. Project developers claimed that the baseline scenario in the absence of project activity continues to be highly carbon intensive and emission reductions generated by the project activity are additional. For example, in Rangit IV HEP, the dam developer mentioned that the proposed project activity would supply approximately 505 GWh power to NEWNE grid which is dominated by thermal power plants supplying electricity to the grid and that the project will contribute in reducing GHG Emissions by generating electricity using hydro potential, thereby reducing the proportion of fossil fuel based generation in the NEWNE grid leading to lesser carbon intensive grid. Similarly for Teesta VI and Teesta III projects, the project authority claims that the project utilizes naturally available hydro potential of the Teesta River for power generation and to replace the carbon intensive grid energy thereby reducing GHGs emissions.

The PDD of most dam projects while seeking carbon credits from CDM referred to the Eastern and Northern region grids. The project proponent has manipulated the data and presented the alternatives scenario of power generations assuming the data of Northern and Eastern region. The reality is that India's NE is full of hydro potential and there is not a single thermal power plant in the region, and the only power plants in north-east are hydro projects. The issue is that if only hydro projects are possible in the region, this means that the project becomes baseline and hence ineligible for CDM<sup>62</sup>.

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<sup>&</sup>lt;sup>60</sup> SANDRP comments on TEESTA III HEP to Validating Agency DNV

<sup>&</sup>lt;sup>61</sup> International Rivers Inputs to CDM EB call for inputs on policy dialogue, 16 January 2012

#### **NUANCES OF NEWNE GRID**

The home page of the Power Grid Corporation of India noted that from the year 2003, the Power Grid Corporation of India Ltd, the Western region, Eastern Region and North-Eastern Region begin operating in a synchronized manner with a cumulative capacity of 50,000 MW, which is known simply as North East and West (NEW) GRID<sup>63</sup> but not NEWNE Grid. The North East Regional Load Centre based in Shillong continues to function as separate unit too. In the year 2006, the Eastern and North Eastern power grid region were awarded for the best transmission system availability under Category I and Category II by the Government of India.<sup>64</sup> The CERD Staff Paper of the Central Electricity Regulatory Commission in its report "GRID SECURITY – NEED FOR TIGHTENING OF FREQUENCY BAND & OTHER MEASURES" in March 2011 also refers the new synchronized grid as NEW GRID<sup>65</sup>.

The Central Electricity Authority in its website and publications repeatedly outlined several projects already under implementation in NE and the energy source of NE Grid as mostly from hydro. The planning commission of India has clearly spelt out in various policy documents that the targeted capacity addition under 11th plan (upto 2012) is 100,000 MW. Interesting, the North East power Grid, which has rather been classified as a separate power grid and which is dominated by power from dams, has now been clubbed together along with three other regional grids Northern, Eastern, Western & North-Eastern into a new Integrated NEWNE grid in most of the PDD of dams from North East seeking CC from CDM.

The NEW GRID is not similar to NEWNE grid. There is no such thing as NEWNE Grid. One wonders is this is a deliberate and dubious efforts and claims of project proponents to add NE in the NEW Grid to falsely represent that Thermal Power is the only power source and to justify construction of more dams in North East in the pretext of prompting renewable energies. This is also to use thermal projects domination for power source in some grids as pretext to qualify the 'additionality' criteria.

The PDD for Khuitam outlined that in the absence of the project activity, same amount of electricity would have been supplied by the existing power plants connected to NEWNE grid as per the pre existing scenario and that the NEWNE grid is highly dominated by thermal power plants to an extent of 73%. This is a misleading statement as the same energy could also have been supplied with due exploration of other viable alternative sources of energy. The North East is envisaged to supply the ever increasing needs of mainland part of India and this efforts to target the rivers of NE India will only lead to an unsustainable and destruction of our rivers. There is no point to construct nearly 200 mega dams when the power needs of the NE region are meagre. So, the calculation is not based on the actual power needs of the NE region. The claims of project proponents that there will be no emissions of GHGs from dams is misleading as the emissions of GHG from fossil fuels to be used during dam construction, due to massive destruction of forests for construction of the dam, during boring of tunnels and for construction of roads, the release of GHG gases from forest to be submerged by dams etc has not been taken into consideration or omitted in the count of GHG emissions.

http://www.powergridindia.com/pgcil\_new/contentpage.aspx?pageid=P:120

<sup>64</sup> http://en.wikipedia.org/wiki/PowerGrid\_Corporation\_of\_India

<sup>65</sup> http://www.cercind.gov.in/2011/Whats-New/AGENDA\_NOTE\_FOR\_15TH\_CAC\_MEETINGHI.pdf

# - No policy governing CDM approval process concerning peoples participation and impact assessment, independent verification of the approval criteria

There has been no policy that governs the approval process of proposed CDM projects with respect to peoples' participation and impact assessment. There is no independent verification of the approval criteria, the sustainability clause, fulfilment of the additionality and baseline clause etc. Even when the project proponents submit false and manipulated information, the DNA headed by MoEF continues to approve projects for CDM carbon credit benefits. The public hearing process under EIA notifications of EPA Act does not specify any rules for dam projects seeking carbon credits under carbon trading mechanisms of the UNFCCC. The dam developers and also the financial institutes lending money to them have limited and unreliable social, environmental and accountability norms towards protection of community rights or to share CDM benefits with the communities.

There is no policy in India that governs CDM projects, for a mandatory impact assessment, for ensuring peoples participation, for independent verification of the information submitted by dam developers for seeking carbon credits for dam projects or to ensure adhering to guidelines for dam development. Some State Government in India's North East has mentioned brief guidelines for dam projects seeking carbon credit but it is more geared towards sharing of benefits from CDM money between the dam developer and the government. As for instance, the State Government of Arunachal Pradesh outlined that in Article 24 of Arunachal Pradesh Gazette notification of 24 January 2008that the state shall allow to the extent of 50% share of Carbon Credit benefit as may be available from Carbon Trading under CDM. This Gazette notification did not mention and emphasize on recognizing community rights in decision making nor for gaining access to benefit sharing, but more to share benefits between the government and the companies at the cost of communities.

# - Lack of Accountability of project developers

Dam developing companies like the National Hydroelectric Power Corporation has been fraught with serious lack of accountability, especially for projects like the Loktak Multipurpose Hydroelectric Power project in Manipur which continues to be unaccountable for the irreparable destruction to the lives of the indigenous peoples of Manipur by submerging agricultural land and displacement, for disturbing the natural environmental balance of Loktak Wetlands system, for causing loss of endemic plants and species and also for instigating human rights violations, such as massive displacement that emerged after considering Loktak Wetlands only as a reservoir for Loktak Project. These irresponsible companies are allowed to go scot free to freely destroy peoples livelihood sources with impunity and further to accrue unwanton profits from CDM by continuing rampant destruction.

