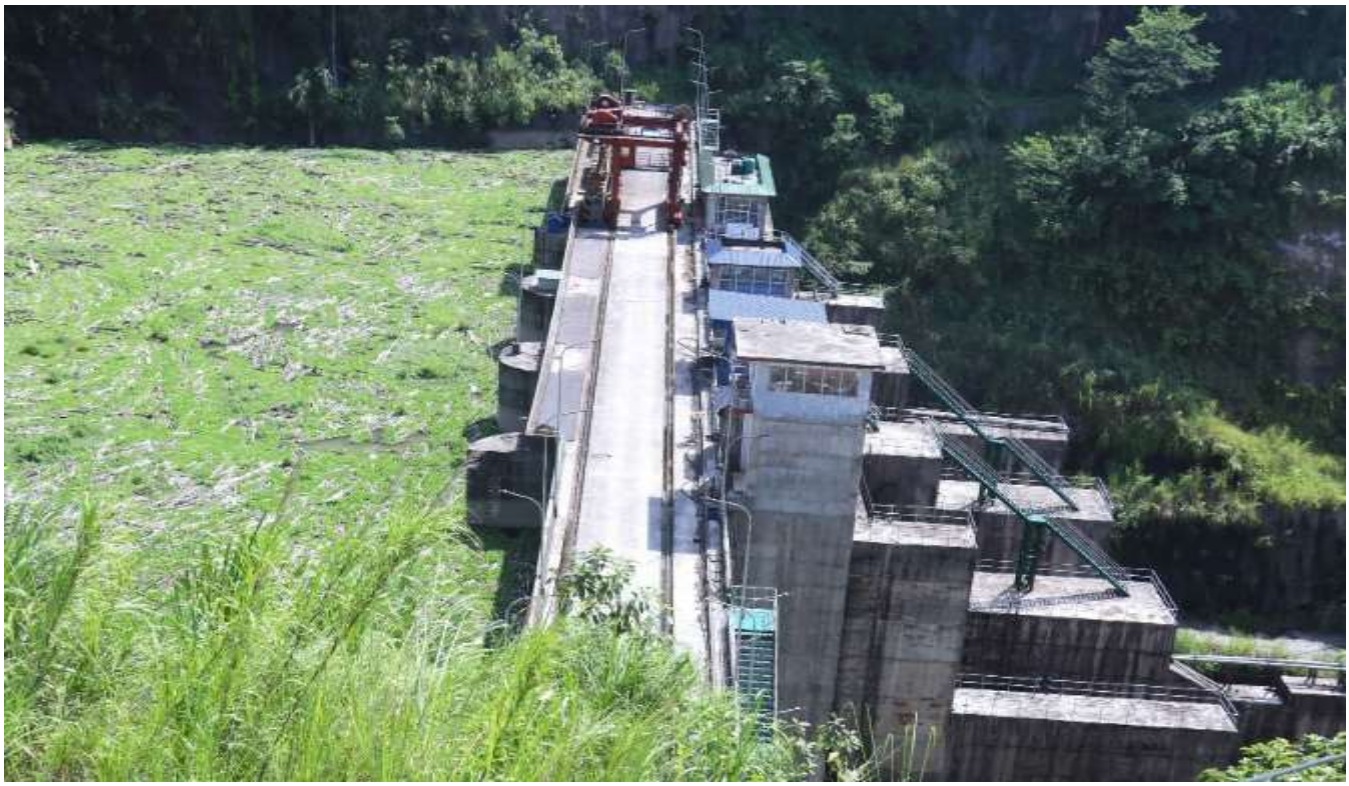
ASSESSMENT OF INTERNATIONAL FINANCIAL INSTITUTIONS' FINANCING OF DAMS IN NORTH EAST INDIA



CENTRE FOR RESEARCH AND ADVOCACY, MANIPUR

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ASSESSMENT OF INTERNATIONAL FINANCIAL INSTITUTIONS' FINANCING OF DAMS IN NORTH EAST INDIA

Report by:

Jiten Yumnam

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Cover Picture: Pare Hydroelectric Project over the Dikrong River in Arunachal Pradesh

Back Cover Picture: Site of power station of 120 MW lower kopili dam along the Kopili River in Assam

Cover & Back Cover Pictures by: Jiten Yumnam

Jupiter Yambem Centre, Paona Bazar,
Imphal Manipur India 795001
www.cramanipur.wordpress.com
e-add: cra.manipur@gmail.com

Abbreviations

AEP	Act East Policy
AIIB	Asia Infrastructure Investment Bank
ADB	Asian Development Bank
IFIs	International Financial Institutions
EIB	European Investment Bank
IFC	International Finance Corporation
SASEC	South Asia Sub Economic Cooperation
GMS	Greater Mekong Sub Region
FTA	free trade agreements
CPS	Country Partnership Strategy
JICA	Japan International Cooperation Agency
OECD	Organization for Economic Cooperation and Development
KFW	Kreditanstalt für Wiederaufbau
TA	Technical Assistances
USAID	United States Assistance for International Development
NIIF	National Investment and Infrastructure Fund
DEG	Deutsche Investitions- und Entwicklungsgesellschaft
NHPC	National Hydroelectric Power Corporation
NEEPCO	North Eastern Electric Power Corporation
ODA	Official Development Assistance
PGCIL	Power Grid Corporation of India Limited
DRIP	Dam Rehabilitation and Improvement Project
MePGCL	Meghalaya Power Generation Corporation Limited
APDCL	Assam Power Distribution Corporation Ltd
TUL	Teesta Urja Limited
REC	Rural Electrification Corporation
SPS	Safeguard Policy Statement
CBI	Central Bureau of Investigation
TEPSCO	Tokyo Electric Power Services Co. Ltd

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CHAPTER I

INTRODUCTION: FINANCING OF DAMS AND INFRASTRUCTURES BY INTERNATIONAL FINANCIAL INSTITUTIONS IN NORTH EAST INDIA

Introduction:

India's North East has been targeted increasingly for dam building over its myriad Rivers along with financing for related infrastructures to support dam building in the region. Under the slogan 'Power For All by 2012', the Government of India embarked on doubling its installed generation capacity from all sources by adding 100,000 MW by the year 2012, with matching investments in transmission and distribution. Further, the Government's focus on attaining "24x7 Power For All" has accelerated the capacity addition in the country. Under an initiative launched by the Prime Minister of India on May 2003, the aim is to add an extra 50,000 MW of hydro power capacity in 16 hydro-rich Indian states. Most of the dams and energy projects proposed over rivers in North East, viz, Subansiri, Teesta, Rangit, Barak, Kopili, Brahmaputra Rivers etc. The Government has already affirmed its commitment to implementation of the covenants of Paris Agreement on Climate Change and has set a target of 175 GW of renewable energy, including hydropower by 2022[1].

After the post 1991 phase of economic liberalization, International Financial Institutions (IFIs) such as World Bank, Asian Development Bank (ADB), Asia Infrastructure Investment Bank (AIIB) etc intensified their presence and reach, to integrate India economically with the larger economies of Asia Pacific region.

India's Act East Policy (AEP) relies on financial assistances, mostly loans, technical assistances and limited grants obtained from the IFIs. Multilateral agreements are signed with IFIs such as the Asian Development Bank (ADB), European Investment Bank (EIB), International Finance Corporation (IFC), and Islamic Development Bank (IDB), Asian Infrastructure Investment Bank (AIIB) etc.[2] These IFIs are involved in financing energy projects, construction of roads, smart cities, water and sanitation etc.[3] The increased IFIs involvement in North East is marked by increased liberalization of its economy and signing of several free trade agreements (FTA) and other bilateral trade agreements with several countries.

The IFIs also targeted North East in their sub regionalization process. ADB included the region in its South Asia Sub Economic Cooperation (SASEC) to complement the similar initiative, the Greater Mekong Sub Region (GMS) in South East Asia. The ADB also projected North East as gateway to South East Asia for trade and investment and to integrate South Asian economies with South East Asia.

India has been ADB's largest borrower for energy projects from 2007 to 2015, accounting for 25% of ADB's total investments in energy projects in Asia and the Pacific. The 2003 Country Strategic Plan of

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[1] *(2020). REC Annual Report, 2019-2020. REC*

[2] *Development finance institutions and private sector development http://www.oecd.org/dac/stats/development-finance-institutions-private-sector-development.htm*

[3] *"Urban Development Ministry outlines roadmap for SPVs", The Hindu, 9 August 2016 https://www.thehindubusinessline.com/news/real-estate/govt-to-handhold-smart-cities-in-borrowing-from-adb-world-bank/article8964073.ece*

the ADB for India emphasized on India's North East and the plan outlined that the region offers a strategic location to promote cross-border regional cooperation with neighboring countries in South Asia and South East Asia. ADB's Country Partnership Strategy (CPS) of 2013-2017 emphasizes North East as a strategic location to promote cross-border regional cooperation with Southeast Asia for trade and investment. The CPS from 2018–2022 indicated to support India's goal of sustainable growth along with rapid economic transformation and job creation.[4] ADB was involved in preparing the *North Eastern Region Vision 2020*[5]. As of 2022, India continues to be the top borrow of ADB since 2010. ADB's program for India over 2022–2024 supports the country's COVID-19 recovery programmes, and in doing so, continues to fine-tune its operations with the government's priorities and ADB's Strategy 2030. ADB's upcoming India Country Partnership Strategy will cover 2023-2027[6].

India is the largest recipient of loans from the World Bank, amounting to US$102.1 billion, between 1945 and 2015 as of July 2015. World Bank also financed several major infrastructures and energy projects across North East. The World Bank conducted a study on Water and Natural Resources Management in India's North East in 2006 with an aim to promote private sector investment and participation in water and natural resources management in the region. In 2016, World Bank approved US$ 470 million loans to support Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura states to augment their 400 KV high voltage transmission and distribution networks[7]. International Finance Corporation (IFC) of the World Bank Group is investing about US$ 6 billion through 2022 in renewable energy programs in India.[8] The World Bank signed a US $250 million project with India on 5 August 2021 to support the country's dam safety program that includes initiatives in North East states of Manipur and Meghalaya.

India is also a top receiver of financing from Asian Infrastructure Investment Bank (AIIB) as of 2018. As of September 2020, India received at least one-third of funding by AIIB, around USD 6 Billion[9]. The three focus areas of AIIB funding in India include transport, energy and water. Energy-sector projects focus largely on renewable energy and power transmission and distribution lines. The AIIB supported India's National Investment and Infrastructure Fund (NIIF), with $100 million equity investment in the first phase. The AIIB is jointly financing the Phase II of the Dam Rehabilitation & Improvement project (DRIP) with the World Bank, allocating US$ 250 million each, targeting to cover large dams in 19 states in India[10].

Many countries belong to the Organization for Economic Cooperation and Development (OECD) are directly involved in promoting private sector participation in development processes across North East

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[4] *"India and ADB", official site of Asian Development Bank. https://www.adb.org/countries/india/main*

[5] *North Eastern Region Vision 2020. Retrieved from http://necouncil.gov.in/sites/default/files/about-us/Vision_2020.pdf*

[6] *(2022, April). Asian Development Bank and India: Fact Sheet. Asian Development Bank. https://www.adb.org/publications/india-fact-sheet*

[7] *2016, June 24. World Bank Approves US$ 470 Million to Improve Electricity Supply in the North Eastern Region, India. World Bank.*

[8] *(2018, July). Foreign Direct Investment (FDI). India Brand Equity Foundation. https://www.ibef.org/economy/foreign-direct-investment.aspx*

[9] *(2020, September 25). 'One-third of funding by AIIB has gone to India'. The Hindu. https://www.thehindu.com/business/Industry/one-third-of-funding-by-aiib-has-gone-to-india/article32699050.ece*

[10] *(2021, August 4). Government Signs US $ 250 Million Loan Agreement For Second Phase of Dam Rehabilitation & Improvement Project (DRIP). PIB, India. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1742419*

region through their bilateral aid agencies. The Department for International Development (DFID), United Kingdom, United States Assistance for International Development (USAID), USA, Japan International Cooperation Agency (JICA), Japan, Kreditanstalt für Wiederaufbau (KFW), Deutsche Investitions- und Entwicklungsgesellschaft (DEG) of Germany are financing range of sector projects in North East. Many of the project preparatory Technical Assistances for sectoral projects financed by ADB in North East are either funded by the DFID and the Japan Special Fund, Japan.

Among bilateral donors, Japan plays an important role in financing the implementation of Act East Policy and in financing energy projects in North East. Between 2007 and 2017, JICA provided soft loans worth US$ 23.36 billion for infrastructure, energy, water and sanitation projects.[11] On 3 August 2017, Japan-India Coordination Forum on Development of North Eastern Region was launched.[12] Japan has been funding the 60 MW Tuirial Hydroelectric Project in Mizoram along with renovation of Umiam dams in Meghalaya. Besides Japan, the KFW of Germany is financing the 110 MW Pare Hydroelectric Project in Arunachal Pradesh. The USAID had financed the Umiam Hydroelectric stage II Project in Meghalaya.

FINANCING OF ENERGY PROJECTS

Financing of Energy projects and related infrastructures has been key focus of the IFIs. The table outlined details the type of International financial institution involved in financing energy and related infrastructure project, the amount financed, type of financing (loan or grant) and the location of the projects.

As per the table, the World Bank, ADB, AIIB are major multilateral international financial institutions financing energy projects across North East, while JICA and KFW are major bilateral financial donor agencies financing energy projects across North East. Several Private Equity funds and private finance are also involved in financing large dams in the North East, primarily in the state of Sikkim.

As of December 2022, the total financing amount stands around Rupees19682 Crores, which is USD 2018 Million (slightly more than 2 Billion USD). Majority of financing, Rupees 19659 Crores comes as loan while a small percentage of the financing, around 23.2 Crores (USD 2.75 Million) comes as grant component (excluding the USAID grant for Umiam stage II HEP Project in Meghalaya). The total loan financing stands at 99.88 percent. At least 24.4 percent of financing, i.e around 4810 Crores (USD 600 million) comes as loan from Private Equity Funds and private financial institutions.

Dam building companies like the National Hydroelectric Power Corporation (NHPC) and the North Eastern Electric Power Corporation (NEEPCO) are major dam building companies receiving ODA loans from IFIs and donor countries. NEEPCO receive ODA loan for at least three of its ongoing hydroelectric projects in North East India, while several electricity generating corporations of States like Meghalaya, also received financing from IFIs for renovation, improvement and rehabilitation of dams. Several international private equity funds, banks and insurance companies also financed large dams like the 1200 MW Teesta Hydroelectric Project. The General Atlantic, Goldman Sachs, Morgan Stanley, Larsen & Toubro Ltd, Norwest Partners, Everstone Capital, Greenko are some of the private equity funds providing financing for dam building in Sikkim. The Deutsche Bank, Singapore and the Nippon Export and Investment Insurance, Japan also financed the construction of the Teesta III HEP project in Sikkim.

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[11] *(2018, April 2). JICA to Invest in Improving Transitability by Extending ODA Loan of Approximately INR 2,500 Crore for the North East Road Connectivity Project- Transforming Infrastructure in North East India. JICA Press Release.*

[12] *See 'The North East is key for India's ties with Asean', Live Mint, March 9, 2018.*

TABLE:
FINANCING OF ENERGY & INFRASTRUCTURE PROJECTS BY INTERNATIONAL FINANCIAL INSTITUTIONS

International Financial Institution	Project Title	Amount	Grant /Loan	Project Location
World Bank	North Eastern Region Power System Improvement Project	USD 470 million (Approx INR 3882 crores)	Loan	Assam, Meghalaya, Mizoram, Manipur, Nagaland, and Tripura
World Bank	Dam Rehabilitation and Improvement Project II (DRIP – II) – II (Umiam Stage-I dam, Umiam-Umtru Stage-III dam, Umiam-Umtru Stage-IV dam and Myntdu-Leshka Stage-I dam)	Rs 441 Crores (Approx USD 53 million)	Loan	Meghalaya
World Bank	Dam Rehabilitation and Improvement Project II (DRIP – II) (Singda Dam, Khuga dam, Imphal Barrage, Khoupum dam, Sekmai Barrage)	Approx INR 311 Crores (Approx USD 27 Million)	Loan	Manipur
Asian Development Bank (ADB)	Technical Assistance for preparing the North East Power Development Project	USD 750,000 (Approx INR 6.2 Crores)	Grant	North East States
Asian Development Bank (ADB)	Assam Power Sector Investment Program - Phase 1 (Replacement of Turbine of 45 MW open gas cycle turbines of Lakwa Thermal Power Station) - Phase II (Improving Transmission and Distribution) - Construction of 120 MW Lower Kopili Hydroelectric Project (Phase 3)	USD 300 million (Approx INR 2480 Crores)	Loan	Assam
Asian Development Bank (ADB)	Meghalaya Power Distribution Sector Improvement Project	USD 132.8 million (Approx INR 1098 Crores)	Loan	Meghalaya
Asian Development Bank (ADB)	Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project	USD 220 Million (Approx INR 1650 Crores)	Loan	Tripura
Asian Infrastructure Investment Bank	Assam Electricity Distribution System Enhancement Project	USD 386 million (Approx INR 3188 Crores)	Loan	Assam

Kreditanstalt für Wiederaufbau (KFW)	Construction of 110 MW Pare Hydroelectric Project	Euro 100 million (Approx INR 900 Crores)	Loan	Arunachal Pradesh
Japan Bank for International Cooperation (JBIC)	Construction of 60 MW Tuirial Hydroelectric Project (equipment, civil works and related consulting services)	INR 443.84 Crores (Approx USD 53 Million)	Loan	Mizoram
Japan International Cooperation Agency (JICA)	Umiam Hydro Power Station Renovation Project	1,700 million Japanese Yen (Approx INR 93 Crores)	Loan	Meghalaya
Japan International Cooperation Agency (JICA)	Renovation of the Umiam Stage II Hydro Power Station	1,964 million Japanese yen (Approx INR 107 Crores)	Loan	Meghalaya
Japan International Cooperation Agency (JICA)	Renovation and Modernization of Umiam-Umtru Stage-III Hydroelectric Power Station	5,497 Million Japanese Yen (Approx INR 315 Crores)	Loan	Meghalaya
Japan Fund for Poverty Reduction (of Asian Development Bank)	Community based disaster resilience initiatives and resource management programme for communities affected by 120 MW Lower Kopili Hydroelectric Project	USD 2 Million (Approx INR 17 Crores)	Grant	Assam
Deutsche Bank, Singapore & Nippon Export and Investment Insurance, Japan	510 MW Teesta V hydroelectric Project	USD 150 Million (Approx INR 1240 Crores)	Loan	Sikkim
Asian Genco Private Limited (General Atlantic, Goldman Sachs, Morgan Stanley, Larsen & Toubro Ltd, Norwest Partners, Everstone Capital)	1200 MW Teesta III Hydroelectric Project	USD 425 million (Approx INR 3510 Crores)	Loan	Sikkim
Greenko	1200 MW Teesta III Hydroelectric Project	US$ 250 million (Approx INR 1750 crore)	Loan	Sikkim
United States Agency for International Development	Umiam Stage II Hydro Power Project		Grant Aid	Meghalaya

Reference: 100 Crores is 12.10 USD Million (as of 31 December 2022)

World Bank: The World Bank has been involved in financing the renovation and modernization of dams and in setting up infrastructures, especially the 400 KV high voltage transmission and distribution lines to

support dam building in North East India. Besides, the World Bank also financed financial intermediaries and other dam building companies involved in financing and construction of large dams in North East.

The World Bank has been financing the "North Eastern Region Power System Improvement Project" to improve the transmission and distribution of power *across* North East. The World Bank Board approved a US$ 470 million loan on 24 June 2016 to augment their transmission and distribution (T&D) networks[13] in six (6) North East States to implement the 'North Eastern Region Power System Improvement Project.' The financing will support the agreement signed in January 2014, between the Power Grid Corporation of India Limited (PGCIL) of India and the Governments of Assam, Meghalaya, Mizoram, Manipur, Nagaland, and Tripura, to implement the 'North Eastern Region Power System Improvement Project.' The World Bank financed a major portion of the Rs. 8,150 crores projects as loan for power transmission lines, transmission substations, and related works.[14] The financing of the 400 KV high voltage transmission and distribution lines by the World Bank will further facilitate the construction of more than 200 large dams in North East. The T&D networks will also facilitate the Government of India and dam building companies to trade the surplus power generated in North East to neighboring countries.

The International Financial Corporation (IFC) of the World Bank financed $3.19 billion for National Hydroelectric Power Corporation Limited (NHPC) building the much controversial 510 MW Teesta V Hydroelectric Project in Sikkim and the 105 MW Loktak hydroelectric project in Manipur[15]. The NHPC received investment form World Bank's International Finance Corporation through commercial banks, viz, HDFC, Yes Bank and ICICI banks etc.

The Phase II of Dam Rehabilitation and Improvement Project (DRIP) has been co-financed by the World Bank and AIIB, with funding of US$ 250 million each. Loan signing ceremony for loan amounting US $ 250 Million each from World Bank and AIIB was held on 4 August 2021 and 12 May 2022 respectively. The Scheme also has provision of Central Grant of 90% of loan amount for special category States (Manipur, Meghalaya and Uttarakhand)[16]. The World Bank is funding DRIP in Manipur and Meghalaya states in North East. The World Bank has funded the DRIP phase II for Singda dam, Imphal Barrage, Khuga dam, Khoupum dam etc in Manipur with nearly Rs. 311 Crores[17]. Four dams under the Meghalaya Power Generation Corporation Limited (MePGCL) will get a facelift under the DRIP Phase II at a cost of Rs 441 crore. The dams approved in Meghalaya for DRIP funding includes the Umiam Stage-I dam (Rs

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[13] *(2016, June 24.) 'World Bank Approves US$ 470 Million to Improve Electricity Supply in the North Eastern Region, India.' World Bank.*
http://www.worldbank.org/en/news/press-release/2016/06/24/world-bank-approves-usd470million-improve-electricity-supply-the-north-eastern-region-india

[14] *(2014, January 28.) 'World Bank aid for power projects in northeast.' One India.*
http://news.oneindia.in/india/world-bank-aid-power-projects-northeast-1384332.html

[15] *"Bankrolling India's Dirty Dozen", Inclusive Development International, December 2016*
file:///C:/CRAM%202019/CRAM%202%20Aug%202019/Events/2019/International/APF%20-%209-15%20Sept%2019/APF%209-12%20Sept%20BKK/Resources%20for%20References/Outsourcing-Development-India.pdf

[16] *Dam Rehabilitation and Improvement Programme. Ministry of Water Resources, India.*
http://jalshakti-dowr.gov.in/schemes-projects-programmes/schemes/dam-rehabilitation-and-improvement-programme

[17] *List of Dams in Manipur of DRIP II. Central Water Commission.*
https://damsafety.cwc.gov.in/ecm-content/No_of_Dams_and_Cost_popup.php?type=12

215.45 crore), Umiam-Umtru Stage-III concrete dam (Rs 73.10 crore), Umiam-Umtru Stage-IV concrete dam (Rs 77.42 crore) and Myntdu-Leshka Stage-I dam (Rs 75.03 crore)[18].

The Environment and Social Assessment report prepared by the Water Resources Department, Manipur with the World Bank funding in February 2020 outlined that the proposed DDIP would complement the ongoing and pipeline operations of supporting India's dam safety program[19].

ADB: The ADB is extensively involved in the power sector reform toward privatization of energy provisions, besides financing dam building and construction of high voltage transmission and distribution lines in North East. The ADB subsequently financed major energy related initiatives in the States of Assam, Tripura and Meghalaya in North East India.

The ADB has funded the Technical Assistance for the North East Power Development Project in 2004 with a USD 750,000 grant[20]. ADB maintains that the TA, proposed in 2002 for the power sector will assist the Govt of India in preparing a project that supports the "Power for All by 2012" programme. Under this programme, "clean energy" is to be promoted in the North East using locally available resources. The "Power for All" project has the following components, i) small to medium hydropower development ii) the promotion of other clean energy sources, iii) the development and rehabilitation of critical transmission and distribution facilities and iv) capacity building.

The Assam Power Sector Development Programme[21] has been initiated with the support of Asian Development Bank. The Government of India and ADB agreed in 2002 that technical assistance (TA) and a loan would be provided to support reform of Assam's financial and Power sectors. The TA is included in ADB's country program for India in 2004[22].

The Government of India sanctioned Assam Power Sector Investment Program in 2014 with ADB assistance of 300 million USD and counterpart fund support of 130 million USD. The total cost of the project is 430 million USD. ADB's assistance has been provided in three tranches under Multi tranche financing Facility (MFF 0083). The loan and the project agreements for Tranche 1 were signed on 20 February 2015 and became effective on 12 May 2015 for a total amount of USD 50 Million. Tranche 1 of MFF includes physical investment of replacing existing 45 MW open gas cycle turbines of Lakwa Thermal Power Station with new internal combustion type gas engine generators of 70 MW capacity.

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[18] *(2022, June 4). Four dams in state to get Rs 441-cr facelift. The Shillong Times. https://theshillongtimes.com/2022/06/04/four-dams-in-state-to-get-rs-441-cr-facelift/*

[19] *Environment and Social Impact Assessment for Singda Dam for Dam Rehabilitation and Improvement Project (DRIP), prepared by the Water Resources Department funded by the World Bank in February 2020 http://documents.worldbank.org/curated/en/500171582439070102/pdf/Revised-Environmental-and-Social-Impact-Assessment-Dam-Rehabilitation-and-Improvement-Project-2-P170873.pdf*

[20] *(2004, December). Technical Assistance Report - Preparing the North East Power Development Project (Project Number 38584-012). Asian Development Bank. https://www.adb.org/projects/documents/preparing-north-east-power-development-project*

[21] *ADB: TAR: IND 36318, financed by Japan Special Fund*

[22] *A loan "Assam Governance and Public Resource Management" in included in ADB's 2004 country program for India. The TA first appeared in ADB Business Opportunities (Internet Edition), 1 July 2002.*

The Tranche 2 of the Investment Program of the Assam Power Sector Investment Program has been implemented during 2016-2019 by the Assam Power Distribution Corporation Ltd (APDCL). Tranche 2 project has two outputs: (i) expansion and upgradation of the distribution system; and (ii) strengthening institutional capacity of APDCL. Expansion plans involves adding a 33/11 kV substation and associate facilities to reduce losses and enhance the power supply capacity of overloaded substations and lines. Under Trance 3, the ADB approved $231 million loan to construct the 120 Lower Kopili Hydroelectric Power plant over the Kopili River in Assam in North East India. This loan is the third and largest tranche of the $300 million Assam Power Sector Investment Program approved by ADB in 2014. In addition, a $2 million project grant from ADB's Japan Fund for Poverty Reduction will finance community-based disaster resilience initiatives and resource management for the project affected peoples[23].

The ADB also funded power sector project in Meghalaya and Tripura State. A loan agreement for $132.8 million for Meghalaya Power Distribution Sector Improvement Project (Loan Number 3996) was signed between the Government of India and the ADB on 1 December 2020. The ADB and the Government of India signed the $132.8 million loan with an aim to strengthen and modernize the distribution network and improve the quality of power supplied to households, industries, and businesses in Meghalaya[24].

Tripura is another state prioritized by the ADB to support power sector in North East India. The "Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project" is undertaken to improve energy sector in Tripura. In 2019, the ADB has sanctioned Rs 1,925 crore project to the Tripura State Electricity Corporation Limited to upgrade the capacity of 63 MW Rokhia Project to 120 MW at an estimated cost of Rs 699.80 crore and to modernize the Gumti Hydro Electric Project and its distribution system at an estimated cost of Rs 1225.88 crores[25].

AIIB: The AIIB has approved proposal to finance a power transmission and distribution upgrade programme in Assam on 24 February 2022. The quantum of financing approved is USD 386 million. The financial assistance will be given to the project implementing agency, Assam Power Distribution Company Ltd[26]. AIIB has also provided loan assistance to the Power Grid Corporation of India. Out of the total project cost of $303.47 million, AIIB's lending was $100 million[27]. The AIIB funded project envisaged to create a sustainable development of the state by reduction of Loss (T&D) in Distribution Network from 20.13 percent in 2021 to 15.34 percent by 2025-26[28]. AIIB is jointly co-financing the Dam Rehabilitation and Improvement Programme Phase II and Phase II across India with the World Bank.

JICA, Japan: Financing hydroelectric energy projects has been one of the priority areas of Japan in North East India. The dams financed by Japan International Cooperation Agency (JICA) in North East includes

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[23] *(2020, December 19). $231 Million ADB Loan to Help Increase Supply of Clean Energy in India. Asian Development Bank. https://www.adb.org/news/231-million-adb-loan-help-increase-supply-clean-energy-india*

[24] *(2020, December 1). ADB, India Sign $132.8 Million Loan to Strengthen Meghalaya's Power Distribution Sector. Asian Development Bank.*

[25] *(2019, July 25). ADB sanctions Rs 1,925 crore power project in Tripura. The Economic Times.*

[26] *India: Assam Electricity Distribution System Enhancement Project. AIIB. https://www.aiib.org/en/projects/details/2022/approved/India-Assam-Distribution-System-Enhancement.html*

[27] *AIIB To Finance Power T&D Project In Assam, T&D India, 15 November 2019, http://www.tndindia.com/aiib-finance-power-td-project-assam/*

[28] *(2021, November 15). With AIIB funding, Assam looks to cut losses in Distribution Network. Economic Times.*

the renovation of Umiam Stage I Hydroelectric (HEP) Project, Umiam Stage II HEP, Umiam Stage III HEP in Meghalaya and the 60 MW Tuirial HEP in Mizoram. In February 2018, the Government of India sought financial assistance from JICA to fund the 66 MW Loktak Downstream HEP project in Manipur[29]. JICA maintained that its financing of hydro power projects will further contribute to "Japan-India Act East Forum", which aims to expand the cooperation between Japan and India in North East[30].

KFW, Germany: The German Development Cooperation Bank or Kreditanstalt für Wiederaufbau (KfW) has been supporting dam building and climate change adaptation and mitigation projects across North East India. KFW, Germany has been financing the 110 MW Pare HEP Project in Arunachal Pradesh. The project is implemented by NEEPCO over the Dikrong River. On 11 December 2008, NEEPCO signed a loan agreement of Euro 80 million with KfW. Later in 2017, another loan agreement was signed for Euro 20 million. The Government of India will provide US$38.61 million as equity and remaining have been funded through external borrowings. The loan agreement was signed with Government of India's Guarantee for the project 'Pare Hydroelectric Plant' under Indo-German Bilateral Development Cooperation. The Pare Project has been marred with cost overrun and delays besides downstream impacts.

USAID, USA: The United States Agency for International Development (USAID) is another international development financial agency of the United States of America involved in financing the construction of large dams in North East. The Umiam Stage II hydroelectric Project in the state of Meghalaya was built with the financial assistance of USAID. The Umiam Stage II Hydro Power Station was earlier built with a grant aid from USAID in 1970. The renovation of the project is now funded by the JICA.

Private Equity Funds & Financial Institutions: Financing dams through financial intermediaries like the Private Equity Funds (PFE) is an obvious reality in North East India. Since the privatisation of the Indian power sector in the early 1990s, certain concessions and incentives have been put in place by the government to encourage the entry of private power. The 1998 policy document on Hydro power Development in India stated: 'A greater private investment through IPPs and joint ventures would be encouraged in the coming years and [the] required atmosphere, incentives and reliefs would be provided to stimulate and maintain a trend in this[31] direction'.

Many of these funds and financial institutions are financed by IFIs, such as the International Financial Corporation (IFC) of the World Bank Group. The 1200 MW Teesta HEP Project, the 510 MW Teesta V HEP Project built over the Teesta River in Sikkim are financed by private financial institutions and private equity funds that received financing from the IFC. In March 2010, private equity firms led by General Atlantic, Goldman Sachs, Morgan Stanley, Larsen & Toubro Ltd, Norwest Partners and Everstone Capital invested US$ 425 million in Singapore based Asian Genco Private Limited to acquire 44 Percent majority stake in Teesta Urja Limited (TUL), building the Teesta III HEP Project.[32] Greenko later bought 40 percent

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[29] Yumnam, J. (2018, March 24). NHPC's Untimely Push for 66 MW Loktak Downstream Project. Imphal Free Press.
https://www.ifp.co.in/page/items/47684/66-mw-loktak-downstream-project-jica-financing-plan-concerns/
[30] (2018, October 30). JICA Extends ODA Loan of INR 315 Crore for Hydro-Electric Power Station in Meghalaya. JICA. Retrieved from https://www.jica.go.jp/india/english/office/topics/press181030_05.html
[31] Sahai. I.M. (2004, January 27). The next wave - funding hydro in India. Project Finance India.
https://www.waterpowermagazine.com/features/featurethe-next-wave-funding-hydro-in-india/
[32] (2015, September 7.) 'What ails Sikkim's Teesta hydropower project?' India Together.
http://indiatogether.org/sikkim-teesta-iii-hydropower-project-irregularities-economy

of shares in 2021 at USD 250 million in 2021[33]. The Power Finance Corporation (PFC), that received financial loans from JICA, ADB, KFW etc, had sanctioned Rs 530 crore to the Sikkim government to meet the latter's equity investment in TUL[34]. The Rural Electrification Corporation (REC), that received investment from IFIs, also financed the Teesta III HEP project[35]. In 2006, REC agreed with JICA for availing a loan facility of Japanese Yen 20,629 million for energy sector. REC also agreed with *KFW,* Germany to avail a loan facility of Euro 70 million.[36] Subsequently, REC invested Rs. 3,000 crores and sanctioned an additional approximately Rs. 1,000 crores in 2014.

