



India: Himachal Pradesh Clean Energy Development Investment Program - Tranche 4

Project Name	Himachal Pradesh Clean Energy Development Investment Program - Tranche 4	
Project Number	41627-053	
Country / Economy	India	
Project Status	Closed	
Project Type / Modality of Assistance	Loan	
Source of Funding / Amount	Loan 2914-IND: Himachal Pradesh Clean Energy Development Investment Program - Tranche 4	
	Ordinary capital resources	US\$ 257.00 million
	Loan: Himachal Pradesh Clean Energy Development Investment Program - Tranche 4	
	KfW Bankengruppe	US\$ 200.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth	
Drivers of Change	Gender Equity and Mainstreaming	
Sector / Subsector	Energy / Large hydropower generation	
Gender	Some gender elements	
Description	<p>Output 1: Hydroelectric Power Capacity Addition: The ADB Tranche 4 loan will fund the turn-key civil works contract for the Shongtong Karcham Hydroelectric project. The Shongtong Karcham Hydroelectric Project is a 450 MW facility located on the Sutlej River in District Kinnaur, Himachal Pradesh, India. The Shongtong Karcham project consists of a) civil works, namely an underground powerhouse, river diversion barrage, intake and desilting chambers, head race tunnel and tail race tunnel (to be funded 100% by the ADB Tranche 4 loan); and b) electro-mechanical works, which consists of the turbines and power generation equipment, controls and electrical interconnection works (to be funded via separate cofinancing).</p> <p>Output 2: Information Technology Infrastructure: This consists of computer equipment and system infrastructure, including installation of a data center and disaster recovery center, local area network infrastructure, wide area network equipment, phase II of the enterprise resource planning (ERP) system, and procurement of additional computer hardware.</p> <p>Output 3: Capacity Development: \$800,000 of training funds is included in tranche 4 in order for HPPCL to continue its personnel training program for the duration of the MFF (which was started under the Tranche 1 loan).</p>	
Project Rationale and Linkage to Country/Regional Strategy	Himachal Pradesh is home to about one fourth of India's hydropower potential, and maximizing this potential is articulated in the Hydropower Policy, 2006 of the Government of Himachal Pradesh (GOHP), as well as their power sector roadmap. Beneficiaries are not just the electricity consumers of Himachal Pradesh, but of all of India, as excess power generated is intended for export to India's national grid. India has for many years faced acute power shortages and has a massive need for additional power generating capacity, given the growing economy, the still approximately 35% of the population without access to electricity, and the importance of adequate power supply as an indirect contributor to poverty alleviation. The Government of India's Integrated Energy Policy, 2006 warns that the country's energy challenges are considerable and that electricity generating capacity alone will need to increase 5 to 6 times from their 2003-04 levels by 2031-32, and that hydropower must therefore play a role in this increase in overall generating capacity. India currently faces nationwide peak power deficits of about 12%, which hydropower is particularly useful to address. In addition, the primary alternative, namely coal-fired power generation and its associated coal mining and coal transport, has considerable impacts on the environment as well as climate change, including substantial emissions of carbon dioxide emissions and of suspected particulate matter.	
Impact	Increased hydropower production and contribution to climate change mitigation with improved project management and sector governance in Himachal Pradesh.	
Project Outcome		
Description of Outcome	Improved capacity of HPPCL to generate and sell electricity from hydropower and manage its operations.	
Progress Toward Outcome	Shongtong Karcham Hydroelectric Project of 450 MW is under implementation.	
Implementation Progress		
Description of Project Outputs	1. Shongtong Karcham Hydroelectric Project becomes operational on time and within budget. 2. Data center and disaster recovery center installed in HPPCL corporate facilities and are operational 3. Capacity of HPPCL personnel on project management, operations and maintenance improved	
Status of Implementation Progress (Outputs, Activities, and Issues)	The contract for IT infrastructure has been awarded and work completed. The contract for IT infrastructure has been awarded and work completed. Civil Works for 450 MW Shongtong Karcham has been awarded and is under implementation. About 28.5% of physical progress has been achieved. The physical implementation of the Project is now expected to be completed in 2021/22. Till date 325 HPPCL staff participant training has been done and further training program still being under progress.	
Geographical Location	Kalpa, Kinnaur, State of Himachal Pradesh, Sutlej River	
Safeguard Categories		
Environment		A
Involuntary Resettlement		A
Indigenous Peoples		C