#### - Accountability of DOE (verifying agencies of CDM projects):

The DOE, responsible for verifying CDM projects for both validation and registration has been functioning with serious lack of accountability and even violations of the procedural rules of CDM board concerning the issues o sustainable development and verifying the additionality of the project. These DOE has failed to make independent assessment of the information submitted by the project developers and failed to consider the need for peoples' participation in its verification processes. Indeed, the procedural violations of CDM guidelines by some of the DOEs for verification of CDM projects have already been acknowledged, however to a certain extent. For example, the 44th EB of the CDM held at Poznan, Poland in November 2008 decided to recommend to Compliance Monitoring Panel (CMP) of CDM to suspend the designation of the designated operational entity DNV Certification

AS (E-0003). The Board further urged the DOE to undertake corrective actions to address the non-conformities listed in annex 2 of CDM AT under paragraph 97 of the Procedures the CDM-AT, to also undertake a further on-site assessment to verify the implementation of corrective actions<sup>66</sup>.

Interestingly, this DOE has been involved in verifying CDM projects in India. And despite the lack of accountability, the DNV has been involved in verifying numerous HEP projects in India's NE, including Teesta III. Unfortunately the PDD of Teesta III prepared by DNV, is indeed a good example of the lack of competence of DNV in adhering to the responsibilities entrusted to a DOE by the UNFCCC. In the case of the Teesta III, the DOE has failed to verify the information furnished by the project authorities and there is complete absence of process to undertake this verification process with community participation. The verification process by DOE is indeed a unilateral and a purely economic oriented process bereft of acknowledging community rights and their inherent social, economic, cultural and other intrinsic relationship with their rivers, forest and land, with no process for securing accountability.

### Issues in approval process of CDM projects by NDA

There are clear cut evidences that information is clearly manipulated in the PDD submitted by project developers to the NCDMA, who again failed to carry out an independent verification process of the information submitted and to assess the adherence to the Sustainable Development, Additionality and Baseline appropriateness criteria of qualifying for CDM projects. With no rules governing peoples participation right from the project developers in the process of preparing PDD till the consideration of the project by the NCDMA, there is no process to address people's and environmental concerns during these processes. The Ministry of Environment and Forest tends to use the same and controversial EIA procedure for assessing environmental impact Assessment. There is no separate process to undertake environment impact assessment for projects proposed for seeking CER under UNFCCC<sup>67</sup>.

The NCDMA led by MoEF continues to clear projects on its face value and claims made in PDD. The CDM authority does not do any field inspections to verify whether a project seeking CDM approval fulfils the eligibility criteria. Projects are accorded approval solely on the basis of paperwork they submitted and it is taken for granted that a project applying for CDM status is automatically clean and sustainable, no matter if it fouls up the atmosphere and local people's lives, displaces people and their traditional livelihoods through mostly illegal land confiscation<sup>68</sup>. The NCDMA simply accepts the dam developer's assurance that the project meets the key criteria. According to a Wikileaks cable, the NCDMA does not actually evaluate projects for additionality<sup>69</sup>.

<sup>66</sup> (CDM EB 44th meet of UNFCCC 28 November 2008, Poznan, Poland Ref: CDM-EB-44) http://cdm.unfccc.int/EB/044/eb44rep.pdf

• National CDM Authority (NCDMA) http://www.cdmindia.in/

<sup>&</sup>lt;sup>67</sup> References

<sup>• &</sup>quot;CDM India" (website of NCDMA) http://envfor.nic.in/cdm/

<sup>•</sup> Market Mechanism Group, Institute for Global Environmental Strategies (IGES) <a href="http://www.iges.or.jp/en/cdm/index.html">http://www.iges.or.jp/en/cdm/index.html</a>

<sup>&</sup>lt;sup>68</sup> Indian companies' CDM projects pollute environment, by <u>Anupam Chakravartty</u>Down to Earth, 14 October 2011 http://www.downtoearth.org.in/content/indian-companies-cdm-projects-pollute-environment

<sup>&</sup>lt;sup>69</sup> WikiLeaks reveals that most Indian claims are ineligible, Quirin Schiermeier, Published online 27 Sept 2011, The Nature http://www.nature.com/news/2011/110927/full/477517a.html

#### MoEF and Fraudulent Environmental Clearance Process in India

It is indeed a serious concern that the MoEF, leading NDMCA continues to perform the way how it grants environmental clearances without independently verifying facts and figures present in EIA's submitted by dam developers. MoEF has long been criticized for its decisions of ignoring key environmental and social consideration in clearing numerous projects, including mega dam projects, including in India's North East and has drawn widespread criticism for its dubious role from all quarters. It is no longer a surprise that the NCDMA clears all proposed CDM projects seeking approval from it gets cleared, with none rejected for non fulfilment of any of the CDM admission criteria.

The MoEF has long undermined environmental and social concerns while considering projects for its environmental, social and other project impacts. The basic aim and purpose of the MoEF is to ensure protection of vital ecosystems like river, wetlands, forests and mountains, however, it has failed to do so and rather the MoEF seems to exist to clear all obstacles and facilitate speedy construction of dams, roads, or thermal plants to serve national interest. In a case of direct undermining of peoples voices and democratic norms, the MoEF cleared the Environmental Clearance of Tipaimukh dam despite stern opposition in all the five public hearings by the affected communities in Manipur and in Mizoram<sup>70</sup>.

By giving environmental clearances to all mining projects in Goa after 2005 and even according clearance to mining leases within wildlife sanctuaries, the MoEF itself has proved beyond doubt that environmental, social and wildlife norms has nothing to do with its clearances. The EIA process, revised in 2006 is simply geared to be investment friendly, not protect the environment. Most EIAs, especially those on mines, are dismissed by Rapid EIA reports, studies done and data collected in just three months even though the EIA notifications manual stipulates that over a year should be the norm for studies. An investigations by the EIA Response Centre, an initiative of Legal Initiative for Forests and Environment of Environmental Clearances from 2006 till 2008 revealed that all submitted projects have sailed through the MoEF. Indeed, since 14, September, 2006, when the new EIA notification came into force till September 2008, every industrial project for which approval was sought was cleared, 952 industries approved with none rejected. The 134 thermal power plants were also approved though it is well-established fact that such carbon-intensive plants contribute significantly to global warming<sup>71</sup>.

Interesting, a diplomatic cable of 16 July 2008 and sent by the US consulate in Mumbai, India, to the US secretary of state summarizing a discussion of the CDM involving representatives of the consulate and the US Government Accountability Office along with Indian officials and executives of large Indian companies published by the WikiLeaks website in August 2011, reveals that most of the CDM projects in India should not have been certified as they did not reduce emissions beyond those that would have been achieved without foreign investment. The cable also notes that most of the project CDM projects in India fail to meet the CDM criteria of UNFCCC. The cable quotes R. K. Sethi, then chairman of the CDM's executive board and member-secretary of the Indian CDM authority in New Delhi, as admitting that the NCDMA simply "takes the project developer at his word for clearing the additionality barrier".

http://www.tehelka.com/story\_main41.asp?filename=hub310109environment\_clearence.asp

 $<sup>^{70}</sup>$  Damned Hearings of Tipaimukh Dam, Imphal Free Press by Jiten Yumnam  $\,$ 

<sup>&</sup>lt;sup>71</sup> Tehelka Magazine, Vol 6, Issue 4, Dated Jan 31, 2009

### - Poor Legitimacy of Dam Developers:

Many of the dam developers taking up mega dam projects in India's North East such as the National Hydroelectric Project (NHPC) taking up the Loktak Project in Manipur and the MS Athena Power Company and its subsidiary bodies are already fraught with serious scale of environmental, social and economic concerns, which continues to be unaccountable. The Athena Power Company in particular has already been criticized widely for its devastating impact on the ecology and indigenous peoples of Chungtang Village along the Teesta River during its construction of the Teesta III HEP project.

