



**The World Bank**

Vishnugad Pipalkoti Hydro Electric Project (P096124)

REPORT NO.: RES51825

DOCUMENT OF THE WORLD BANK

RESTRUCTURING PAPER  
ON A  
PROPOSED PROJECT RESTRUCTURING  
OF  
VISHNUGAD PIPALKOTI HYDRO ELECTRIC PROJECT  
APPROVED ON JUNE 30, 2011  
TO  
THDC (TEHRI HYDRO DEVELOPMENT CORPORATION)

ENERGY & EXTRACTIVES

SOUTH ASIA

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**I. BASIC DATA****Product Information**

Project ID P096124	Financing Instrument Investment Project Financing
Original EA Category Full Assessment (A)	Current EA Category Full Assessment (A)
Approval Date 30-Jun-2011	Current Closing Date 30-Jun-2022

**Organizations**

Borrower THDC (Tehri Hydro Development Corporation)	Responsible Agency THDC
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**Project Development Objective (PDO)**

Original PDO

The Project Development Objectives are: (a) to increase the supply of electricity to India's national grid through the addition of renewable, low-carbon energy; and (b) strengthen the institutional capacity of THDC with respect to the preparation and implementation of economically, environmentally and socially sustainable hydropower projects.

**Summary Status of Financing (US\$, Millions)**

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net		
					Commitment	Disbursed	Undisbursed
IBRD-80780	30-Jun-2011	10-Aug-2011	07-Nov-2011	30-Jun-2022	448.00	172.68	275.32
TF-58016	24-Apr-2007	24-Apr-2007	24-Apr-2007	31-Mar-2010	.99	.99	0



## Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No

## II. SUMMARY OF PROJECT STATUS AND PROPOSED CHANGES

### A. Project Status

1. The implementation progress for the Vishnugad Pipalkoti Hydro Electric Project (VPHEP) has significantly improved over the last twelve months and the Project is now on track for commissioning in 2024. When finalized, VPHEP (444 megawatts or MW) will produce 1,665 gigawatt-hours/year (GWh/year) of clean energy, reducing Greenhouse Gas (GHG) emissions by 1.6 million tons/year.

#### (a) Technical status:

(i) As a result of recent significant efforts, the Project implementation has significantly stepped up, resulting in physical progress of civil works of over 33 percent. Over half (58 percent) of the main electro-mechanical equipment has been manufactured and supplied to the site.

(ii) Several activities have been completed: diversion tunnel, upstream coffer dam, crown excavation and support of the machine and transformer halls, additional access adits to the Tunnel Boring Machine (TBM) adit, adit to pressure shaft bottom, drainage gallery at powerhouse complex, heading of all three desilting chambers and benching of chambers 2 and 3, pilot shaft in gate operating chamber 2.

(iii) Some activities are still ongoing: Headrace Tunnel (HRT) excavation by Drill and Blast Method from the upstream side (80 percent), dam excavation (left bank 72 percent, right bank 23 percent), main access tunnel (95 percent), benching of desilting chamber 1 (92 percent), intake tunnels concreting, surge shaft excavation (26 percent), Tailrace Tunnel excavation (27 percent), concreting of desilting chambers, excavation of adits and galleries.

(iv) Critical activity: Due to the instances of poor geology, the underground works at the powerhouse cavern and in the HRT remain on a critical path to achieving successful Project completion in 2024. A successful restart of TBM operations is expected in the second half of 2022.

#### (b) Financial status:

(i) The mitigation arrangement to address the civil contractor's (Hindustan Construction Corporation or HCC) liquidity issues by ring-fencing the payments through an escrow account is established and in place. This financial arrangement allows Tehri Hydro Development Corporation India Ltd. (THDC) to provide HCC with cash advances and to pay subcontractors directly, therefore increasing the level of resources available for the Project implementation.

(ii) Improved progress has resulted in a significant increase in disbursements over the past twelve months, resulting in cumulative disbursements of USD 165.97 million to date, accounting for 37 percent of the loan amount .

(c) Social safeguards status: Social management plans for the project are under implementation along with the livelihood improvement activities. THDC has completed the implementation of 28 livelihood pilots in Phase I of this engagement with the value of US\$ 1.22 million for community development activities as part of their local benefit-sharing mechanism. As of now, both THDC and HCC have employed 1,528 individuals for the Project, of which 600 are



Project Affected Peoples (PAPs). The six families still living in Hatsari have resumed their discussions with THDC related to their relocation from the village before the construction of the power plant started.

(d) Environmental safeguards status: The project performs satisfactorily on environmental management. The Environmental Clearance (EC) for the Project has been reissued for the next ten years, under the specific conditions whose compliance will be monitored by the Bank. THDC continues the activities as foreseen under the Environmental Management Plan (EMP) of the Project.

(e) Key project ratings: The progress towards achievement of the PDO remains rated as “Moderately Unsatisfactory”, as the commissioning of the first-generation unit has been postponed to June 2024, partly due to delays beyond THDC’s control. The overall Implementation Progress (IP) remains rated as “Moderately Satisfactory”, as THDC has deployed significant multifaceted efforts over the past 12 months (increased level of expenditure, faster pace of physical works progress, managerial improvements).