For the 510 MW Teesta V HEP project in Sikkim, the Deutsche Bank, Singapore financed a partial component of the project. The Ministry of Finance, Government of India has approved issuance of government guarantee for an untied credit facility of USD 150 million (Rs 750 crore) from Deutsche Bank AG, Singapore, for the 510 MW Teesta V HEP project of NHPC in Sikkim. The financing offer from Deutsche Bank is covered under Nippon Export and Investment Insurance (Nexi), Japan[37]. The 500 MW Teesta VI HEP Project in Sikkim has been funded by the NHPC and ICICI, both receiving IFC financing, after the original project authority, the Lanco Group ran into financial difficulties[38].

ISSUES AND CONCERNS RELATED TO FINANCING ENERGY SECTOR IN NORTH EAST:

Non-recognition of Indigenous Peoples rights: The dam building across North East by IFIs involves the non-recognition of indigenous peoples' rights over their land and resources. The adherence to right to free, prior and informed consent of affected communities in both upstream and downstream areas has been undermined by dam building companies and financiers, such as in the case of Pare HEP and the Lower Kopili dam, where the downstream concerns are clearly ignored.

Affected communities complained of absence of public hearing to take their views in the construction of the 60 MW Tuirial HEP[39]. The Tuirial Crop Compensation Claimant Association, Sinlung People's Collective, Sinlung People's Human Rights Organisation halted the construction of the Tuirial dam in 2004 due to violation of affected peoples' rights. NHPC is preparing to build the 520 MW Teesta IV HEP project despite objection of Lepcha people of Sikkim.

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[33] Utpal, B. (2021, March 2). ORIX and Teesta Urja deal completed, Greenko reach 7.3 GW operating capacity. The Mint. Retrieved from https://www.livemint.com/industry/energy/orix-and-teesta-urja-deal-completed-greenko-reaches-7-3-gw-operating-capacity-11614670466425.html

[34] Dilip, K. (2014, June 30). Teesta III hydropower project to go on stream in early 2015. Business Standard. Retrieved from https://www.business-standard.com/article/companies/teesta-iii-hydropower-project-to-go-on-stream-in-early-2015-114063000372_1.html

[35] K. Dilip. (2014, July 5). Teesta-III hydropower project to go on stream from early 2015. The Business Standard.

[36] (2018) 'REC Share Price REC Ltd.' India Infoline Finance Limited. Retrieved from https://www.indiainfoline.com/company/rural-electrification-corporation-ltd/summary/18075

[37] (2022, October 15). NHPC Gets Central Cover For Rs 750-cr Teesta-V Credit. Financial Express. https://www.financialexpress.com/archive/nhpc-gets-central-cover-for-rs-750-cr-teesta-v-credit/61328/

[38] (2022, January 31). Teesta-VI Hydropower Project, Sikkim, India. Power Technology. https://www.power-technology.com/projects/teesta-vi-hydropower-project-sikkim-india/

[39] Linda, C. (2010, September 15). Mizoram hydro projects violating safeguards. The Assam Tribune. https://assamtribune.com/mizoram-hydro-projects-violating-safeguards

The Gumti dam, which ADB is preparing to finance the modernization in Tripura had submerged 46.34 sq km of land, which was home to about 40,000 tribal people. Affected communities demanded the Dam be decommissioned and the land be returned to them[40]. Affected communities raised concerns with the proposed JICA of 66 MW Loktak Downstream Hydroelectric Project.

Land Alienation: For the JICA financed Tuirial dam, the Government of Mizoram confirmed to have acquired at least 5380 hectares of forest land for the project, while many of the affected indigenous communities contend that the land belongs to the community and acquired without their consent. The ADB financed 120 MW Lower Kopili dam will entail acquisition of around 1577 hectares of extensive land including forest areas in Assam. The project will involve diversion of 523 hectares of forest. The total land acquired for the KFW financed Pare HEP project is more than 198 hectares including forest land of 35 hectares. Close to 300 families are relocated due to the project. The Khuga dam, envisaged for World Bank financing of rehabilitation of dam continues to submerge massive forest land in Manipur.

Controversial Rehabilitation and Resettlement: JICA's involvement in North East is with challenging experiences. On the experience of projects financed by JICA in India's North East, the 60 Tuirial HEP in Mizoram landed in wide controversy due to inadequate rehabilitation and resettlement of affected communities. The Tuirial Crop Compensation Claimant Association complaint of failure to provide compensation for crop loss in the land forcibly acquired. The Project work was compelled to be stopped in 2004 on problems with rehabilitation and resettlement[41].

Affected communities of the Papum Pare Hydroelectric project complaints of social impacts due to the dam project and lack of adequate rehabilitation and resettlement measures by the project authorities. Due to the failure to address the longstanding complaints and rights of the affected communities by the Pare HEP project authorities, the Pare Project Land Affected Welfare Committee (PPLAWC) had demanded to initiate action against key officials of Pare hydroelectric project (HEP) in Doimukh town in Arunahcal Pradesh due to failure to fulfill demands of affected communities.[42]

Dam induced Flood / Downstream Impacts: Dam building with IFI financing contribute in worsening the downstream impacts of large dams. One of the major impacts of the Pare HEP project is the impacts on the villages in the downstream of the dam, which includes submergence of their agriculture land, forest and fishing grounds. Yab Tra Camdir, Chairman, Pare Project Downstream Welfare Committee (PPDWC), that represents the land affected owners and villagers of Rose, Chiputa, Manni, Lekha and Midpu villages in Papum Pare District in Arunachal Pradesh complained that due to huge discharge of water from the Pare project, villagers faced untold problems. The experiences of the people living in downstream of Kopili dam and the Ranganadi dam suggest that floods have become more recurrent after construction of the dam in North East. The ongoing construction of ADB financed Lower Kopili dam will worsen the flood and downstream impacts in Assam.

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[40] *(2007, May 31). Tripura tribals want Gumti Hydro-Electric Project scrapped. Down to Earth. https://www.downtoearth.org.in/news/tripura-tribals-want-gumti-hydroelectric-project-scrapped-6015*

[41] *Elizabeth, Ingram. (2017, August 29). First unit begins operating at 60-MW Tuirial hydroelectric in Mizoram, India. Hydro World. Retrieved from http://www.hydroworld.com/articles/2017/08/first-unit-begins-operating-at-60-mw-tuirial-hydroelectric-in-mizoram-india.html*

[42] *(2018, November 11). Committee demands removal of Pare HEP head. The Arunachal Times.*

Environment Impacts: The various dams financed by World Bank, ADB, JICA, KFW will impact the biodiversity hotspots and fragile protected areas in both upstream and downstream areas of these dams. The North East is considered as biodiversity hotspot – Eastern Himalayas and Indo-Burma Biodiversity Hotspot. The Pare Hydroelectric Project and the Lower Kopili dam already destroyed forest areas besides damaging the river banks in the downstream areas of the River. The Karbi Anglong and Dima Hasao area and catchment area of the Kopili River are extremely rich in biodiversity. Indeed, ADB classified the Lower Kopili HEP as category 'A' high risk project in all the Environment, Involuntary Resettlement and Indigenous Peoples Category, in accordance with ADB's Safeguard Policy Statement (SPS 2009).

The Pare hydroelectric project lacks a detailed impact assessment, especially the impacts on the downstream areas of the dam along the Dikrong River and management plans. The potential to aggravate the flood situation and miseries of the people due to the cumulative impact of both Ranganadi HEP and Pare HEP has been absent so far in the project implementation processes. Similarly, the cumulative impacts of dams over the Kopili River along with the ADB financed Lower Kopili Dam is still absent.

The Teesta III, Teesta V and the Teesta VI dams over the Teesta River in Sikkim already affected the fragile Himalayan biodiversity in Sikkim. ADB is preparing to fund the renovation of the Gumti HEP Project in Tripura. The Gumti dam in Tripura has been afflicted with widespread controversy due to its social and environmental impacts especially on the indigenous peoples of Tripura[43].

There are complaints that the stringing of high voltage transmission lines funded by World Bank is directly laid over the residential structures without the affected families' consent and without considering social, health, and environmental impacts. Residents of Balongdai village in Tamenglong District, Manipur are worried about passing underneath high voltage wires while going to work in their agriculture land.

Undermining Seismic Impacts: Dam building in the region undermine the risks of building large dams in high seismic areas like North East. The entire North East is located in high seismic area. However, several dam builders and financiers ignored the risk of high seismicity in North East and implications. For instance, the Pre-Feasibility Report of the 120 MW Lower Kopili HEP failed to mention the Kopili fault line, when during the last 140 years, the Kopili fault had experienced 2 major earthquakes of high magnitude greater than 7 in Richter scale, three of magnitude 6 to 7 in Richter scale and several of magnitude 4.5 to 6 in Richter scale[44]. As such, building dams in such seismic fault lines is dangerous.

Indeed, major earthquake already affected the performance and rationality of building large dams in the fragile North Eastern Himalayan geography. The massive earthquake of Sikkim in 2011 devastate the dam construction sites and tunnels of 1200 MW Teesta Hydroelectric Project and even the Teesta VI Hydroelectric project over the Teesta River in Sikkim, besides causing massive landslides, stalling the construction for several years. Several workers even lost their lives due to the earthquake.

Cost Overrun: Many of the dam projects financed by IFIs are marred with cost overrun, which affect the effectiveness and the rationale of the project itself. The JICA financed Tuirial Dam project was marred with inordinate delays and cost overrun, leading to questioning the feasibility of high cost of power per

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[43] *(2007, May 31). Tripura tribals want Gumti Hydro-Electric Project scrapped. Down to Earth.*

[44] *Mahanta, K. and et all (2012): "Structural Formation & Seismicity of Kopili Fault Region in North-East India and Estimation of Its Crustal Velocity" International Journal of Modern Engineering Research,Vol.2, Issue.6, Nov-Dec. 2012 pp-4699-4702*

unit to be purchased by the Mizoram Government from the project developers. The project cost in 1998 was fixed at Rs 369 crore, but the delays over the years on the issue of the payment of compensation to the displaced and infrastructure bottlenecks led to cost escalation to 1,306 crores of Indian Rupees[45].

The KFW financed Pare dam is similarly marred with massive cost overrun. The investment approval of the project was accorded by Cabinet Committee on Economic Affairs, India on 4 December 2008 and the project was scheduled to be completed within a period of 44 months i.e. on 3 August 2012 from the date of investment approval. The Central Electricity Authority status report on projects under execution rescheduled the completion time as 2015. The actual completion date stands at 28 May 2018 and the project was finally inaugurated in 2019, after a delay of seven years. The total project cost at completion of the project stand at 1640.31 crore by Central Electricity Authority vide letter dated 25 February 2019[46].

Disconnection of River and People: The project implementation has led to disconnection of indigenous peoples from the River. The project authorities installed multiple signboards near the dam site and also near the power station that warned people against venturing to the River stating that the River water may rise anytime. Villagers are prohibited from fishing, swimming, collection of sand and stone and other cultural connection with the River. This entail severing the age old inalienable physical, livelihood, spiritual, cultural relationship of communities with the River. Rivers that nurtured the lives of peoples, are projected as dangerous to people with dam building. River has been life for indigenous peoples, but the construction of dams undermined the unhindered access of communities to their Rivers and ancestral land.

False solution to climate Change: The promotion of dams as clean, green, renewable non fossil energy source to fulfil climate mitigation commitments by the Government of India is a misnomer. Dams like the Teesta V, Teesta III, Teesta VI hydroelectric projects in Sikkim are all falsely classified as Clean Development Projects by project proponents to receive carbon credits for further trading for profit. The Lower Kopili dam, the Tuirial dam, Pare dam and other dams in North East will submerge an extensive tract of forest land. The Tuirial dam affected more than 5000 hectares of forest land. With extensive submergence of forest, agriculture land and excavation of earth and the massive emission involved in the building of dams due to utilization of cement, iron, deployment of countless number of vehicles, these dams will only worsen climate change impacts. Studies confirm that hydropower projects are one of the major emitters of greenhouse gases. The massive submergence of forest land for the dam projects will worsen the emission of Greenhouse Gases and climate change induced disasters in the region.

Policy Liberalization and Expropriation of Resources: A significant trend of the involvement of IFIs in North East including in Power and energy sector is the emphasis on the intensification of trade and private sector participation. The ADB's support for North East Power Development Project is envisaged to complement Government of India's power for all initiative in India's North East. ADB stated that its Technical Assistance aimed to increase the capacity of the private sector in North East. AIIB underscored the importance of private sector in energy and infrastructure sectors, emphasizing that private investment

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[45] *(2015, April 10). 2016 date set for Tuirial dam. The Telegraph. https://www.telegraphindia.com/1150410/jsp/northeast/story_13742.jsp*

[46] *Review of Water Sector in Northeast India in 2013: Increasing threats to Rivers, People and Environment January 14, 2014, South Asia Network on Dams, Rivers and Peoples (SANDRP) https://sandrp.in/tag/anti-dam-protests-in-assam/*

is key to build resilience in infrastructure development in South Asia[47]. The privatization model of power sector has led to privatization of power distribution and generation. The retrenchment of workers of Electricity department becomes common due to corporatization of power sector. Promotion of policy liberalization, privatization of services by the IFIs, such as promotion of privatization in power sector reform in North East by ADB also facilitated the expropriation of natural resources of the region.

The pursuance of India's Act East Policy (AEP), supported by IFIs is characterized by the formulation of new policies and deregulation of policies by liberalizing and privatizing development processes. Policies on public-private partnership in 2011 emphasized government's interest to increase interface with financial institutions and the private sector.[48] The Manipur Hydro Power Policy 2012, New Land Use Policy 2014, Environment Impact Assessment Notification, 2020 provides more incentives for private sector[49]. The Environment Impact Assessment Notification of 2020, further diluted requirements for environment clearances for certain category of projects, including energy projects and supporting infrastructures. The notification makes 'environmental clearances' easier by placing unsustainable projects, under Category B2, which were earlier categorized as Category 'A', thus removing from mandatory environmental appraisal by Government and exempts unsustainable development projects, including large dams from the need of public consultations before seeking environmental clearances.

Dam building benefiting Multinational Corporations: The liberalization and financing of power sector by IFIs benefit companies, mostly private companies. Despite problems of dams and delays in project construction, corporate bodies continue to benefit from contracts and supply works in dam building. In November 2018, the NEEPCO awarded ANDRITZ with the Operation and Maintenance contract for the KFW financed Pare hydroelectric project. Before, ANDRITZ based in Austria had also supplied the complete electro-mechanical works for the project. In September 2009, the Hindustan Construction Co. Ltd was appointed as the EPC contractor. The project was constructed by four contractors, Hindustan Construction Company Ltd. - Civil Works, Precision Infratech - Hydro-Mechanical Works, Andritz Hydro - Electro-Mechanical Works, Alstom T&D India Ltd (Alstom Group) - Transformer & Switchyard[50].

The Larson and Toubro is involved as engineering, procurement, and *construction* contractor for 120 MW Lower Kopili dam in Assam[51]. The ADB has approved the PMC consultant, M/s AF Consultants, Switzerland in association with United Engineers Alliance India Limited[52]. ANDRITZ has been contracted by the Assam Power Generation Corporation Limited to supply the complete electro-mechanical equipment for the Lower Kopili hydropower plant[53]. The civil works contract for Teesta VI Project was awarded to Patel Engineering, India. The contract for the foundation engineering for the

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[47] *"AIIB Expects Investment Worth $100 Million a Year in India's Renewable Projects", PTI, Updated: November 17, 2019. Retrieved from https://www.news18.com/news/business/aiib-expects-investment-worth-100-million-a-year-in-indias-renewable-projects-2389617.html*

[48] *National Public Private Partnership Policy, 2011, developed by Ministry of Finance, Government of India.*

[49] *Approach paper of the NEW LAND USE POLICY/PROJECT OF MANIPUR (2014)*

[50] *https://en.wikipedia.org/wiki/Pare_Hydro_Electric_Project*

[51] *(2020, August 14). L&T arm set to execute hydro-electric project in Assam. The Hindu.*

[52] *(2017, October). Minutes of the 10th Meeting of the Coordination Forum, 24 October, 2017. Assam Electricity Regulation Commission, Assam. http://www.aerc.nic.in/Minutes_of_the_10th_meeting_of_the_Coordination_forum_Draft.pdf*

[53] *(2021, November 26). Andritz to equip Lower Kopili hydropower plant, India. Water Power. https://www.waterpowermagazine.com/news/newsandritz-to-equip-lower-kopili-hydropower-plant-india-9281018*

Teesta-VI hydropower project was awarded to BAUER Engineering India, a subsidiary of BAUER Spezialtiefbau of Germany. Alstom Projects India was contracted to supply four units of 125MW Francis turbines and generators in July 2009. Gammon Engineers and Contractors, based in India was contracted for the construction of the balance civil works package. Multiple multinational companies benefits from dam building, even as people lose their land and reels with hardship due to these dams.

Worker's Rights Violations: The corporatization of the power sector across North East, viz, Meghalaya with the support of the Asian Development Bank has been marked by protest for workers and employees' unions. The privatization of power sector has led to much resentment from workers of Electricity Department in states such as Assam and Meghalaya. In Meghalaya, the Meghalaya State Electricity Board (MeSEB) Employees staff Union raised concern with initiatives already being taken to privatize the Meghalaya state Electricity Board. In a memorandum submitted to the Chairman, the Meghalaya State Electricity Board for reviewing the Electricity Act, 2003 that provisioned unbundling of State Electricity Boards to generation, transmission and distribution, the union expressed that experience of unbundling of State Electricity Boards in Assam, Orissa and Delhi and privatization of electricity supply have been proved a total failure both from the point of power distribution and revenue collection.

The flooding of dam and power station of Myntdu Leshka HEP in Meghalaya on 8 October 2009 claimed the lives of ten labourers of the SEW Construction Limited working at the dam[54]. The MeSEB admitted that the gushing water from catchment areas of the Myntdu Leshka Dam caused wide damage to the dam.[55] Several workers and engineers of NEEPCO lose their lives in a recurrent accident and disaster at Kopili dam in October 2019 and March 2022.

The Pare HEP project involves protest by its workers over non-fulfilment of commitments and promises by NEEPCO. The Pare Project Land Affected Welfare Committee (PPLAWC) complained that NEEPCO continued to ignore their demands to regularize the 48 contractual (Technical) employees as promised by them before the commencement of the project. The NEEPCO backtracked from its promise and only a two-year service contract was provided instead of regular jobs. Tada complained that the company works have progressed, while local workers are left abandoned[56]. The PPLAWC protest at Doimukh, after completion of 20 days ultimatum served to NEEPCO to regularize 48 ITI contractual staff[57].

Corruption and Lack of Accountability of Project Authorities & financiers: Many dams which IFIs are financing the construction, renovation and rehabilitation etc are already marred with corruption, failures and underperformances. The Gumti Dam in Tripura, the Khuga dam, Singda dam, Khoupum dam in Manipur which ADB and World Bank are funding for rehabilitation are failed and underperformed projects. NEEPCO has failed to assume responsibility for the massive loss of lives and livelihood caused by downstream flooding due to Kopili dam and the Pare HEP projects.

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[54] *Meghalaya dam toll touches nine, six workers still missing*
The Times of India, the 14th October 2009
[55] *Rescue operation resumes to trace missing people in Dam accident, 11 October 2009*
[56] *(2020, January 7). Pare Project Land Affected Welfare Committee announces 36-hour shutdown over NEEPCO jobs. The Sentinel. Retrieved from https://www.sentinelassam.com/north-east-india-news/arunachal-news/pare-project-land-affected-welfare-committee-announces-36-hour-shutdown-over-neepco-jobs/*
[57] *(2019. December 20). Protest by Pare Project Land Affected People. Arunachal Mirror.*

The Construction of JICA financed 60 MW Tuirial HEP project was also marred with corruption in the rehabilitation of affected communities. The corruption matter was even investigated by the Central Bureau of Investigation (CBI), Government of India, after which the CBI charge sheeted nine people, including the relatives of former Chief Minister, Zoramthanga[58]. The Hmar and Mizo communities who lose their land to the project remains without compensation and rehabilitation, such as in Saipum village. The project authorities and financiers, JICA remained unaccountable for the corruptive practices.

In Manipur, the JAC on the Khuga Dam Project indeed apprised the Prime Minister of India in July 2014 on the irregularities and misappropriation of funds to the tune of Indian Rupees (INR) 1.5 billion involved in Khuga dam construction and appealed to investigate such misappropriations. The canals of Khuga dam continues to break despite repairing on several occasions. There has been no investigation as to why the Singda dam and the Khuga dam lays defunct or failing to fulfill their primary objectives.

These corruptive practices and unaccountability of project authorities, further support concerns if the IFIs financing will further foment and aggravate the corruptive practices associated with dam building in North East, especially with lack of monitoring and prosecution processes for violations and corruption practices. There are also concern if the dam projects targeted for rehabilitation and improvement by IFIs will ever fulfill their objectives, viz, to generate power, provide water for drinking and irrigation etc.

The 84 MW Myntdu Leshka HEP in Meghalaya envisaged for World Bank financing for renovation has been criticized as technical flawed project. In the year 2007, 2008, 2009 and 2010, heavy rainfall in the catchment area led to flooding of the dam.[59] The Meghalaya State Electricity Board (MeSEB) admitted that the gushing water from catchment areas of the Myntdu Leshka Dam caused wide damage to the dam.[60] The incident itself and subsequent non-disclosure of the inquiry report revealed the lack of concern for safety of the workers of the dam and also the lack of accountability of the project authorities of the dam.

IFI financing and intensification of conflict in NE: IFI financing dams also caused tension, resentments, and conflicts. The building of Tuirial HEP and Khuga dam, receiving financing from JICA and World Bank for construction and rehabilitation also add to conflict in indigenous areas. The Hmar People's Convention–Democrats, HPC (D) claimed responsibility for destroying NEEPCO's drilling machine in 2008. Four policemen belonging to the First battalion of the Indian Reserve Police were killed in an ambush by suspected HPC-D insurgents, close to Saipum village, Mizoram on 2 September 2008. The security personnel were carrying salaries of the First Indian Reserve Battalion outpost established to protect the workers at the Tuirial HEP project at Saipum[61]. The Khuga dam is laden with human rights violations and conflict. On 16 December 2005, a combined force of Churachandpur police, 12th Indian Reserve Battalion, and 41st Border Security Forces committed an indiscriminate firing at Mata Mualtam village. The firing killed three persons and injured 32 others.[62]

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[58] *(2012, August 13). Mizoram Tuirial Project Scam, CBI Names Nine People. The Northeast Times.*
[59] *"March 19 flood delayed commissioning of Leshka project" 15 June 2011, The Meghalaya Times*
[60] *Rescue operation resumes to trace missing people in Dam accident, 11 October 2009*
[61] *(2008, September 4). Mizoram accords farewell to slain cops. The Nagaland Post. https://nagalandpost.com/index.php/mizoram-accords-farewell-to-slain-cops/*
[62] *(2005, December 16.) 'Khuga dam standoff turns ugly, 3 killed in SF firing.' The Sangai Express. http://www.e-pao.net/GP.asp?src=1.12.161205.dec05*

Lack of Feasibility of Hydropower Projects in NE: The feasibility of the hydropower projects financed by the IFIs has been questioned not just from communities, but even from the Government agencies itself. The cost overrun of hydropower projects and the decreasing energy prices due to quantum leap and surge in solar power generation also led to the questioning on the feasibility of these dams. The solar energy price has gown down, further making the hydro energy less feasible. The per unit price from hydel projects is higher than the solar tariffs that declined to Rs. 3 in July 2019 as compared to Rs. 4 from hydel power in India[63]. The cost of generation of solar power is set to fall to as low as Rs 1.9 per unit over the next decade in India[64]. It is much cost effective and environment friendly to generate power from solar.

The Pare Project does not seem to be justified on demand considerations. The project is a heavily cost overrun project. By the time the project is commissioned in 2019, the North-East is already power surplus and several mega dams are already commissioned, viz, 750 MW Palatana Gas Based Project in Tripura, 1200 MW Teesta III HEP Project etc in Sikkim, 600 MW Kameng HEP in Arunachal Pradesh etc, further adding to the power surplus scenario in North East. Thus, the Pare HEP, Tuirial HEP and Lower Kopili Dam is losing its relevance and viability. In Mizoram, the JICA financed Tuirial HEP Project has been marred with delays, cost overrun and high cost of power tariff, thus affecting the feasibility of the dam.[65]

Undermining IFI's Safeguards: The application of IFIs own safeguard has been a major challenge in the pursuance of energy and related infrastructure projects in North East India. In India's North East, even these limited policies and standards are either sidelined or violated. The Lower Kopili dam building involves undermining the ADB safeguard policy of 2009, such as to involve affected communities in decision making, including those affected in the downstream areas. No impact assessment of climate change, environment, and seismicity and on the indigenous communities due to the dams in North East has been conducted in the Pare HEP, Lower Kopili HEP etc. The lack of participatory definition of alternatives to minimize impact on people, environment and to define alternatives for energy needs etc undermine the participatory development processes, outlined in the ADB's safeguard policy. The application of safeguards of bilateral DFIs like KFW, Germany and JICA, Japan is another concern as these institutions, despite financing large dams and causing massive social and environmental impacts lacks adequate social, environmental and accountability standards to address grievances of those affected.

ODA Loan conditionalities: IFI financing as ODA also involves certain level of conditionalities. JICA, Japan has been funding the renovation and modernization of Umiam state I to III hydroelectric Project in Meghalaya. For energy projects financed by JICA, Japanese manufacturing companies and consultant groups often received the contracts for supply and consultancy works. For instance, the Japanese consultant companies comprising TEPCO (Japan) and Tokyo Electric Power Services Co. Ltd. (TEPSCO, Japan) undertook consultancy services for Umiam Stage II renovation. A joint venture of two Japanese companies, Mitsubishi and Toshiba undertook the renovation and modernization work for the project, including supply work[66]. The TEPSCO, TEPCO Holding Inc. and TEPCO Power Grid Inc. undertook

[63] *Hydel Power in India is growing at the slowest pace. G. Seetharaman. The Economic Times.*

[64] *"Solar Power Cost Will Fall to Rs 1.9 Per Unit in India by 2030: TERI", February 14, 2019*

[65] *700 Seri FoUs as good as dead. (2013, July 06). The Sangai Express.*

[66] *(2006, June 17). Japanese consortium likely for Umiam hydel project. Projects Today. https://www.projectstoday.com/News/Japanese-consortium-likely-for-Umiam-hydel-project*

consultancy services for renovation of Umiam Stage III HEP project in Meghalaya. Earlier in 1965, Toshiba supplied 4x10.5 MW hydroelectric equipment to Umiam-stage I HEP in Meghalaya.

Impact of ODA Loan: Another challenge of ODA loans from IFIs is these monetary support come as loan support with obligatory interest payments. Majority of the loan financing stands at 99.88 percent. These loans are also associated with conditionalities, to reform the power sector, to change policies and to ensure increased role of private sector. ODA loans will increase indebtedness, forcing to government to cut spending in social sectors and compelling to open up the land resources for corporate expropriation.

The NEEPCO took a loan of 100 Million Euros from the KFW for Pare dam, with two agreements signed in 2008 and 2017. The project authority, NEEPCO had to repay the borrowed money with interest. The loan amount along with the interest rest is also increasing year by year and NEEPCO's 36th Annual Report of 2011-12 states that the loan taken from KfW is "repayable in 30 equal half yearly installments from 30 December 2013. This implies that even before project completion, the company started paying back loan[67].

The Government of Sikkim (GOS) is debt strapped due to the Teesta III HEP and other dams in Sikkim. The GOS was forced to buy out the stake of Glenco that added to the debt burden of the government. The government was forced to doll out Rs. 4000 crores. The Project lacks regulation and accountability. In an assembly session, the chief minister of Sikkim mentioned a per capita debt of 1.5 lakhs per Sikkimese person and an overall debt of Rs.16000 crores on the exchequer, out of which hydro projects where GOS held or was supposed to hold between 11-26% equity.[68] The guarantee assured by India and Sikkim's governments to the risks of investment financing by Private Equity Funds is a burden for Sikkim.

CONCLUSION

The unprecedented involvement and role of the IFIs in North East India, including financing power sector and related infrastructures is associated with increased targeting and expropriation of land and resources and the suppression of those who assert their land and democratic rights. IFIs financing intensified with the pursuance of India's Act East Policy. The total financing by IFIs and private equity funds in North East stands around 19,682 Crores till December 2022. Majority of the loan financing stands at 99.88 percent, while a small percentage comes as grant component.

These projects are often carried out without recognizing indigenous peoples' rights over their land and resources and failing to take their free, prior and informed consent and also failed to consider the fragility of the land and biodiversity of North East. The experience of dam building in the North East including those financed by lFIs have failed to ensure the rightful participation of affected indigenous communities and those affected in the downstream areas. Affected peoples complained that the decision making for Tuirial dam failed to conduct any public hearing to solicit the views and concerns of affected communities.

There are also concerns raised if the power generated from North East will be for the region or for the interest of corporations and those supplying materials and involved in contract works etc. The state of

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[67] *Review of Water Sector in Northeast India in 2013: Increasing threats to Rivers, People and Environment January 14, 2014, South Asia Network on Dams, Rivers and Peoples (SANDRP) https://sandrp.in/tag/anti-dam-protests-in-assam/*

[68] *Sikkim Government Not to Sell Stake in Teesta Urja Ltd, the Asian Chronicle. https://theasianchronicle.com/sikkim-government-not-to-sell-stake-in-teesta-urja-ltd/*

Sikkim, Arunachal Pradesh, Manipur etc hardly require 300 MW of electricity in their respective states, but the target to generate power in these states crossed more than 50,000 MW.

The dams financed by IFIs failed to conduct detailed impact assessment, including the downstream impact assessment and implications due to construction of dams over the Kopili River, the Dikrong River and Teesta River. No cumulative study has been conducted due to the construction of multiple dams over these Rivers. The dam building in North East also lacks feasibility due to high seismicity of the region. Earthquake already wreak havoc on dam building in North East, such as delaying and even stalling the works of Teesta III and Teesta VI hydroelectric projects in Sikkim due to cost overrun.

The feasibility of large dams is an urgent issue in North East. These dams are being financed despite the fact that many other power generating units are also being commissioned in several states, such as Tripura, Sikkim, Assam, Arunachal Pradesh etc. The cost overrun of hydropower projects and the decreasing energy prices due to quantum leap and surge in solar power generation also led to the questioning on the feasibility of these dams. These dams also entails massive social, environment and inter-generational cost. Due to extreme climate impacts besides other social and environment implications, the financing of large dams by IFIs as part of solution of climate change and just energy transition is irrational and hence, large dams can never be considered as climate change solution and just energy.

Irrespective of whether large dams serves the social needs and call to protect environment and to control greenhouse emissions, multinational companies benefits from contract, supply and construction works.

Many of the dam builders and financiers remain unaccountable for the violations and destruction of peoples' livelihood and fragile biodiversity in the region. Many of the dam targeted for rehabilitation by World Bank are already failed and underperformed since its commissioning. Hence, there are concerns if these dams will ever work to fulfil their objectives after investment from IFIs.

As most of the financing by IFIs comes as loan, these loans and the associated conditionalities for policy reform, privatization of services etc will further cause more hardship on the people. A government running on loans will led to wide indebtedness and will affect the delivery of social services.

The application of IFIs safeguard in dam building and in energy infrastructures is a challenge in the region. The Redressal and accountability mechanism of bilateral donor agencies, such as KFW and JICA is extremely weak and hence the access to justice of affected communities is negligible. Development cooperation in energy, renewable energy, infrastructure, free trade agreement etc should be rooted in practices of human rights and sustainable development standards. An alternative to dam building is critical and to advance renewable energy solutions that is green, sustainable with minimal social and environmental costs. The rightful participation of communities and recognizing their rights over their land and resources is fundamental for any definition of alternatives.

CHAPTER II

CONCERNS OF WORLD BANK FINANCING OF ENERGY PROJECTS IN NORTH EAST INDIA

The World Bank (WB) and other international financial institutions (IFIs) has been involved extensively in financing development processes in India's North East (NE). The World Bank's financing in NE intensified since India adopted Act East Policy. As early as June 1991, India launched a comprehensive economic reform program. The World Bank supported US$ 500 million under its structural adjustment program and pursued neoliberal agenda, liberalization, and privatization of various sectors including agriculture, energy, urban reform, forestry, and climate change and Covid 19 responses in India.[69]

The World Bank's Country Partnership Framework (CPF) for India for the year 2018 – 2022 elucidates three key priorities for maintaining the country's trajectory of poverty reduction and high growth. The CPF posits three focus areas for WBG's engagement. These are (i) promoting resource-efficient growth; (ii) enhancing competitiveness and enabling job creation; and (iii) investing in human capital.[70]

India is the largest recipient of financial loans from the World Bank, amounting to US$102.1 billion, between 1945 and 2015 as of July 2015. By December 2015, India's loans from the WB stands at US$ 104 billion.[71] The World Bank has committed $3.2 billion to India in 2019[72]. By September 2020, India received three loans worth US$2.5 billion to fight the coronavirus disease outbreak[73].

The World Bank has been funding dam management project in India. On 5 August 2021, the Government of India, the Central Water Commission, Government of India and Government representatives from 10 participating states and the World Bank signed a US $250 million project, to support the Government of India's long term dam safety program and improve the safety and performance of existing dams across various states of India. The second Dam Rehabilitation and Improvement Project (DRIP-2) envisaged to strengthen dam safety by building dam safety guidelines, bring in global experience, and introduce innovative technologies. The project will be implemented in approximately 120 dams across the states of Chhattisgarh, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Odisha, Rajasthan, and Tamil Nadu, and at the national level through the Central Water Commission (CWC)[74].