For Khuitam HEP, the Adhishankar Khuitam Power Private Limited is a completely new private entity which has no experience in dam construction. The power company has no policy to ensure participation of all affected people by the dam in any decision making process. The company does not have any policy to ensure accountability and responsibility for any violations both during the construction and operation period of the project. There is no mentioning of implementing the guidelines and recommendations of the World Commission on Dams concerning construction of mega dams.

The Adhishankar Khuitam Power Private Limited has very weak credentials concerning experiences in dam construction. There is no proper information about the project proponents, except providing its address in New Delhi. There is no information available on its experience of dam building, on success or failures. The company does not have any policy to ensure accountability and responsibility for any violations both during the construction and operation period of the project. The company has no policy to adhere to the guidelines and recommendations of the World Commission on Dams concerning construction of mega dams and for promotion of the human rights of indigenous peoples.

#### Athena Power's Poor Records at Teesta III HEP in Sikkim

Several dam developers had precarious records of dam building in the North East region. Many of the violations and destruction by these dam developers are already noted even by the official bodies that monitors the performance and records of dam builders. For example, the Athena Power Company, developing the 1750 MW Demwe Lower project in Arunachal Pradesh has a poor track record going by the records and the same company is developing the 1200 MW Teesta III HEP in Sikkim. With reference to the violations committed by TUL in Teesta III HEP construction, the Expert Appraisal Committee (EAC) for the River Valley and hydropower projects of the MoEF, in its meeting minutes of 21 April, 2009 notes with reference to the Teesta III project that it was seen during the field visit that the excavated materials are dumped on the slope of the Teesta River without constructing the retaining wall. In particular, the minutes noted that such dumping of the excavated material is in complete violation of Environment Protection Act, 1986 and the conditions of clearance given to the project. Indeed, the validation of Teesta III HEP with CDM is already cancelled by CDM Executive Board after several environmentalist groups clearly highlighted the environmental damages and social rights violations by the dam. It is clear that the Athena Energy has poor track record at the only place where it is building a mega hydro project<sup>72</sup>. Such Dam developers who already had a record of their validation cancelled should also not be allowed to claim carbon credits for other projects taken up by them.

**Undermining Carbon Emission from Reservoirs Created by the dams:** There are several studies which claims that reservoirs created after blocking rivers by mega dams also led to huge emission of green house gases emitting carbon into the atmosphere.

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<sup>72</sup> source: www.arunachaltimes.com

#### CONTROVERSY OF 412 MW RAMPUR HEP RECEIVING CER FROM CDM

The 412 MW Rampur Hydroelectric Project, taken up by Satluj Jal Vidyut Nigam Limited (SJVNL) and located near Rampur in Himachal Pradesh, India has been approval by the CDM EB. With this approval, the project is envisaged to get 15 million carbon credits from 2012 to 2022. At a market price of €4.98 Euros per credit as of February 2012, this would amount to approximately €75 million profit for the project developer SJVNL. (<a href="https://www.pointcarbon.com">https://www.pointcarbon.com</a>).

Local communities have expressed environmental and social concerns about the project for years and have reported increased dust problems, higher prevalence of asthma, lower harvests and weakened farm animals. Local communities said that the tunnel which SJVN is building diverts underground water away from village sources and there is no Catchment Area Treatment Plan Civil society groups have opposed the project for being blatantly non-additional because it would have been built anyway and therefore does not lead to real emission reduction. CDM Watch and International Rivers call on the CDM Executive Board to reject the mega Rampur Hydroelectric Project in India from receiving CDM carbon credits because it does not comply with essential CDM requirements. The Swedish Energy Agency has issued a letter of approval for the 420 MW Rampur project. "The Swedish government has an obligation to ensure compliance with WCD criteria. The Linking Directive requires EU Member States to ensure that the World Commission on Dams (WCD) criteria be respected when approving hydro projects exceeding 20 MW to avoid undue social and environmental harm, where the Swedish Energy Agency has violated blatantly<sup>73</sup>. The Swedish Energy Agency has approved the WCD compliance report for the project.

None of the PDD prepared by the dam developers in all the projects seeking carbon credits in India's North East mentioned this aspect of carbon emission by mega dams, thereby concealing information and downplaying the contribution of mega dams in further warming up the earth. The dam developers only described dams as clean and generating energy using renewable sources.

### - Misrepresentation of Alternative Scenario:

The project developers continues to present misleading information that generation from wind power and biomass is not viable concerning the question of alternative scenarios, And indeed, there is no mention of seeking practical alternative scenarios. Around 35-40% of the electricity generated in India is and in the NEWNE grid in question is lost in transmission and distribution. And to take appropriate measure to minimize this loss will substantial improve the power availability and would then avoid the need for destroying land and rivers in NE region. There is a huge area to improve the trend of using electricity more efficiently. There is also a big scope to improve the generating capacity of dam projects as many of these existing projects are not generating electricity at optimum level.

<sup>&</sup>lt;sup>73</sup> WikiLeaks Puts Integrity of UN Carbon Offsetting Scheme under Question September 19, 2011, International Rivers and CDM Watch http://www.internationalrivers.org/2011-9-19/wikileaks-puts-integrity-un-carbon-offsetting-scheme-under-question

# **Underperforming Large Dams in India's North East**

In a study conducted on the performance of large hydropower projects in India's North East, only four of the 12 projects in the Northeast generate at projected 90% dependability or higher. The total capacity of these four projects is 221 MW, which is less than 13% of the region's hydro installed capacity of 1,701 MW. So, 87% of installed capacity and 67% of projects generate at less than the promised generation level. Not-so-old projects like the 405 MW Ranganadi and the 75 MW Doyang HEPs are also hugely underperforming. For the region as a whole, the underperformance is around 25%.

The concern is that the concerned agencies of the Government at all levels do not even carry out this sort of analysis to improve performance of existing hydropower projects. It is crucial for the state and central governments, dam operators and those advocating for more dam projects in India NE to understand the reasons for the huge underperformance, and try to figure out how things can be improved. There are two broad reasons for this under performances - lack of proper repair and maintenance, lack of attempts at power optimization (for example, in the case of multiple projects on the same river) and lack of catchment area treatment to reduce siltation. The second set of reasons relates to flawed appraisals, decision-making and governance mechanisms due to which unviable projects or capacities are set up<sup>74</sup>.

Other alternatives such as solar, wind, biomass, micro hydro, generation of power from the flow of the water, among others are also strongly promoted even by various government agencies and the dam developers downplaying this alternatives in the PDD's submitted for CC also shows their vested interest only to reap more profits. This also goes against the recommendations of the WCD for an option assessment. The insistence on Run of the River project and other mega dams in India's NE and hence seeking additionality for CDM credits is simply unacceptable and just constitute injustice.

Regarding supply-side options for the region there is the excellent example of Anjaw district in Arunachal Pradesh where four sub-MW (less than one MW) capacity hydro projects, five sub-MW hydro projects under construction, and one 16 MW hydro project will make the district produce more power than it needs. Northeast India has huge scope for sub-MW projects, which are appropriate for the region considering its dispersed populations. Although these projects too have their local impacts, they are on a much smaller scale compared to large projects; and the impacts are easier to assess, compensate and adapt to. They can also involve local communities' right from the planning to the operation stage and will have a much smaller ecological and climate-related footprint. Unfortunately, no serious attempts are being made to go down this path<sup>75</sup>.

