



Addendum to the Environmental Impact Assessment (Updated)

Project Number: 47101-004

June 2024

IND: Assam Power Sector Investment Program – Tranche 3

120 MW Lower Kopili Hydroelectric Project

Prepared by Assam Power Generation Corporation Limited (APGCL), Government of Assam for the Asian Development Bank (ADB). This is an addendum to the environmental impact assessment originally posted in June 2018 available on <https://www.adb.org/projects/documents/ind-47101-004-eia-0> and Interim Addendum to EIA was posted on Feb 2024 available on https://www.adb.org/sites/default/files/project-documents/47101/47101-004-eia-en_13.pdf.

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Asian Development Bank

EXECUTIVE SUMMARY

The EIA for the Lower Kopili Hydro Electric Project (120 MW) was prepared during 2014-2015 and additional studies were done in 2017-2018. EIA was disclosed in 2018 on ADB's website and in 2019 on MoEF&CC's site. Environment Clearance was accorded on 4th September 2019. EC amendment was accorded on 3rd January 2024.

The interim addendum to EIA was prepared to reflect the changes in initial project scope and identify additional/residual environmental impacts, if any, based on field due diligence and devised mitigation measures as required. Interim EIA addendum was disclosed in February 2024.

The updated Addendum to EIA includes downstream and backwater impact assessment factoring in peaking power (10 daily) and is based on the primary survey data and modelling of the river morphology, hydrology and ecology. This addendum also includes final dam break analysis, emergency response plan for downstream areas along with pilot disaster resilience plan for five villages; design provisions as agreed for treatment of acidic water runoff collected from weep holes in tank with automatic pH meter, dosing apparatus etc. before the water is pumped out to the river; draft reservoir operations manual based on 10-daily flow data; updated data on avian species; recommendations for bird divertor installations on 220 KV, 33 KV and 400 KV transmission lines; information on newly found rheophytes, habitat suitability in reservoir area and downstream locations (and elsewhere in Assam in relation to offset potential) along with commitment to formulate and implement the offset management plan demonstrating how ADB's Safeguard Policy Statement 2009 critical habitat requirements will be met as would be applicable prior to dam impounding; updated environment mitigation and monitoring plan along with commitments of activities to be complemented prior to impounding of the reservoir.

To monitor the hourly flow data automatic Water Level /Velocity instruments are being installed in the upstream of the reservoir, based on which the dam operations plan and its associated impacts, additional if any would be refined as would be appropriate prior to impounding of reservoir. The study of the migratory aquatic species as stipulated by MoEF&CC in the EC amendment letter dated 03 January 2024 would take around a year to capture all season data. Once completed this will be incorporated appropriately in the safeguard documents and disclosed along with findings of detailed rheophytes survey and mitigation/ offset management plan as would be applicable. Apart from these environmental assessment for Longku Nala stretch of NH-627 that is proposed to be elevated by PWD, Assam (design not yet

available from PWD and construction yet to commence), and the two village roads likely to be submerged between Borolongku to Lorelangsu and road from NH-627 to Tortelangso needs to be included into the safeguards documents as would be appropriate and submitted to ADB for clearance and disclosure prior to impoundment of reservoir.

Unless the commitments as agreed are met the hydro power plant will operate on base flow and not as peaking power plant to prevent potential impacts of diurnal variation in water levels and flow.

Dam design (including geological conditions) and safety during construction is being reviewed and monitored by the Dam Safety Experts continually and will also ensure that all pre impounding requirements are adequately addressed prior to impounding of the reservoir.

Community awareness raising and mock drills prior to reservoir inundation will be carried out through the District Disaster Management Authority (DDMA) and Assam State Disaster Management Authority (ASDMA). Awareness for rejuvenation of the existing sources of ground water in the downstream villages will be carried out through Central Ground Water Authority (CGWA) as part of their general program.

APGCL commits to ensure that submergence area will be cleared along with requisite permissions (in such manner that sediment generation due to loosening of soil and methane emission due to composting of terrestrial plants under water is minimum) in phases in consultation with forest department before impounding.

APGCL commits to ensure the implementation of slope protection measures of reservoir rim (both right and left bank), right bank slope at the downstream of main dam will be undertaken prior to impounding of reservoir in timely manner so that adequate time is available for the slope to stabilize. Achievements of all above commitments will be reported to ADB as part of pre impoundment report.

This updated interim addendum to EIA report is to be read with the EIA disclosed in 2018 and interim addendum to EIA disclosed in Feb 2024.