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[69] *Dilip Hiro. (2016, July 21.) 'After 25 years of liberalization, India's rich are growing richer and the poor poorer.' Quartz India.*

[70] *(2018). India - Country Partnership Framework for the Period FY18-FY22. World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/277621537673420666/india-country-partnership-framework-for-the-period-fy18-fy22*

[71] *Chaitanya Mallapur. (2016, January 13.) 'India is the largest recipient of loans from the World Bank for 70 years, says the lending report.' First Post. Retrieved from https://www.firstpost.com/world/india-largest-recipient-of-loans-from-world-bank-for-70-years-says-lending-report-2581900.html*

[72] *Chaudhury, P. (2019, October 18). No, India has not repaid all its World Bank loans in 6 years of PM Modi's governance. Alt News.*

[73] *Arpan, R. (2020, September 16). India received 2.5 billion dollars from World Bank to fight Covid-19: Govt. The Hindustan Times.*

[74] *(2021, August 4). Project Signing: World Bank Signs $250 Million Project to Make Existing Dams Safe and Resilient across India. The World Bank.*

The Cabinet Community on Economic Affairs, India approved the second and third phase of Rs 10,211 crores Dam Rehabilitation and Improvement Project (DRIP) to improve the safety and operational performance of 736 dams in India. The World Bank maintained that the project is the world's largest dam management program and envisaged to break the costly cycle of 'build-neglect-rebuild' which characterizes the operations of infrastructure across sectors. The outcomes envisaged to support the livelihoods of millions of Indians who depend on irrigated agriculture and enabling farmers to shift out of pumping groundwater, to reduce energy consumption and greenhouse gas emissions[75].

World Bank Financing in North East:

The World Bank is one of the leading International Financial Institutions (IFIs) comprehensively involved in financing a range of sectoral development issues across the North East, albeit with extensive social and environmental concerns. In 2007, the World Bank finalized a study focusing on water and natural resources management in the North East and developed a strategy report, "Development and Growth in North East India: The Natural Resources, Water and Environment Nexus." The report vouched for the economic liberalization processes and institutional capacity change at all governance levels to promote water and forest development, including hydropower and renewable energy in North East[76].

In 2020, the World Bank published a report, "Playing to Strengths: A Policy Framework for Mainstreaming Northeast India", that outlined an initial policy framework for North East that integrates demand and supply and emphasized ability of the North East to leverage its strengths in agriculture and services for growth. The report emphasizes that North East by capitalizing on its advantages can accelerate its own development and play a critical role in India's Act East policy.[77]

The World Bank has been financing major infrastructure projects, viz, road, high voltage transmission and distribution lines and renovation of dams across the North East. The financing includes road projects in Mizoram, high voltage transmission and distribution lines in North East, renovation of Singda dam, Khuga dam, Imphal Barrage etc in Manipur and the Umiam dams and Myntdu Leshka dam in Meghalaya, besides funding other hydroelectric projects through financial intermediaries in Sikkim etc.

Road Projects: In the North East, the World Bank accorded much thrust in financing infrastructure projects, especially roads and energy projects. The World Bank on 12th June 2014 approved a US$ 107 million credit for Mizoram State Roads II – Regional Transport Connectivity Project. The objective is to improve transport connectivity for Mizoram and to improve connectivity of North East States with neighboring countries.[78] The World Bank funded the Assam Road Project from 2012 till 2018 to enhance the road connectivity of Assam, to improve its connectivity and regional integration.[79]

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[75] Rokibuz, Z. (2021, August 6). Manipur and Meghalaya to get World Bank aid for dam safety. The Times of India.

[76] (2007, June.) Strategy Report No 3639 –IN, Sustainable Development Department, South Asia Division. World Bank.

[77] Sanjay Kathuria., and Priya Mathur. (2020). Playing to Strengths: A Policy Framework for Mainstreaming Northeast India, International Development in Focus. World Bank. https://openknowledge.worldbank.org/handle/10986/32740 License: CC BY 3.0 IGO.

[78] (2014, June 12.) '$107 Million World Bank Project set to Connect Mizoram with Bangladesh and Myanmar via Roads.' World Bank.

[79] 'Regional Project Implementation Plan.' Ministry of DoNER, Government of India.

Lafarge mining in Meghalaya: The International Financial Corporation (IFC), one of the financial arms of the World Bank along with Asian Development Bank (ADB), German Development Bank (DEG), etc. have co-financed limestone mining operation in Meghalaya state. They co-financed with the *Lafarge* Group of France and Cementos Molins of Spain. The Lafarge Surma Cement Project, run by French multinational company, Lafarge, received a loan of US$ 45 million from the IFC in 2003. This project violated India's forest laws such as the Forest Conservation Act, 1980 and the Forest Rights Act, 2006.[80] In January 2014, the Khasi people filed a complaint with the Compliance Advisor Ombudsman (CAO) of IFC that the Lafarge have illegally infringed upon their land without consent.[81]

Agri-business: The World Bank funded the US$ 144.4 million North East Rural Livelihood Project since 2012.[82] Earlier, the World Bank had financed the Assam Rural Infrastructure and Agricultural Services Project that ended in 2004. In 2009, the IFC financed US$ 7.8 million to Amalgamated Plantations Private Limited (APPL) for tea plantations in Assam. In 2013, organizations such as the People's Action for Development and Promotion and Advancement of Justice, Harmony and Rights of Adivasis filed a complaint with the World Bank's Compliance Advisor Ombudsman.[83]

Energy Projects: Financing of Energy projects and related infrastructures constitute a major focus of the World Bank financing in North East India, ranging from financing 400 KV high voltage transmission and distribution lines, the financing of rehabilitation and improvement of dams in Manipur and Meghalaya and financing large dams through financial intermediaries in Sikkim etc. The major projects implemented by the World Bank in North East includes the following:

North Eastern Region Power System Improvement Project

The World Bank Board approved a US$ 470 million loan on 24 June 2016 to augment their transmission and distribution (T&D) networks[84] in six states to implement the 'North Eastern Region Power System Improvement Project.' The financing will support the agreement signed in January 2014, between the Power Grid Corporation of India Limited (PGCIL) of India and the Governments of Assam, Meghalaya, Mizoram, Manipur, Nagaland, and Tripura, to implement the 'North Eastern Region Power System Improvement Project.' The World Bank financed a major portion of the Rs. 8,150 crores ambitious projects as loan for power transmission lines, transmission substations, and related works.[85] There are

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http://www.mdoner.gov.in/sites/default/files/silo2_content/NERLP/Project%20Implementation%20Plan.pdf

[80] Julien Bouissou. (2010, August 20.) 'Lafarge's India-Bangladesh cement project remains frozen.' The Guardian. Retrieved from https://www.theguardian.com/world/2010/aug/13/india-bangladesh

[81] (2014, February 26.) 'Complaint filed against IFC funded Lafarge mining operation.' Bretton Woods Project. http://www.brettonwoodsproject.org/2014/02/complaint-filed-ifc-funded-lafarge-mining-operation/

[82] (2011, December 6.) North East Rural Livelihoods Project- Project Appraisal Document. World Bank. http://documents.worldbank.org/curated/en/2011/12/15538880/india-north-east-rural-livelihoods-project

[83] (2016. India: CAO Investigation report low wages & poor working conditions at Tata-World Bank Plantations. Business and Human Rights Resource Centre. Retrieved from https://www.business-humanrights.org/en/india-cao-investigation-report-low-wages-poor-working-conditions-at-tata-world-bank-plantations

[84] (2016, June 24.) 'World Bank Approves US$ 470 Million to Improve Electricity Supply in the North Eastern Region, India.' World Bank. http://www.worldbank.org/en/news/press-release/2016/06/24/world-bank-approves-usd470million-improve-electricity-supply-the-north-eastern-region-india

[85] (2014, January 28.) 'World Bank aid for power projects in northeast.' One India.

widespread concerns that the financing of the 400 KV high voltage transmission and distribution lines by the World Bank in the North East will facilitate the construction of more than 200 mega dams pursued over the myriad rivers in North East. Indigenous peoples has long been opposing these mega dams.

Funding Dam Rehabilitation and Improvement Project:

The World Bank has been funding the rehabilitation and improvement of dams in the States of Meghalaya and Manipur under Phase II of the Dam Rehabilitation and Improvement Project (DRIP). As part of the project, the World Bank is funding the DRIP for Singda dam in Manipur. The World Bank is also funding the renovation of the Imphal Barrage and Khuga dam in Manipur[86]. Om Infra Limited received contract to design, supply, install, test and commissioning of Hydro-Mechanical Equipment for Imphal Barrage under DRIP- II program with a value of 41 Crores[87]. The Environment and Social Assessment report for Khuga dam and Imphal Barrage prepared by the Water Resources Department with World Bank funding in February 2020 outlined that the proposed DRIP would complement India's dam safety program.[88]

The first component of DRIP for Singda dam is "Institutional Strengthening," to strengthen dam safety management through institutional modernization. A primary focus of activities under this component will focus on increasing the oversight of dam safety by developing dam safety guidelines and strengthening the capacity of various dam safety actors to carry out the regulatory functions under Dam Safety Bill, 2019. The second component, intends to support long-term funding needs for dam safety. The third component will support improving the safety of dams through structural and non-structural interventions. The fourth component will implement, monitor and evaluate project[89]. The overall project has been categorized as high risk as per the internal Environment and Social Risk Classification of the World Bank.

The World Bank is also financing the renovation of four dams under Dam Rehabilitation and Improvement Project (DRIP) at a cost of Rs 441 crore. The Meghalaya Power Generation Corporation Limited (MePGCL) will undertake the project. According to official documents, the dams approved are Umiam Stage-I dam (Rs 215.45 crore), Umiam-Umtru Stage-III concrete dam (Rs 73.10 crore), Umiam-Umtru Stage-IV concrete dam (Rs 77.42 crore) and Myntdu-Leshka Stage-I dam (Rs 75.03 crore) in Meghalaya[90].

Funding Dams through Financial Intermediaries: The funding of energy projects by the World Bank directly and through its financial intermediaries has been a concern across North East. Several private equity funds and financial institutions receiving financing from the International Financial Corporation

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http://news.oneindia.in/india/world-bank-aid-power-projects-northeast-1384332.html

[86] *(2022, May 10). Minister Awangbou Newmai inspects Khuga dam. Imphal Free Press. https://www.ifp.co.in/manipur/minister-awangbou-newmai-inspects-khuga-dam*

[87] *(2021, July 19). Om Infra bags order of Rs 410 mn from Government of Manipur; Stock gains over 1.5%. India Infoline News Service.*

[88] *Water Resources Department, Government of Manipur. (2020) Environment and Social Impact Assessment for Singda Dam for Dam Rehabilitation and Improvement Project (DRIP). http://documents.worldbank.org/curated/en/500171582439070102/pdf/Revised-Environmental-and-Social-Impact-Assessment-Dam-Rehabilitation-and-Improvement-Project-2-P170873.pdf*

[89] *(2020, February). Environment and Social Impact Assessment for Singda Dam for Dam Rehabilitation and Improvement Project (DRIP). Water Resources Department, Manipur.*

[90] *(2022, June 4). Four dams in state to get Rs 441-cr facelift. The Shillong Times. https://theshillongtimes.com/2022/06/04/four-dams-in-state-to-get-rs-441-cr-facelift/*

(IFC), private sector lending arm of the World Bank has been involved in financing large dams in North East, viz, 500 MW Teesta VI Hydroelectric Project, the 1200 MW Teesta III Hydroelectric Project etc.

The National Hydroelectric Power Corporation (NHPC), the ICICI Bank, and private equity funds, viz, Morgan Stanley, Goldman Sachs, Everton, Norwest etc involved in financing large dams in Sikkim all received financing from the IFC of the World Bank. In Sikkim, the Singapore-based Asian Genco Private Limited company has invested US$ 1.4 billion to build the 1,200 MW Teesta-III project. The IFC also held investments in private equity funds, viz, Morgan Stanley, Goldman Sachs, Everton etc that financed the Teesta III HEP project. The PTC India Financial Services Ltd that has 11 percent[91] stakes in Teesta III HEP also collaborate with the IFC to finance energy projects[92]. PTC Energy has also received funding from ADB, Canadian pension fund in 2017[93]. The World Bank featured Teesta III HEP project as a key Greenfield Public Private Partnership project from 1990 till 2011[94].

The IFC had also financed US$ 3.19 billion for the NHPC that is operating the 510 MW Teesta V HEP and other project. The NHPC received investment from the IFC through six commercial banks, viz, Housing Development Finance Corporation, Kotak Mahindra, Yes Bank, and Industrial Credit and Investment Corporation of India[95]. NHPC took a debt loan of Rs 4,500 crore from Power Finance Corporation and Rural Electricity Corporation, for reviving the Teesta VI HEP project in Sikkim[96].

Issues around WB funded projects

Promoting a Neo-Liberal Agenda: World Bank has been pursuing a neoliberal agenda in North East. The study commissioned by the World Bank in 2007, entitled, "Development and Growth in North East India: The Natural Resources, Water and Environment Nexus", prescribed for the economic liberalization and free enterprises in North East. The World Bank financing reinforces the environment of privatization in various sectors in the North East. It includes the removal of trade barriers to trading and an emphasis on private sector-oriented development.

India adopted the Public-Private Partnerships (PPP) policy in 2011. Section 4 of the PPP policy 2011 underscored government's intension to increase interface with financial institutions and the private sector.[97] With liberalization push from the World Bank, the government introduced a new Draft Energy Policy in July 2017 to promote energy projects with an emphasis on the private sector role.

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[91] *(2012, August 12). REC to give additional Rs 995-cr loan for Teesta III hydro project. Economic Times.*

[92] *(2015, April 28). IFC, PTC India Financial Services Ltd. Collaborate to Boost Financing for Renewable Energy Projects. IFC. https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=16505*

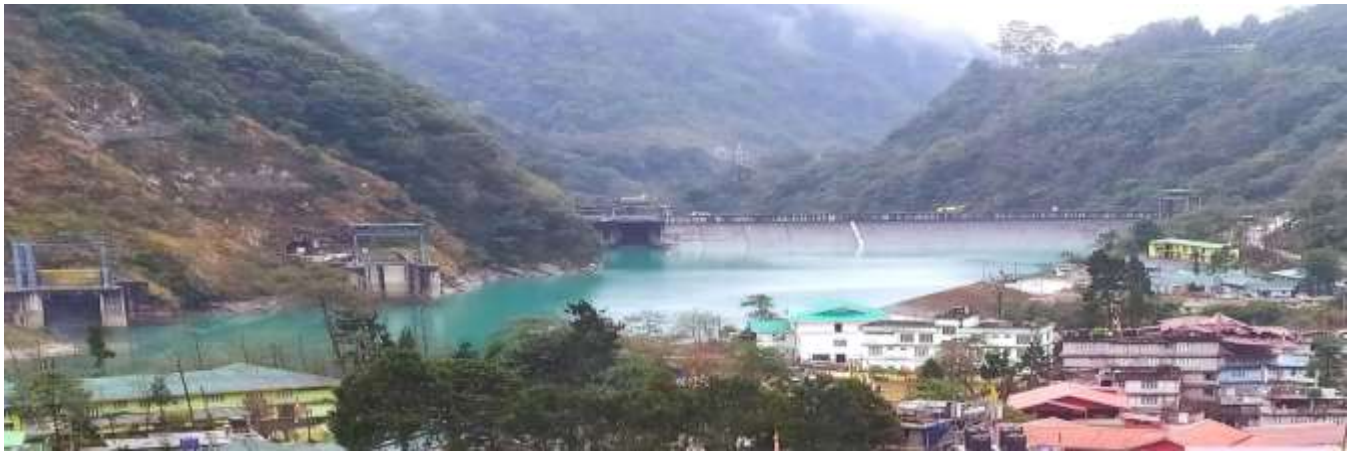
[93] *(2017, June15). ADB, 3 others eyeing up to 26% in PTC Energy; company plans IPO by 2020. Money Control.*

[94] *(2013, March). Snapshot: Sponsors from Singapore and Infrastructure Projects with Private Participation (1990-2011). World Bank. Retrieved from https://ppi.worldbank.org/content/dam/PPI/resources/ppi_resources/archive/Note85-Singapore-Sponsor.pdf*

[95] *(2016). Bankrolling India's Dirty Dozen. New York: Inclusive Development International.*

[96] *(2019, October 4). NHPC gets debt commitment of Rs 4,500 cr from PFC, REC for Teesta project. Business Standard. Retrieved from https://www.business-standard.com/article/companies/nhpc-gets-debt-commitment-of-rs-4-500-cr-from-pfc-rec-for-teesta-project-119100401209_1.html*

[97] *National Public-Private Partnership Policy, 2011, developed by the Ministry of Finance, Government of India.*



Pic: The dam site of 1200 MW Teesta III Hydroelectric Project at Chungthang Village, North Sikkim

There is a process to weaken Environment Impact Assessment Notification, 1994, Forest Rights Act, 2006.[98] The Draft Environment Impact Assessment Notification 2020 further diluted requirements for Environment Impact Assessments and community consultations. The policy prescription of IFIs for private sector role in sectoral financings has led to the intensification of privatization of power sector.

Undermining Indigenous Peoples rights: Projects such as roads, high voltage transmission and distribution lines, extractive industries financed by IFIs have undermined the free, prior, and informed consent of indigenous peoples. Dams such as Teesta III HEP, financed with IFC financing through financial intermediaries undermined indigenous peoples rights. The installation of the World Bank funded High Voltage transmission and distribution lines and string of wires has been carried out relying on law enforcement agencies and forceful clearing of vegetables, plants, and the demolition of houses. In Manipur, around ten houses in Sagoltongba village in Imphal West District were affected by the high voltage transmission lines. Complaints persists that the stringing of high voltage transmission lines is directly laid over the residential structures without the affected families' consent. Project officials destroyed trees, bamboo groves etc. around the houses. Residents of Balongdai village in Tamenglong District, Manipur are worried about passing underneath high voltage wires to cultivate their land.

Funding Unsustainable Projects: There are widespread concerns that the financing of the 400 KV high voltage transmission and distribution lines and the mega road projects by the World Bank in the North East will facilitate the construction of more than 200 mega-dams, marred with objections from indigenous peoples across the region. Such overwhelming emphasis on privatization and corporate role has caused unregulated plunder of natural resources and privatization of services, thereby impoverishing indigenous peoples. Dam building across the region had already led to widespread displacement, loss of livelihood, destruction of forest, militarization other forms of human rights violations in the region.

Lack of Transparency: The financing process involving the IFC in hydropower projects are marred with a lack of transparency, as information is not disclosed, especially in IFC funding of private equity funds and other financial intermediaries in financing unsustainable energy projects, including large dams in

[98] *Ajoy Ashirwad Mahaprashasta. (2016, May 4.) 'PMO Wants to Sidestep Gram Sabha's Consent for Underground Mining.' The Wire. Retrieved from https://thewire.in/33774/pmo-wants-to-exempt-gram-sabhas-consent-for-underground-mining/*

Sikkim and other places. There is lack of detailed impact assessment due to dam renovation such as Singda dam, Khuga dam, Khoupum dam etc. Such lack of transparency affected and deprived impacted communities of access to the IFC's accountability mechanism (*Observer* Winter 2018).[99]

There is very little public information and consultation concerning the ongoing process to renovate Singda dam, Khuga dam, Imphal Barrage etc in Manipur. These consultations are crucial as these dams are marred with failures, underperformances, corruption and lack of accountability of project authorities.

Land Alienation and displacement: There are renewed concerns that the World Bank financing of the Singda dam and Khuga dam rehabilitation and renovation project will cause further threats to the land of the communities already affected by the dam. Earlier, the villagers had sacrificed nearly 600 acres of their land for the dam. Several village already lost their agriculture and forest land for Khuga dam. The Singda dam, Khuga dam, Imphal Barrage, Khoupum dam etc has been controversial due to its underperformance and land acquisition plans. In 2013, villagers of Kadangban and Ireng villages, objected to the government's plan to expand the dam area for renovation of the dam and development of catchment area[100]. The JAC against Forced Eviction of Singda Kadangband organized a protest on 22nd July 2013 resolving against any forced eviction and acquisition of their land.[101]

Both Singda dam and the Khuga dam has been unable to generate a single unit of envisaged power and to irrigate the agriculture land in the downstream areas of the down. The Khuga dam intends to generate 1.5 MW of hydropower, to irrigate 15,000 hectares of annual irrigation. The canal keeps breaching every time with release of dam waters. The Singda dam was supposed to generate 750 KW of power. The Khoupum dam has long remained defunct despite its continued submergence of extensive agriculture land. There is no guarantee that the renovation with World Bank financing can ensure the functioning of these dams[102].

Pic: Aerial View of Singda Dam in Manipur which World Bank is financing its renovation

[99] *Jiten Yumnam. (2019, December 12.) 'Local communities oppose planned dam construction supported by World Bank in Manipur.' The Bretton woods Project. https://www.brettonwoodsproject.org/2019/12/local-communities-oppose-planned-dam-construction-boom-in-manipur-backed-by-world-bank/*

[100] *Eviction order Notification no. 4/8/LA/2013com (Rev)) through the Land and Revenue Department, Government of Manipur, dated 28th May 2013.*

[101] *Jiten, Y, P. Koijam. (2013, October 10.) Nuances of Singda Dam Expansion Plan. E-Pao.Net.*

[102] *(2019, July 2). Manipur: Farmers' body on hunger strike demanding renovation of canal. The North East Now. https://nenow.in/north-east-news/manipur-farmers-body-on-hunger-strike-demanding-renovation-of-canal.html*

Loss of Livelihood: Forced acquisition of forest and agriculture land for Singda dam will affect the livelihood of affected villagers. The Government already acquired massive land area for the dam in villages around Singda. In 1975, the Government of Manipur already acquired 517 acres from Ireng and Kadangband villages for the project. These affected the livelihood and survival of affected communities. One of the major impact of Khuga dam is the direct displacement of several villages settling close to the Khuga dam. Villages displaced by the dam includes Sehken, Zoumun, Ngoiphai, Mata Mualtam, and Geljang. Due to loss of the wetland cultivations, the displaced villagers are forced to shift the pattern of agriculture practices, shifting from wetland to jhuming or shifting cultivations as their primary source of income and livelihoods were submerged by the dam reservoir[103].

Environment Impacts: Assessing the detailed impacts of the World Bank financed projects on the land, people, environment, culture, health, etc. with rightful participation of communities in the myriad projects remains a challenge. The enormous scale of blasting, tunneling, hill side cutting and excavation of earth for construction of Teesta III HEP and Teesta V HEP and Teesta VI HEP, worsened the impacts of the earthquake in 2011. Teesta III HEP project funded by IFC through financial intermediaries and NHPC in Sikkim already aggravated disasters in downstream areas of the dam[104]. The impacts of electromagnetic waves on humans, such as those created by the World Bank funded 400 KV high voltage transmission and distribution lines, have not been conducted. Impacts of Singda dam, Khuga dam, Myntdu Leshka includes fishing by indigenous communities. At least Fifty-Three (53) fish species are reported from the river and streams in the upstream of Singda dam[105]. The Khuga dam that lays defunct had submerged massive forest and agriculture land in Churachandpur District, Manipur.

Violation of Worker's Rights: The project authorities failed to undertake safety measures for the workers and also ignored the warnings of communities, scientist and environmentalist on the lack of feasibility of building large dams in the fragile and high seismic zone regions like the Himalayas.[106] Several workers of the 1200 MW Teesta III HEP project were killed due to the collapse of tunnel and massive landslides due to an earthquake in Sikkim in the year 2011. Myntdu Leshka dam, which World Bank is preparing to finance for renovation is also laden with violation of workers' rights in Meghalaya in October 2009. The flooding of Myntdu Leshka dam in Meghalaya on 8 October 2009 claimed the lives of ten labourers[107].

Undermining Human Rights and IFIs own Safeguards: The non-application of human rights standards and the violation of safeguard standards of IFIs are significant concerns. The dam building in Sikkim by World Bank through financial intermediaries, such as Teesta III HEP and Teesta V HEP already caused violation of indigenous peoples human rights. The failure to adhere to its safeguards, including indigenous peoples' plan and environmental safeguards is a concern. The Khuga dam is also marred with human

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[103] *Thangboi, S. Zou. "Disrupted and Dislocated Livelihoods: Impacts of Khuga Dam on the Livelihoods of the Displaced People in Churachandpur, Manipur Keywords: Khuga Dam, Disrupted Livelihood, Displaced People, Jhuming, Charcoal Making, Sustainability". Journal of North East India Studies Vol. 1, No. 1, Jul.-Dec. 2011, pp. 36-60. Retrieved from http://www.jneis.com/wp-content/uploads/2018/09/1.1.3.pdf*

[104] *2010, August 13. Lafarge's India-Bangladesh cement project remains frozen. The Guardian. https://www.theguardian.com/world/2010/aug/13/india-bangladesh*

[105] *Environment and Social Impact Assessment for Singda Dam for Dam Rehabilitation and Improvement Project (DRIP), prepared by the Water Resources Department funded by the World Bank in February 2020*

[106] *Anirudha Nagar. (2020, April 8.) 'Indian Tea Plantation Workers Look to the World Bank to Prevent a Coronavirus Disaster'. The Diplomat.*

[107] *(2009, October 14). Meghalaya dam toll touches nine, six workers still missing. The Times of India.*

rights violations, targeting the dam affected communities. On 16th December 2005, a combined force of Churachandpur police, 12th Indian Reserve Battalion, and 41st Border Security Forces committed an indiscriminate firing at Mata Mualtam village. The firing killed three persons and injured 32 others.[108]

Accountability Issues: Dams which World Bank is financing for renovation are marred with practices of manipulation. The JAC on the Khuga Dam Project indeed apprised the Prime Minister of India in July 2014 on the irregularities and misappropriation of funds to the tune of Indian Rupees (INR) 1.5 billion involved in Khuga dam construction and appealed for his intervention to investigate such misappropriations. The canals of Khuga dam continues to break despite repairing on several occasions. These has been no investigation as to why the Singda dam and the Khuga dam lays defunct or failing to fulfill their primary objectives. Many of the dam targeted for rehabilitation and improvement are marred with failure, which lead to concerns if the World Bank financing can ensure their functioning.

In the year 2007, 2008, 2009 and 2010, heavy rainfall in the catchment area led to flooding of the Myntdu Leshka dam.[109] The incident itself and subsequent non-disclosure of the inquiry report revealed the lack of concern for safety of the workers and the lack of accountability of the project authorities of the dam.

CONCLUSION:

The World Bank and other IFIs intensified their focus on financing infrastructure projects, ranging from road projects, high voltage transmission and distribution lines, energy projects, and extraction of natural resources, as part of implementation of India's Act East Policy. The policy prescription of the World Bank for overt focus on financing infrastructure projects, privatization of development, extractives, energy projects and fostering free trade and privatization of development will reinforce the neoliberal development model. Such an overwhelming emphasis on corporate role will intensify unregulated plunder of natural resources and privatization of services, thereby impoverishing indigenous peoples.

The high voltage transmission and distribution lines across the North East will only facilitate constructing more than two hundred mega-dams across the region. Funding large dams has long been controversial in North East India due to its social and environmental impacts besides failure and underperformances. Hence, the World Bank should desist from financing dam building in the region, including through financial intermediaries, such as in Sikkim. World Bank should stop financing the financial intermediaries that support NHPC and other dam building companies to build destructive hydropower projects which are neither sustainable nor cost effective, but damaging for the people and environment.

There are concerns if the World Bank financing of rehabilitation of dams in Manipur and Meghalaya will ever ensure the realization of their objectives. The initiative to renovate projects with the World Bank's funding in Manipur and Meghalaya should not lead to the forced acquisition of community land and obstruction of access to their traditional territory. The Government should consult the affected communities, both in upstream and downstream of the dam for any interventions on dams and desist from forced land acquisition and environmental impacts.

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[108] *(2005, December 16.) 'Khuga dam standoff turns ugly, 3 killed in SF firing.' The Sangai Express. http://www.e-pao.net/GP.asp?src=1.12.161205.dec05*

[109] *"March 19 flood delayed commissioning of Leshka project" 15 June 2011, The Meghalaya Times*

The extensive corruptive practices, lack of monitoring and accountability mechanisms has led to much concerns if the continued funding with World Bank financing and its implementation will ever be monitored and accounted for in Manipur. The involvement of the World Bank in the North East requires serious introspection on its relevance and long-term implications, economically and politically. It is critical to assess the financial implications of loan borrowing from the World Bank on the economy of North East due to the renovation and rehabilitation of dams with funding from the World Bank in Manipur and Meghalaya. The impact of loan financing such as debt burden and increased taxation on the general population should be carefully assessed before seeking any loan from the World Bank and other financial institutions. A strong monitoring and accountability mechanism is highly critical.

Implementing the World Bank standards on indigenous peoples' rights, environmental sustainability, rehabilitation, and resettlement remains another concern. The World Bank's operational standards for environmental sustainability and indigenous peoples' rights should be adhered. Grievance and accountability mechanism should be established and made accessible to address violations due to World Bank involvement. The World Bank should support development processes that uphold the wishes and aspirations of the indigenous peoples and that advances human rights, ecological integrity, alternative energy and development model in North East.

CHAPTER III

AN OVERVIEW OF ADB FINANCING OF ENERGY SECTOR IN NORTH EAST INDIA

ADB financing in NE:

The Asian Development Bank (ADB) projected India's North East as a corridor for enhancing economic integration with South Asia and South East Asia and facilitating sub regional trade and investment by financing sectors, viz, transportation, urban development, agribusiness, power reforms etc. The ADB and the World Bank are involved in financing energy related development in the North East. ADB began its power sector operations in India in 1986. By mid-2007, there have been 24 public sector loans for 21 projects, with a total value of $4.6 billion. ADB loans focused on transmission and distribution and in power sector restructuring[110].

The ADB's Country Partnership Strategy (CPS) of 2013-2017 emphasizes North East India as a strategic location to promote cross-border regional cooperation with Southeast Asia for trade and investment. India has been ADB's largest borrower for energy projects from 2007 to 2015, accounting for 25% of ADB's total investments in energy projects in Asia and the Pacific.[111] The Country Partnership Strategy (CPS), 2018–2022 indicated to support India's goal of sustainable growth along with rapid economic transformation and job creation. ADB's annual lending to India is proposed to be raised to a maximum of $4 billion.[112] It was directly involved in preparing the *North Eastern Region Vision 2020*[113].

The ADB's support for North East Power Development Project is envisaged to complement Government of India's power for all by 2012 initiative in India's North East. The Technical Assistance (TA) for the project outlined that locally available resources, including hydropower, natural gas and renewable energy sources will be developed, critical transmission and distribution facilities will be provided and institutional strengthening in power sector will be supported with private sector participation. ADB also pointed out that the North East has unexploited natural resources with many states having high agribusiness potential. ADB stated that its TA is aimed to increase the capacity of the private sector in North East to transform itself in response to ADB defined challenges and issues facing the region in International markets.

Other than power sector, ADB also financed promotion of trade and investment, agribusiness, urban development etc. ADB prepared a TA for promotion of Trade and Investment in North East in October 2004, where ADB outlined that its trade and investment creation initiative for the North East is necessary to improve the market environment for trade and investment in North East states and to create a favorable environment for potential private sector investments. ADB supported TA on "Agribusiness Development Support Project" in Sikkim to promote commercialization of agriculture and development of agribusiness.

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[110] *(2007, August). ADB Power Projects in India. Energy Sector in India – Building on Success for More Results, Sector Assistance Program Evaluation, ADB Operations Evaluation Department/OED, Aug 2007 (pp iii-vi). Retrieved from http://www.adb.org/Documents/Reports/SAPE/IND/SAP-IND-2007-17.pdf*

[111] *"India and ADB", official site of Asian Development Bank. https://www.adb.org/countries/india/main*

[112] *"India and ADB", official site of Asian Development Bank. https://www.adb.org/countries/india/main*

[113] *North Eastern Region Vision 2020 http://necouncil.gov.in/sites/default/files/about-us/Vision_2020.pdf*

ADB's assistance for the energy sector in North East India prioritizes six main areas: Power sector reform, the promotion of higher efficiency and low carbon power sources, the expansion, de-bottlenecking and optimization of Transmission and Distribution systems, institutions strengthening to implement reforms required by the Electricity Act of 2003, the promotion of private sector participation and encouraging energy strategy and ensuring environmental and social sustainability. The ADB is also directly involved in financing the 120 MW Lower Kopili Hydroelectric Project over the Kopili River in Assam. The ADB is also preparing to fund the renovation and upgradation of the Gumti dam in Tripura.

North East Power Development Project

ADB has been financing the "North East Power Development Project", with sub projects being implemented in various North East States, such as Assam, Meghalaya, and Tripura etc. For its project financings on Power sector in North East, ADB premised that the power sector in the region suffers from high transmission and distribution losses, technical losses, unmetered connections, theft, and subsidies to agricultural consumers etc.

ADB further stated that the major factors constraining further development of North East energy resources includes: (i) physical space constraints in West Bengal, which limit expansion of gas and electric power transmission capacities; (ii) a lack of standing agreements for energy trading with neighboring countries (especially with Bangladesh) which could help to eliminate the transmission bottleneck and (iii) a weak regional grid with limited interconnections between 400 kilovolt (kV), 220 kV, and 132 kV lines; insufficient capacity; and weak distribution networks providing an unreliable service.

ADB also outlined that the master plan for power development prepared by North Eastern Council identifies improvements to transmission and distribution systems and the provision of additional generating capacity as critical areas for short-term investment. ADB envisaged to enhance the power generation from both gas fired power plants and from hydropower in North East. ADB maintained that a focus on North East is consistent with ADB's efforts to promote economic development in remote areas.

The ADB financed the North East Power Development Project and developed a TA by 2004. The ADB's TA on the North East Power Development Project envisaged to complement the Government of India's, "Power for All by 2012" initiative in the North East. The TA has been financed on a grant basis from ADB's TA funding program. The total cost of the TA is estimated at US $ 1,100,000 equivalent. ADB financed US$ 750,000 and the Government of India finance the remaining cost of US$ 3, 50,000. The TA envisaged to develop locally available resources, including hydropower, natural gas and renewable energy sources, to provide critical transmission and distribution facilities and to support institutional strengthening in the power sector[114].