<sup>&</sup>lt;sup>74</sup> "No lessons being learnt from underperforming hydropower projects" by Himanshu Thakkar and Bipin Chaturvedi, Infochange News & Features, January 2012

<sup>&</sup>lt;sup>75</sup> "No lessons being learnt from underperforming hydropower projects" by Himanshu Thakkar and Bipin Chaturvedi, Infochange News & Features, January 2012 http://infochangeindia.org/environment/analysis/no-lessons-being-learnt-from-underperforming-hydropower-projects.html

### IV. CONCLUSIONS

India's North East region has been witnessing an aggressive and phenomenal drive for seeking carbon credits by dam developing Companies. With increasing perception of Carbon Credits as subsidy means and a big economic impetus, dam developers are aggressively pursuing for seeking profits. At the moment, Sikkim is one of the state in region which has unusually been targeted highly for CDM projects, where both public and private dam developers are proactively involved in the dam construction process and already more than ten dams are proposed as Climate Change solutions, despite the fact that many of these projects under constructions have already wrought enormous scale of environmental destruction, destroying livelihood, accord scant respect for human rights based development and also witnessing community objections to these projects.

Even in Arunachal Pradesh, where more than 100 dams are planned, the pace of dam developers seeking carbon credits from dam projects is incomparable with Sikkim. Dam developers are given free hand in some states like Sikkim and Arunachal. As one travels in Sikkim along its main rivers, it seems if the rivers have completely been sold away to corporate bodies, with heavy construction equipments of these companies all over to stake their claims in the rivers and mountains and cause enormous scale of destruction. The atmosphere creates an impression that Sikkim is already put up for sale to dam building companies and the rivers are literally divided just among the companies. People are sidelined and taken for granted with all the lies and misleading information campaign. Neither Indigenous way of life is valued nor human rights advances on development rights for indigenous peoples and Government's commitment to democratic principles and practices seems to make any relevance here.

The dam construction process also glaringly involves non recognition of peoples' rights and flouting of existing environmental norms at all levels with clear absence of an independent monitoring of the project activities and the weak norms of ensuring peoples rightful participation in decision making process, in implementation, in monitoring and evaluating the project. Not only that there are tell tale evidences that the dams in India's North East violates the criteria for gaining CDM CERs, these dams also contributes in emission of GHGs and subsequently to global warming and so, it is a wrong premise and approach to project dams are solution to climate change.

There are also concerns over the question of whether the mega dams in India's North East seeking carbon credits from CDM can actually contribute in mitigating climate change or to fulfil the objectives of Kyoto protocol. And given the oversights in the process and non consideration of certain obvious realities such as GHG emissions from reservoirs and the emissions due to felling of trees and destruction of forest, emissions due to tunnelling, road construction etc, it is more likely that these projects can actually undermine the purpose and intents of Kyoto Protocol.

#### V. RECOMMENDATIONS

- Stop targeting mega dams in India's North East for seeking Carbon Credits under CDM of the UNFCCC. Large hydropower projects should not be eligible for CDM funds and all small hydro CDM projects should comply with the recommendations of the World Commission on Dams.
- All validation and registration of dam projects from India's North East with CDM of UNFCCC should be revoked because of the outstanding sustainable development and additionality issues.
- Formulate policy that governs CDM projects with respect to Dams and to ensure indigenous peoples' Free, Prior and Informed Consent in all decision making on dams seeking carbon credits based on the full recognition of the UN Declaration on the Rights of Indigenous Peoples.
- The MoEF due to its faulty environmental clearances and lack of accountability in approving mega dams for CDM project should not be the DNA. There should be independent verification process for all proposed CDM projects coming to DNA for approval.
- The CDM mechanism should establish a grievance mechanism to ensure that project-affected peoples and civil society groups have the right to appeal decisions by the CDM EB Board.
- To ensure the independence of DOEs and to avoid conflict of interest, the UNFCCC Secretariat or the CDM Accreditation Panel should select a DOE for any audit required for a CDM project. The revised reporting and verification standard must include clear criteria to monitor and verify sustainable development claims made in the PDD, to ensure such claims are actually realized
- Projects with reservoirs in India's NE should include estimates for GHG emissions based on the UNESCO/IHA Greenhouse Gas Measurement Guidelines for Freshwater Reservoirs, and these estimates should be included in calculating their Certified Emissions Reductions.
- A holistic impact assessment, including environment and clear environment management plan should be prepared with due participation of all communities affected by mega projects
- Find practicable alternatives, such as increasing end use efficiency of appliances, reducing transmission and distribution loss, reducing theft of electricity, taking up small hydro projects etc

#### VI. ANNEXURES:

# A) COMMENTS AND SUBMISSIONS TO CDM EXECUTIVE BOARD ON DAM PROJECTS FROM INDIA'S NORTH EAST SEEKING REGISTRATION

# SANDRP Comments About the Proposed CDM Credits for the Teesta VI HEP

http://www.internationalrivers.org/south-asia/india/sandrp-comments-about-proposed-cdm-credits-teesta-vi-hydroelectric-project-india

April 2, 2010

A holistic impact assessment, including environment and clear environment management plan should be prepared with due participation of all communities affected by mega projects and this impact should also be informed in the due decision making process Based on reading of the Project Design Document dated March 2, 2010 (version 1 as available on the UNFCCC website) for the above project, having seen the order of Maharashtra Electricity Regulatory Commission on the application of approval of the PPA of MSEDCL with the Project Proponent (PP), having seen the concurrence letter dated Dec 27, 2006 from the Central Electricity Authority (CEA) of Government of India under the section 8 Electricity Act of 2003, having seen the Environment Impact Assessment and also the clearance letter from the Ministry of Environment and Forests (MEF) and having monitored India's power sector and this project over the last few years we reach the conclusion that it will not be appropriate to accept the project for CDM credits. Some of the main reasons for this conclusion are listed below.

- 1. The project is clearly not additional. It is a business as usual large hydro project of India and such projects have been implemented before, without any CDM credits. The Detailed Project Report Submitted by the Project Proponent to the Central Electricity Authority in March 2006 has no mention of CDM credits while establishing economic viability of the project. Similarly the Clearance accorded by the Central Electricity Authority of Govt of India has no mention of CDM credits, that concurrence letter under the Section 8 of Electricity Act 2003 is supposed to be techno economic clearance, has details about the costs, the financial arrangements and also about the power to be generated among other technical details.
  - Similarly the Power Purchase Agreement signed by the PP with the Maharashtra State Electricity Distribution Company in August 2006 has no mention of CDM credits. In fact the PPA is supposed to be a very crucial document establishing the economic viability of the project through long term sale of ALL the power generated by the project at per determined tariff. The PPA was approved by the Maharashtra Electricity Regulatory Commission, a statutory body on June 26, 2007, without any mention of CDM credits.
- 2. In fact, the MERC order of June 26, 2007 (www.mercindia.org.in, Case No. 27 of 2006) says, "MSEDCL (Maharashtra State Electricity Distribution Company Limited), in its Petition, submitted that the PPA executed with LEPL is in accordance with Ministry of Power Guidelines and National Tariff Policy (NTP) as the Project has been offered to MSEDCL prior to January 6, 2006 and the Project has submitted the application for Financial Appraisal to a Financial Institution prior to January 6, 2006." MSEDCL submitted before MERC that M/s Lanco Energy Private Ltd. had filed an application for sanction of Term Loan for the Project with Rural

Electrification Corporation (REC) on December 27, 2005. The Project Implementation Agreement was signed on Dec 7, 2005, when CDM was not well known. What is clear from all this that NONE OF THE OFFICIAL, statutory documents, establishing the viability of the project throughout 2005-2007 has no mention of the CDM credits required for the project to achieve viability. All the claims in this regard put forward by the proponent in the PDD are thus cooked up at a later date, as an afterthought.