Summary of Environmental and Social Aspects

Environmental Aspects	For Tranche 4, the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) were disclosed on ADB's website since 28 September 2010. An updated version was posted on 19 December 2011. Consultations were carried out during EIA preparation, including holding meetings and individual interviews involving stakeholders, particularly project affected persons. The environmental assessment process included determining baseline levels for the existing status of physical-chemical, ecological and socio-economic aspects of the environment, followed by identification of potential impacts due to construction and operation activities, and prediction of significant impacts using appropriate simulation models. This was followed by the preparation of an Environmental Management Plan (EMP) outlining measures to minimize adverse impacts during construction and operation phases, including a catchment area treatment plan, fisheries management plan, and muck management plan, including an estimation of cost for implementing the plan and guidelines for monitoring its progress. Expected impacts include impacts on the water, air, noise levels, land and biological environments and have been separated into construction phase impacts and operating phase impacts. Impacts on the water environment stem from sewage from labor camps and effluent from crushers and muck disposal. Operating phase impacts include reservoir water quality, sediments and river flows within the project area. Air impacts predominantly occur during construction and include emissions from construction equipment and increased vehicular movement, and dust emissions and muck disposal. Noise impacts are from construction machinery and vehicles. Land impacts stem from soil erosion, muck disposal and quarrying operations. Biological impacts on flora and fauna have also been evaluated, as well as socioeconomic impacts from the influx of the labor force.
Involuntary Resettlement	Tranche 4 overall has been categorized as 'A' for involuntary resettlement (IR) in accordance with the ADB's Safeguard Policy Statement, 2009. The construction of the Shongtong Karccham Hydroelectric Project requires acquisition of 7.97 hectares of private land, affecting total of 129 households with 697 APs. Out of the total private land affected, 2.51 hectares are agricultural land, 1.44 hectares pasture land, and 2.93 hectares of orchard land and 1.09 hectares waste land. In addition to impact on private land, 09 structures are also affected.
Indigenous Peoples	As the project has been classified as Indigenous Peoples category C, no separate Indigenous Peoples Plan was prepared. However, the resettlement plan contains specific measures through additional entitlements accorded to scheduled tribes who are considered as vulnerable groups, should any be affected in the future. This is not expected.

Stakeholder Communication, Participation, and Consultation

During Project Design	Public participation and community consultation has been taken up as an integral part of social and environmental assessment process of the project. Consultation was used as a tool to inform and educate stakeholders about the project. The participatory process helped in involving the local people in project activities. Initial Public consultation has been carried out in the subproject areas with the objectives of minimizing probable adverse impacts of the project through alternate design solutions and to achieve speedy implementation of the project through bringing in awareness among the community on the benefits of the project. The consultation process has been going on since 2009 during project design, environment impact assessment study, and fresh rounds of consultations were also conducted during the social impact assessment, land acquisition and resettlement study. Attempts have been made to involve the concerned government official in the project preparation. A holistic approach was adopted during the design stage in order to gather the information about the project area and about the other developmental activities which are going on parallel to the proposed plan. These officials represent from local, district and state level.
During Project Implementation	Consultations will continue during the entire project cycle according to the stakeholder participation plan.

Business Opportunities

Consulting Services	No consulting services are funded by this loan tranche (they were funded via the tranche 1 loan)
Procurement	Procurement will be in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). International competitive bidding (ICB) will be used to procure the civil works construction contract. HPPCL has utilized advanced contracting for this contract. The electro-mechanical equipment contract will be funded via parallel cofinancing by KfW. A procurement plan is presented in Annex 4 of the PFR. As this is the 4th tranche in this MFF, the EA is now highly experienced in ADB procurement policies and procedures.

Responsible ADB Officer	Karbar, Vallabha R.
Responsible ADB Department	South Asia Department
Responsible ADB Division	India Resident Mission
Executing Agencies	Multipurpose Projects & Power Dept of Govt of HP HP Secretariat Shimla-171 002 Himachal Pradesh, India

Timetable

Concept Clearance	-
Fact Finding	-
MRM	-
Approval	02 Oct 2012
Last Review Mission	-
Last PDS Update	26 Jun 2019

Loan 2914-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
02 Oct 2012	19 Nov 2012	17 Jan 2013	30 Jun 2018	22 Oct 2018	30 Jul 2019

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	692.00	Cumulative Contract Awards			
ADB	257.00	17 Jun 2022	50.70	0.00	100%
Counterpart	235.00	Cumulative Disbursements			
Cofinancing	200.00	17 Jun 2022	50.70	0.00	100%

Status of Covenants						
Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	-	Satisfactory	-	Satisfactory	-	Satisfactory

Project Page	https://www.adb.org/projects/41627-053/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=41627-053
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