The TA will be implemented in two phases I) an energy sector assessment for the North East and II) a review of feasibility studies for investment components in selected states of the North East.

Phase I of the project includes compiling of existing reports and analysis on energy sector issues and recommending strategy and investment priorities. Phase I generates an energy sector review, including a survey of resource availability, power supply, demand, policies and the power sector reform agenda plans.

Phase II evaluates the investment proposals prepared by the Minister of Development of North East Region, India (MDONER) and includes the technical, environmental, financial, social and institutional

[114] *(2004, December). ADB: TAR IND 38312, TA to India for preparing the North East Power Development Project. Asian Development Bank.*

analysis. Phase II also reviewed and prepare feasibility studies for investment in power generation, transmission and distribution and efficiency enhancements and undertake capacity building programmes.

The investment project for Phase II has the following components.

Grid Strengthening: This includes system improvements, such as i) interconnections between 400 kv, 220 kv and 132 kv lines to allow for the efficient delivery of power within the North East ii) the renovation, maintenance and upgradation of local grids (lesser than 132 kv) and distribution systems and iii) the upgradation of the dispatch and metering systems.

Power development: This component supports the expansion of commercial generation for the North East region's grid by targeting investments that can be locally developed and managed. These power generation projects includes small to medium sized hydropower projects, gas-fired power plants and renewable energy sources (e.g, biomass).

Institutional Strengthening: The technical, financial and management capabilities of State Electricity Boards (SEBs), Power departments and other agencies has been upgraded as required by the Electricity Act of 2003.

MAJOR ENERGY PROJECTS FINANCED BY ADB IN NORTH EAST INDIA.

The ADB subsequently financed major energy related initiatives in the States of Assam, Tripura and Meghalaya in North East India. The major energy or power sector projects financed by the Asian Development Bank (ADB) in the North East India includes the following projects:

Assam Power Sector Reform

The Assam Power Sector Development Programme[115] has been initiated with the support of Asian Development Bank. The Government of India and ADB agreed in 2002 that TA and a loan would be provided to support reform of Assam's financial and Power sectors. The TA is included in ADB's country program for India[116].

ADB maintains that the TA, proposed in 2002 for the power sector will assist the Government of India in preparing a project that supports the "Power for All by 2012" programme. Under this programme, "clean energy" is to be promoted in the North East using locally available resources. The "Power for All" project has the following components, i) small to medium hydropower development ii) the promotion of other clean energy sources, iii) the development and rehabilitation of critical transmission and distribution facilities and iv) capacity building and institutional strengthening. The objectives of the TA includes, assisting the Government of Assam and the Assam State Electricity Board (ASEB) to prepare a power sector development programme to improve sector performance, both technically and financially, and proposed policy and legislative reforms to address issues constraining this sector's development. The TA aimed to put in place an appropriate policy, legal and regulatory framework and follow it up with reform measures and investment projects. The total cost of the TA stands around US $ 1 million.

The ADB imposed a condition through the Central Government that in order to avail its funds, the Assam Government first needed to show it commitment by unbundling the Assam State Electricity Board (ASEB) into five components, viz, the Assam Power Generation Corporation Limited, the Lower Assam

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[115] ADB: TAR: IND 36318, financed by Japan Special Fund

[116] A loan "Assam Governance and Public Resource Management" in included in ADB's 2004 country program for India. The TA first appeared in ADB Business Opportunities (Internet Edition), 1 July 2002.

Electricity Distribution Company Limited, the Central Assam Electricity Distribution Company Limited and the Upper Assam Electricity Distribution Company Limited[117]. The reform of the ASEB has already begun as per an earlier TA and a profit centred approach has been introduced in 14 distribution circles as part of steps towards unbundling and corporatizing the ASEBs operations[118].

By a framework financing agreement between the Government of India and the ADB signed on 13 May 2014, the ADB has agreed to provide multi tranche financing facility to the Government of India for the purposes of financing projects under the Assam Power Sector Investment Programme. The Government of Assam is the oversight body to support policy and budgetary related matters[119]. Subsequently, a project agreement was entered on 20 February 2015 between the ADB and the State of Assam and the Assam Power Generation Corporation Limited (APGCL).

Tranche 1: Assam Power Sector Development Programme

For tranche 1, the Government of India sanctioned Assam Power Sector Investment Program in 2014 with ADB assistance of 300 million USD and counterpart fund support of 130 million USD. The Total cost of the projects is 430 million USD. ADB's assistance has been provided in three tranches under Multi tranche financing Facility (MFF 0083). The loan and the project agreements for Tranche 1 were signed on 20 February 2015 and became effective on 12 May 2015. The total loan amount under Tranche I is USD 50 Million. Tranche 1 of MFF includes physical investments and non-physical investments. Physical investment includes replacement of the existing 45 MW open gas cycle turbines of Lakwa Thermal Power Station with new internal combustion type gas engine generators of 70 MW capacity. The non-physical investments have three major subcomponents: (i) project preparation and implementation support; (ii) enterprise resource planning and (iii) capacity building and training. The contract was awarded to a joint venture of Wartsila India Pvt. Ltd and Wartsila Fin OY in the January, 2016[120].

Trance 2: Expansion and Upgradation of Power Distribution System in Assam

The Investment Program (Tranche 2) of the Assam Power Sector Investment Program has been implemented during 2016-2019 by the Assam Power Distribution Corporation Ltd (APDCL). Tranche 2 project has two outputs: (i) expansion and upgradation of the distribution system; and (ii) strengthening institutional capacity of APDCL. Expansion plans add a 33/11 kV substation and associate facilities to reduce losses and enhance the power supply capacity of overloaded substations and lines. Under upgradation, aged and degraded components in the system were replaced and rehabilitated to reduce losses, improve voltage profile. Output 2 seeks to improve distribution control and customer services and includes four major activities: (i) establish an independent meter testing laboratory; (ii) design information technology module for introduction of centralized uniform revenue billing system; (iii) establish area load dispatch centers; and (iv)provide consulting services to support implementation of project components[121].

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[117] *(2002, July 1). ADB Loan, "Assam Governance and Public Resource Management" included in ADB's 2004 country programme for India. The TA first appeared in ADB Business Opportunities. Asian Development Bank.*

[118] *(2000). Technical Assistance to India for Support of Power Finance Corporation, Manila. Asian Development Bank.*

[119] *(2020). India: Assam Power Sector Investment Program – Tranche 1. Project Number: 47101-002 Loan/Grant Number: 3140 Period covered: 1 April 2019 to 31 March 2020. Asian Development Bank.*

[120] *Semi Annular Environmental Monitoring Report (EMR) for Period from July 2018 to December 201 for the Assam Power Sector Investment Program- Project 1 Loan No 3140. Asian Development Bank.*

[121] *(2020). Assam Power Sector Investment Program - Tranche 2: Social Monitoring Report (July-December 2019). Asian Development Bank. Retrieved from https://www.adb.org/projects/documents/ind-47101-003-smr-3*

The Rehabilitation Plan (November, 2015) for the project has identified social impacts due to acquisition of land, damages to crop, and other losses, for sub-station construction and stringing of distribution line. The Report has indicated that one (1) sub-station is on private land (individual/household owned) has been acquired through mutual negotiation.

Tranche 3: Financing the 120 MW Lower Kopili Hydroelectric Project in Assam

The ADB has approved a $231 million loan to construct the Lower Kopili Hydroelectric Power (LKHEP) plant over the Kopili River in Central Assam, India. This loan is the third and largest tranche of the $300 million Assam Power Sector Investment Program approved by ADB in 2014[122]. The LKHEP plant is envisaged to double the hydropower generation capacity of the Assam Power Generation Corporation Limited (APGCL). The Government of Assam is the Executing Agency for the Assam Power Sector Investment Program – Project-3. The APGCL and its Project Management Unit are wholly responsible for the implementation of the ADB financed project.

Pic: Power House Site of Lower Kopili Dam

ADB stated that the project will produce clean energy and help address the growing demand for electricity in the state of Assam. And further, the project will also help state power companies reduce their dependence on expensive electricity from fossil fuel sources, as stated by ADB Principal Energy Specialist Len George. The project will also finance APGCL's enterprise resource planning system and will support implementation of measures to improve financial management. It intends to undertake special measures to mitigate acidity concerns in the Kopili River on the project. In addition to the loan, a $2 million project grant from ADB's Japan Fund for Poverty Reduction intends to finance community-based disaster resilience initiatives and resource management.

Meghalaya Power Distribution Sector Improvement Project (ADB Project Number 51308-004)

The ADB also financed power sector project in Meghalaya state in North East India. A loan agreement for US $132.8 million for "Meghalaya Power Distribution Sector Improvement Project" (Loan Number 3996) was signed between the Government of India and the ADB on 1 December 2020. The Project will be implemented by the State of Meghalaya through the Meghalaya Energy Corporation Ltd. (MeECL).

[122] *(2020, December 19). $231 Million ADB Loan to Help Increase Supply of Clean Energy in India. Asian Development Bank. https://www.adb.org/news/231-million-adb-loan-help-increase-supply-clean-energy-india*

The ADB and the Government of India signed the $132.8 million loan with an aim to strengthen and modernize the distribution network and improve the quality of power supplied to households, industries, and businesses in India's northeastern state of Meghalaya[123]. ADB stated that the project supports the state government's "24x7 Power for All" initiative and will help the state reduce its high technical and commercial losses through network strengthening, metering, and billing efficiency improvements. The project proponents project that the technological improvements to the distribution network adapted to extreme weather, introduction of smart meters and online meter reading, billing, and collection systems will help improve operational efficiencies and financial sustainability of the state's distribution system.

The project envisaged to construct 23 substations; renovate and modernize 45 substations, including the provision of control room equipment and protection systems; install and upgrade 2,214 kilometers of distribution lines and associated facilities covering three out of the six circles in the state. Installation of smart meters targets about 180,000 households. The loan will be supplemented by a $2 million grant from ADB's Japan Fund for Poverty Reduction that will finance renewable energy mini-grids to improve power quality and support income generation activities in three villages and three schools. The project is envisaged to develop a distribution sector road map and a financial road map for the MePDCL.

The proposed project is envisaged to strengthen and modernize the power distribution network, reduce technical and commercial losses, and improve the power quality of the distribution network in Meghalaya. The project aimed to enhance the institutional capacity of MePDCL by (i) supporting the preparation of a distribution sector road map and financial road map to improve MePDCL's planning capability, and financial performance and sustainability; (ii) introducing innovative components in project design; and (iii) building MePDCL's capacity to monitor project implementation.

The project also aimed to support Meghalaya New and Renewable Development Agency (MNREDA) with pilot testing of gender and socially inclusive renewable mini grid energy systems in 3 remote villages and schools, which have the potential for future replication.

The Initial Environmental Examination study conducted has categorized Meghalaya Power Distribution Sector Improvement Project as Category 'B' project as per ADB's Safeguard Policy Statement.

Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project. Project Number: 51308-009, September 2022

Tripura is also prioritized by the ADB to support power sector development in the North East. Tripura, a power surplus state, has been supplying 190 MW to Bangladesh and 40 MW to Nepal[124]. In 2019, the ADB sanctioned Rs 1,925 crore to the Tripura State Electricity Corporation Limited to upgrade the capacity of 63 MW Rokhia gas fired thermal power project to 120 MW at a cost of Rs 699.80 crore and to modernize Gumti Hydroelectric Project and its distribution system at an estimated cost of Rs 1225.88 crores. The Rokhia project is located at West Tripura district whereas Gumti dam is in Gumti District[125].

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[123] *(2020, December 1). ADB, India Sign $132.8 Million Loan to Strengthen Meghalaya's Power Distribution Sector. Asian Development Bank.*
https://www.adb.org/news/adb-india-sign-loan-strengthen-meghalaya-power-distribution-sector

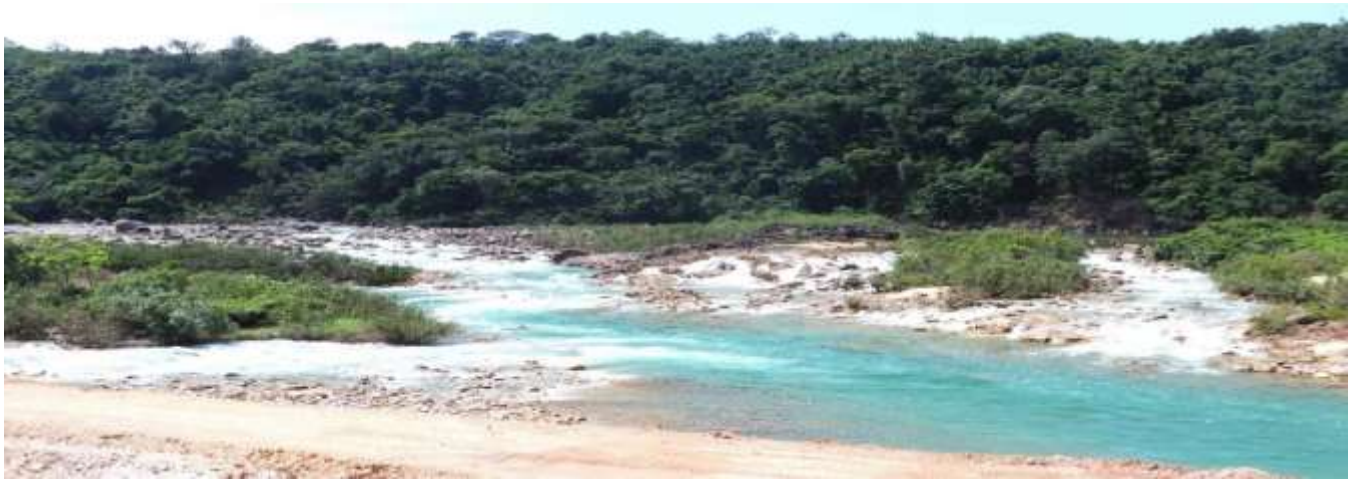
[124] *(2019, July 18). ADB to give Rs 1,540 cr for Tripura power projects. The Quint.*
https://www.thequint.com/news/hot-news/adb-to-give-rs-1-540-cr-for-tripura-power-projects

[125] *(2019, July 25). ADB sanctions Rs 1,925 crore power project in Tripura. The Economic Times.*

The project is proposed to be partly financed by the ADB through a project loan. The project is categorized as "B" for involuntary resettlement and "B" for indigenous peoples as per ADB's Safeguard Policy Statement (2009). The Department of Power, Government of Tripura is the executing agency. The project consists of two major components such as generation and distribution. The Tripura Power Generation Limited (TPGL) will be responsible for implementing the generation component, i.e, Rokhia 120 MW Combined Cycle Gas Power Plant and Tripura State Electricity Corporation Limited (TSECL) will be responsible for implementing the distribution components[126].

MAJOR ISSUES AND CHALLENGES OF ADB FINANCING IN NORTH EAST

LIMITATIONS IN CONSULTATION AND CONSENT PROCESSES: The decision making on project financing by ADB are marred with limitations in the consultation with the affected communities. The space for participation of affected communities especially for social and environmentally damaging projects, such as construction of large dams is found to be extremely limited in ADB funded projects. The affected communities of Gumti Hydroelectric Project in Tripura and those affected by the repeated and severe flooding due to the Lower Kopili Hydroelectric Project in downstream portion of Kopili River in Nagaon District in Assam are excluded from the development decision making. A detailed impact assessing covering the downstream impact assessment has not been conducted and shared with affected communities, which is crucial for a just development decision making. The people were not informed of the disclosure policies, environment and social policies while introducing the project, even as these policies still failed to receive a clear consensus and acceptability.



Pic: Kopili River close to Power House site of Lower Kopili Dam

PERCEPTION OF LAND AND RESOURCES FOR PROFITING: The Technical Assistance (TA) for the North East Power Sector financed by ADB outlined that locally available resources, including hydropower, natural gas and renewable energy sources will be developed, critical transmission and distribution facilities will be provided and institutional strengthening in power sector. ADB maintains that the TA for promoting Power sector in North East is to assist the Government to prepare a project that supports the "power for all" program by promoting clean energy in the Northeastern region using locally

[126] *(2022, September). Tripura Power Distribution Strengthening and Generation Efficiency Improvement Project: Combined Resettlement and Indigenous Peoples Plans. Combined Resettlement Plan and Indigenous Peoples Plans. Asian Development Bank.*

available resources such as small to medium hydropower and other renewable energy sources. The development of hydropower in North East has long been controversial due to widespread displacement, destruction of livelihood sources, environment and climate change impacts, indigenous peoples' rights violation and unaccountability of project authorities.

PRIVATIATION OF POWER SECTOR: The ADB's support for North East Power Development Project is envisaged to complement Government of India's power for all by 2012 initiative in India's North East. ADB maintained that its TA is to increase the capacity of the private sector in North East to transform itself in response to ADB defined challenges facing the region in International markets. The ADB power sector focus aims to enhance the commercialization and competitiveness of the power sector.

The ADB imposed a condition through the Central Government that in order to avail its funds, the Assam Government first needed to show it commitment by unbundling the Assam State Electricity Board (ASEB) into five components: The Assam Power Generation Corporation Limited, the Lower Assam Electricity Distribution Company Limited, the Central Assam Electricity Distribution Company Limited, and the Upper Assam Electricity Distribution Company Limited[127].

The move for corporatization of the power sector in Meghalaya with the support of the ADB has been marked by vehement protest for workers and employees' unions. In Meghalaya, the Meghalaya State Electricity Board (MeSEB) Employees staff Union raised concern with initiatives already being taken to privatize the Meghalaya state Electricity Board. In a memorandum submitted to the Chairman, the Meghalaya State Electricity Board for reviewing the Electricity Act, 2003 that provisioned unbundling of State Electricity Boards to generation, transmission and distribution, the union expressed that experience of unbundling of State Electricity Boards in Assam, Orissa and Delhi and privatization of electricity supply have been proved a total failure both from the point of power distribution and revenue collection.

SOCIAL AND ENVIRONMENTAL IMPACTS: The project financed by the ADB will further worsen the social and environmental impacts. The ADB has approved a $231 million loan to construct the Lower Kopili Hydroelectric Power plant over the Kopili River in Assam. The ADB is also preparing to fund the modernization of the distribution system of Gumti Hydroelectric Project in Tripura. The Lower Kopili Dam will only worsen the flood situation caused by hydropower projects in Kopili River in the downstream areas in Nagaon District in Assam. The Lower Kopili Dam will submerge more than 500 hectares of forest land and will contribute to climate change and loss of endemic species. Several workers and engineers of NEEPCO lose their lives in a recurrent accident and disaster at Kopili dam in October 2019 and March 2022, attributed to acidic waters of Kopili River and lack of adequate safety measures. There are concerns of similar accidents in the Lower Kopili dam.

The 30 metre high Gumti Hydroelectric project, commissioned in 1974 has been marred with protests by affected tribal communities seeking reparation and rights over the loss of their land[128]. The Gumti dam in Tripura had submerged 46.34 sq km of fertile land, which was home to about 40,000 tribal people. The Tripura Gazetteer of 1975 mentioned sighting 'large herds of Indian elephants in the Raima-Sarma region along with some tigers and bears in the dense forests'. The region was rich in flora and fauna. The affected

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[127] *(2002, July 1). ADB Loan, "Assam Governance and Public Resource Management" included in ADB's 2004 country programme for India. The TA first appeared in ADB Business Opportunities. Asian Development Bank.*

[128] *(2007, May 31). Tripura tribals want Gumti Hydro-Electric Project scrapped. Down to Earth. https://www.downtoearth.org.in/news/tripura-tribals-want-gumti-hydroelectric-project-scrapped-6015*

indigenous peoples demand the Gumti Dam project be scrapped and decommissioned and the land be given back to them[129].

UNACCOUNTABILITY OF PROJECT AUTHORITIES: The project financing of large dams and allied infrastructures benefits multinational companies. Many of these companies, both from India and from other countries are involved to seek additional profits by targeting the land and resources in the region. However, the project proponents and the corporations involved in these projects financed by ADB continues to remain unaccountable despite social and environmental impacts, including downstream impacts and flooding due to dams in Kopili River. The project authorities of Gumti Hydroelectric Project failed to address the demands of affected communities to address their rights.

CHALLENGES IN APPLICATION OF ADB SAFEGUARD POLICIES: There is serious challenge and limitations in the application of the ADB Safeguard policy of 2009, especially in the consultation of the affected communities in the downstream areas of proposed Lower Kopili dam and in the appraisal of impacts due to the dam in Assam. The appraisal of social and environmental impacts is inadequate in the case of the 120 MW Lower Kopili dam as the project authorities failed to consider the downstream impact of the dam on the people and environment in the downstream areas, including in Nagaon district of Assam. Dam building, including the existing dams over the Kopili is acknowledged as being responsible for disasters, floods in downstream areas. The application of ADB's safeguard on environment, environmental impact assessment is inadequate and failed to consult the communities in the downstream areas of Lower Kopili dam. The ADB's policy on indigenous peoples has been sidelined as affected communities of Gumti Hydroelectric Project in Tripura are not consulted in efforts to renovate the project.

LOANS AND IMPACTS: The financing by the Asian Development Bank for power sector in North East India, such as in Assam, Meghalaya, Tripura etc comes as loan. The ADB financing is not limited only to power sector, but also in urban development, road building, agri-business, governance and institutional building etc. The massive amount of loan project introduced in North East will increase the indebtedness of the states to both the ADB and the Central Government of India. The priority to service the repayment of loans and interest will lead to diversion of the scarce public resources from the necessary investment in the social sectors that need additional public resources.

CONCLUSIONS:

North East India records an increased financing from the International Financial Institutions, with substantial investment coming from the Asian Development Bank and the World Bank. Financing of power or energy sector and related infrastructure is one of the key focus of ADB financing in North East.

ADB emphasized on promoting clean energy in the North East region using locally available resources such as small to medium hydropower and other renewable energy sources. The financing of Lower Kopili dam is problematic given the downstream impacts and floods due to dams built over the Kopili River in Assam. ADB's insistence on financing the development of hydropower will further aggravate the social and environmental impacts. Similarly, the effort to renovate the Gumti dam is controversial that the dam has also long been marred with failure, besides causing displacement. It will be irrational for ADB to finance a project that has underperformed and that unleashed social and environmental impacts. Building large dams has been responsible not only for multiple disaster, but also for submerging vast tract of forest and agriculture land, which also contributes in the emission of greenhouse gas and climate change.

[129] *(2007, May 31). Tripura tribals want Gumti Hydro-Electric Project scrapped. Down to Earth. https://www.downtoearth.org.in/news/tripura-tribals-want-gumti-hydroelectric-project-scrapped-6015*

Financing hydropower projects is an unviable option in North East due to wide social, environment and climate change impacts. As such, ADB should desist financing hydropower projects in North East.

ADB's financing of power sector complements the financing conditions of other international financial institutions, primarily the World Bank in fostering a neoliberal agenda in North East. ADB imposed conditionalities through the central government that in order to avail ADB financing, regional governments had to first unbundle their State Electricity Board. Indeed, as one of the pre-condition to the International Monetary Fund / World Bank to bail out India from the balance of payments[130], it asked for reduction in Transmission and Distribution losses, one of which is to unbundle the state electricity boards (SEBs) into smaller units of generation, transmission and distribution where the government will have little say in it. Following this diagnosis, the Electricity Act, 2003 was passed that dictates that all the states must completely unbundle their respective SEBs / Electricity Departments by December 2005. Subsequently, ADB financed the unbundling of SEBs in Assam, Meghalaya and Tripura by 2014.

The current financing practices of the IFIs in North East have failed to ensure accountability to the people that it is mandated to serve. The implication of non-concessional financing in development processes by IFIs need be clearly assessed to prevent indebtedness and its myriad ramifications. ADB should fully implement its safeguard policies across North East and fully upheld indigenous peoples' human rights standards, especially, the UN Declaration on the Rights of Indigenous Peoples.

[130] *K Sreenu et. al. "Power Sector Reforms in the State of Andhra Pradesh in India" in Electricity Reforms in Asia: Experiences and Strategies. Selected Papers of Asia Power Sector Reforms Workshop organized by Prayas, Transnational Institute and Focus on Global South.*

CHAPTER IV

INTROSPECTION OF ADB FINANCING OF 120 MW LOWER KOPILI HYDROELECTRIC PROJECT IN ASSAM

Introduction: The Asian Development Bank (ADB) has been heavily involved in promoting and financing the power sector and related infrastructures in the North East region. ADB is involved in financing power sector reform, in direct financing of dam, building of high voltage transmission and distribution lines and in construction of roads that will support dam building directly and indirectly. The ADB has been funding the North East Power Sector Reform, focusing in states of Assam, Meghalaya, and Tripura etc.

In Assam, the ADB has been funding the Multi Tranche Financing Facility in Assam Power Sector Investment Program. For tranche 1, the Government of India sanctioned Assam Power Sector Investment Program in 2014 with ADB assistance of 300 million USD and counterpart fund support of 130 million USD. The Total cost of the projects is 430 million USD. The assistance of ADB has been provided in three tranches under Multi tranche financing Facility (MFF 0083). The loan and the project agreements for Tranche 1 were signed on 20 February 2015 and became effective on 12 May 2015. The total loan amount under Tranche I is USD 50.00 Million. Tranche 1 of MFF includes physical investments and non-physical investments. Physical investment includes replacement of the existing 45 MW open gas cycle turbines of Lakwa Thermal Power Station with new internal combustion type gas engine generators of 70 MW capacity.

The Tranche 2 of the Assam Power Sector Investment Program has been implemented during 2016-2019 by the Assam Power Distribution Corporation Ltd (APDCL), the sole power distribution company in the state. Tranche 2 project has two outputs: (i) expansion and upgradation of the distribution system; and (ii) strengthening institutional capacity of APDCL. Expansion plans will add a 33/11 kV substation and associate facilities to reduce losses and enhance the power supply capacity of overloaded substations and lines. The financing of the 120 MW Lower Kopili dam took place under the Tranche 3 of the Assam Power Sector Development programme.

ADB funding of hydropower projects in Northeast: In the year 2013, Asian Development Bank has cleared to provide loan of US $ 200 million to construct the 120 MW Lower Kopili Hydropower project in and Dima Hasao District in Assam. This project is being constructed by Assam Power Generation Corporation Limited (APGCL). The project is only Eight (8) km downstream of existing Kopili hydropower project[131].

The ADB financed 120 MW Lower Kopili dam will be the third dam built over the Kopili River and will utilize the water discharge of the existing Kopili Hydro Electric Project (HEP), which has two dams, one on the Kopili River and another on its tributary, the Umrang stream. This project was developed by Northeast Electric Power Corporation Limited (NEEPCO). The first dam with 66 metres height on the Kopili River is known as Khandong dam and the second one with 30 metre height is known as Kopili dam

[131] *Review of Water Sector in Northeast India in 2013: Increasing threats to Rivers, People and Environment January 14, 2014, SANDRP*
https://sandrp.in/tag/adb-funding-for-hydropower-projects-in-northeast/

and located at Umranso. Water from the Khandong reservoir is utilized in the Khandong power station through a 2852 metre long tunnel to generate 50 MW of power. The tail water from this powerhouse is led to the Umrong reservoir. The water from Umrong reservoir is taken through a 5473 m long tunnel to the Kopili power station to generate 200 MW of power. An additional 25 MW was added to the Khandong dam in the Stage II of the Kopili HEP, making the total power generation of 275 MW. The first unit of this Kopili HEP was commissioned in March 1984, while Stage II was commissioned in July 2004.

The Kopili River is a south bank tributary of Brahmaputra River. The total catchment of Kopili River is about 16,421 km^2. The Kopili River originates in the Borail Range Mountains in Meghalaya and has a total length of 290 km up to its confluence with Brahmaputra[2].

ADB Loan for 120 MW Lower Kopili dam: The Asian Development Bank (ADB) has approved a US $ 231 million loan amount to fund the construction of the 120 MW Lower Kopili Hydroelectric Power (LKHEP) plant in Dima Hasao District in Central Assam in North East India**.** The loan is the third and largest tranche of the $300 million Assam Power Sector Investment Programme approved by ADB in 2014. In addition, a $2 million project grant from ADB's Japan Fund for Poverty Reduction will finance community-based disaster resilience initiatives and resource management for the project affected peoples.

The LKHEP plant envisaged to harness water from the Kopili River to generate a total capacity of 120 MW of electricity, particularly during peak demand period. The Lower Kopili dam envisaged to utilize the tailrace releases from existing 200 MW Kopili Power Station, the inflow from intermediate catchment between Khandong and Longku Dam site and the spill from the Khandong and Umrong dam reservoirs despite the fact that these dams submerged massive forest land besides causing massive floods in the downstream areas. The loan will also finance the Assam Power Generation Corporation Limited (APGCL) in its enterprise resource planning system and support the implementation of measures to improve financial management and to implement special measures to mitigate acidity concerns in the Kopili River.

The LKHEP dam being built at Longku will be a concrete gravity dam, of height 65 metres and top longitudinal cross section 335 metres. The crest of the dam will be 229 metres above mean sea level. The dam will create a reservoir at Longku with a spread of 620 hectares with live storage of 77 million cubic meter. A tunnel will be excavated to deliver the water from the reservoir to the main power plant. Water from the intake to the main power plant enters the tunnel of diameter 7.0 meter on the right bank of the Kopili River. This tunnel will be 3.641 km long[132]. The Lower Kopili dam envisaged to utilize the tailrace releases from 200 MW Kopili Power Station, the inflow from intermediate catchment between Khandong and Longku Dam site and the spill from the Khandong and Umrong dam reservoirs over the Kopili River.

The ADB maintained that the project will produce clean energy to meet the growing demand for electricity in Assam and to reduce dependence on expensive electricity from fossil fuel sources. The project intends to provide reliable power supply and to promote economic growth, employment and attract investments[133].

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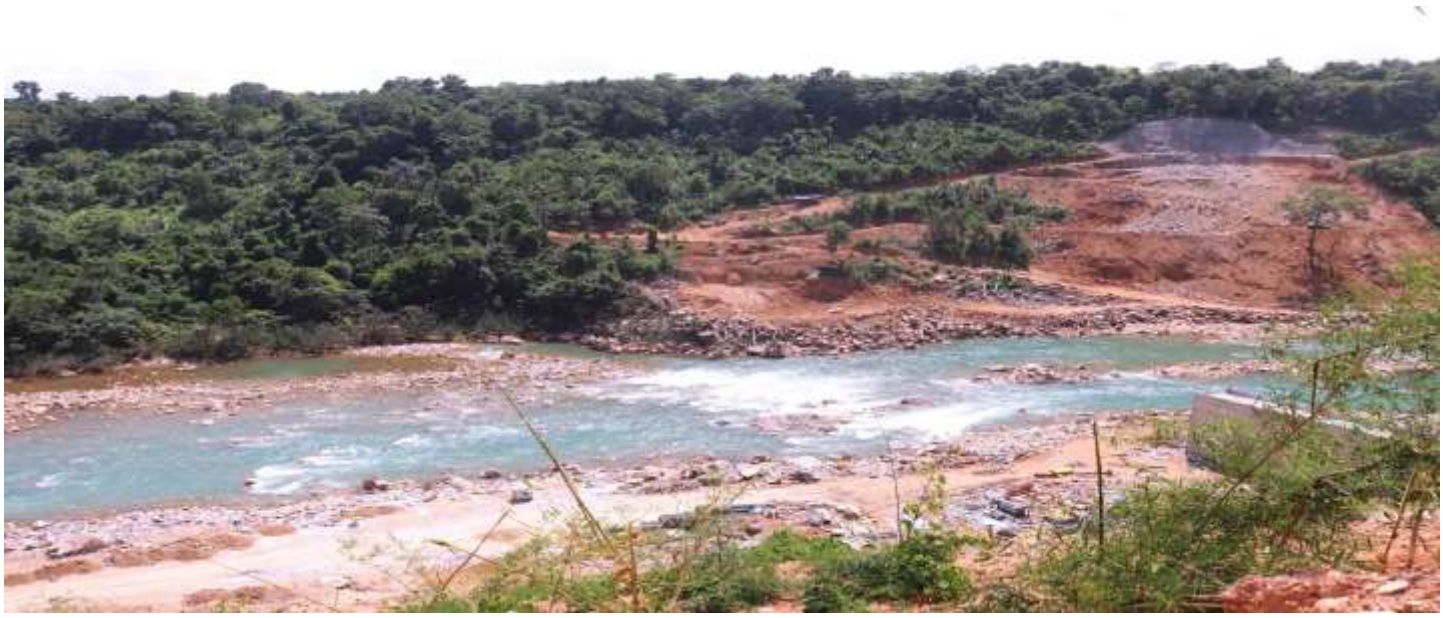
[132] *(2021, July). Environmental Monitoring Report, ADB, Project No. 47101-004 Semi-Annual Report July 2021. Asian Development Bank.*

[133] *Nicholas Nhede. (2021, January 7). India gets $231m ADB aid for Lower Kopili hydro project. Power Engineering International. Retrieved from https://www.powerengineeringint.com/renewables/hydroelectric/india-gets-231m-adb-aid-for-lower-kopili-hydro-project/*



Pic: Dam site of Lower Kopili Dam in Assam

Project Authority: The Government of Assam is the Executing Agency for the Assam Power Sector Investment Program – Project-3 and acting through Assam Power Generation Corporation Limited (APGCL). The APGCL and its Project Management Unit are responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB.