- 2. The PPA, in fact is based on 14% return on EQUITY for the project, as is ensured under India's tariff regulations, and hence the claim of the project proponent about non viability of the project is wrong. In fact, as made it clear from the analysis of the PPA by the independent energy group PRAYAS in their submission to MERC and also from the MERC order of June 2007, the PPA is rather biased in favour of the proponents on a number of counts. Any claims of the PP about non viability and low returns are clearly WRONG and misleading.
- 3. Claims about barriers against large hydro in Sikkim or India (Section B.5) are completely wrong. There are no barriers to large hydro projects in India. It is the government policy to push large hydro projects to the maximum possible extent, with provision of all the available resources. In case of Teesta VI, the financial resources are already in place with financial closure achieved in July 2007 and all the power to be generated already sold for next 25 years with 14% return on equity. Thus the project authorities are giving a wrong and misleading picture to the UNFCCC for gaining undue CDM benefits.
- 4. On the question of alternative scenarios, the PDD makes a mockery of this by suggesting the wind and biomass could be option, but they are not viable! However, this is completely wrong and misleading. Around 35-40% of the electricity generated in India is and in the NEWNE grid in question is lost in transmission and distribution. Taking measures to reduce this to 15% is a huge option. Secondly, the electricity use is highly inefficient and there is huge scope for saving electricity by increasing this efficiency and Demand Side Management. Thirdly, the existing projects are NOT generating electricity at optimum level and there is huge scope for achieving greater generation from these projects. Moreover there are large number of universally acceptable climate friendly generation side options like the solar, wind, biomass, micro hydro, generation of power from the flow of the water (without creating any dams or tunnels), among others. All these options are available, with huge potential, as accepted by the government, and not mentioning these viable options with huge potential is actually giving wrong, misleading picture. There are other options for proving electricity to justifiable needs. Not all demands of electricity are justifiable or socially acceptable. While some efforts are being taken up on these lines, but they are very small, insufficient efforts and if at all, CDM benefits should be going for such efforts.
- 5. The calculation of project IRR as 9.29% as against the calculated RBI PLR of 12.38 % is wrong and misleading, as one reads through the PPA, the CEA concurrence letter and the MERC order. The interest on loan is 10% as per the CEA concurrence letter, and the project has already ensured 14% return on equity and more for the next 25 years.
- 6. A project of such magnitude should have shown that it has followed the recommendations of the World Commission on Dams, but neither the project has shown it, nor has it followed the WCD recommendations. This disqualifies the project also under the European Union's Norms.
- 7. The Project cannot be defined as sustainable development, since it will adversely affect the local environment and the communities. The management plan put in place have not been formulated or decided with free, prior and informed consent of the local communities and the

adverse impacts will remain unmitigated. Thus the local people will suffer the adverse impacts.

- 8. Page 38 of the PDD claims, "the proposed diversion barrage will not result in any negative impact on the fish fauna of the river." This is clearly a completely wrong statement, since the barrage and diversion of water through the tunnel will completely change the downstream river hydrology, and destroy the biodiversity in all seasons.
- 9. Page 38 of PDD says, "Total land required for project is 105 Ha", which is a wrong statement, the land requirement as per the Environment clearance letter from Ministry of Environment and Forests, dated 21 Sept 2006 says in para 3, "total land requirement for the project is 147.7358 ha".
- 10. The PDD claims on page 8, section B.2 that the submergence area of the reservoir is 12.48 ha, which is wrong, as the statutory environment clearance accorded to the project, it will submerge 36 ha. This may not change anything significantly, but shows the callousness of the project developers.

Under the circumstances, validation of the project for CDM credits will not be appropriate and it would be absurd if the project gets validated, registered as CDM activity or gets CERs.

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# NESPON Comments on Project Design Document for the Jorethang Loop Hydroelectric Project on the Rangit River in the state of Sikkim, India

Submitted to Det Norske Veritas (DNV), 1 September, 2006

The Jorethang Loop Hydroelectric Project (JLHEP) is an energy project under CDM activities by DANS Energy Private Ltd on the Rangit River in the state of Sikkim, India. The project is said to have an installed capacity of 96MW and that will generate approx. 441.2 GWh (net) per annum. The project will involve the construction of a diversion barrage, approximately 13.5 Km downstream of the project of the proposed barrage site, which is about 15 Km downstream of the village Manjhitar.

A public hearing for this project was held on 9th April, 2006 by the State Pollution Control Board of Sikkim, in the Pipley village. Quite surprisingly, no one from the Manjhitar village, where the pumping station would be constructed was aware of this public hearing event and eventually nobody attended the hearing.

In the section A.4.3 of the project design document, it is mentioned that the flow of water from

reservoir will reach the powerhouse through a 7.1 Km head race tunnel. And this tunnel will pass through the vicinity of different villages such as Salghari Basti, Bharikhala Basti and Loorgoom, where the peoples knows nothing about this construction and not even aware of the public hearing which took place at the Pipley village.

In the section A.2 under Contribution of Sustainable Development; it is stated that a greenbelt of approximately 22.72 ha will be created around the reservoir. According to Mr. H.B. Rai, Ex-Block officer of Majhitar Bazar, no such amount of land is available near the proposed reservoir site for block plantation, as it is already surrounded by forest. It is not even feasible to create such amount of land around the proposed reservoir site for raising plantation.

Section F.2 (iii) of the project design document, says that a hatchery including nursing ponds, rearing ponds and stocking pond would be built in the vicinity of the Ranjit river. Local villagers are also not aware of this proposed hatchery and it is not clear who will manage and control over this hatchery.

Section F.2. of the PDD states that approximately Rs. 3.29 Crore (\$US 71000) has been allocated by the project developer for mitigating the environmental impacts, but the stake holders of the projects, i.e., the local people are totally in dark of this allocation of fund.

Section F.2(x) of the PDD says that a total of 34.36 ha of land is required for the project, of it 30.34 ha of the required land belongs to the forestland. The acquisition of this forest land for the project activity is a potential leakage factor, which has not been addressed in the project design document.

Jorethang Loop Hydroelectric Project is a proposed project under CDM. But, surprisingly the project participants (DANS Energy Private Ltd) have not informed the local people regarding their involvement in the CDM activity at all.