#### B. Rationale for Restructuring

2. This proposed restructuring in response to a formal request from the Department of Economic Affairs (DEA) at the Ministry of Finance through a letter dated June 14, 2022, for the extension of the closing date to June 30, 2023. DEA provided in principle extension of the project until June 2024, to be confirmed after a special review in June 2023.

3. The original closing date for the Project was December 31, 2017. The project closing date had already been extended six times, the latest extension defining the Project Closing Date on June 30, 2022. This restructuring is in line with the DEA’s request and has now been readjusted to the new closing date of June 30, 2023.

4. Despite the delays due to issues beyond the Borrower’s control (including geological challenges) and further lost time due to restrictions following the third Covid-19 wave in India in December 2021, THDC undertook significant efforts over the past twelve months to increase the pace of Project implementation. As a result, the rate of physical progress and disbursements have substantially stepped up, and the Project is now on track for commissioning in 2024. Thanks to these activities, the PDOs still remain relevant and achievable. Nevertheless, to achieve the PDOs and enable the accomplishment of the planned works, the current forecasted project completion date is now June 30, 2023. In case of the Project closure remains on June 30, 2022, the Project implementation would face significant financing gaps and consequent the cash flow issues that would lead to additional implementation delays and increase the project costs, jeopardizing the achievement of the PDOs. In addition, the project is a significant source of local economic activities, and this would be adversely impacted if the Project is closed in June 2022.

#### C. Action Plan, Risks and Risk Mitigation Plan

5. The Bank’s support remains contingent upon the implementation of a series of milestones agreed with THDC, for which the project performance is monitored. Over the past twelve months, THDC completed a number of these milestones. Going forward, the Bank will monitor progress towards the achievement of several remaining critical milestones as follows:

(a) Commence and complete the local economic development pilot programs to support local communities’ livelihoods, and hiring of a Monitoring & Evaluation agency;



- (b) Make physical progress at various sites, provided that the actual geology is aligned with the assessments of the Geological Baseline Report and that the project does not encounter further geological difficulties beyond THDC's control;
- (c) Ensure adequate staffing of the communication team at the site;
- (d) Constitute a Dispute Resolution Board Panel for Electromechanical contracts;
- (e) Continue to involve in the Project Review Panel (PRP; technical, environmental, and social) and Strategic Advisory Team (SAT) through meetings, site visits, and reporting;
- (f) Obtain consent to establish or consent to operate TBM slurry treatment and implement the slurry management system;
- (g) Ring-fencing of payments to contractors; and
- (h) Implement the Compensatory Afforestation and Catchment Area Treatment Plan through the forest department.

In addition, the Bank will continue to closely monitor the following actions:

- (i) Compliance with all conditions highlighted in the extended EC and agreed EMP;
- (j) Continuation the protection of the Lakshmi Narayan temple in the Haat Village.

6. Although the project implementation progress has significantly improved over recent months, the project remains at risk of timely completion for several reasons:

- (a) Excavations and crown supporting in the machine hall and HRT have been hampered by poor geological conditions, with Covid-19- related restrictions further delaying the works on this front. THDC is addressing these risks in consultation with the PRP and SAT.
- (b) The activities at all sites can be stepped-up further, improving the efficiency of executed works at the same time. This would require deploying additional experienced staff of the main contractor and its subcontractors. In addition, THDC would need to improve its supervision activities at various work sites.
- (c) Local communities' demand to have a separate package which has not yet been resolved and six families from Hatsari still refuse to sign the compensation and relocation agreement offered by THDC.
- (d) HCC's cash flow situation needs to be closely monitored, even though the mitigation measures have been put in place.

7. To mitigate the risks identified above, THDC has established a Project Review Panel (PRP) and a Strategic Advisory Team (SAT) and hired an expert in Local Economic Development in January 2020 to address outstanding concerns within local communities. Additionally, further risk mitigation actions have been agreed to address the outstanding issues:

- (a) To ensure efficient monitoring of project implementation, the PRP and SAT will continue to conduct regular site visits. The PRP will meet at least twice a year until project completion, while the SAT will monitor the project implementation on a regular basis and provide monthly progress reports until completion. The first PRP and SAT site visits took place in May 2022, after more than two years of Covid 19-related travel restrictions.
- (b) Additional experienced staff of the main contractor and its subcontractors will be deployed to the project site, and THDC will further improve supervision activities at various work sites.
- (c) Since THDC has now implemented fund-flow arrangements, ring-fencing all payments to the civil contractor and ensuring that proceeds directly benefit the Project, audit reports for the escrow account will be provided on a quarterly basis.

## II. DESCRIPTION OF PROPOSED CHANGES

8. The following change is proposed:



The project closing date will be extended from June 30, 2022, to June 30, 2023, to compensate for the time lost due to the delays abovementioned and allow sufficient time for the completion of several project activities.

### III. DETAILED CHANGES

#### LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IBRD-80780	Effective	31-Dec-2017	30-Jun-2019, 31-Dec-2019, 31-Jan-2020, 31-Dec-2020, 30-Jun-2021, 30-Jun-2022	30-Jun-2023	30-Oct-2023
TF-58016	Closed	17-Mar-2009	30-Sep-2009, 31-Mar-2010, 28-Oct-2010		