Project authorities maintained that the Environment Impact Assessment (EIA) was prepared and uploaded in the website of the Ministry of Environment and Forest and Climate Change (MoEFCC), Government of India for the LKHEP in connection with the Environment Clearance for the project. The EIA was initially prepared in March 2017 and submitted to MoEFCC in July 2019 by the project authorities. The Environment Clearance was accorded for the project on 4 September 2019[134]. As the project requires diversion of forest land stage 1 and stage 2, Forest Clearance was also accorded for the project on 5 February 2019 and 4 December 2020 respectively by MoEFCC. Project authorities also maintained that other clearances and permits required for the project, viz, Environment Clearance, Forest Clearance Stage II, Ministry of Defense, Ministry of Home Affairs, Central Electric Authority etc were obtained as well.

MAJOR ISSUES OF CONCERN:

Land Acquisition /Loss of Livelihood: The project will entail acquisition of extensive land, including forest land. The total land required for this project will be 1577 hectares out of which according to the revised Pre-Feasibility Report (PFR) and Form-I, 552 hectares will fall under submergence. Further, land will also be required for compensatory afforestation to compensate the loss of forest. APGCL maintained that it will undertake compensatory afforestation through State Forest Department over 523 hectares of revenue land and to be mutated as reserved forest. The project authorities undermined community ownership of land of the tribal people by claiming that the affected land belongs to the government. The

[134] *MoEFCC letter No. J-12011/26/2012-IA-I dated 4th September, 2019*

proposed submergence area is inhabited by the Dimasa people. The tribal Dima Hasao people have expressed their fears of not getting proper rehabilitation.

Submergence of Forest and Impacts: The project will entail massive submergence of forest, which will entail loss of livelihood for many of the indigenous communities depending on the River. The destruction of the forest will adversely affect the habitat of the endemic and diverse flora and fauna recorded in the proposed reservoir and catchment area of the dam. The proposal for division of 523 Hectares of forest land for construction of Lower Kopili HEP Project was deliberated in the Forest Advisory Committee meeting of the MoEFCC meeting held on 19 December 2018[135]. In the PFR Form 1, the project authorities have stated that the 620 hectares that will be submerged due to this project consists of medium to high density vegetation, scrubs open and barren land etc. The extensive submergence of forest land will also cause massive emission of Green House Gases and will defeat the ongoing efforts to mitigate and reverse climate change and impacts in Assam and across North East region. Concerns persist that the project authorities failed to apply the Forest Rights Act, 2006 for the project.

Environment Issues: The Lower Kopili dam plan is marred with absence of a cumulative impact assessment due to the multiple dams in the immediate upstream of the proposed dam. The North East is considered as biodiversity hotspot – Eastern Himalayas and Indo-Burma Biodiversity Hotspot. There are concerns that the project will affect the rich biodiversity of the Dima Hasao and Karbi Anglong areas. ADB indeed classified the Lower Kopili HEP as Category A high risk project in all the Environment, Involuntary Resettlement and Indigenous Peoples Category, as per ADB's Safeguard Policy Statement (SPS 2009). Additionally, based on the results of the climate change risk assessment, the subproject is High Risk for Multi-Hazard Index and Climate. A detailed impact assessment on the rich biodiversity, flora and fauna encompassing both upstream and downstream impacts due to the dam is still lacking.

Pic: Site of Power House of Lower Kopili dam

[135] *Parag Jyoti Saikia, Himanshu Thakkar, Pooja Kotoky. (2013, September 21). Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project. SANDRP.*
Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project – SANDRP

The Environmental Impact Assessment (EIA) prepared by APGCL to fulfill national regulatory requirements and ADB's SPS 2009 indeed identified possible biodiversity impacts. During the Biodiversity study by project authorities, at least three (3) additional threatened species of mammals, viz, Western Hoolock gibbon, Bengal Slow Loris, Leopard, which are listed under Schedule I of the Wildlife Protection Act, 1972 (IWPA) were reported from the project area and within 10 km radius of the project site. The project area comes under habitat of the only ape species in India i.e. western Hoolock gibbon identified for long term conservation in Assam. The EIA outlined that the faunal study of LKHEP revealed 28 different species of mammals and 92 species of avian fauna.

The diverse forest types, including the Assam valley tropical Semi-Evergreen forest, East Himalayan moist mixed deciduous forest, and tropical riparian fringing forest offers major habitat for many arboreal mammals and bird species. Other mammalian fauna, Chines pangolin, Asian Elephant, western Hoolock gibbon, Bengal Slow Loris is classified as threatened as per Red Data Book, 2020 of International Union for Conservation of Nature and Schedule-I species as per Indian Wildlife Protection Act, 1972. The King cobra found in the area is also covered as vulnerable in the list of the International Union for the Conservation of Nature, besides also being listed under Schedule II of the IWPA, 1972. However, the EIA study misrepresented that the species outlined in the EIA are widely distributed in the sub- continent and that none of the species is endemic to India. The dam reservoir and the multiple flooding induced by these dams will threaten the survival of the identified endemic species. The EIA of the Lower Kopili dam failed to assess climate change impact due to the dam and other dams on Kopili River.

Dam induced Flood in downstream areas. The Lower Kopili Dam will further worsen the floods induced by dams in the downstream portion of Kopili River. There is absence of Downstream Impact Assessment. The Kopili dams has changed the character of flood in the Kopili River downstream for the worse. Before the Kopili dam, floods occurred during monsoon season due to heavy rains. Experiences of the people living in downstream areas suggest that floods have become more recurrent after construction of dams, even upto 5- 6 times. The massive flood in May and June of 2022 in Nagaon district in Assam that caused widespread displacement has been attributed to the water release from the dams along the Kopili River. In the catastrophic floods of 2004, out of 140 revenue villages of Kampur circle of Nagaon district, 132 were affected by floods with area of 135 sq. miles. Due to these floods 1,92,000 people were temporarily displaced. These floods also claimed the lives of several people[136].

The Government of Assam confirmed that the main reason for the extreme flood and devastation in the Nagaon and Morigaon districts in downstream was due to the release of the water from the NEEPCO's Kopili dam. Earlier, a team deputed by the Assam Government found that water level of the Khandong reservoir went up to 727.70 meters against the Full Reservoir Level of 719.30 meters on 18 July 2004, which led to catastrophic disaster. Flood release from the dam happened without prior warning and affected the whole Nagaon and Morigaon valley. Kampur is one of the towns located in the downstream of Kopili dam where people were given only 2 hours to evacuate the area and move to nearby relief camps.

The issue of flash floods in Kopili River was even raised and discussed in the Assam State Assembly. On 8 November, 2010, Mr. Prafulla Kumar Mahanta, former Chief Minister of Assam, who is a Member of Legislative Assembly (MLA) from Nagaon district made a call attention motion in the Assam Legislative Assembly on the issue of flash floods in Assam due to Kopili River. He stated the NEEPCO is responsible

[136] *Syeda, A. (2022, July 5). Assam Floods 2022: Ground Report From Kampur At Nagaon District. The Outlook.*

for the flash floods in the Kopili River[137]. The then Water Resource Minister, Mr. Prithvi Majhi in his reply accepted this claim by stating that "the government would take up the matter of providing prior warning before release of excess water with the NEEPCO authorities." This confirms that the ferocity of floods had increased in the downstream areas due to the construction of the Kopili dam. In such a situation, the construction of another dam, Lower Kopili dam in the downstream of existing dams will further worsen the flood scenario in Assam in downstream areas. In rainy season, excess of rains in the catchment area of Kopili River can also lead to spillovers in the proposed dam itself.

The EIA for Lower Kopili failed to study and mention the aspect of flood in downstream area and excluded measures to mitigate social and environmental impacts due to floods caused by existing dams. The Pre-Feasibility Report failed to consider the cumulative impact of the operation of multiple dams on the downstream riverine area.

Acid Contamination due to Opencast Mining threatens Viability of Lower Kopili: The acidic contamination of water due to unabated mining in the upstream Meghalaya had posed a major threat for the viability of the dam and even disclosed in a study initiated by the project proponent. In the item 9.9 of the PFR Form-I, it has been mentioned that the acidic mine discharge in the upper reaches of the Kopili catchment is posing serious threats to the existing Kopili dam. The PFR states "The identified acid mine discharge has been reported to cause constant erosion and corrosion of critical hydropower equipments leading to frequent outages of the power plants under Kopili HEP." The minutes of 9th Technical Coordination Committee & 9th North East Region Power Committee Meetings held from 11th till 12th August 2010, stated "The Kopili Hydroelectric Plant has faced an extraordinary and unprecedented situation owing to acidic nature of the reservoir water. Prima facie, the acidification of the reservoir water is caused due to unscientific coal mining in the catchment area as revealed by study through Geological Survey of India, North East Region, based in Shillong. The increased wear and tear on the underwater metal parts of the Plant due to corrosive action of the acidic water has led to the increase in the number of breakdowns." The acidic contamination due to open cast mining is such that no living organisms could be found in the downstream of Kopili River up to Kheroni[138].

Indeed, the accident and disaster at Kopili dam in October 2019 and March 2022, that claimed the lives of several engineers and workers of NEEPCO has been attributed to the corrosion of metals in turbine, penstock and other mechanical components of the dam. The 275 MW Kopili Hydropower Dam of NEEPCO at Umrangso suffered a major disaster on 26 March 2022[139]. The penstock pipe that takes water at high flow rates and speed from the Umrangso dam to the hydropower house burst. A large portion of a powerhouse of Kopili dam was flooded and damaged due to sudden rising of water level in the Kopili River. At least three employees of the NEEPCO who were present at the site lost their lives. Earlier, the

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[137] *(2013, September 21). Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project. SANDRP.*

[138] *Anup, B. (2012, June 19). Concern over contamination of Kopili river. Assam Times. https://assamtimes.org/node/6625*

[139] *(2022, March 26). Pipe Bursts at State-Owned Kopili Dam in Assam's Umrangso. Times 8. https://www.time8.in/pipe-bursts-at-state-owned-kopili-dam-in-assams-umrangso/*

same project had suffered almost similar disaster in October 2019[140]. Media reported that the acidic water led to the corrosion of metals and other materials in the reservoir that failed to sustain the water pressure, resulting in the pipeline bursting. The pH level of the water is very high[141].

Besides the two mishaps at the Kopili project, there have been cases of sudden release of water from NEEPCO's Doyang and Ranganadi hydropower project and a number of issues have also been known to affect at NEEPCO's Kameng hydropower project. Due to lack of adequate safety precautions from NEEPCO, there is similar concerns of accidents that can claim lives of workers in the Lower Kopili dam too. As such, the viability of the Lower Kopili Hydroelectric Project is highly questionable and the EIA failed to mention the impact of such accident and disasters due to the corrosion from acidic waters of Kopili River and the unregulated release of waters from other additional dam reservoirs.

Seismic Impacts: The PFR of the project overlook the Kopili Fault Line and potential disaster due to high seismicity. The entire North East is located in high seismic area, which has been negated by project proponents. The PFR of the proposed Lower Kopili HEP does not mention about the Kopili fault line. In studies done in the Kopili river basin, it has been found that the Kopili fault extends from western part of Manipur up to the tri-junction of Bhutan, Arunachal Pradesh and Assam, covering about 400 km. During the last 140 years, the Kopili fault had experienced 2 earthquakes of magnitude greater than 7 in Richter scale, three of magnitude 6 to 7 in Richter scale and several of magnitude 4.5 to 6 in Richter scale[142]. The study concludes that the North East region, more specially the Kopili Fault area is a geologically unstable region, surrounded by faults and lineaments and seduction zones in the east. But the PFR of Lower Kopili states that there are only two minor faults in this area and located much beyond the project area. This is clear misinformation on the part of Lower Kopili PFR. Allowing an additional big dam in the area will increase the disaster potential in the area.

Besides, the Expert Appraisal Committee said that as the site specific seismic study had been completed by IIT Roorkee and considered it appropriate for 120 MW project. However, it also mentioned that the, "The project specific geo-morphological and neo-tectonic mapping has not been done so far.

Impact of Tunneling / Blasting /Mining: The impacts of tunneling, blasting and excavation of earth involved in the construction of dam has not been assessed and included in the impact assessment. These activities can increase in risk of landslide and disaster in a hilly area and further in downstream areas. Blasting in hilly area also will have impacts on water and people. The project will require large quantities of sand, coarse and fine granules and boulders. Mining for the project will be done in the nearby areas and it will have severe impact on people as well as on the river, bio-diversity, hills, flora-fauna and aquatic bio-diversity etc.

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[140] (2019, October 9). Assam dam disaster: Ruptured pipeline was repaired a year ago. The Hindu. https://www.thehindu.com/news/national/assam-dam-disaster-ruptured-pipeline-was-repaired-a-year-ago/article29629623.ece

[141] (2019, October 15). Assam: Pipe Bursts at State-Owned Kopili Dam; Four Missing. The Wire. https://thewire.in/government/assam-pipe-bursts-at-state-owned-kopili-dam-four-missing

[142] Mahanta, K. and et all (2012): "Structural Formation & Seismicity of Kopili Fault Region in North-East India and Estimation of Its Crustal Velocity" International Journal of Modern Engineering Research,Vol.2, Issue.6, Nov-Dec. 2012 pp-4699-4702

Unfulfilled promises / Impact on the Local People: Affected peoples' complaint that the commissioning of dams over the Kopili River has failed to benefit the local people. The NEEPCO has failed to fulfill their promises on employment opportunities for the locals. In a memorandum submitted jointly by the Karbi Students' Association, Sominder Kabi Amei and Karbi Nimso Chingthur Asong to Mr. Praduyut Bordoloi, the Power Minster, Assam, the associations demanded first preference in terms of employment should be given to the locally affected people. But the track record of dam building companies is very poor in this regard. The local people did not get promised employment and other benefits in the Kopili project which came up in 1970s, 1980s and 1990s. On 20 March 2012, the Dimasa Students' Union, Dimasa Welfare Association, Karbi Students' Association and Sengia Tularam Club called for a 48 hours Umrangso bandh seeking 60 per cent of technical and non-technical posts in the project be reserved for the local tribal populace, 100 per cent reservation for local tribal youths for Grade III and Grade IV posts, free electricity for locals, free treatment facilities in NEEPCO-run hospitals etc[143]. However, the demands remains unfulfilled. There are concern of similar neglect in Lower Kopili project as well.

Downstream Impacts: Downstream impact of large dams and lack of its assessment is a burning problem in Assam. The project authorities of Lower Kopili dam failed to conduct a detailed downstream impact assessment, including impacts beyond the 10 km radius of the dam. This is important as the major part of the Kopili river basin is in the downstream of the dam. The downstream impact assessment should detail impacts of the dam on fisheries and livelihood of the people who are dependent on fisheries, change in character of flood and impacts thereof, change in sedimentation and impacts thereof, change in geomorphological issues, change in groundwater recharge, among others.

People in the downstream of Kopili dam have reported that there has been depletion of groundwater in the downstream areas of Kopili dam. It was reported that the ground water level at certain areas had reduced to 140 feet. River like Borapani, Kopili and Nisari dry up in the winters affecting the winter cultivations. Besides, wetlands which are known as Beel or Duba locally have disappeared. The reduction in groundwater may also be attributed to impoundment of the water in the dam reservoir and reduced flow of water in the Kopili River.

The bank erosion by the Kopili River has increased after the construction of the Kopili dam, due to sudden discharge of accumulated waters from dam reservoir. The EIA report of Lower Kopili HEP failed to address the impacts on river bank erosion in downstream areas. At Boro Longpu village, villagers are engaged in collection of sand from the Kopili River. The Dimasa and the Karbi people, the main indigenous peoples residing in the area, will be affected. Villages settling near the Kopili River includes the N. Phanglangso village, Munbo village etc will also be affected.

At Tetelisora Village, Kampur Circle, Assam, the village has been ravaged by severe floods in 1986, 2004 and again in 2022. The Hariya River that joins the Kopili River and further joining the Brahmaputra River

[143] *(2012, March 21). Day 1 of Umrangso bandh passes off peacefully. The Times of India. https://timesofindia.indiatimes.com/city/guwahati/day-1-of-umrangso-bandh-passes-off-peacefully/articleshow/12350940.cms*

face extremely flood water pushback from Kopili River during the 2022 extremely flood, which has also been attributed to the water release from the Kopili dam.

Pic: Houses washed out by the sudden rising water of Kopili River at Gosaigaon Village, Assam

At Gosaigaon village located near the Kopili River, several houses were seem destroyed and damaged by the severe flood affecting the village in 2022. Dipun Borah (60), from Gosaigaon village shared that the water level of Kopili River increased suddenly during the night time in May 2022, which is attributed to the water release from the Kopili dam. A portion of the village road also collapsed due to the flood. The government has failed to repair the road till date, causing enormous hardship to the villagers. Flood induced by Lower Kopili dam and existing dams will worsen the flooding and loss of livelihood in downstream areas of the dam.

Pic: Ms. Melam Da, age 70 from Tetelisora Village sharing ordeals of flood due to Kopili dams in May 2022.

Ms. Melam Da, age 70 from Tetelisora Village shared that the water release from the Kopili Dam during heavy rains in May and June 2022, further worsened the flood situation in the downstream villages such as Tetelisora village in Nagaon District, Assam. The sluice gates of the dam were opened to prevent dam

break. The flood affected the village for two months in May and June 2022. Due to the flood, the river bank erosion has been a main problem in Hariya River flowing in the village. The village lose their livelihood as extensive tract of agriculture land were submerged during the cultivation season. This caused food shortage and further worsened the impoverishment of the villagers. The villagers were much concerned with their livelihood, who were equally affected by the flood and the grazing grounds and fodder sources were all submerged. People are forced to stay on roads in higher grounds. The lack of support from the Government is another concern, which further complicates the suffering of villagers.

Impacts of Peaking Power Operations: Due to peaking power generation in non-monsoon months, the river stretch downstream from power house will have very little water for most hours of a day with sudden flows in the river only for a few hours. This flow fluctuation leads to many severe impacts including on aquatic bio-diversity, on safety, on river bed cultivation, on river bank erosion etc. This will entail severe socio economic impacts along with issues of safety of the people and their livestock in this stretch of the river. The project proponents failed to conduct detailed assessment of the impacts of peaking power operation during non-monsoon months in their EIA.[144]

Absence of Cumulative Impact Asessment: The cumulative assessment of multidimensional impacts due to the construction of multiple dams over the Kopili River, on the livelihood, health, indigenous rights, climate change, mining in upstream and high acidity in Kopili River and related disaster and flood etc in downstream areas and impacts of peaking power generation etc has not been conducted by the project authorities. Without such cumulative study and relevant mitigation measures, the construction of such mega dam risks aggravating the dam induced disasters and impacts of climate change, such as extreme flood, landslides, loss of lives and property in the both upstream and downstream areas of the dam in Dima Hasao, Morigaon and Nagaon Districts of Assam.

Lack of option assessment & alternatives: The project authorities lacks a detailed and participatory assessment of alternatives, to meet the power needs. There can be several other cost effective options for power generation. According to SANDRP, an example of proposed 1000 MW solar power generation in Rajasthan has showed that for 1 MW installed capacity only 2 hectares of land is required and the cost per megawatt installed capacity will be 7.5 crores and electricity will be provided at Rs 6.5 per unit. Another proposed 25 MW solar power project in Assam has similar figures. At this rate, for a 120 MW (the target capacity of the proposed Lower Kopili HEP) solar power plant, the land required will be 240 hectares. But for Lower Kopili HEP the land required is 1557 hectares of land out of which nearly 900 hectares will be used for the project. This implies that for 1 MW installed capacity for the proposed dam the land requirement will be about 7.5 hectares, about 3.75 times the land required for solar project of same capacity. Besides, the total cost for the Lower Kopili project is expected to be Rs. 1490 crores implying that the cost per MW installed capacity will be Rs. 12.41 crores, compared to Rs 7.5 cr for solar plant. Promoting solar energy or hybrid can minimize impacts on river, forest, land and on people's livelihood.

Lack of accountability: The dam building companies and the government remains unaccountable for the massive flood and downstream impacts of the dam build over the Kopili River. The existing Kopili dam

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[144] *Parag Jyoti Saikia, Himanshu Thakkar, Pooja Kotoky. (2013, September 21). Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project. SANDRP.*
Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project – SANDRP

had landed in much controversy due to repeated accidents in the project site, including in the year 2019 and March 2022 that claimed the lives of several engineers and workers. The NEEPCO remains unaccountable for the accident, loss of lives, neglect of disaster warnings, and lack of precautions and remedial measures despite warnings and studies of impacts of high acidity of the Kopili River due to extensive mining upstream in Meghalaya. The Government instead pursued the construction of more dams over the Kopili and other Rivers despite the extensive social and environmental implications.

Benefiting Corporations: Several multinational corporations already benefit from the construction of Lower Kopili dam over the Kopili River. The Larson and Toubro, one of India's largest construction company is involved as engineering, procurement, and *construction* contractor. The scope involves the construction of all components of 120MW Lower Kopili dam, viz roads, 65 metre High Concrete Gravity Dam, power intakes, surface powerhouse and a 3.6 km long head race tunnel[145]. The ADB has approved the PMC consultant, M/s AF Consultants, Switzerland in association with United Engineers Alliance India Limited and contract agreement has been signed[146]. ANDRITZ, based in Austria has been contracted by the Assam Power Generation Corporation Limited to supply the complete electro-mechanical equipment for the Lower Kopili hydropower plant[147].

Undermining ADB safeguards: The project involves undermining the ADB safeguard to ensure compliance on the best standards of decision making, such as to involve affected communities, including those affected in the downstream areas. The application of ADB's safeguard policies is extremely limited despite the categorization of the project as high risk, i.e Category A in all the three environment, rehabilitation and resettlement and indigenous peoples' category. No impact assessment of climate change impacts due to the lower Kopili dam and other dams already built in the region has been conducted. The exclusion of communities in the downstream areas of the dam is a clear undermining of the ADB safeguard policy. A detailed environmental impact assessment of the project is still lacking, undermining the ADB safeguard policy. The impact of high seismicity in North East, especially the Kopili Fault area is a geologically unstable region is neglected in the EIA. The revised PFR in page 17 under section 'Environment Sensitivity' states that there are no wetlands, watercourses and other water bodies reported within the 15 km of the project. This statement seems incorrect. This is clear misinformation on the part of Lower Kopili PFR and EIA prepared by project authorities[148].

CONCLUSIONS: Multiple dams proposed over the Kopili River despite the social and environment impacts. No cumulative study conducted due to the construction of multiple dams over the Kopili River, including the Lower Kopili dam. The lower Kopili dam will further worsen the livelihood impact of indigenous peoples depending on forest and agriculture land. Further, the dam will aggravate the flood

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[145] *(2020, August 14). L&T arm set to execute hydro-electric project in Assam. The Hindu. https://www.thehindubusinessline.com/companies/lt-arm-set-to-execute-hydro-electric-project-in-assam/article32355226.ece*

[146] *(2017, October). Minutes of the 10th Meeting of the Coordination Forum, 24 October, 2017. Assam Electricity Regulation Commission, Assam. http://www.aerc.nic.in/Minutes_of_the_10th_meeting_of_the_Coordination_forum_Draft.pdf*

[147] *(2021, November 26). Andritz to equip Lower Kopili hydropower plant, India. Water Power. https://www.waterpowermagazine.com/news/newsandritz-to-equip-lower-kopili-hydropower-plant-india-9281018*

[148] *Parag Jyoti Saikia, Himanshu Thakkar, Pooja Kotoky. (2013, September 21). Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project. SANDRP. Lower Kopili HEP: Oustanding issues that must be resolved before EAC can consider the project – SANDRP*

situation in the downstream areas due to the existing dams over the Kopili River. The dam will further impact the diverse flora and fauna in the rich biodiversity area in Dima Hasao District. Denying the impacts in downstream areas, including river bank erosion, dam induced flooding and loss of livelihood, impoverishment etc is a violation of affected communities and the environmental impacts due to dams.

The dam building lacks feasibility due to the high acidic content of the Kopili water due to extensive mining in upstream portion of the River and also due to the Seismic fault line along the proposed dam site. An alternative to dam building is highly critical and to opt for renewable energy solutions that is green, sustainable with minimal social and environmental costs. Irrespective of whether large dams like the Lower Kopili dam functions or not, several multinational companies, such as Larson and Toubro, SF Consult Switzerland Limited, Andritz etc already benefits from contract, supply and construction works.

The impact of loan from the ADB has not been addressed. One of the significant impact of IFI financing is the impact of loan. The payment of loan and interest will add significant pressure on the general payments, especially resulting in imposing more tax burden on them. The application of ADB's safeguard policies is extremely limited despite the categorization of the project as high risk, i.e Category A in all the three environment, rehabilitation and resettlement and indigenous peoples' category. ADB and other international financial institutions should desist from financing large dams that will entail submergence of massive tract of forest land and that aggravate social impact and climate change in Manipur.

CHAPTER V

JAPAN'S FINANCING OF DAM BUILDING IN NORTH EAST INDIA

Japan is a leading country providing extensive financial support in North East India due to close relationship between India and Japan. The India-Japan Coordination Forum for Development of North East was established in 2017 to execute infrastructure building projects such as connectivity and road network development as well as power generation. Setting up the India-Japan Act East Forum was the key agreements signed during the 12th Indo-Japan annual summit on 3 August 2017. In September 2017, India and Japan also signed a document on Japanese loan and aid for highway development in North East to complement India's connectivity initiatives in Bangladesh, Myanmar and other neighboring[149].

The Japan International Cooperation Agency (JICA) is the bilateral agency of Japan extensively focusing on investment in India's North East. India's Act East policy has facilitated the investment of international financial institutions. An agreement was signed at the India Japan summit in 2017 to combine the aims of Japan's Free and Open Asia-Pacific strategy and India's Act East Policy[150]. In October 2008, the Japanese International Cooperation Agency (JICA) and the Japan Bank for International Cooperation (JBIC), merged into the new JICA, which is the largest bilateral aid institution in the world[151].

India has been the largest recipient of Japanese official development assistance (ODA) since 2003-04. Japanese loan assistance focused on infrastructure sectors like power, road and highways, shipping, bridges, water supply and sanitation, urban transport, health, natural disaster etc.[152] From 2007 till 2017, JICA has provided India with soft loans worth US$ 23.36 billion for infrastructure projects such as transport, water, energy, and agriculture and forestry etc.

JICA maintained that Japan targeted three major objectives in its financing - to realize a prosperous and stable international community with freedom; to support the growth of the emerging and developing economies together with the growth of the Japanese economy; and to promote human security and strengthen trust in Japan. Japan endeavors to involve Japanese corporations in the infrastructure and other development projects supported by ODA to support India's economic growth driven by the private sector.

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[149] *(2017, September 17). Japan teams up with India for NE, to extend Rs 2,239-Cr loan. The Sangai Express / Economic Times. Retrieved from http://e-pao.net/GP.asp?src=10..170917.sep17*

[150] *Melissa, C. (2017, September 19). Japan's Investments in India Unveil Growing Economic Partnership. India Briefing.*

[151] *Fletcher, Tembo. New JICA, New Think Tank. ODI. Retrieved from https://odi.org/en/insights/new-jica-new-think-tank/*

[152] *The Impact of Japan's Official Development Assistance on Indian Infrastructure, Pravakar Sahoo Policy Research Institute, Ministry of Finance, Government of Japan https://www.mof.go.jp/pri/international_exchange/visiting_scholar_program/ws2013_c.pdf*

JICA and North East India: Japan has long been financing the power, energy, infrastructure and agri-business sector in North East India. Since 2008 till March 2021, JICA has extended 231 billion Japanese Yen (approximately INR 15,400 crore) as concessional ODA loans for development of North East[153].

Japan's Official Development Assistance (ODA) policy for India in 2004 included the priority sectors, including: (i) Economic infrastructure, (ii) Poverty alleviation, and (iii) Environment protection. For (i) Economic infrastructure, it was stated that the economic infrastructure would be promoted mainly in power and transportation. Furthermore, in JICA's County Assistance Strategy for India (September 2003), the "development of economic infrastructure with a focus on power" was stated as a priority area, and it was planned that support would be provided for the development of power sources, the development of distribution lines for a stable and efficient power supply and for efforts to reform the central and state government sectors. JICA reported that the Japanese ODA projects financed on power and infrastructure in North East are aligned with Japan's ODA policy[154].

JICA has previously provided 15,359 million Japanese Yen (approximately INR 900 Crores) in ODA loan for "Umiam Hydro Power Station Renovation Project" in Meghalaya and Tuirial Hydroelectric Power Station Project in Mizoram. In addition, JICA has provided technical assistance from 2013-15 for study on development and management of land and water resources for sustainable agriculture in Mizoram[155].

JICA also financed extensively in infrastructure projects like roads in North East. JICA signed an agreement with Government of India in March 2017 to provide 67,170 million Japanese Yen (approximately INR 4,000 crores) ODA loan for "North East Road Network Connectivity Improvement Project (Phase I)". JICA further signed an agreement with the Government of India on 6 April 2017 to provide an ODA Loan of approximately Rs 400 crore for the Nagaland Forest Management Project[156]. Further, JICA provided Japanese ODA loan amounting to JPY 23,129 million (approximately INR 1492 crore) for the North East Road Network Connectivity Improvement Project (Phase 6) for National Highway 208 (Khowai - Sabroom) in Tripura State[157].

The Manipur Sericulture Project (MSP) is one of JBIC (now JICA) financed ODA project in North East[158]. A loan agreement for the Phase I of MSP was drawn up by the Government of India with a total outlay of Rs. 154.991 crores, of which Rs 136.661 crore was JICA loan and Rs 18.33 crore was share of Government

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[153] *2021, March 26). JICA extends ODA Loan of INR 1,061 Cr for the Strengthening of North East Road Network Connectivity. JICA. Retrieved from https://www.jica.go.jp/india/english/office/topics/press.html*

[154] *(2014). Ex-Post Evaluation of Japanese ODA Loan "Umiam Stage II Hydro Power Renovation & Modernization Project". External Evaluator: Keishi Miyazaki, OPMAC Corporation. https://www2.jica.go.jp/en/evaluation/pdf/2014_ID-P156_4_f.pdf*

[155] *(2017, March 31). JICA Extends ODA Loan of approximately INR 4,000 Crores for the North-East Road Network Connectivity Improvement Project (Phase I). JICA Press Release. https://www.jica.go.jp/india/english/office/topics/press170331_01.html*

[156] *(2017, April 6). 400 Cr loan agreement signed for Nagaland Forest Management Project. The Morung Express. http://morungexpress.com/400-cr-loan-agreement-signed-nagaland-forest-management-project/*

[157] *(2022, March 31). JICA extends ODA Loan of INR 1492 crores to India for the North-East Road Network Connectivity Improvement Project (Phase 6). JICA. Retrieved from https://www.jica.go.jp/india/english/office/topics/press220331_01.html*

of Manipur.[159] JICA also conducted initial feasibility studies to finance the Water Supply Augmentation Project for Imphal Town, to draw water from the Mapithel dam reservoir.

Energy projects financed by JICA in North East India:

Financing energy projects has been a priority focus of Japan in North East India, targeting the construction of dams and renovation of existing hydroelectric projects. The dams financed by JICA in North East includes the renovation of Umiam Stage I Hydroelectric (HEP) Project, Umiam Stage II HEP, Umiam Stage III HEP in Meghalaya and the construction of the 60 MW Tuirial HEP project in Mizoram. Further, Japan has also been approached by the Government of India to finance the 66 MW Loktak Downstream Hydroelectric project, proposed over the Leimatak River in Manipur. Similarly, the Government of Assam had submitted a proposal to the JICA and the Ministry of New & Renewable Energy (MNRE), Government of India to finance the 24 MW Borpani Middle II Hydro Electric Project in 2015. The JICA maintained that its financing of hydro power projects is expected to contribute to "Japan-India Act East Forum" that aimed to expand the cooperation between Japan and India in North East India region[160].

Construction of 60 MW Tuirial Hydroelectric Project, Mizoram: The Japan Bank for International Cooperation (JBIC), before its amalgamation with JICA financed the 60 MW Tuirial HEP Project in Mizoram. The Tuirial HEP is an earth fill dam on the Tuirial River near Kolasib in Mizoram in North East India. The primary purpose of the dam is hydroelectric power production. The Cabinet Committee on Economic Affairs (CCEA), India approved the Tuirial HEP dam project costing Rs 913 crore as of 2010[161].

The loan of JBIC loan is for equipment, civil works and related consulting services. At least 85% of the project financing cost is financed by JBIC as loan. The project was initially scheduled to be commissioned in the year 2006 -2007. A Switzerland based company, Electrowatt Engineering Limited was appointed as the review consultant for the project in December 1998. Patel Engineering, Alstom Power, Portugal and Bharat Heavy Electricals Limited are other companies involved in the construction of the dam[162]. The project, built at a cost of Rs 1,302 crore at its commissioning, has long been marred with cost overrun, delays and contestations over rehabilitation and resettlement of affected communities.

Renovation and modernization of Umiam Dams, Meghalaya: Japan is involved in funding the renovation and modernization of several dams in the state of Meghalaya, primarily focussing on renovation of the Stage 1 to stage IV Umiam hydroelectric projects. This financing is in accordance with the plan of the Meghalaya State Electricity Board to increase the power generation in the state through the renovation of the existing hydropower station as well as through the construction of new power stations such as the Umngot Stage I & II Hydro Power Stations.

Mr. Katsuo Matsumoto, Chief Representative, JICA India Office said on 29 October 2018, that "JICA has been supporting Renovation and Modernization of Umiam Hydroelectric power station since 1997 in

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[159] Website of the Department of Sericulture, Government of Manipur, http://www.serimanipur.in/?page_id=137

[160] (2018, October 30). JICA Extends ODA Loan of INR 315 Crore for Hydro-Electric Power Station in Meghalaya. JICA. Retrieved from https://www.jica.go.jp/india/english/office/topics/press181030_05.html

[161] (2012, August 13). Revised Cost Estimates of Tuirial Hydro Electric Project (60 MW) in Mizoram-Restarting of project works by NEEPCO". Press Information Bureau, Government of India.