Prepared by
Arindam Das & Arnab Bhattacharya
North Eastern Society for Preservation of Nature (NESPON)
September 2006

### **CORE Comments on Jorethang Loop Large Hydro (Sikkim, India)**

September 27, 2006

Submitted to Det Norske Veritas (**DNV**)

We have perused the PDD as obtained from the website, and found it seriously deficient in key aspects. Our comments below are brief and not comprehensive in addressing every aspect of the PDD. The project cannot be taken as an additional, as many viable alternatives exist. Moreover, the region is chock-a-block with Hydroelectricity project proposals and projects that have been under consideration for many years. The project has been under proposal for some years too, and by 2003-4, was allotted to private sector developers by the Central Electricity Authority of India.

We recommend that this project in its present formulation be not awarded certification as a CDM.

- 1. A2: The project proposes a barrage on the Rangit River, creating of a reservoir of 10.1 Ha areas for generation of zero emission electricity. The claim that the project will not generate any greenhouse gases is contrary to evidence available that reservoirs do emit GHGs that vary considerably seasonally and that generation activities of the turbines also emit GHGs. Further, it is not clear how this project will in fact "reduce" airborne pollutants though a reduction of combustion of fossil fuels, as combustion activities underway are in no way being replaced by this project.
- 2. A2: Temporary local employment cannot contribute to sustainable development. Also, the nature of the temporary employment is not specified.
- 3. A2: The assertion that there will no appreciable flow changes downstream of the proposed barrage/dam is not credible or acceptable. Flow change figures in the PDD do not give more details other than a simplistic figure of 15%. Similar projects such as the Ranganadi Phase I HEP on the Ranganadi River in Arunachal Pradesh, India have evidenced considerable downstream flow changes with unpredictable seasonal fluctuations that have led to the loss of human lives, massive erosion of livelihood generating and homestead lands on the river banks. The Rangit River is a glacier fed river. Glacial changes, mainly retreating glaciers and formation of GLOFs, due to rapidly increasing warming in the Himalayas has been documented by WWF as early as 2001-2002. Tremendous seasonal as well as year to year flow fluctuations are anticipated. The simplistic assertion that downstream flow and access will not be affected is unsubstantiated and cannot be accepted as contributing to sustainable development.
- 4. A2: This section also claims that the project is in compliance with the future plans of the Ministry of Non Conventional Energy Sources (MNES) of the Govt of India. This is false claim as the MNES only deals with hydroelectric projects that have less than 25MW installed capacity. The proposed project has an installed capacity of 96MW.
- 5. A2: There is also a claim that the 12% generated electricity royalty to Sikkim State approximately 50 GWh (net) per annum will in some way contribute to shifting away the local population's use of wood-fuel. We do not see any linkage between these two notions. How does this happen?
- 6. A2: We also do not see how establishing hatcheries in the vicinity of the river can contribute to local indigenous Himalayan river fish and other Riverine species, as what these hatcheries will actually hatch is not elaborated. The Environment Impact Assessment Report is not available to determine the nature and extent of the impact of this project on the aquatic life-forms of the Rangit River. Merely

building hatcheries cannot be assumed to mitigate any adverse changes in the aquatic life of the river.

- 7. G1: We have reliable evidence that the local population (not described in detail in the PDD) hasn't a clue regarding this project's details or its envisaged impacts on the social and natural environment. The project proponent claims that a local public hearing was held in Piple. According to our information, the local population did not have access to any of the core documents required under the EPA (1986) of India and therefore could not have had an opportunity to scrutinize the EIA/EMP and have their considered comments and opinions about the project. According to our information, the project applicant (DANS) has not responded to a formal request to share the full and detailed reports of the public hearing or the EIA/EMP.
- 8. F2 (iii): It is established that the use of "fish-ladders" is not conducive to the survival of every kind of fish species found in rivers. In fact, fish ladders have found limited success only. The commenter visited a Hydroelectricity project site in eastern Thailand where the fish ladders had totally failed to function.
- 9. F2 (iv): We have evidence that non-indigenous labour force inflow into the fragile and small Himalayan communities has had some quite dramatic impacts on the local public health scenario. One serious problem is that of sexually transmitted infections (STIs) among the labour force. India is presently in the middle of a widespread high incident HIV/AIDS epidemic. Primary Health and Public Health measures to tackle STIs and related behavioural changes are not clearly described.
- 10. F2(x): The R&R plan is vaguely described in the absence of a detailed plan as per the EIA/EMP document. No clear picture emerges from the PDD regarding the nature and extent of displacement as a consequence of the project, or the nature of the Rehabilitation and Resettlement package being offered to the affected families. Is land for land being offered? How? What can be concluded from the assertion that "No family will become landless as a result of the project"? The social impacts and mitigation measures are not credible, nor in line with the claimed contribution of the proposed project to sustainable development.
- 11. The commenter has lived in Darjeeling (on the Rangit River) for six years, in the immediate neighbouring District of West Bengal State of India. Familiarity with the Rangit River valley has led to the belief that one serious flaw in the environment impact assessment and mitigation measures described in the PDD is the total lack of mention of the frequent landslides, mudslides and seismicity of this young and frangible mountain region. There is no mention of a Disaster Management Plan in the PDD.
- 12. G3 mentions a number of measures to be taken up in response to concerns expressed at the public hearing held in Piple. Included among them are (4) Provisions shall be made to address the potential problems of slips and landslides, as outlined in the EMP. What these measures are actually have not been elaborated upon. As these are a serious concern in the region, the EMP must be very closely examined first to establish their credibility beyond reasonable doubts.

In view of these observations regarding the PDD, which is surfeit of unsubstantiated and incredible claims and assertions, we cannot recommend that this project be certified.

Roy Laifungbam

CORE Centre for Organisation Research & Education

(Indigenous Peoples' Centre for Policy and Human Rights in India's North East)

NGO in Special Consultative Status with the Economic and Social Council of the United Nations

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# Comments about the proposed CDM credits for The Myntdu Leshka Hydroelectric project in Meghalaya India July 4, 2009

http://cdm.unfccc.int/Projects/Validation/DB/7C00QQCSK7WUAQE7JQ2CLASTKGL5UA/view.html

Based on reading of the Project Design Document dated Aug 22 2008 (version 1 as available on the UNFCCC website) for the above project and having monitored India's power sector and this project over the last few years we reach the conclusion that it will not be appropriate to accept the project for CDM credits. Some of the main reasons for this conclusion are listed below.