[162] Wangkheirakpam, R, Yumnam, J. (2006, April). Insidious Financial Intrusions in India's North East. ICR and FIPA.

order to improve the energy situation in North East India. He reasoned that as of July 2017, the installed capacity in Meghalaya remains approximately 350 MW. Even with receipt of electricity from power stations owned by the Government of India, the State has still been suffering from energy shortfall between 5% and 15% every year, thus the need for renovation of hydropower stations[163].

Umiam Hydro Power Station Renovation Project: The *Umiam Hydro Power Station Renovation Project* was funded by JICA and project agreement was signed in February 1997. The project was implemented from 1997 till 2004 with a loan amount of 1,700 million Japanese Yen. The Meghalaya State Electricity Board (MeSEB) implements the project, hat aimed to increase power and energy production and efficiency in Meghalaya, through the renovation and modernization of 36 MW Umiam Power Station Stage I, that was earlier commissioned in 1965. Toshiba earlier delivered 4 x10.5 MW hydroelectric equipment to Umiam stage I Hydroelectric Project in Meghalaya in 1965[164]. The project authorities reasoned that given the operation of power station for more than 30 years and due to the aging of the facilities, there is high need for renovation and modernization of Power Station of Umiam stage I. The project period was scheduled from February 1997 to November 2001 (57 months), but was extended by 14 months from February 1997 to January 2003 (71 months)[165].

Umiam Stage 2 Hydro Power Station R&M Project: JICA financed the renovation of the 18 MW Umiam Stage II Hydro Power Station. The project was undertaken from 2004 till 2012. The project involves the renovation of the 10MW x 2 units of Hydro power station. The former Meghalaya State Electricity Board is the project implementer. The Umiam Stage II Hydro Power Station, the target facility of this project, was earlier built with a grant aid from the United States Agency for International Development (USAID) in 1970. JICA provided loan of 1,964 million yen for the project. The power station has deteriorated, and its power generation efficiency had decreased due to frequent breakdowns as seen in an incident in 2002. The renovation of the existing power station was considered as construction of a new power station to replace the project would involve considerable time and heavy financial investment.

The main consultants comprises a joint venture of Tokyo Electric Power Company (TEPCO), Japan and Tokyo Electric Power Services Company Limited (TEPSCO), Japan). The loan agreement was signed in March 2004. The objective of this project was to cope with the power shortage in Meghalaya by renovating existing hydropower station. A joint venture of two Japanese companies, Mitsubishi and Toshiba undertook the renovation and modernization work of the project[166].

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[163] *(2018, October 30). JICA Extends ODA Loan of INR 315 Crore for Hydro-Electric Power Station in Meghalaya. JICA. Retrieved from https://www.jica.go.jp/india/english/office/topics/press181030_05.html*

[164] *Toshiba's Hydropower Equipment is under full-fledged Operation in NTPC's first prestigious Koldam Hydro Power Plant (4 x 200MW). Toshiba. https://toshiba-india.com/pr-Toshiba-Hydropower-Equipment-under-full-fledged-Operation-in-NTPC-Koldam-Hydro-Power-Plant.aspx*

[165] *(2007). Umiam Hydro Power Station Renovation Project External Evaluator: Akihiro Nakagome, Hiromi Suzuki S. JICA https://www.jica.go.jp/english/our_work/evaluation/oda_loan/post/2007/pdf/project33_full.pdf*

[166] *(2006, June 17). Japanese consortium likely for Umiam hydel project. Projects Today. https://www.projectstoday.com/News/Japanese-consortium-likely-for-Umiam-hydel-project*

Renovation and Modernization of Umiam-Umtru Stage-III Hydroelectric Power Station: JICA signed an agreement with the Government of India to provide ODA loan of 5,497 million Japanese yen (approximately INR 315 Crore) for the 'Project for Renovation and Modernization of Umiam-Umtru Stage III Hydroelectric Power Station" in Meghalaya. The loan agreement was signed on 29 October 2018. The Tokyo Electric Power Services Co. Ltd. (TEPSCO), TEPCO Holding Inc. and TEPCO Power Grid Inc. and officers of MePGCL are involved in implementing the project[167].

Project proponents maintained that the Umiam-Umtru Stage III Hydroelectric Power Station started operation in 1979 and already crossed the useful life of 35 year. The performance of the project has been deteriorating for more than 15 years due to breakdown of the runners, electro-mechanical equipment and so on. The project intends to contribute to avoid further deterioration of the capacity. The Project aims to reduce power shortages in Meghalaya by renovating, modernizing, and upgrading the Umiam-Umtru Stage III Power Station, situated by the Umtru River.

Proposed JICA financing of 66 MW Loktak Downstream Hydroelectric Project, Manipur: In early February 2018, several media in Manipur reported that the Government of India sought financial assistance from JICA, to fund the 66 MW Loktak Downstream Hydroelectric Project (LDP) [168] by utilizing natural flow of Leimatak River and water discharge from the power house of the 105 MW Loktak Multipurpose Hydroelectric Project, operated by the National Hydroelectric Power Corporation (NHPC).

The initiation of the LDP has been delayed as the implementing agency of the project, the NHPC and the Manipur Government failed to sign the power purchase agreement (PPA) till April 2020 despite the MoU for the project signed in 2008. The Power tariff of Loktak Downstream Project would be around Rs 6.17 per unit which is high, and this hindered Manipur Government to sign the PPA with NHPC. The tentative cost of the project at 2015 price level is Rs 1300 crore[169] and by the 2020 price, the cost escalated to close to 1500 Crores.

[167] *(2017, October 5). Japan, MeECL collaboration for Umiam power station uplift. The Shillong Times. https://theshillongtimes.com/2017/10/05/japan-meecl-collaboration-for-umiam-power-station-uplift/*

[168] *(2018, February 12). Loktak Downstream runs into PPA wall. The Sangai Express. Retrieved from http://www.thesangaiexpress.com/loktak-downstream-runs-ppa-wall/*

[169] *(2015, July 18). Loktak Downstream Project likely to be put into motion Tentative cost pegged at Rs 1300 crore. The Sangai Express. Retrieved from http://e-pao.net/GP.asp?src=6..180715.jul15*

Pic: Concerns on proposed construction of 66 MW Loktak Downstream Project with JICA support

An alternative of seeking the necessary fund from JICA has been explored to reduce the cost. The Government maintained that if the project is funded by JICA whose interest is comparatively lower than borrowing from banks in India, the power tariff can be reduced to Rs 5 per unit[170].

The NHPC's push for Loktak Downstream Project comes at a time, when indigenous peoples call for review and decommissioning of the controversial Ithai Barrage of the Loktak HEP intensified in Manipur. The Chief Minister of Manipur also urged the Prime Minister of India on 2 August 2017 to remove the Ithai Barrage[171]. The Governor of Manipur also called to decommission the Ithai Barrage[172].

Larger Concerns on JICA's investment:

The policy decision to connect with India's North East with South East Asia again comes from the Government of India and Japan and rather undefined by the indigenous peoples of the region. There is overt focus on financing energy and infrastructure sector in North East, which is geared towards serving the economic, political and geopolitical interest of both Japan and India. Japan is increasing involved in North East to serve its geopolitical interest under India's Act East Policy.

Lack of Free, prior and Informed Consent: The energy projects financed by Japan Bank for International Cooperation (now JICA) is afflicted with limitations to consult the affected communities and to take their free, prior and informed consent. While the construction for the 60 MW Tuirial Hydro Electric Project in Aizawl District, under NEEPCO is progressing, locals and experts question its legality as no public hearing was known to have been ever held[173]. The Saipum villagers even boycott the commissioning of the Dam in December 2017 due to submergence of their livelihood sources without their consent and unaccountability of NEEPCO, project authority of Tuirial HEP project[174].

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[170] *(2017, August 23). Loktak Downstream Project in jeopardy. The Sangai Express. http://kanglaonline.com/2017/08/loktak-downstream-project-in-jeopardy/*

[171] *(2017, August 2). CM Biren calls for review of Loktak project, removal of Ithai barrage NE floods PM announces Rs 2,000 crore relief. The Sangai Express. Retrieved from http://e-pao.net/GP.asp?src=1..020817.aug17*

[172] *(2017, September 20). Najma for decommissioning Ithai Barrage. The Sangai Express, http://www.thesangaiexpress.com/najma-decommissioning-ithai-barrage/*

[173] *Linda, C. (2010, September 15). Mizoram hydro projects violating safeguards. The Assam Tribune. https://assamtribune.com/mizoram-hydro-projects-violating-safeguards*

[174] *(2017, December 12). Saipum villagers to boycott commissioning of Tuirial hydro electricity project. North East Now. https://nenow.in/north-east-news/villagers-want-cm-lal-thanhawla-to-inaugurate-the-project.html*

Pic: Land belonging to Mauchar and Saipum villages submerged by Tuirial Dam in Mizoram

Controversial Rehabilitation and Resettlement: The involvement of JICA in India's North East is afflicted with controversies around the rehabilitation and resettlement. The 60 MW Tuirial HEP Project financed by JICA in Mizoram landed in wide controversy due to inadequate rehabilitation and resettlement. Project work stopped in 2004 on problems with rehabilitation and resettlement. The Tuirial Crop Compensation Claimant Association complaint of failure to provide compensation for crop loss in the land forcibly acquired.[175]. The project was also marred with inordinate delays, leading to high cost of power per unit to be purchased by the Mizoram Government from the project development. The project cost in 1998 was fixed at Rs 369 crore, but the inordinate delays over the years on the issue of the payment of compensation to the displaced and infrastructure bottlenecks has led to final cost escalation to 1,306 crores of Indian Rupees[176]. The Saipum Villagers organized a protest on 13 December 2017 against the commissioning of the Tuirial HEP project, contending that public hearings with affected communities were never held and the NEEPCO failed to provide compensation to affected families[177].

Lack of Accountability: JICA does not have clear accountability mechanism, to accord justice for communities challenged with social and environmental impacts and to address the failure of projects. Information disclosure on projects is a concern with JICA. The Construction of Tuirial HEP project by NEEPCO was marred with corruption and manipulative practices in the rehabilitation and resettlement process of affected communities. The corruption matter was investigated by the Central Bureau of Investigation (CBI) Government of India, which ultimately charge-sheeted nine (9) people, including relatives of former Chief Minister, Mr. Zoramthanga[178].

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[175] *Elizabeth, Ingram. (2017, August 29). First unit begins operating at 60-MW Tuirial hydroelectric in Mizoram, India. Hydro World. Retrieved from http://www.hydroworld.com/articles/2017/08/first-unit-begins-operating-at-60-mw-tuirial-hydroelectric-in-mizoram-india.html*

[176] *(2015, April 10). 2016 date set for Tuirial dam. The Telegraph. https://www.telegraphindia.com/1150410/jsp/northeast/story_13742.jsp*

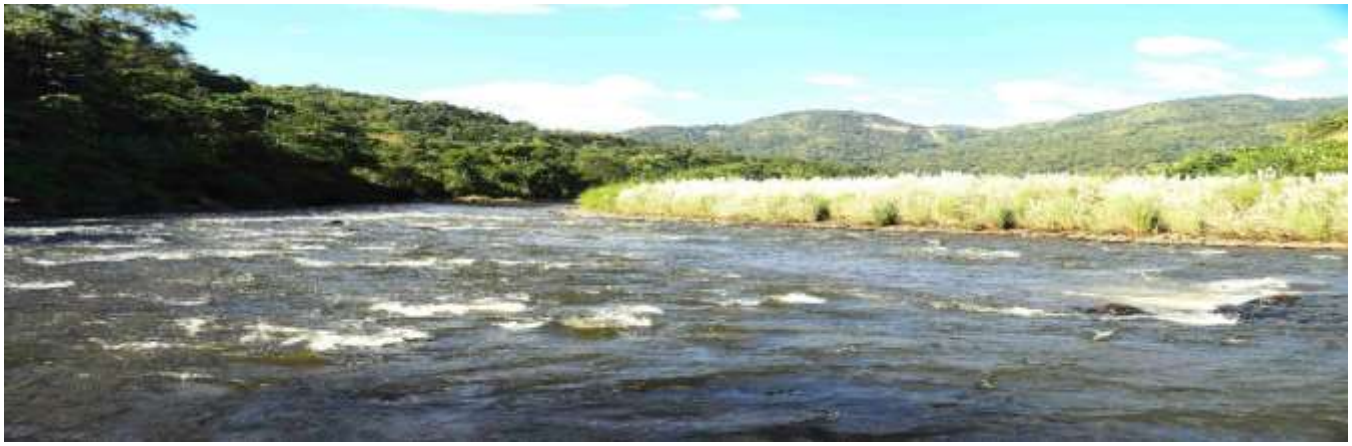
[177] *(2017, December 14). Mizoram villagers object to commissioning of hydro power project by PM. The Economic Times. Retrieved from https://energy.economictimes.indiatimes.com/news/power/mizoram-villagers-object-to-commissioning-of-hydro-power-project-by-pm/62062987*

[178] *(2012, August 13). Mizoram Tuirial Project Scam, CBI Names Nine People. The Northeast Times.*

Social and Environmental Impacts: A massive tract of forest land has been submerged by the reservoir of the Tuirial Dam in Mizoram. The submergence and diversion of forest land of more than 5000 hectares by a single dam project will lead to emission of greenhouse gases and worsen climate crisis.

Pic: Forest and agriculture land submerged by Tuirial dam in Mizoram

There is no report of forest clearance from the Ministry of Environment and Forest and Climate Change, India to divert forest for the project, which violates the Forest (Conservation) Act, 1980 and Forest Rights Act, 2006. A case has been filed with the National Green Tribunal on forest rights violations[179].



Pic: The Leimatak River where the 66 MW Loktak downstream project is planned with JICA financing

The proposed financing of JICA to construct the Loktak Downstream Project will worsen the suffering inflicted by the 105 MW Loktak HEP project in Manipur. The Loktak HEP project, submerged more than 50,000 hectares of agriculture land. Villages residing close to Ithai Barrage, such as Laphupat Tera, Khordak Nongmaikhong, Arong, Ithai Wakokpi etc complained of repeated flooding and loss of their properties due to Ithai Barrage. NHPC instead of assuming responsibility for the violations insisted on

[179] *S.P. Wangdi, JM Saibal Dasgupta, EM 5th January, 2021 O.A. No. 68/2019/EZ avt https://indiankanoon.org/doc/17673873/*

construction of more dams, such as Loktak Downstream HEP project in Manipur[180]. There has been no detailed impact assessment due to the continued operation of both Loktak HEP and the LDP.

Conditionalities: JICA insisted on loan conditionalities in its ODA financing in North East, often insisting on Japanese consultant groups and companies to undertake consultancy and direct undertaking of the project. JICA has been funding the renovation and modernization of at least three dam projects in Meghalaya. In these project financings by JICA, Japanese consultancy groups often undertake consultancy services. Japanese consultant companies comprising TEPCO (Japan) and Tokyo Electric Power Services Co. Ltd. (TEPSCO, Japan) undertook consultancy services for Umiam Stage II renovation. The TEPSCO, TEPCO Holding Inc. and TEPCO Power Grid Inc undertook consultancy services for renovation of Umiam Stage III HEP project in Meghalaya. Japanese companies also undertook supply works and implement the projects. A joint venture of two Japanese companies, Mitsubishi and Toshiba undertook the renovation and modernization work for the Umiam HEP project, including supply work[181]. Earlier in 1965, Toshiba supplied 4x10.5 MW hydroelectric equipment to Umiam-stage I HEP in Meghalaya.

Cost Overrun: Several energy projects financed by JICA and JBIC are mired with cost overrun and delays. The Tuirial HEP project was marred with inordinate delays and cost overrun, leading to feasibility and high cost of power per unit to be purchased by the Mizoram Government from the project development. The project cost in 1998 was fixed at Rs 369 crore, but the inordinate delays over the years on the issue of the payment of compensation to the displaced and infrastructure bottlenecks has led to final cost escalation to 1,306 crores of Indian Rupees[182]. The Tuirial dam project, built at a cost of Rs 1,302 crore, took nearly two decades to complete. The delays led to questioning the viability of the project.

Impact of Loan: Another challenge of such financial support of these financial institutions is these monetary support come as loan support with obligatory interest payments. The financing of dams, Tuirial dam, renovation of Umiam dams in North East along with other infrastructure and agribusiness projects, comes as ODA loans. ODA loans will increase Indebtment on the government and people and ultimately pressuring to open up its water, forest, land for corporate exploration. A government running on loans will only led to wide Indebtedness, thus reducing ability to finance crucial social sectors. The implications of these loans has never been assessed.

Lack of defining Alternatives: The pursuance of Tuirial dam and other dams in Mizoram failed to assess the power needs of Mizoram. According to affected communities, Mizoram requires less than 200 MW for its own consumption. However, the introduction of myriad large dams in this small state clearly will destroy the land and people in the name of development[183]. Similarly, the construction of Loktak

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[180] *Shukhdeba, Sharma. Koireng, A. Ranjan, RK. (2014). Loktak Lake and Manipuri Lifeworld. Forward Books, Delhi.*

[181] *(2006, June 17). Japanese consortium likely for Umiam hydel project. Projects Today. https://www.projectstoday.com/News/Japanese-consortium-likely-for-Umiam-hydel-project*

[182] *(2105, April 10). 2016 date set for Tuirial dam. The Telegraph. https://www.telegraphindia.com/1150410/jsp/northeast/story_13742.jsp*

[183] *(2010, September 28). Protest against hydro-electric power projects in Mizoram. Governance Now. https://www.governancenow.com/gov-next/green-gov/protest-against-hydro-electric-power-projects-mizoram*

downstream project with JICA support will further aggravate the violations of Loktak Hydroelectric project in Manipur. Defining development alternatives with the people is crucial.

CONCLUSIONS AND RECOMMENDATIONS:

North East India is witnessing an upsurge in the Japan's financing in key sectors, especially, energy, and infrastructure and agri-business sectors. The controversies associated with JICA financing in the case of Manipur Sericulture project, the 60 MW Tuirial Dam in Mizoram and the corruption case in awarding contracts in the JICA funded Guwahati Water Supply project and implications of JICA road projects need serious assessment. It is high time to assess the effectiveness of ODA financing of Japan in North East.

JICA's financing of hydropower is not new in India's North East, including the Tuirial Dam in Mizoram and the upgradation of the Umiam Dam in Meghalaya. The Tuirial dam also lands in much controversy over the rehabilitation and resettlement of communities affected by the Dam. JICA should desist funding energy projects that entails wide social, environmental and climate change impacts in North East.

The proposed financing request by the Government of India to JICA for LDP should be stopped, considering the larger social, environmental, climate change implications and human rights violations unleashed by hydropower projects in Manipur. The construction of LDP project is losing its relevance as the premise of utilizing water discharged from 105 MW Loktak HEP Project entail continued suffering of communities.

The development priorities of indigenous peoples of North East need be aligned with the foreign policy needs of Japan. JICA should finance projects that serves the interest and needs of the people and that led to promotion of environment integrity in North East. The project authorities and JICA should undertake the consultation and respect of the right to free, prior and informed consent of indigenous communities.

Japan and other OECD member states are bound to follow policies for responsible business conduct, such as the OECD Guidelines for Multinational Enterprises as a member of the Organization for Economic Cooperation and Development (OECD), the UN Guiding Principles for Business and Human Rights etc. JICA Social and Environment Policy, 2010 has minimal scope to ensure human rights and accountability mechanism in its financing processes. JICA should adhere to the International human rights laws like the UN Declaration on the Rights of Indigenous Peoples, 2007 in its ODA financings. A careful move based on clear understanding of the larger implications of ODA loan financing by financing institutions with clear accountability and human rights norms is crucial for sustainable development in North East India.

CHAPTER VI

TURIAL DAM, JICA FINANCING & IMPLICATIONS IN MIZORAM

Japan and Financing in North East India: Japan's engagement in India's North East is quite extensive. Japan has been financing power, energy, infrastructure projects in the states of Mizoram, Meghalaya, Manipur, Tripura etc in North East. The Japan International Cooperation Agency (JICA) has provided technical assistance from 2013-15 for study on development and management of land and water resources for sustainable agriculture in Mizoram[184]. JICA provided ODA loans for renovation and modernization of Umiam Hydroelectric projects in Meghalaya and 60 MW Tuirial Hydroelectric Power Project in Mizoram. JICA signed an agreement with Government of India in March 2017 to provide 67,170 million Japanese Yen (approximately INR 4,000 crores) Official Development Assistance (ODA) loan for "North East Road Network Connectivity Improvement Project (Phase I)". The JICA has pledged ODA loan of 96,457 million yen for the up-gradation and widening to two-lane with paved shoulder and geometric improvements of National Highways number 54 and 51 in Mizoram and Meghalaya[185]. JICA further signed an agreement with the Government of India on 6 April 2017 to provide an ODA Loan of around Rs 400 crore for the Nagaland Forest Management Project[186]. JICA expressed its interest to build road infrastructure in Arunachal Pradesh, where close to 200 Mega dams are planned[187]. JICA has also been approached by the Government of India to finance the 66 MW Loktak Downstream Hydroelectric Project in Manipur.

60 MW Tuirial Dam

The 60 MW Tuirial Hydroelectric (HEP) Project in Mizoram is one of the projects financed through an ODA loan from Japan. The project is being developed by North Eastern Electric Power Corporation Ltd (NEEPCO)[188]. The Tuirial project is located in adjoining areas of Kolasib and Aizawl Districts of Mizoram. The project comprise of a 77 metre high earth filled dam across the Tuirial River with an installed capacity of 60 MW. The primary purpose of the dam is hydroelectric power production. The Cabinet Committee on Economic Affairs (CCEA), India approved the project at a cost of Rs 913 crores in 2010[189].

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[184] *(2017, March 31). JICA Extends ODA Loan of approximately INR 4,000 Crores for the North-East Road Network Connectivity Improvement Project (Phase I). JICA Press Release. https://www.jica.go.jp/india/english/office/topics/press170331_01.html*

[185] *(2016, March 24). JICA to help in upgradation of NHs in Mizoram and Meghalaya. News Web India. https://news.webindia123.com/news/Articles/India/20160324/2823181.html*

[186] *(2017, April 6). 400 Cr loan agreement signed for Nagaland Forest Management Project. The Morung Express. http://morungexpress.com/400-cr-loan-agreement-signed-nagaland-forest-management-project/*

[187] *(2015, June 8). Japanese agency ready to finance projects in Arunachal Pradesh. The Live Mint. http://www.livemint.com/Politics/rgAZZ39EgcsEhZJ8BNpOQN/Japanese-agency-ready-to-finance-projects-in-Arunachal-Prade.html*

[188] *(2018, November 20). NEEPCO. Power line. Retrieved from https://powerline.net.in/2018/11/20/neepco-2/*

[189] *(2012, August 13). Revised Cost Estimates of Tuirial Hydro Electric Project (60 MW) in Mizoram-Restarting of project works by NEEPCO". Press Information Bureau, Government of India.*

Initially, the project cost stands at Rs. 369 Crores at July 1997 price level. The project was taken up as a Central Sector Scheme under loan assistance of Japan Bank for International Cooperation (JBIC), now merged to Japan International Cooperation Agency or JICA for its international operations since October 2008[190]. At least 85% of the project cost has been financed under JBIC loan assistance and balance 15% from the Government of India's assistance[191]. The loan from JBIC stand at Rs. 443.84 crores. JBIC's loan is for equipment, civil works and related consulting services.[192].

The financial pattern of the total cost of Rs. 913.63 crore comprises of (i) equity of Rs.137.04 crore, (ii) loan from financial institutions amounting to Rs.184.63 crore, (iii) subordinate loan from Government of India amounting to Rs.291.96 crore and (iv) grant from DoNER amounting to Rs.300 crore. The project was earlier scheduled to be commissioned in thirty six (36) months from the date of investment approval of Revised Cost Estimate[193].

Pic: 60 MW Tuirial Dam over the Tuirial River

NEEPCO engaged the Bharat Heavy Electricals Limited for supply and erection of power generating equipment, Patel Engineering Limited for execution of major civil works and Sew-PES-Tuirial consortium for Hydro-Mechanical works[194]. A Swiss company, Electrowatt Engineering Limited was appointed as the review consultant for the project in December 1998. Alstom Power, Portugal is also involved in the dam construction. The construction of the power station began in 1998 by NEEPCO.

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[190] *JBIC Today. Japan Bank for International Cooperation.*
[191] *(2002). Annual Report, Ministry of Power, 2001-2002. Ministry of Power, India.*
[192] *(2005). NEEPCO's Quarterly Performance Review (July-September 2005). Infraline. Retrieved from http://www.infraline.com/(S(t4n2y3z1tyvyxmvvnxxfrn55))/power/setup/Neepco/NEEPCOPerformQrRevJune05.aspx*
[193] *2012, August 13. Revised Cost Estimates of Tuirial Hydro Electric Project (60 MW) in Mizoram-Restarting of project works by NEEPCO. Press Information Bureau, Government of India.*
[194] *(2017, December 17). 6 facts to know about Tuirial Hydro Project. North East Now. https://nenow.in/north-east-news/6-facts-know-tuirial-hydro-project.html*

The Tuirial HEP project envisaged to support the state of Mizoram and the North Eastern Region to mitigate the power shortage, in particular by providing the government of Mizoram with 12 per cent of the power generated at free of cost. The dam storage created for the project is projected to contribute to economic development through fisheries, navigation, and tourism and to improve the hydro-thermal mix in North East. The government of Mizoram has signed a power purchase agreement (PPA) for the purchase of power from this project at Central Electricity Regulatory Commission (CERC) rates[195].

The foundation stone of the dam was laid in September 1996. The project, built at a cost of Rs 1,302 crore, took nearly two decades to complete. The project was earlier scheduled to be commissioned in 2006 -2007[196]. The Project was finally inaugurated by Narendra Modi, Prime Minister of India on 16 December 2017[197]. The project faced massive delays in completing the work affecting the feasibility of the project. The project work came to a halt since June 2004 due to agitation by Tuirial Crop Compensation Claimant Association (TCCCA) claiming payment of crop compensation for the standing crops falling in the Tuirial riverine reserve forest. The stalled works were resumed in January 2011.

Tuirial Dam, Issues and Implications:

Non-Recognition of Indigenous Rights: The Tuirial HEP project is marred with failure to recognize indigenous peoples' rights over their community land and forest along the Tuirial River. The Government has claimed to acquire 5380 hectares of forest land belonging to the affected Mizo, Hmar and other indigenous peoples. The traditional land ownership and customary decision making processes of the affected Mizo, Hmar and other communities are not recognized, as the project authorities enforced the Land Acquisition Act, 1894 and the Mizo District (Forest) Act, 1955 to acquire land for the project. At least 649 persons laid claims to their traditional land through the court of law.

The Saipum villagers even boycott the commissioning of the Dam in December 2017 due to submergence of their livelihood sources without their consent and ill-treatment of villagers by NEEPCO, project authority of Tuirial HEP project[198]. The Saipum Villagers organized a protest on 13 December 2017 against the commissioning of the project, contending that public hearings on environmental issues were never held and the NEEPCO failed to provide compensation to affected families[199]. The Saipum villagers

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[195] (2013, January 20). CCEA revises Tuirial Hydro project cost. Business Standard. https://www.business-standard.com/article/companies/ccea-revises-tuirial-hydro-project-cost-111010500030_1.html

[196] Wangkheirakpam, R, Yumnam, J. (2006, April). Insidious Financial Intrusions in India's North East. ICR and FIPA.

[197] (2017, December 17). PM Modi inaugurates Tuirial hydropower project, says Mizoram is power-surplus state". Hindustan Times.

[198] (2017, December 12). Saipum villagers to boycott commissioning of Tuirial hydro electricity project. North East Now. https://nenow.in/north-east-news/villagers-want-cm-lal-thanhawla-to-inaugurate-the-project.html

[199] (2017, December 14). Mizoram villagers object to commissioning of hydro power project by PM. The Economic Times. Retrieved from https://energy.economictimes.indiatimes.com/news/power/mizoram-villagers-object-to-commissioning-of-hydro-power-project-by-pm/62062987

withdrew plan to boycott the dam after NEEPCO assured to provide free electricity and to employ locals in the project[200].

Pic: Mr. Lalbiaktluanga Hmar, President, Village Council Court, Saipum Village

Mr. Lalbiaktluanga Hmar, President, Village Council Court, Saipum Village shared that the community rights over their forest land has been undermined, despite village being established more than a century back. The Saipum village, comprising 550 households as of 2022, depend on their land for survival.

Mr. Lalremruata, Zo Indigenous Forum shared that the project involves non recognition of Indigenous Peoples rights while declaring reserve forest and in acquiring their land along the Tuirial River for the project. The traditional land ownership of the affected peoples has not been recognized. The constitutional safeguard provided under article 371 (G) for indigenous peoples of Mizoram has been undermined in the case of Tuirial dam, especially in the arbitrary diversion of land for the Tuirial dam without the consent of affected communities. The Right to fair compensation and rehabilitation, LARR Act, 2013 does not recognize the customary land ownership outlined in Article 371 (G) and hence, the constitutional provision accorded for the tribal people of Mizoram has been undermined in Tuirial dam.

Violation of Free, Prior and Informed Consent of affected peoples: The Tuirial project undermined the right to free, prior and informed consent of affected communities. When the construction resumed in April 2011 for the Tuirial HEP project, locals and experts question its legality as no public hearing was ever held[201]. No assessment of social, environmental, health and other impacts on affected communities has been conducted. Information about the dam crucial for timely decision making, such as social and environment impact assessment reports, mandatory under the Environment Impact Assessment notifications, 1994 and 2006 were not provided. The Tuirial Crop Compensation Claimant Association, Sinlung People's Collective, Sinlung People's Human Rights Organisation, representing the affected communities urged the project authorities to assess the impacts of the dam on the affected peoples' livelihood dependence on their land.

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[200] *(2017, December14). NEEPCO agrees to provide free electricity. North East Now. https://nenow.in/north-east-news/saipum-ngos.html*

[201] *Linda, C. (2010, September 15). Mizoram hydro projects violating safeguards. The Assam Tribune. https://assamtribune.com/mizoram-hydro-projects-violating-safeguards*

Mr. Vanlal Ruata, PRISM, Mizoram shared that extensive stretch of land belong to the Mauchar and Saipum villages, along with others, were submerged directly by the Tuirial dam reservoir. The Mizoram Government declared reserve forest along the river banks of Mizoram, including Tuirial River without the consultation and consent of communities depending on such land, forest and river for their livelihood.

Pic: Forest and agriculture land submerged by the Tuirial dam

The denial of rights led to contestations among project authorities and affected communities, leading to multiple legal litigations, project delays and cost overrun. Indeed, the State of Mizoram admitted during legal proceedings of National Green Tribunal that there are as many as 11 linked cases pending before the Aizawl Bench of the Gauhati High Court pertaining to claims for compensation of 649 persons.

Livelihood Impacts: One of the major impact of the dam is on the livelihood of the affected villagers. Affected villagers earlier cultivate citrus fruits, medicinal plants, spices, Hatkora, orange, broom, teak, lemon, betel nut, teak plantation, besides pursuing agriculture activities and fish farming near the Tuirial River Bank and adjoining forest areas, which ensure food security and substantial income for the villagers. The dam has submerged most of their livelihood sources. Additionally, agriculture and forest land of around 5380 hectares has also been acquired by the project authorities.

Pic: Ms. Ngurdintlingi Hmar of Saipum Village

Ms. Ngurdintlingi Hmar of Saipum Village shared that the Saipum village, one of the main affected village of Tuirial dam is inhabited by the Hmar, Kuki, Mizo, Bru, Paite, Thadou, Khasi people with the Hmar

people being the majority. Most villagers enjoyed longstanding traditional relationship with their forest land and cultivate land along the Tuirial River stretch in their village. Villagers used to engage in fish farming, teak plantation, broom, betel nut, horticulture crops, besides agriculture activities near the Tuirial River. She said most of the land are now submerged by the Tuirial dam reservoir and also acquired by the Mizoram Forest Department and NEEPCO for the dam. Besides, the Government of Mizoram and NEEPCO issued orders restricting the villagers from access and cultivating in areas falling 700 metres from the Tuirial River bank. This lead to massive alienation of land affecting villages of Saipum, Mauchar, North Hlimen etc. More than 60 families lost their land to Tuirial dam in Saipum village. The NEEPCO also undertake quarrying of earth, sand and stone from their land without paying any compensation to the land owners of the village. The submergence and restrictions caused shortage of food of villagers.

Chairman of all NGOs committee, Mr. R. Lalchamliana said, "We were just simple villagers and we did not have any anticipation of the impending environment change the dam would have brought upon us. The sources of our livelihood, our agricultural lands and forest are all submerged by the dam [202].

Displacement: Villagers are displaced from their traditional livelihood support areas. Many villagers stayed close to the River for cultivation and to manage their farms. The declaration of cultivable and forest land along the Tuirial River as Reserved forest by the Mizoram Government displaced communities from their livelihood sources and areas of inhabitation too. The dam impacted their livelihood means. Many of such displaced villagers are forced to move in uphill portion of their village and to confront new adverse realities and challenges. The displaced villagers face shortage of water, high temperatures and strong winds. After the completion of the dam, villagers are facing extreme climate, both heat and cold.

Environment Impacts: The Tuirial dam project entail adverse impacts on the rich biodiversity along the Tuirial River catchment area, which is part of the Barak River ecosystem. Tangible impacts includes **b**iodiversity loss, deforestation and loss of vegetation cover etc[203].

A massive tract of forest land has been submerged by the reservoir of the dam project. There is no report of receiving forest clearance from the Ministry of Environment and Forest and Climate Change, India for the diversion of forest for the project. This involves a clear violation of the Forest (Conservation) Act, 1980. The massive submergence and diversion of forest land of more than 5000 hectares by a single dam project will lead to emission of greenhouse gases and worsen climate crisis in Mizoram and across North East. A case has been filed with the National Green Tribunal on forest rights violations[204].

Denials of Compensation and Rehabilitation to affected villagers: The Tuirial dam is marred with controversies around rehabilitation and resettlement of affected communities. Extensive tract of land has been acquired for the project. Compensation has not been provided for affected villagers even after more than 20 years of acquisition of their land in the pretext of public purpose. The Tuirial Crop Compensation Claimant Association (TCCCA) complaint of failure to provide compensation for crop loss in the land

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[202] *(2017, December 12). Saipum villagers to boycott commissioning of Tuirial hydro electricity project. North East Now. https://nenow.in/north-east-news/villagers-want-cm-lal-thanhawla-to-inaugurate-the-project.html*

[203] *(2014, April 8). Tuirial Hydro Power Project, Mizoram, India. Environment Justice Atlas. https://ejatlas.org/conflict/tuirial-hydro-power-project-mizoram-india*

[204] *S.P. Wangdi, JM Saibal Dasgupta, EM 5th January, 2021 O.A. No. 68/2019/EZ avt https://indiankanoon.org/doc/17673873/*

forcibly acquired for the dam[205]. The project work came to a halt since June 2004 due to agitation launched by TCCCA claiming payment of crop compensation for the standing crops in the riverine reserve forest.

Mr. Lalbiakzawna Hmar, Saipum village shared that many villagers in Saipum village never receive any form of compensation for their land lost to the Tuirial Dam. Land and forest areas of other villagers like Mauchar, North Hlimen are also affected by the dam apart from Saipum village. Land lost included land acquired for dam building, reservoir, for setting up infrastructures of NEEPCO and excavation of earth and stone for dam building. The Land Passes issued by the Mizoram Government were collected by the Deputy Commissioner, Aizawl District around 2004 on pretext of providing compensation, but the villagers were deceived and provided no compensation. Most affected villagers are excluded from payment of compensation by project authorities causing much hardship. The villagers are seeking legal recourse to receive just compensation and rehabilitation for their land lost. Many affected villagers are also not involved in legal recourse due to ignorance and due to the complexity of legal procedures.

Massive tract of land has been acquired from several villages without paying compensation. Notifications were earlier issued by the Deputy Commissioner (DC), Aizawl to pay compensation to the affected communities under the Land Acquisition Act, 1894 for construction of the Tuirial dam. The DC issued compensation notification on 18 June 2002 for approximately 8.49 Crores Rupees to compensate 352 awardees for loss of trees, crops, plants etc. for acquiring 9310 bighas of land for the dam in Phase I. The DC issued compensation notification on 16 July 2003 for 5.59 Crores rupees for payment to 348 number for acquiring 16469 Bighas of land for submergence under Phase II. Another award in June 2003 is for Rs.8.85 Crores for payment to 196 petitioners in respect of 9189.94 bighas of land for submergence in Phase III. Notifications were issued on 20 August 2001 to acquire 3802 Bighas of land at Mauchar, Saipum and North Hlimen. The notification of 18 January 2002 was to acquire 857 Bighas of Land at Saipum and Mauchar village. The notification of 20 August 2001 was to acquire 16468 Bighas of Land at Mauchar, Zohmun, Palsang, North Hlimen, North Khawdungsei. The notification of 20 August 2001 is for acquisition of 5553 Bighas of land at North Serzawl, Ratu, Sunhluchhip, North Hlimen and Bukpui. Though initially agreed to provide compensation, the project authorities later backtracked from providing compensation, reasoning that the 5380 hectares of land acquired for Tuirial dam falls within the Tuivai Riverine Reserve Forest (TRRF) and that the land permits issued to the claimants were void ab-initio (from the beginning) and thus conferring no legal right or interest on them[206].

The payment of 50% of compensation by NEEPCO to the land holders in pursuance to a memorandum of understanding (MoU) of 12 August 2003 was also objected by the Mizoram Government. The Chief Secretary of Government of Mizoram issued notice on 5 August 2016 cancelling the land pass (LSCs) falling within the Tuivai Riverine Reserve Forest. The NEEPCO maintained they will not compensate affected villagers based on payment of Compensatory Afforestation of Rs. 24.46 Crores to the Forest Department of Mizoram.

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[205] *First unit begins operating at 60-MW Tuirial hydroelectric in Mizoram, India*
By Elizabeth Ingram, the Hydro World, 29 August 2017
http://www.hydroworld.com/articles/2017/08/first-unit-begins-operating-at-60-mw-tuirial-hydroelectric-in-mizoram-india.html

[206] *S.P. Wangdi, JM Saibal Dasgupta, EM 5th January, 2021 O.A. No. 68/2019/EZ avt*
https://indiankanoon.org/doc/17673873/

The affected communities challenged the order of 5 August 2016 of the Mizoram Government and the earlier order of 28 January1965 passed under Section 14 and Section 21 of the Mizo District (Forest) Act, 1955 by the then Chief Executive Member, Mizo District Council notifying that the Forest area falling within half a mile on either side of the river 'Tuirial' as Reserve Forest Land[207]. The affected communities maintained that the then Government of Mizoram on 25 May 1999 decided to pay compensation for standing crops in the land acquired. There is no valid ground for ignoring the rightful claims of the community and private land owners whose lands are covered by the District Council Passes, allotted around 1950s. Affectees maintained that the land passes were issued before the promulgation of the Forest Conservation Act, 1980 and the land holdings are situated outside the Riverine Reserve Forest areas.

Later, the Guwahati High Court by its judgment dated 27 January 2021 quashed the order of Chief Secretary of Government of Mizoram dated 5 August 2016 notifying cancellation of the Village passes etc. The Court also quashed the Notification dated 28 January 1965. The Mizoram Government had already challenged the Gauhati high court judgment of 27 January 2021. Amidst the legal tussle, the affected communities continue to languish without compensation and rehabilitation and their land submerged by the reservoir and additionally occupied by the project proponent.

Corruption & Manipulation: The construction of Tuirial HEP project has been marred with corruption and manipulative practices in the rehabilitation process of those affected by the project. There are complaints that selected officials of the Government of Mizoram involved in rehabilitation works indulged in corruptive practices. The corruption matter was even investigated by the Central Bureau of Investigation (CBI), Government of India and reached the court of the National Green Tribunal. In PIL No. 15/2008, a Division Bench of the Gauhati High Court issued an order dated 21 April 2010 directing the CBI to investigate any discrepancies in the payment of compensation by the Mizoram Government. The CBI registered a case being CBI (ACB) Case No. RC6(A) 2010-IMPH and filed charge-sheet against nine (9) persons on May 2012, which includes relatives of former Chief Minister, Zoramthanga of Mizo National Front[208]. This indicates that dam building foster social division, benefits those unaffected and widen the social inequality by enriching the powerful elites, while affected languish with impoverishment[209].

Cost Overrun: The Tuirial dam project was marred with inordinate delays and cost overrun, leading to feasibility and high cost of power per unit to be purchased by the Mizoram Government from the project development. The project cost in 1998 was fixed at Rs 369 crores, but the inordinate delays over the years on the issue of the payment of compensation to the displaced and infrastructure bottlenecks has led to final cost escalation to 1,306 crores of Indian Rupees[210]. Earlier in 2010, the Cabinet Committee on Economic Affairs (CCEA) approved the revised cost estimate of the Tuirial dam amounting to Rs.913.63 crore

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[207] *(2021, September 24). Case No 179 OF 2017 (EZ) of National Green Tribunal, New Delhi Branch, Centre for Environment Protection Vs Union of India and ORS.*

[208] *(2012, August 13). Mizoram Tuirial Project Scam, CBI Names Nine People". The Northeast Times.*

[209] *(2010, September 28). Protest against hydro-electric power projects in Mizoram. Governance Now.*
https://www.governancenow.com/gov-next/green-gov/protest-against-hydro-electric-power-projects-mizoram

[210] *"2016 date set for Tuirial dam", The Telegraph, 10 April 2015*
https://www.telegraphindia.com/1150410/jsp/northeast/story_13742.jsp

including Interest During Construction (IDC) of Rs.36.57 crore at March, 2010 Price Level[211]. The project took nearly two decades to complete. The project delays lead to questioning the viability of the project.

Failure to provide Electricity and Water: The Government and NEEPCO failed to fulfill promises to provide free electricity and water for the villagers. In December 2017, the NEEPCO promised the affected villagers of Saipum village to provide drinking water, free electricity and employment for locals during the villagers protest against the commissioning of the dam in December 2017. The villagers of Saipum complained that the NEEPCO authorities failed to fulfill their promises after the dam commissioning.

Fostering conflict and tensions: Dam building has fostered much tensions and even conflict within indigenous territories. The Hmar people who are one of the main affected communities has long been resisting the construction of the mega dam in their land. Indeed, the Hmar People's Convention (HPC), one of the armed Hmar insurgent group publicly objected to the construction of the proposed 210 MW Tuivai dam in Mizoram[212]. The Hmar People's Convention–Democrats (HPC-D) objected the proposed 1500 MW Tipaimukh dam, and warned that the dam is a war imposed on the Hmar and other communities[213]. The HPC -D claimed responsibility for destroying NEEPCO's drilling machine in 2008. Four policemen belonging to the First battalion of the Indian Reserve Police were killed in an ambush by suspected HPC-D insurgents, close to Saipum village on 2 September 2008. The security personnel were carrying salaries of the First Indian Reserve Battalion outpost established to protect the workers at the Tuirial HEP project at Saipum[214]. In May 2012, media published Intelligence reports that HPC-D was planning to bomb power line like Manipur to Mizoram and bridges along the NH 54 connecting Aizawl from Silchar[215]. Series of operations by Mizoram Police led to elimination and detention of HPC-D cadres[216]. The HPC-D attacks seems to be part of the larger resistance to energy projects in Hmar areas in Mizoram and outside. And this serves as evidence as to how the push for mega dams, including those financed by IFIs like JICA, led to much tensions and conflict in indigenous peoples land and territories.

The denial of access of affected villagers to their traditional land by the dam proponent, NEEPCO has long been another source of tension. The NEEPCO already constructed an iron gate with security arrangements that regulate the free movement of affected villagers such as Saipum and Mauchar villages.

Affected villagers are unhappy with the land alienation and wished project authorities to return their land. Mr. Lalramthanga Hmar, Saipum shared that due to the loss of land, impoverishment and unaccountability of the project authorities, the affected villagers want their land back from the project authorities as the Tuirial dam lay useless while unleashing suffering to the affected people.

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[211] *2012, August 13. Revised Cost Estimates of Tuirial Hydro Electric Project (60 MW) in Mizoram-Restarting of project works by NEEPCO. Press Information Bureau, Government of India.*

[212] *(2013, September 26). HPC objects to Tuivai hydroelectric project. Economic Times. https://economictimes.indiatimes.com/industry/energy/power/hpc-objects-to-tuivai-hydro-electric-project/articleshow/23087914.cms?from=mdr*

[213] *(2009, July 29). Hmar rebels against Tipaimukh dam. Morung Express. https://inpui.blogspot.com/2009/07/hmar-rebels-against-tipaimukh-dam.html?m=1*

[214] *(2008, September 4). Mizoram accords farewell to slain cops. The Nagaland Post. https://nagalandpost.com/index.php/mizoram-accords-farewell-to-slain-cops/*

[215] *(2012, May 13). Mizoram police ready to act against HPC-D. Hueiyen Lanpao /Newmai News Network. http://e-pao.net/GP.asp?src=23..140512.may12*

[216] *(2014, February 20). HPC-D decries intrusion of Mizoram police. Newmai News Network/HNS http://e-pao.net/GP.asp?src=33..210214.feb14*

Lack of defining Alternatives: The pursuance of Tuirial dam and other dams in Mizoram failed to assess the power needs of Mizoram. Mizoram receiving only 12% of the 60 MW hydro power from Tuirial dam, which is hardly 6 MW of power. The power output is disproportionate to the high project cost that stands close to 1400 Crores. The state can opt for sustainable energy generation means that can minimize social and environment impacts and can meet the power needs of Mizoram.

The Government is building large dams, viz, 210 MW Tuivai Hydel Project, 40 MW Tuivawl Hydel Project and the 12-MW Serlui 'B' Hydel Project over the Tuivai, Tuirial, Kaladan and several other Rivers in Mizoram. Mizoram requires less than 200 MW *(*100-160 MW as of 2010*)* for its own consumption, the introduction of these projects in Mizoram can lead to extermination of the land and people in the name of development. There are concerns if the power generated in Mizoram will be for Mizoram or for the corporate interest of corporations involved in dam building in Mizoram, like NEEPCO and those supplying materials and involved in contract works etc. The massive land required for these projects will worsen indigenous peoples' livelihood loss, environment impacts and climate change[217].

Conclusions:

The Tuirial Dam financed by JICA lands in multiple controversies and joins other large dams in the region on questions of its feasibility. The dam, on account of its exclusive decision making process and limitations in involving the affected communities, led to controversies on land acquisition, rehabilitation and resettlement. The dam has been marred with violations of community rights, especially the traditional rights over their ancestral land and forest along the Tuirial River and exclusion in decision making. Besides, corruptive and manipulative practices marred the implementation of the project, while completely ignoring the concerns and survival needs of affected communities.

The unaccountability of project authorities is much evident with involvement in corruptive processes while using its powers to subdue the rights of affected communities. The acquired land has already been handed over to the NEEPCO, which had completed the construction of Tuirial dam. With NEEPCO supporting the Government position and rejecting the demands for compensation, the project authorities are violating the rights of affected peoples. The affected villagers languish without compensation for their land lost due to the submergence and acquired for project related activities. The ongoing legal tussle itself serves as another burden to the already impoverished affected villagers, as it drains their human and financial resources. Amidst the legal tussle, the project authorities continue to remain unaccountable.

The Tuirial dam building has recorded massive resentment and protest from the affected communities, due to acquisition of their land, forest areas, environmental laws violations and failure to compensate and rehabilitate those affected by the project. The Saipum villagers indeed boycotted and protest the commissioning of the dam in December 2017. A massive procession was taken out at Aizawl, capital of Mizoram in protest against Tuirial dam and other hydroelectric projects in Mizoram. The protestors demand that the Mizoram Government should withdraw from pursuing the projects and ensure the protection of the constitutional rights of the tribal people. Memorandum were submitted to the authorities of Government of India, Mizoram, NEEPCO and NHPC[218]. Affected villagers pursued legal litigations though the Gauhati High Court seeking rights over their land and for just rehabilitation and compensation.

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[217] *(2010, September 28). Protest against hydro-electric power projects in Mizoram. Governance Now. https://www.governancenow.com/gov-next/green-gov/protest-against-hydro-electric-power-projects-mizoram*

[218] *(2015, September 14). Protest against hydro projects in Mizoram. The Assam Tribune. https://assamtribune.com/protest-against-hydro-projects-in-mizoram*

The Centre for Environment Project filed litigation with the National Green Tribunal on forest and environment laws violations unleashed by the Tuirial Dam. Many affected villagers are angry and want to reclaim their land as the Tuirial dam is useless and only unleash suffering to the affected peoples.

Indigenous peoples' right should be upheld, especially their right to free, prior and informed consent should be fully recognized in Mizoram before pursing development processes affecting their land and resources. Peoples' land, rivers and forests are the backbone of indigenous peoples 'existence and survival. Peoples' democratic rights that are embedded with our land, forests and rivers must be safeguarded. Define alternatives to power generation that will benefit the people of Mizoram.

The project financiers, JICA (JBIC) remains unaccountable to address the social impacts of Tuirial dam. JICA failed to recognize the collective ownership or the customary land ownership system of the indigenous peoples of Mizoram. The safeguard policies of JICA has also not been adhered to in the project. JICA should reconsider their financing of unsustainable energy projects in North East considering their impacts on people and the environment. The impact of loans from JICA to the people of Mizoram, such as indebtedness and diversion of public resources has not been deliberated with the people.

Japan should uphold indigenous peoples' rights standards and other best practices of the United Nations and the Organization for Economic Cooperation and Development, which Japan is a member, in financing development projects through their ODA. Respect of community rights, environmental integrity and application of development effectiveness principles, accountability of all development stakeholders should be the central focus in all ODA financing involving JICA and other international financial institutions across North East.

CHAPTER VII

KFW, GERMANY FINANCED PARE HYDROELECTRIC PROJECT IN ARUNACHAL PRADESH: ISSUES AND CONCERNS

Context – India – German Relationship: India has long been a central partner for German and European foreign policy in Indo-Pacific region. Germany has been India's primary trading partner in Europe with cooperation focusing mostly in infrastructure, energy, environment and technology. Both countries share convictions on future structure of the international system, viz, multilateralism and to reform the United Nations and its Security Council and advocating for a rules-based order in the Indo-Pacific. The two countries supports the negotiations between the European Union and India on a Free Trade Agreement[219].

The German Federal Government's autumn 2020 guidelines and the November 2021 coalition agreement both emphasize the importance of expanding relations with India. The EU-India Roadmap to 2025, the Connectivity Partnership of May 2021 and the Indo-Pacific Strategy of autumn 2021 all testify to the strategic importance of India for European foreign policy in the region. Earlier in May 2000, Germany and India agreed on the "Agenda for the Indo-German Partnership in the 21st Century". Since 2011, the German and Indian governments have held bilateral consultations every two years. In September 2020, the German government laid out its Indo-Pacific guidelines, illustrating its interest and commitment to a region where India is a key protagonist[220].

Post the economic reforms and liberalization of the Indian market in 1991, Germany has become one of India's most significant trade and investment partners. India's liberalization programme since 1990s led to investment from IFI due to the structural reform agendas as part of balance-of-payments to the economic crisis afflicting India in 1990s. Cumulatively, Germany has invested over $13.19 billion in India between 2000 and 2021[221]. Germany's key areas of investments has been transportation, electrical equipment, metallurgical industries, services sector, chemicals, construction activity, trading and automobiles. Over 1,600 Indo-German collaborations and 600 joint ventures are represented in the Indian marketplace.

New Commitments for Sustainable Financing;

Germany further committed to provide additional support worth 10 billion Euros to India by 2030 to support green growth initiatives in India. The commitment came at the Sixth round of Inter-Governmental Consultations between the two countries on 3 May 2022[222]. India and Germany also agreed to work together on joint projects in third countries through triangular cooperation in a signal to counter China's

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[219] *Christoff, S. (2017, September 22). India Germany: A Partnership to be Reckoned with. Strat For. https://worldview.stratfor.com/article/india-and-germany-partnership-be-reckoned*

[220] *Amrita Narlikar. (Apr 08 2021). Why should Germany work more with India? The ORF*

[221] *Tanushree Basuroy. (2022, Mar 1). Amount of FDI inflow from Germany to India FY 2013-2021. Statista. https://www.statista.com/statistics/814472/india-amount-of-fdi-inflow-from-germany/*

[222] *Asit Ranjan Mishra. (2022, May 3). Germany commits 10 billion euros for green projects in India by 2030. Business Standard. Retrieved from https://www.business-standard.com/article/economy-policy/germany-commits-10-billion-euros-for-green-projects-in-india-by-2030-122050201117_1.html*

Belt and Road Initiative (BRI). The joint statement outlined to support achievement of their goals in the climate action and sustainable development space, further promote German-Indian research and development, and encourage private investment to leverage further funding. Both sides launched Indo-Germany partnership on green and sustainable development. Both sides also agreed to work together on triangular cooperation to offer projects in third countries for sustainable development and climate targets[223].

On 3 May 2022, the Union Minister for Power and New & Renewable Energy, India urged German energy firms to invest in India as the country has emerged as the most attractive destination for investment in renewable energy sector, after holding a meeting with major German energy companies about their expansion in India[224]. The agreement insisted on expanding cooperation in renewable energy sector.

Climate Change Project in North East

In addition to the development of renewable energy, support for the implementation of India's National Action Plan on Climate Change is at the core of bilateral cooperation between India and Germany in North East India. India and Germany had a bilateral collaboration in the field of climate change and in December 2019, a pilot project on the subject was concluded. The Climate Change Adaption-North Eastern Region (CCA-NER) PHASE-2 is a bilateral project between India and Germany to implement the technical cooperation in partnership with the Ministry of Development of North Eastern Region, India. The CCA-NER Phase-2 has been implemented under the broader framework of the Indo-German Environment Programme-Rural Areas (IGEP-RA) in Meghalaya, Mizoram, Nagaland and Sikkim States with an objective of improving resource-saving and climate-resilient agricultural practices. In Nagaland, Germany will provide a grant of up to 6.5 million Euro (€) for the period from 2019 to 2026 to safeguard biodiversity conservation in selected Community Conserved Areas (CCAs), while improving the living conditions and income of the local population in peripheral areas of protective forests. The project covers 12 CCAs, around 70 villages and 6 districts in Nagaland (including Wokha, Mokokchung, Zunhebuto, Kohima, Pere and Phek)[225]. The Kreditanstalt für Wiederaufbau (KFW), Germany has also been funding the protection and rejuvenation of catchment areas of Thoubal, Imphal and Singda Rivers as part of climate change mitigation and adaptation project in Manipur[226].

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[223] *Christian, W. Jana, L. Tobias, S. (2022. March). Expanding Germany's Relations with India: Triangular Cooperation as the Next Step in the Strategic Partnership. SWP Comment 2022/C 19, 11.03.2022, 4 Seiten. doi:10.18449/2022C19.*

[224] *(2022, May 3). Power minister invites German energy firms to invest in India. Economic Times. https://economictimes.indiatimes.com/industry/renewables/power-minister-invites-german-energy-firms-to-invest-in-india/articleshow/91292314.cms?from=mdr*

[225] *(2019, April 30). Germany has northeast India firmly in view, new prospects for cooperation in Nagaland. India Blooms News Service, https://www.indiablooms.com/news-details/N/49514/germany-has-northeast-india-firmly-in-view-new-prospects-for-cooperation-in-nagaland.html*

[226] *R Lester Makang, 8 May 2022 Erratic fund flow hampers German-funded project in Ukhrul The Peoples Chronicle,*

German Financing of Dam Building in India:

The German Development Cooperation Bank or Kreditanstalt für Wiederaufbau (KfW) has been supporting dam building in India, including in India's North East. KFW outlined that harnessing India's hydropower potential is a vital component in transforming India's power mix away from fossil fuels while increasing energy security and emphasized that hydropower is a reliable and cost-efficient source of renewable energy and can either be used to cover base load or peak demand.

KFW outlined that the India and Germany established a solid cooperation to promote a sustainable energy supply based on hydropower in India. In the framework of Indo-German Financial Cooperation, KfW emphasized development of hydropower sector with a premise to increase energy security in India and a reduction of greenhouse gas emissions to mitigate climate change and impacts. KfW supported hydropower through long term financing and complementary technical assistance. KfW has promoted the rehabilitation and modernization of the Hirakund hydropower plant in Odisha. Currently, KfW finances the Shongtong Karcham, Budhil and Himachal Sorang hydroelectric projects in Himachal Pradesh and the 110 MW Pare hydroelectric project in Arunachal Pradesh in North East India[227].

KfW financing of Dam building in North East India: The NEEPCO is undertaking the construction of 110 MW Pare Hydro Electric Project (HEP) in Arunachal Pradesh. The project includes the construction of a concrete diversion dam of 63 metres height, head race tunnel of 7.5 metre diameter and 2.81 km length and a powerhouse, and the installation of two 55 MW vertical Francis turbine units to generate 110 MW of power[228]. With the dam site at Jampa Village, the concrete gravity dam on the Dikrong River would stand 63 metres high and 134.257 metres long. The run-of-the-river project has its powerhouse at Sopo Village. The tunnel bringing water from the dam storage is 1.029 kms long.

The catchment area of the Project is 824 Sq. Km with maximum available head of about 67.36 metres. The Central Electricity Authority (CEA) has accorded Techno Economic *Clearance* (TEC) to the project on 24 September 2007. NEEPCO has taken up this project to harness the hydropower potential of the Dikrong River which is a tributary of Brahmaputra River and also utilize the tail race discharge of the 405 MW Ranganadi Stage I Hydroelectric Project. The economic clearance of the project was cleared by the Cabinet Committee on Economic Affairs, India on 4 December 2008 at an approved estimated cost of Rs.573.99 Crores, including Interest During Construction (IDC) and finance Charges of Rs.68.06 Crores at price level of June 2007. The revised date of commissioning of the Project is December 2017. The CEA has vetted the Revised Cost Estimates of the Project at Rs. 1337.76 Crores as of January 2016 price level[229]. The US$ 209 million project includes the Construction of a 55 MW hydroelectric power plant in unit I and further construction of a 55MW hydroelectric power plant in unit II.

The Pare HEP is originally envisaged as Run of the River Scheme by Central Electricity Authority and Central Water Commission in the year 1978 forming a part of the Panyor - Pare Basin Development. As

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[227] *Promotion of a sustainable energy supply based on hydropower https://india.diplo.de/in-en/themen/hydropower/1992866*

[228] *NEEPCO – Pare Hydroelectric Power Plant 110 MW – Arunachal Pradesh - Project Profile. Market Research. https://www.marketresearch.com/Timetric-v3917/NEEPCO-Pare-Hydroelectric-Power-Plant-11412247/*

[229] *"Pare HEP Salient Features & Contractors | North Eastern Electric Power Corporation Limited" (PDF). neepco.co.in.*

per the present proposal, the Full Reservoir Level (TWL) is considered at 245.15 m which is the minimum Tail Water Level (TWL) of Ranganadi HEP Stage-I under operation in the upstream of Dikrong River[230].

Project proponents stated that the broad objective of the project is generation of hydroelectric power for socio-economic development of the North East Region. And further, the project envisaged efficient generation of power and economic growth in the North East region and protection of global climate[231].

The Ministry of Environment and Forest and Climate Change (MoEFCC), Government of India accorded the Environmental clearance for the Pare HEP project in 2006. The Memorandum of Agreement (MOA) with the State Government was signed for Pare HEP in September, 2006. The MOA stipulates that in addition to 12% free power, 1 paise/unit of electricity sold should be given for local area development[232]. The plant was commissioned in May 2018. However, the Prime Minister of India, Mr. Narendra Modi inaugurated the Pare Hydroelectric Project on 9 February 2019 after much delays[233].

KFW Loan financing of Pare HEP:

The Kreditanstalt für Wiederaufbau (KfW) has been funding the Pare Hydroelectric Project in Arunachal Pradesh. The project is implemented by North Eastern Electric Power Corporation Ltd (NEEPCO) over the Dikrong River, a tributary of river Brahmaputra. On December 11, 2008, NEEPCO signed a loan agreement of US$102 million with KfW, Germany. The Government of India will provide US$ 38.61 million as equity and remaining have been funded through external borrowings. The loan agreement was signed with Government of India's Guarantee for the project 'Pare Hydroelectric Plant' under Indo-German Bilateral Development Cooperation.

Further, the NEEPCO signed an agreement in November 2019 to secure a 20 million Euro loan from KFW under the Indo-German Bilateral Development Cooperation to complete the Pare Hydroelectric Project[234].

In September 2009, the Hindustan Construction Co. Ltd (HCC) was appointed as the EPC contractor. The AREVA T&D India Ltd has been appointed for the supply of a switchyard and transformers package. In February 2011, ANDRITZ HYDRO, based in Austria received a contract to deliver the equipment for the project. The scope of supply comprises design, delivery, installation, and commissioning of the complete electromechanical equipment, including two vertical Francis turbines (55MW each), generators, main inlet valves, control and protection system, power and control cables, and additional equipment.

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[230] *(2008, February). Comments of Ministry of Power on 110 MW Pare HE Project. Ministry of Power, India. http://www.infraline.com/(S(gly0ifmkbajezziw3gruds55))/power/setup/Neepco/MoPcommentsonPareFeb08.aspx*

[231] *(2017, December 20). Loan Agreement signed for Pare Hydroelectric Plant to aid socio-economic development of the North Eastern Region. Ministry of Finance, Government of India. https://pib.gov.in/newsite/PrintRelease.aspx?relid=174637*

[232] *Notification vide J-12011/12/2006-IA-1 dated 13.09.2006 of MOE&F, India.*

[233] *PM Modi inaugurates KfW financed 110 MW Pare Hydroelectric Plant in Arunachal Pradesh. Indo-German Energy Forum. Retrieved from https://www.energyforum.in/home/april-2019-newsletter-articles/20190209-pm-modi-inaugurates-kfw-financed-110-mw-pare-hydroelectric-plant-in-arunachal-pradesh/*

[234] *(2019, November 20). NEEPCO signs 20 mn euro loan pact for hydel plant in Arunachal Pradesh. The Business Standard. Retrieved from https://www.business-standard.com/article/companies/neepco-signs-20-mn-euro-loan-pact-for-hydel-plant-in-arunachal-pradesh-117122201099_1.html*

Major issues Associated with Pare HEP:

Lack of Free, Prior and Informed Consent: The pare project is marred with the lack of implementation of the right to free, prior and informed consent of affected communities, as outlined in the UN Declaration on the Rights of Indigenous Peoples, 2007. For instance, the villagers of Jampa Village in Papum Pare District, Arunachal Pradesh are not aware of the plan to construct the dam and the possible implications of submerging their village land, homestead, agriculture and forest land along the Dikrong River. The village is envisaged to be heavily impacted by the dam.

NEEPCO stated that land availability certificate has also been issued by the Deputy Commissioner, Papum Pare District, Arunachal Pradesh and at least 277 families were envisaged to be relocated due to submergence caused by project. The project related documents, the environment impact assessment, the Environment Management Plan, Social Impact Assessment etc are not available publicly or shared with the affected communities, in both upstream and downstream portion of the dam. Such lack of project related information affected the effective participation of communities in development decision making.

Based on the sharing of Mr. Anthony Bamang, former Secretary of Arunachal Citizens Rights (ACR), "Due to the intervention of the affected communities and the Arunahcal Citizens Rights, the first public hearing for the project was compelled to be postponed, due to the lack of knowledge and awareness of the affected villagers, especially the Jampa village. Later, the main affected village of Jampa was spared from direct submergence from the dam reservoir, while a portion of the village land has been submerged.

Impact on Land and Forest: Total land requirement for the project stands at 198.48 hectares including forest land of 35.17 hectares. NEEPCO stated that Socio-Economic Baseline survey has been conducted as a part of EIA study and the Resettlement and Rehabilitation (R&R) Plan as per NPRR 2003 has been formulated. Based on EIA & EMP studies, the public hearing was conducted at project site and the land holders expressed the willingness to part with their land very categorically against proper compensation. The Ministry of Environment and Forest and Climate Change, India with the recommendation of EAC had accorded Environment Clearance in September 2006[235].

Pic: Reservoir of Pare Hydroelectric Project submerging agriculture land and forest areas.

[235] *(2006). MOEF, Government of India letter No J-12011/12/2006-IA-1 Dated 13th, September 2006. MoEF, Government of India.*

Livelihood and Downstream Impacts: One of the major impacts of the Pare dam is the myriad impacts on the villages in the downstream of the dam, which includes submergence of their agriculture land, forest, horticulture and plantation land and fishing grounds, on a daily basis in the downstream villages, which affected the indigenous economy and will impoverish affected communities. Further, there is no provision for the protection of wildlife and humans at both upstream and downstream banks of the river and there is no alarm system installed to alert people further down living in downstream portion of the dam.

Mr. Yab Tra Camdir, Chairman, Pare Project Downstream Welfare Committee (PPDWC), that represents the land affected owners and villagers of Chiputa, Rose, Manni, Lekha and Midpu villages in Papum Pare District complained in media that due to huge discharge of water from the Pare project, villagers are facing untold problems which need urgent intervention from project authorities. "We demand the authority to take necessary steps for the protection of village and plantation land at vulnerable areas as the discharge of large quantity of water from the Pare HEP Project has led to submergence of agriculture, horticulture and plantation land on a daily basis in the downstream villages. Due to discharge of huge and excessive river water from the dam and also due to rising in velocity of water current now, the present bridges are in danger of collapse, which need immediate attention. The Committee has also sought protection of the wire rope suspension bridge in different locations of downstream areas. Indeed, the PPDWC complain to both the Government of Arunachal Pradesh and NEEPCO, highlighting their grievances and served a 15 day ultimatum in October 2018 to intervene and fulfill on its demands and threatened to call for democratic agitation in case of failing to address their demands. The downstream impacts continues to be ignored.

Lack of Adequate Rehabilitation and Resettlement: Affected communities of the Papum Pare project have raised complaints of social impacts due to the Pare HEP project and lack of adequate rehabilitation and resettlement measures by the project authorities. Earlier, the Environment Appraisal Committee (EAC) under Ministry of Environment and Forest, Delhi visited the site during June 2006 and approved the Rehabilitation and Resettlement plan prepared as per National Plan for Rehabilitation and Resettlement (NPRR) 2003. As per the approved R&R Plan, only 38 PAF will get the benefit of both Resettlement & Rehabilitation and remaining 236 PAF will get Rehabilitation benefit[236]. However, concerns persist that affected communities especially in downstream areas are deprived of rehabilitation.