- 1. The project is clearly not additional: In section B.5 for proving additionality, the PDD says, "However the implementation of project activity is not feasible without CDM benefits as the additional funds for the project has been mobilized by the project participant only based on serious consideration of CDM revenues." This is a wrong contention. The website of the Government of Meghalaya, related to this project, at <a href="http://www.meseb.gov.in/leshka.htm">http://www.meseb.gov.in/leshka.htm</a> says the following about this project:
- "The investigation work of the Myntdu Leshka Stage I Hydro Electric Project (2 x 42) MW was taken up by the Board during 1975-76 and the final Revised Detailed Project report (DPR) was submitted to the Central Electricity Authority (CEA) for clearance, in October 1998. The public hearing for Environmental Clearance conducted by the Meghalaya Pollution Control Board (MPCB) was held in March 1999, of which public has welcomed the Project. Necessary site clearance from the Ministry of Environmental and Forests (MOEF) to take up the pre construction works of the Project was given in August 1999. The Techno Economic Clearance (TEC) was issued by the CEA vide letter No.2/Meg/2/99-PAC/9499-9522/702 Dt. 20th September 1999. The necessary Forest Clearance, subject to certain conditions, has been accorded by the MOEF vide their letter No.8-33/2000-FC dated 19.6.2001. The MOEF accorded Environmental Clearance vide Notification Ref.No.J-12011/4/99-IA- Dt.20/9/2001. The Meghalaya State Electricity Board accorded Administrative Approval for the construction of the 2 x 42 MW Project vide Board's Letter No.U/o No.GAP/258/97/vol.I/152 Dt.12/6/02 with a total project cost of Rs 363.08 Crores, including the Interest During Construction (IDC). While the provisional clearance was received in June 2002, the final clearance was accorded in May 2004." It is clear that all these reports and clearances were accomplished way before Feb 2005 when the UNFCCC got legal status and CDM came into existence. The project thus was taken up without the consideration or need for CDM credits.
- 2. In India most power purchase agreements for large hydro projects determine the tariff on a cost plus Basis. Per kWh tariffs are periodically calculated such that the developer will receive a return of 14% on their equity contributions. This costing places the risk of cost overruns and low hydrological flows on the electricity purchaser rather than on the developer. The power purchase cost for the project would be on a cost plus basis and thus the project should be considered non-additional, since the returns of the project are all but guaranteed at 14%. This is well above the stated benchmark. In India, hydropower projects rarely have difficulty finding a developer.

- 3. The cost escalations over the estimated costs, due to the inadequate appraisal, typical for such projects, cannot be considered a reason for justifying CDM project when the project was initiated much earlier. No project in India has been stopped due to additional funds required after the project work has stopped, additional funds are required in every project, and project authorities manage them without any recourse to CDM requirements.
- 4. A project of such magnitude should have shown that it has followed the recommendations of the World Commission on Dams, but neither the project has shown it, nor has it followed the WCD recommendations. This disqualifies the project also under the European Union's Norms.
- 5. The Project cannot be defined as sustainable development, since it will adversely affect the local environment and the communities. The management plan put in place have not been formulated or decided with free, prior and informed consent of the local communities and the adverse impacts will remain unmitigated. Thus the local people will suffer the adverse impacts, but will get no benefits from the CDM. Under the circumstances, validation of the project in current form for CDM credits will not be appropriate and it would be absurd if the project gets validated, registered as CDM activity &gets CERs.

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# SUBMISSION OF THE CITIZENS CONCERN FOR DAMS AND DEVELOPMENT IN RESPONSE TO CALL FOR COMMENTS TO THE PDD OF 66 MW Khuitam HEP, PROPOSED IN ARUNACHAL PRADESH TO CDM EB

The 22 July 2011

After perusal of the Project Design Document (PDD), Version 01 dated 21/06/2011(available on the UNFCCC website) of Khuitam Run-of-the-River Hydro Electric Project, Executive Summary of the Project and also the proceedings of the Public Hearing conducted on the proposed project at West Kameng District, Arunachal Pradesh, India and considering the views of affected villagers and the insistence for mega dam construction in almost all rivers and tributaries in India's North East, the organization have concluded that it will not be appropriate to accept the Khuitam HEP for CDM credits.

Some of the main reasons for this conclusion are outlined below.

1. The process and reasons of seeking additionality for Khuitam HEP to seek CDM is highly problematic and based on misrepresentation of facts and realities in India's North East (NE) and in particular, Arunachal Pradesh. As for instance, the reference in Page 2 under A.2 of the PDD for Khuitam HEP that in the absence of the project activity, same amount of electricity would have been supplied by the existing power plants connected to a new Integrated NEWNE grid, dominated by thermal power plants upto 73% and that the supply of electricity from this grid in absence of this project activity would have led to the emission of Greenhouse Gases, represents a highly misleading statement as the same energy could also have been supplied with due exploration of other viable alternative sources of energy. Moreover, the clubbing of the four regional grids Northern, Eastern, Western & North-Eastern into a new Integrated NEWNE grid, as outlined in page 19 of the PDD for Khuitam HEP, is only to use thermal projects domination for power source in some grids as pretext to clandestinely qualify the 'additionality' criteria to reap CDM benefits from Hydro projects.

- 2. As there is not even a single thermal power plant in India's North East and most of the power needs in the region and also power source in North East Grid comes from hydro projects, the project proponent tries to take cover under the integrated NEWNE Grid where some grids have substantial energy source from thermal plants in order to qualify for additionality clause. Because of such misrepresentation, this project is not fit to qualify for additionality clause for CDM benefits. The Central Electricity Authority (CEA) in its website and publications repeatedly outlined several projects already under implementation in NE and the energy source of NE Grid as mostly from hydro. The planning commission of India has clearly spelt out in various policy documents that the targeted capacity addition under 11th plan (upto 2012) is 100,000 MW. In Arunachal Pradesh, the entire electricity generation is hydro; there is not even a single thermal plant in this state. Indeed, Arunachal Pradesh has the highest number of mega dams planned across India. So, project proponent's stories about the project's additionality are baseless.
- 3. The Executive Summary of the EIA and EMP for Khuitam HEP, prepared by the Energy Infratech Pvt. Ltd, Gurgaon and also the deliberations by project authorities and the officials of the Arunachal Pradesh State Pollution Control Board at the Public hearing on 11 October 2010 on the project at West Kameng did not outline and mention the needs and ongoing efforts for seeking CDM benefits to pursue the project. These constitute a serious denial of information and dubious moves of the project proponents to satisfy additionality criteria of the project.
- **4.** The PDD failed to explore and address other alternatives for energy needs. The need for an option assessment, solar, wind, biomass, micro hydro as outlined by the World Commission on Dams has not been respected. Options include making the transmission and distribution of electricity more efficient and ensuring generation of electricity at optimum level for existing HEPs in NE. The insistence on Run of the River project and other mega dams in India's NE and hence seeking additionality for CDM credits is simply unacceptable and just constitute injustice.
- 5. Referring to A.4.4 of PDD, where the project activity stated to reduce 249,728 tonnes of CO2e per year over the crediting period set at ten years and to generate electricity without any emission of local pollutants and suspended particulate matter etc, this is misrepresentation of realities as the emission of GHG from fossil fuels to be used during dam construction, due to massive destruction of forests for construction of the dam, during boring of tunnels and for construction of roads, the release of GHG gases from forest to be submerged by the 19 meters high Barrage is either not taken into consideration or omitted in the count of GHG emissions.
- 6. Referring to Page 42 of E3 of PDD under the Forest land compensation, the clarification by the President, Adishankar Power private Limited (APPL), during the public hearing on 11 October 2010 concerning the forest land submergence by the project activity that "the land shown under forest is actually river bed and is under water" is meaningless as affected villagers raised objections to forest area being identified as only 1.28 hectares. The Executive Summary of the EIA prepared for Khuitam had underestimated the forest area coverage of areas to be affected by the dam. The final report of the public hearing available widely while mentioning the need for rectification of the forest area presentation, did not mentioned the meaningless clarification of the President of the project proponent, APPL, as outlined in the PDD. Neither has the PDD mentioned that the total land requirement for the project is 49.14 Hectares as stated in the EIA nor has there been indication of the extent of forest land to be acquired for the project. This is clear evidence that the project proponent only insist on misrepresentation impact on forest.
- 7. Referring to Page 3 of A.2 of the PDD, the Khuitam HEP cannot be defined as sustainable, since it will adversely affect the local environment and the communities. Neither has the detailed

project report, the EIA and the PDD prepared has not been formulated with the local communities nor has holistic impact assessment been conducted with their due participation. There will be both loss of faunal and floral species, especially fish species because of the barrage and the tunnel and will also drastically change and destroy the downstream river hydrology and biodiversity in all seasons. The EIA for the project tried to undermine the survival dependence of affected villagers from River Gang.