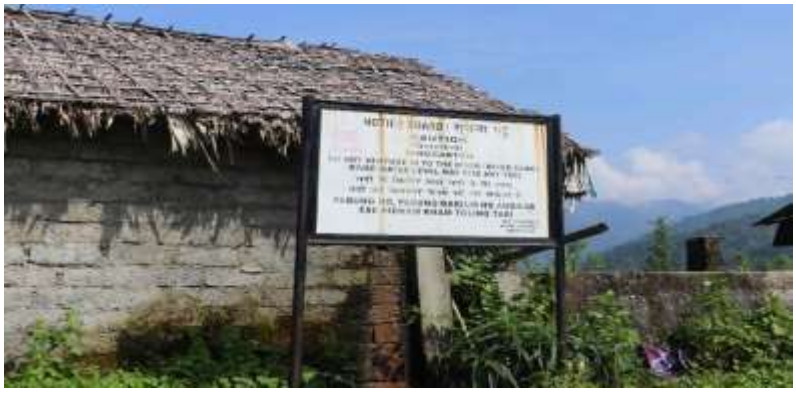
For instance, due to the failure to address the longstanding complaints and rights of the affected communities by the Pare HEP project authorities, the Pare Project Land Affected Welfare Committee (PPLAWC) has demanded removal of the head of the Pare hydroelectric project (HEP) in Doimukh town in Arunahcal Pradesh due to his indifferent and non-cooperative attitude towards the project-affected peoples. The PPLAWC lodged a complaint with the managing director of NEEPCO at Shillong, Meghalaya demanding his removal from the Pare HEP.[237]

Detailed Impact Assessment and Mitigation measures: The project lacks a detailed impact assessment, especially the impacts on the downstream areas of the dam along the Dikrong River and a clear plan to address and manage the downstream implications due to the dam. The social and environment impact assessment is much crucial as the project utilizes the water discharge of the much controversial 405 MW Ranganadi Stage I Hydroelectric project (HEP). The Ranganadi Stage I HEP project has long been

[236] *(2008, February). Comments of Ministry of Power on 110 MW Pare HE Project. Ministry of Power, India. http://www.infraline.com/(S(gly0ifmkbajezziw3gruds55))/power/setup/Neepco/MoPcommentsonPareFeb08.aspx*
[237] *(2018, November 11). Committee demands removal of Pare HEP head. The Arunachal Times.*

instrumental in causing devastating floods in downstream areas, especially in the state of Assam. The potential to aggravate the flood situation and unleashing miseries on the people due to the cumulative impact of both Ranganadi Stage I HEP and Pare HEP need be assessed comprehensively, which has been absent so far in the project implementation.

Disconnection of River and People: The project implementation has led to disconnection of indigenous peoples from the River. The Nyishi people of Arunachal Pradesh are the major people affected by the project. The project authorities installed multiple signboards near the dam site and also near the power station that warned people not to venture to the River stating that the River water may rise anytime. This is clear prohibition of indigenous people for fishing, collection of sand and stone and other livelihood, recreation and cultural connection with the River. This entail severing the age old inalienable physical and spiritual relationship of indigenous communities with the River. River has long been life for indigenous communities, but the construction of dams like Pare HEP already disturbed the unhindered access of communities to their Rivers and traditional ancestral land due to the restrictions imposed.



Pic: Restrictions on access to the Dikrong River by NEEPCO

The sudden and massive discharge of water from the dam reservoir has threatened the existing suspension bridges over Dikrong River, which are major access points of the downstream villagers to their traditional livelihood sources, farmland, forest areas, grazing grounds etc and also to neighboring villages. Downstream villagers complained that due to discharge of huge and excessive river water from the dam and also due to rising in velocity of water current, the present bridges are in danger of collapse, which need immediate attention.[238]

Project Commission despite non-Completion of Dam: There are complaints that the Pare dam was commissioned without completing major portion of the dams. Indeed, in a complaint letter to the Papum Pare deputy commissioner, the Pro-Dam Movement of Arunachal Pradesh (PDMAP) complaint that the Pare HEP was commissioned on 21 May 2018 without fully completing the work and demanded an inquiry into the matter. PDMAP maintained that the project is incomplete and the work at some portions is still incomplete. The tunnel has leakage at one location and there is no security system in the project location.

[238] *10th Nov 2018. Pare project affected demand solution. Eastern Sentinel Arunachal News. http://www.easternsentinel.in/news/state/pare-project-affected-demand-solution.html*

The PDMAP also sought action against the Pare HEP's head of project for commissioning the project without completing the work, which it said might lead to a fatal incident in the future[239].

Dangers of utilizing waters discharge of Ranganadi HEP: The 105 MW Ranganadi Stage I HEP is one of the most controversial project in North East, especially for its social impacts and flooding in downstream areas in Arunachal Pradesh and Assam. NEEPCO utilized the tail race discharge of the project along with natural flow of Dikrong River to generate power for the Pare HEP without considering the impacts on the people of Assam and Arunachal Pradesh in downstream portion of the dam. The Ranganadi Stage I HEP, since it's commissioning in January 2002 has changed the character of Ranganadi River and its floods have claimed human lives and destroyed land and property of people living in the downstream of the river, especially in Lakhimpur District of Assam. The Ranganadi Stage I HEP is also responsible for destroying the livelihood of indigenous communities in Arunahcal Pradesh as well. The security of the downstream people living in Hurmutty and Bihpuriya in Lakhimpur and the island district of Majuli has not been secured due to the dam[240]. People are worried of additional disasters unfolding in downstream areas due to the cumulative impacts of Pare HEP project and Ranganadi Stage I HEP.

False Classification of Dams and Climate Solutions: The hydropower project financed by KfW, Germany has been marred with massive implications on the people and the environment. The classification of large hydro power projects as renewable and sustainable energy source and as solution to mitigate climate change will further provide impetus to promote dam building in North East. The promotion of large dams cannot be considered as sustainable due to their widespread social and environment implications, climate change impacts due to massive submergence and destruction of forest, agriculture land, excavation of earth, emissions during dam building etc.

Benefiting Multinational Corporations: The financing of dam also benefit companies from developed countries. In November 2018, the NEEPCO awarded ANDRITZ, based in Austria with the operation and maintenance contract for the Pare HEP project. Before, ANDRITZ had also supplied the complete electro-mechanical works for the project. In September 2009, the Hindustan Construction Co. Ltd (HCC) was appointed as the EPC contractor. The AREVA T&D India Ltd has been appointed for the supply of a switchyard and transformers package. The project was constructed by four contractors, HCC - Civil Works, Precision Infratech - Hydro-Mechanical Works, Andritz Hydro - Electro-Mechanical Works, Alstom T&D India Ltd (Alstom Group) - Transformer & Switchyard[241]. These companies will continue to benefit even as people are impacted adversely by the dam and additional downstream impacts.

Cost Overrun: The Pare project is marred with massive cost overrun, affecting the viability of the project. This was evident in the case of Pare HEP on Dikrong River. Investment approval of the project was accorded by Cabinet Committee on Economic Affairs (CCEA) on 4 December 2008 and the project was scheduled to be completed within a period of 44 months i.e. on 3 August 2012 from the date of investment approval. The project was scheduled to be completed in September 2013 but the Central Electricity

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[239] *(2018, October 30). Org alleges incomplete HEP work. The Arunachal Times. https://arunachaltimes.in/index.php/2018/10/30/org-alleges-incomplete-hep-work/*

[240] *(12 August 2018). Will Pare HE Project pose another threat to Lakhimpur and Majuli?. The Sentinel Assam. https://www.sentinelassam.com/north-east-india-news/assam-news/will-pare-he-project-pose-another-threat-to-lakhimpur-and-majuli/*

[241] *https://en.wikipedia.org/wiki/Pare_Hydro_Electric_Project*

Authority status report on projects under execution rescheduled the completion time to 2015. However, the actual completion date stands at 28 May 2018. Thus, there is a time overrun of 70 months and cost overrun of 1066.32 crore. The project was finally inaugurated in 2019, after a delay of Seven (7) years. The total project cost at completion level of the project has been vetted at 1640.31 crore by Central Electricity Authority vide letter dated 25 February 2019, including IDC & FC of `238.04 crores[242].

The major reasons indicated for time overrun are (i) deteriorated condition of approach road to project site (Trans Arunachal highway), (ii) inundation of intake faces of power tunnel and low level outlet tunnel and removal of slush/slit, (iii) frequent bandh called in adjacent states, (iv) shorter working spell due to prolonged monsoon period etc (c)[243].

Workers' Rights violations: The pare project involves contestation and tussles with the workers of the project. The project is also marred by protest by its workers over non-fulfillment of the contractual terms, promises and agreements with the company. These constitute a violation of workers' rights.

Bengia Tada, Secretary, Pare Project Land Affected Welfare Committee (PPLAWC) complained that NEEPCO continued to ignore their demands to regularize the 48 contractual (Technical) employees as promised by them before the project commencement. Tada maintained that NEEPCO agreed to give regular jobs to 48 youth from land affected families who received ITI training from project affected families. However, NEEPCO backtracked from its promise and instead of regular appointments, the 48 youths were given a two-year service contract which was later extended for additional year. PPLAWC insisted on complete regularization instead of extension of contractual service, while lamenting that companies have progressed while affected people who sacrifices of their land are abandoned and deprived of benefits from the dam[244]. Mr. Gyamar Kuka, Chairman, PPLAWC told media, "We have served a 20-day ultimatum to NEEPCO on 19 November 2019 but no response has been received. The minimum age to join service has been passed while the NEEPCO plays with our sentiments[245]. Frustrated with NEEPCO's perceived apathetic attitude towards its demands, PPLAWC announced a 36-hour shutdown around the project site from 9 to 10 January 2020. The All Papum Pare District Students' Union (APPDSU) has urged the NEEPCO authorities to pay heed to the demands of the PPLAWC[246]. Earlier, the affected families staged various sit-ins to pressurize the project authorities to regularize their jobs.

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[242] *Review of Water Sector in Northeast India in 2013: Increasing threats to Rivers, People and Environment January 14, 2014, South Asia Network on Dams, Rivers and Peoples (SANDRP) https://sandrp.in/tag/anti-dam-protests-in-assam/*

[243] *(2019). Petition for approval of tariff of PARE Hydro Electric Power Plant (2 x 55 MW) for the period from COD to 31.3.2019. Petition No.149/GT/2018. Central Electricity Regulatory Commission. https://cercind.gov.in/2019/ROP/149-GT-2018-14-05.pdf*

[244] *Pare Project Land Affected Welfare Committee announces 36-hour shutdown over NEEPCO jobs The Sentinel, 7 January 2020 https://www.sentinelassam.com/north-east-india-news/arunachal-news/pare-project-land-affected-welfare-committee-announces-36-hour-shutdown-over-neepco-jobs/*

[245] *Agitating 48 Pare Project staff demand job regularization December 21, 2019 , Arunachal Observer https://arunachalobserver.org/2019/12/21/agitating-48-pare-project-staff-demand-job-regularization/*

[246] *(2016, Jul 5). Papumpare student body joins stir against Neepco. The Times of India. https://timesofindia.indiatimes.com/city/itanagar/papumpare-student-body-joins-stir-against-neepco/articleshow/53054989.cms*

Exclusion of Local affected peoples from Local Area Development Fund Committee: The project authorities has failed to fulfill its promises to undertake appropriate measures to benefit local communities affected by the dam. For instance, a notification issued on 15 June 2022 by the Government of Arunachal Pradesh, informing about the creation of a local area development fund (LADF) for the Pare HEP affected people has landed in controversy. As per the notification, the projects funded under the LADF will be implemented through the local area development committees (LADC). The project-affected people have raised objection to the composition of the LADC, based on exclusion of project-affected people out of the committee and called for correction and issuing of fresh notification by including them[247]. The PPLAWC also opposed some of the provisions in the notified local area development fund for the hydropower projects-affected people of the state. The PPLAWC and the Ranganadi Hydroelectric Project MoU Demand Committee have both strongly rejected the composition of the LADC.

Reacting to the notification on 15 June 2022, the PPLAWC claimed that Clause 4.2 for the formation of the local area development committees (LADC) does not comply with Sub-clause H of Section 10.1 of the National Hydropower Policy (NHPP)-2008. "It is clearly written in NHPP that a standing committee headed by an officer of the state government not lower than a district magistrate is to be designated as chairman along with male and female representatives of the project-affected people, and the project head nominated by the developer as members. But in the LADC notification, there is no place for land-affected families in the committee," the PPLAWC complained, maintaining that, "The people have sacrificed their land for the overall development of the state. If real project-affected families are excluded from such important committee, no one will sacrifice their land for power projects"[248].

Objection to initial shutdown due to lack of creation of dumping site: The NEEPCO tried to shut down the Pare project in 2018 and 2019, much to the opposition of affected villagers from downstream areas. In their original circular, dated 24 December, 2018 and made public in 2019, NEEPCO officials had said that the shutdown would start on 1 February and last till 30 April 2019.

However, downstream organizations opposed the shutdown and blocking of the Dikrong River unless the site for dumping the silt from dam reservoir was finalized and measures taken to protect people living in downstream areas. The NEEPCO were unable to finalize a dumping site before it made the shutdown announcement. The Organisations in downstream areas, viz, the All Kimin Youth Welfare Association and the Lichi-Cher Ranganadi Project Affected Area Management Committee had said that they would not allow the shutdown unless a dumping site was finalized and until the NEEPCO authorities assured the safety and security of the downstream people. A committee was formed by the Papum Pare district administration after a meeting with the NEEPCO and organizations in downstream areas to finalize the dumping site. Landowners of Chun village raised objection to proposed dumping site, while the other is near dam reservoir in the Potin-Yazali area. While NEEPCO has termed the shutdown as mandatory maintenance, concerns persists that the shutdown has been forced due to a leakage in one of the tunnels[249].

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[247] *(June 29, 2022). Project-affected people should be included in LADCs. The Arunachal Times. https://arunachaltimes.in/index.php/2022/06/29/project-affected-people-should-be-included-in-ladcs/*

[248] *June 28, 2022. PPLAWC opposes provisions in LADF for hydropower projects-affected people. Arunachal Times. Retrieved from https://arunachaltimes.in/index.php/2022/06/28/pplawc-opposes-provisions-in-ladf-for-hydropower-projects-affected-people/*

[249] *Tongam Rina. (February 3, 2019). NEEPCO RHEP shutdown deferred for PM's visit. The Arunachal Times*

Complaints of Leakage of Tunnels: There are complaints of leakages of tunnels as per complaints submitted by various affected communities to the Government. In a complaint letter to the Papum Pare deputy commissioner, the Pro-Dam Movement of Arunachal Pradesh (PDMAP) complained that the NEEPCO's Pare HEP project was commissioned on 21 May 2018 "without fully completing the work," and demanded an inquiry into the matter. "The project work at some portions is still incomplete. There is no security system in the project location, while the tunnel has leakage at one location[250].

High Tariff and Lack of Feasibility:: The pare project has landed in legal tussle with the NEEPCO and Assam Power Distribution Company Limited taking recourse of the Central Electricity Regulatory Commission over the high tariff cost. The contestation arises due to the delays in the project commissioning and the escalation in the project cost as compared to the original project cost[251].
The Ministry of Power, Government of India even observed in February 2008 that the Pare HEP Project does not seem to be justified on demand considerations and it will be a cost proposition. Given the high evacuation cost of power from North East, the first year rate of power at Rs. 2.38 per unit is on the higher side. It may be mentioned that Public Investment Board has recommended Kotlibhel IA, IB and II HEPs in Uttarakhand a first year sale rates of Rs. 2.15 per unit, Rs 2.86 per unit and Rs 2.56 per unit respectively. Since the evacuation costs from these projects would be only a fraction of the evacuation cost of dam Projects in North East India, it does seem, prime facie, that Pare HEP power will be a costly proposition[252].

By the time the project is commissioned in 2019, the North-East is already power surplus and thus there may not need generation from Pare HEP project to meet its internal demand. Further, many of the mega energy projects like the 750 MW Palatana Gas Based Project, 1200 MW Teesta III Hydroelectric Project, 600 MW Kameng HEP project, 60 MW Tuirial HEP etc are already commissioned thus adding to the power surplus in the North East. Other projects like 2000 MW Subansiri Lower HEP Project will also be commissioned shortly. Further, solar energy price has gown down, further making the power generation from costly dams like Pare HEP less feasible.

Impacts of Loans: As the project was constructed with loans from KfW, Germany, the project authority, NEEPCO had to repay the borrowed money with interest. The NEEPCO took a loan of 100 Million Euros from the KFW, German Development Bank. Two agreements were signed in 2008 and again in 2017. The loan amount along with the interest rest is also increasing year by year and NEEPCO's 36th Annual Report of 2011-12 states that the loan taken from KfW is "repayable in 30 equal half yearly installments w.e.f. 30 December 2013." This implies that even before the completion of the project, the company has to start paying back the loan[253]. NEEPCO entered MoU with KFW to finance the debt component of the

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https://arunachaltimes.in/index.php/2019/02/03/neepco-rhep-shutdown-deferred-for-pms-visit/

[250] *Tongam Rina. (February 3, 2019). NEEPCO RHEP shutdown deferred for PM's visit. The Arunachal Times https://arunachaltimes.in/index.php/2019/02/03/neepco-rhep-shutdown-deferred-for-pms-visit/*

[251] *(2019). Petition for approval of tariff of PARE Hydro Electric Power Plant (2 x 55 MW) for the period from COD to 31.3.2019. Petition No.149/GT/2018. Central Electricity Regulatory Commission. https://cercind.gov.in/2019/ROP/149-GT-2018-14-05.pdf*

[252] *(2008, February). Comments of Ministry of Power on 110 MW Pare HE Project. Ministry of Power, India. http://www.infraline.com/(S(gly0ifmkbajezziw3gruds55))/power/setup/Neepco/MoPcommentsonPareFeb08.aspx*

[253] *Review of Water Sector in Northeast India in 2013: Increasing threats to Rivers, People and Environment January 14, 2014, South Asia Network on Dams, Rivers and Peoples (SANDRP) https://sandrp.in/tag/anti-dam-protests-in-assam/*

project[254]. The project has been approved at Rs 553.24 Crores with a Debt to Equity ratio of 70: 30. The loan component is based on the comfort letter from Power Finance Corporation (PFC) for which the interest rate has been taken at 11.50% p.a.[255].

There are concerns that the repayment methods will exert more pressures to the people and to the exchequer of the Government of Arunachal Pradesh as well. "The State Government is under huge liabilities, as per the record available. In 2007, the Arunachal Pradesh Government had taken a loan to the tune of Rs 225 crore from NHPC Ltd at 9% interest net annum to revive the then sick Apex Bank of Arunachal Pradesh State. There are reports that the said money has not yet been returned to NHPC Ltd as of July 2022 and that the loan amount has now accumulated to the tune of Rs 825 crore," claimed Taw Paul of Pro-Dam Movement of Arunachal Pradesh[256].

CONCLUSION:

The Pare HEP is a major large dam project financed by Germany in North East India. The Pare HEP with financing of KfW is marred with inadequate assessment of downstream impacts, the failure to fulfill commitments for workers' rights and to address the rights and concerns of those impacted in the downstream areas.

The viability of the Pare HEP and other dam buildings in North East is a matter of concern. The project is also marred with cost overrun and substantial delays, which ultimately affects the cost and viability of the project. Arunahcal Pradesh and in fact the rest of North East is located in high seismic zone and hence the possibility of dam break due to high seismic occasions need be carefully assessed. Dam building is associated with an increase of greenhouse gas emissions, especially in forest Himalayan regions. A detailed impact assessment should be conducted, including the downstream impact assessment with the rightful participation of those affected in Arunachal Pradesh and Assam.

Germany need to reconsider its focus on financing renewable energy and climate change mitigation and adaptation projects in North East India. The generation of energy need to consider the emerging and viable technology, that can truly be sustainable, clean and environment friendly, with least damaging to the environment and people.

The implication of resorting to increased non concessional financing, such as ODA loan on the people and access to public services need be carefully assessed as countries are often overburdened with efforts to repay the loan and the interest. Indigenous peoples human rights should be recognized, especially their right to free, prior and informed consent. Any bilateral cooperation of India with developed counties in the field of energy, renewable energy, infrastructure, free trade agreement etc should be rooted in practices of human rights and sustainable development standards. All forms of development cooperation should advance the development effectiveness and human rights standards, focusing on transparency, accountability, inclusive development, respect of human rights and accountability.

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[254] *2008. Comments of Ministry of Power on Pare HEP. Ministry of Power, India.*

[255] *(2008, February). Comments of Ministry of Power on 110 MW Pare HE Project. Ministry of Power, India. http://www.infraline.com/(S(gly0ifmkbajezziw3gruds55))/power/setup/Neepco/MoPcommentsonPareFeb08.aspx*

[256] *(2022, July 7). Pro-Dam Movement of Arunachal Pradesh demands white paper on fund collection. The Sentinel. Retrieved from https://www.sentinelassam.com/north-east-india-news/arunachal-news/pro-dam-movement-of-arunachal-pradesh-demands-white-paper-on-fund-collection-601258*

CHAPTER VIII

CONCLUSIONS AND RECOMMENDATIONS: IFIs FINANCING OF DAMS IN NORTH EAST INDIA

Financing of Energy projects and related infrastructures has been key focus of the International Financial Institutions (IFIs) in North East India. The World Bank, Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB) are major multilateral international financial institutions financing energy projects across North East, while Japan International Cooperation Agency (JICA) and Kreditanstalt für Wiederaufbau (KFW) are major bilateral financial donor agencies financing energy projects across North East India.

The World Bank has been involved in financing the renovation and modernization of larges dams and in construction of the 400 KV high voltage transmission and distribution lines to support dam building in North East India. Besides, the World Bank also financed financial intermediaries and other dam building companies involved in financing and construction of large dams in North East. The ADB emphasized on promoting clean energy in the North East region using locally available resources such as small to medium hydropower and other renewable energy sources. ADB's insistence on financing the development of hydropower will further aggravate the social and environmental impacts. The AIIB is financing a power transmission and distribution upgrade programme in Assam on 24 February 2022.

Several international private equity funds, banks and insurance companies also financed large dams like the 1200 MW Teesta Hydroelectric Project and 510 MW Teesta V Hydroelectric Project in Sikkim. The General Atlantic, Goldman Sachs, Morgan Stanley, Larsen & Toubro Ltd, Norwest Partners, Everstone Capital, Greenko are some of the private equity funds financing dam building in Sikkim.

The IFIs intensified their focus on financing infrastructure projects, ranging from road projects, high voltage transmission and distribution lines, energy projects, and extraction of natural resources, as part of implementation of India's Act East Policy.

Dam building companies like the National Hydroelectric Power Corporation (NHPC) and the North Eastern Electric Power Corporation (NEEPCO) are major dam building companies receiving ODA loans from IFIs and donor countries. The total financing by IFIs and private equity funds in North East stands around 19,682 Crores till December 2022. Majority of the loan financing stands at 99.88 percent, while a small percentage comes as grant component.

Building large dams has been responsible for multiple disaster, displacement of indigenous communities, destruction of fragile biodiversity and for submerging vast tract of forest and agriculture land, which also contributes in the emission of greenhouse gas and climate change.

The involvement and role of the IFI in India's North East, including financing power sector and related infrastructures is associated with increased targeting and expropriation of land and resources and the suppression of those who assert their land and democratic rights. The high voltage transmission and distribution lines across the North East financed by the World Bank will only facilitate construction of more than two hundred mega-dams across the region.

These projects are often carried out without recognizing indigenous peoples' rights over their land and resources and failing to take their free, prior and informed consent and considering the fragility of the land and biodiversity of North East. Affected peoples complained that the decision making for Tuirial dam failed to conduct any public hearing to solicit their views and concerns. The experience of dam building in the North East including those financed by lFIs have failed to ensure the rightful participation of affected indigenous communities and those affected in the downstream areas. The financing of Lower Kopili dam is problematic given the downstream impacts due to dams built over Kopili River in Assam.

Funding large dams has long been controversial in North East India due to its social and environmental impacts besides failure and underperformances. The dams financed by IFIs failed to conduct detailed impact assessment, including the downstream impact assessment and implications due to construction of dams over the Kopili River, the Dikrong River and Teesta River. The dam building worsen the livelihood impact of affected communities. No cumulative study has been conducted due to the construction of multiple dams over these Rivers. The dam building in North East also lacks feasibility due to high seismicity of the region. Earthquake already wreak havoc on dam building in North East, such as delaying and even stalling the works of Teesta III and Teesta VI hydroelectric projects in Sikkim due to cost overrun and even bankruptcy of project proponents. The pursuance of large dams in North East failed to assess the real power needs of the people in the region.

The feasibility of large dams is an urgent issue in North East. These dams are being financed despite the fact that many other power generating units are also being commissioned in several states, such as Tripura, Sikkim, Assam, Arunachal Pradesh etc. The cost overrun of hydropower projects and the decreasing energy prices due to quantum leap and surge in solar power generation also led to the questioning on the feasibility of these dams. These dams also entails massive social, environment and inter-generational cost, which are never counted in the social and environmental impacts of the project.

The financing of large dams by IFIs as part of solution of climate change and just energy transition is irrational and hence, large dams can never be considered as climate change solution and just energy due to their impact on people, environment and climate.

Concerns persist if the World Bank financing of rehabilitation of Singda dam, Khuga dam, Umiam dams, Myntdu Leshka dam in Manipur and Meghalaya will ensure the realization of their objectives. Many of the dam targeted for rehabilitation by World Bank are already failed and underperformed since its commissioning. Hence, there are concerns if these dams will ever work to fulfil their objectives after investment from IFIs. These concerns are legitimized by recorded corruptive and manipulative processes associated with the building of these dams. The initiative to renovate projects with the World Bank's funding in Manipur and Meghalaya should not lead to the forced acquisition of community land.

The promotion of dams as clean, green, renewable non fossil energy source to fulfil climate mitigation commitments by the Government of India is a misnomer. Dams like the Teesta V, Teesta III, Teesta VI hydroelectric projects in Sikkim are all falsely classified as Clean Development Projects by project proponents to receive carbon credits for further trading for profit. The Lower Kopili dam, the Tuirial dam, Pare dam and other dams in North East will submerge an extensive tract of forest land. The Tuirial dam affected more than 5000 hectares of forest land. With massive submergence of forest, agriculture land and excavation of earth and the massive emission involved in the building of dams due to production of cement, iron, deployment of countless number of vehicles and consumption of fuels, these dams will only worsen climate change impacts. Hydropower projects are one of the major emitters of greenhouse gases.

IFI financing in North East is also marred with extensive corruptive and manipulative practices, lack of monitoring and accountability mechanisms, such as in the case of Tuirial Dam in Mizoram, Teesta III Hydroelectric Project in Sikkim etc. These corruptive practices and unaccountability of project authorities, further support concerns if the IFIs financing will further foment and aggravate the corruptive practices associated with dam building in North East, especially with lack of monitoring and prosecution processes for violations and corruption practices.

Irrespective of whether large dams like the Lower Kopili dam functions or not or whether it serves the social needs and call to protect environment and to control greenhouse emissions, multinational companies, such as Larson and Toubro, SF Consult Switzerland Limited, Andritz, Bauer Spezialtiefbau etc already benefits from contract, supply and construction works.

Many of the dam builders and financiers remain unaccountable for the violations and destruction of peoples' livelihood and fragile biodiversity in the region. Worker's rights violation has been another concern associated with dam building in North East. Besides, dams also induced multiple layers of conflict and tensions, as evidenced in the case of Tuirial dam in Mizoram, the Khuga dam in Manipur etc.

There are also concerns raised if the power generated from North East will be for the region or for the interest of corporations and those supplying materials and involved in contract works etc. The state of Sikkim and Arunachal Pradesh hardly require 300 MW of electricity in their respective states, but the target to generate power in these states crossed more than 50,000 MW, which simply is beyond the carrying capacity of the River and the land to handle these projects.

As most of the financing by IFIs comes as loan, these loans and the associated conditionalities for policy reform, privatization of services etc will further cause more hardship, impoverishment and hardship on the people. A government running on loans without accountability mechanism will led to wide indebtedness and will affect the delivery of social services. The current financing practices of the IFIs in North East have failed to ensure accountability to the people that it is mandated to serve. The implication of non-concessional financing in development processes by IFIs need be clearly assessed to prevent indebtedness and its myriad ramifications on indigenous peoples in North East.

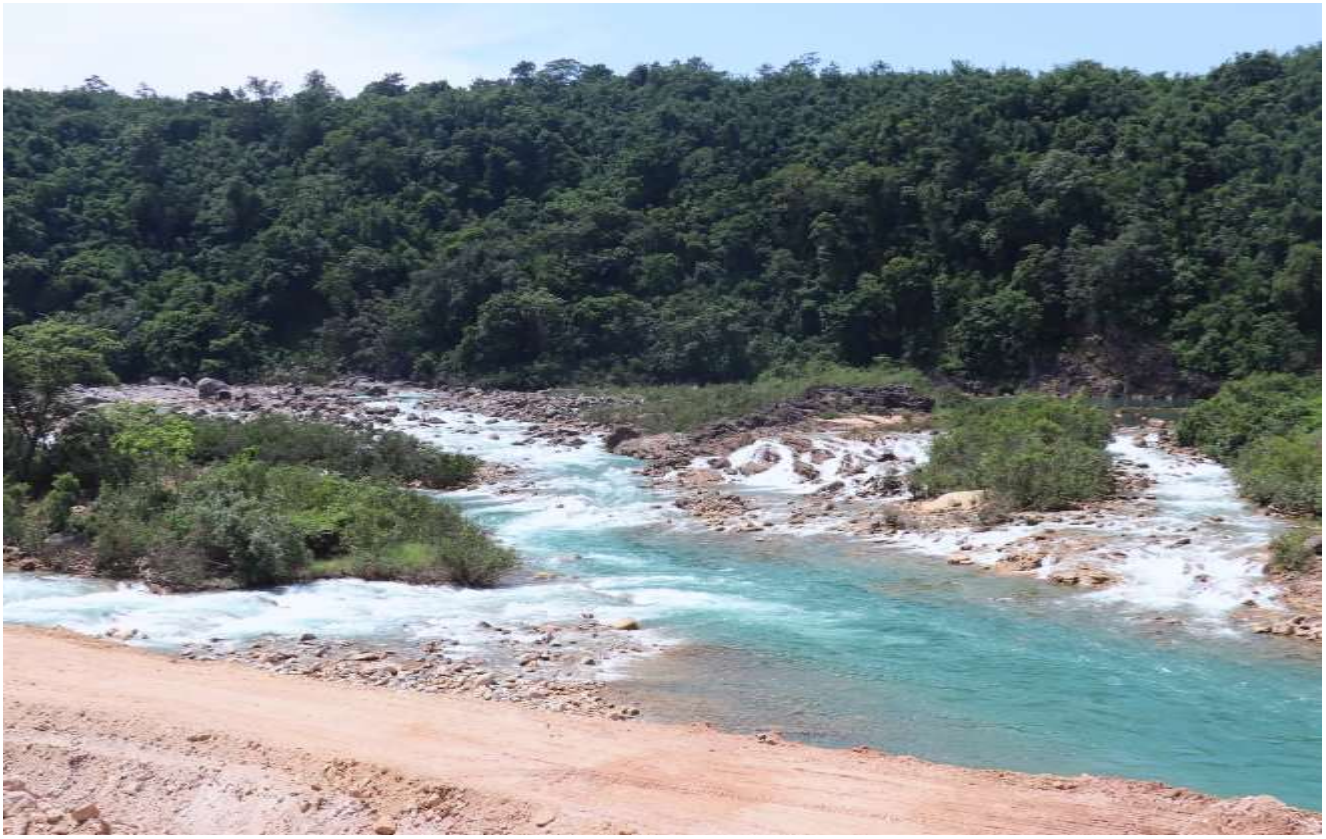
The application of IFIs safeguard in dam building and in energy infrastructures is a challenge in the region. ADB and other international financial institutions should desist from financing large dams that will entail submergence of massive tract of forest land. The redressal and accountability mechanism of bilateral donor agencies, such as KFW and JICA is extremely weak and hence the access to justice of affected communities is negligible. Development cooperation in energy, renewable energy, infrastructure, free trade agreement etc should be rooted in practices of human rights and sustainable development standards.

An alternative to dam building is critical and to advance renewable energy solutions that is green and sustainable. Studies confirmed the viability of creating numerous micro and mini hydro projects, solar, wind, hybrid projects that can provide community needs with minimal social and environmental impacts in the region. The rightful participation of communities and recognizing their rights over their land and resources is fundamental for any definition of alternatives. Indigenous peoples human rights and their right to free, prior and informed consent should be recognized. IFIs should support development processes

that uphold the wishes and aspirations of the indigenous peoples and that advances human rights, ecological integrity, alternative energy and development model in North East.

RECOMMENDATIONS AND WAYS FORWARD

- Large dams cannot be considered as part of just energy transition due to their social, environment, human rights and climate change implications.
- International financial institutions should desist from financing large dams in North East. IFIs, in particular, the World Bank should desist from financing dam building through financial intermediaries in North East.
- The Government should consult and seek the consent of all affected communities, both in upstream and downstream prior to any developmental interventions targeting Rivers for energy projects.
- The Government should desist building dams without the free, prior and informed consent of indigenous peoples as outlined in the UN Declaration on the Rights of Indigenous Peoples, 2007
- The Government and dam proponents should desist from forced land acquisition and involuntary displacement of indigenous communities and other forms of human rights violations.
- Recognize indigenous people self-determined rights over their land and resources.
- A detailed downstream impact assessment should be mandatory for energy projects.
- Promote renewable and just energy solutions rooted in the needs of the people and that is truly green, sustainable and that minimize social and environmental costs.
- Any definition and promotion of alternatives should ensure the rightful participation of communities based on the recognition of their rights over their land and resources.
- Regulate the private sector and corporations involved in dam building and related infrastructure in North East to ensure their compliance to human rights and accountability mechanism.
- The impact of loan financing such as debt burden and increased taxation on the general population should be considered and prevented before seeking loans from IFIs.
- The Government should establish a strong accountability mechanism to hold the dam building companies, financial intermediaries and other involved in dam building accountable for violations.
- IFIs should adhere to safeguard policies and applicable development and human rights standards.
- OECD member countries, like Japan, Germany involved in financing large dams in North East India should follow policies for responsible business conduct, such as the OECD Guidelines for Multinational Enterprises of the Organization for Economic Cooperation and Development (OECD), the UN Guiding Principles for Business and Human Rights etc.



Centre for Research and Advocacy, Manipur

Jupiter Yambem Centre, Paona Bazar,
Imphal Manipur India 795001
www.cramanipur.wordpress.com
e-add: cra.manipur@gmail.com