- 8. The PDD also wrongly informed that no one will be affected by the dam but at least 94 families will be affected by the Khuitam project as testified and raised by villagers during the public hearing on 11 October 2010 at Government Middle School, Salari, West Kameng District, Arunachal Pradesh. For Khuitam HEP, under social well being contribution, it is mentioned that the project activity will help in meeting the demand supply gap of electricity of the entire region. However, there is no specific assessment of the power needs of the people in Arunachal Pradesh or North East for that matter.
- 9. Under economic well being, the PDD outlined again that the project will benefit local people both in construction and operational phase which is misleading. In reality the construction of mega dams in India's North East involves bringing in non locals both for construction and for management, which has already led to social tensions, demographic impacts on indigenous populations and other health impacts. While the PDD identify the issue of bringing in non locals, there are no efforts to address these concerns. Arunachal Pradesh is facing serious issues and challenge, including conflicts due to influx of non-locals in indigenous peoples' territories. In North East, the construction of dams often involves bringing in of militaries, which further complicates ongoing conflicts and human rights violations.
- 10. The power need calculations, projections and benefits sought from CDM is neither based on the actual power needs of the NE region, or neither comes from the people of the NE region. The region is envisaged to supply the increasing needs of "growing economy" of metros of India and this efforts to target the rivers of NE will only lead to an unsustainable and destruction of our land, rivers and survival of the indigenous peoples of the region and there is no reason as to how such destructive processes can be considered for CDM benefits. And considering the series of dams built in NE region which is very much in excess of the power needs of the people in the region, it is clear that the regions resources are only been targeted to meet the energy needs of others at the cost of the people and resource of the region.
- 11. The mandatory need to ensure that people affected by mega dams are secured with their Right to Free Prior and Informed Consent as outlined by the UN Declaration on the Rights of Indigenous Peoples, 2007 and by various recommendations of UN human rights bodies concerning decision making and implementation of mega dams in India's North East continues to be ignored. The consideration for receiving support from CDM has never been discussed with the people of Arunachal Pradesh, nor their understanding of such complex and dubious carbon markets. The project proponents failed to introduce the participants that the Khuitam HEP is in the process of seeking CDM credits even during the public hearing process of 11 October 2010.
- 12. The Adhishankar Khuitam Power Private Limited, project proponent of Khuitam HEP, has very weak credentials concerning experiences in dam construction. There is no proper information about the project proponents, except providing its address in New Delhi. There is no information available on its experience of dam building, on success or failures. The company does not have any policy to ensure accountability and responsibility for any violations both during the construction and operation period of the project. The company has no policy to adhere to the guidelines and recommendations of the World Commission on Dams concerning construction of

mega dams and for promotion of the human rights of indigenous peoples.

Under these explained circumstances, the validation of the Khuitam HEP in current form for CDM credits will be a very bad precedent, inappropriate and highly improper if the project gets validated, registered as CDM activity or gets CERs.

Signed by/-

(Jiten Yumnam)
Joint Secretary

# B) MEDIA COVERAGES OF MYNTDU LESHKA DAM SEEKING CARBON CREDITS FROM CDM OF UNFCCC

# Meghalaya eyes CDM credits to recuperate loss under Leshka project

The Meghalaya Times, 12 November 2011 <a href="http://meghalayatimes.info/index.php?option=com\_content&view=article&id=23179:meghalaya-eyes-cdm-credits-to-recuperate-loss-under-leshka-project&catid=44:front-page&Itemid=28">http://meghalayatimes.info/index.php?option=com\_content&view=article&id=23179:meghalaya-eyes-cdm-credits-to-recuperate-loss-under-leshka-project&catid=44:front-page&Itemid=28</a>

**Shillong, Nov 11:** In order to bail itself out from the huge financial pandemonium that has gone into Myntdu Leshka Hydro Electric Project, Meghalaya government is now banking on the Clean Development Mechanism (CDM) credits to help it recuperate some cost. If the Project Design Document (PDD) submitted by the erstwhile Meghalaya State Electricity Board (MeSEB) is approved by United Nations Framework Convention on Climate Change (UNFCCC), one tenth of the total cost of the project will be recovered.

Till date, Leshka project has consumed more than Rs. 900 Crores, an almost three fold increase from its original estimate of Rs 363.08 Crores. Hence, the government would be able to recuperate about Rs 90 crores, if only the PDD is approved. Though the government has tried to justify the budget inflation giving various reasons from flash floods to the addition of third unit, uncertainty over the commissioning of the project still lingers in mystification.

The CDM – PDD was submitted by MeSEB about two years back. But it is still under the process of validation, wherein the PDD is put on public domain and open for comments. Only after validation, it is approved. However, the process takes a very long time. Interestingly, the South Asia Network on Dams, Rivers & People (SANDRP), has opined for rejecting the proposal for CDM credits stating "it will not be appropriate to accept the project for CDM credits".

Justifying on its conclusion, it has cited that since the project was taken up before the UNFCCC got legal status and CDM came into existence, which was in February 2005, the project was taken up without the consideration or need for CDM credits. Further it has argued that in India most power purchase agreements for large hydro projects determine the tariff on a cost plus basis. Per kWh tariffs

are periodically calculated such that the developer will receive a return of 14 percent on their equity contributions. This costing places the risk of cost overruns and low hydrological flows on the electricity purchaser rather than on the developer. The power purchase cost for the project would be on a cost plus basis and thus the project should be considered non-additional, since the returns of the project are all but guaranteed at 14 percent. This is well above the stated benchmark adding in India, hydropower projects rarely have difficulty finding a developer.

The cost escalations over the estimated costs, due to the inadequate appraisal, typical for such projects, cannot be considered a reason for justifying CDM project when the project was initiated much earlier. "No project in India has been stopped due to additional funds required after the project work has stopped, additional funds are required in every project, and project authorities manage them without any recourse to CDM requirements", SANDRP pointed out.

More importantly, it claimed that a project of such magnitude should have shown that it has followed the recommendations of the World Commission on Dams, but neither the project has shown it, nor has it followed the WCD recommendations. This disqualifies the project also under the European Union's Norms, it added.

Moreover, SANDRP asserted that the Project cannot be defined as sustainable development, since it will adversely affect the local environment and the communities. The management plan put in place have not been formulated or decided with free, prior and informed consent of the local communities and the adverse impacts will remain unmitigated. Thus the local people will suffer the adverse impacts, but will get no benefits from the CDM. "Under the circumstances, validation of the project in current form for CDM credits will not be appropriate and it would be absurd if the project gets validated, registered as CDM activity or gets CERs", concluded SANDRP. However, Director, Finance Meghalaya Energy Corporation Ltd (MeECL) DP Wahlang said the purpose of the PDD to be put in public domain was to attract comments. Therefore, the project was bound to attract both negative as well as positive comments.