



1. Project Data

Project ID P122406	Project Name Kabeli-A Hydro Electric Project	
Country Nepal	Practice Area(Lead) Energy & Extractives	
L/C/TF Number(s) IDA-53380,IDA-H9000	Closing Date (Original) 30-Dec-2019	Total Project Cost (USD) 12,921,867.67
Bank Approval Date 01-Jul-2014	Closing Date (Actual) 30-Dec-2019	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	46,000,000.00	0.00
Revised Commitment	17,240,658.21	0.00
Actual	12,921,867.67	0.00

Prepared by Joel J. Maweni	Reviewed by Dileep M. Wagle	ICR Review Coordinator Ramachandra Jammi	Group IEGSD (Unit 4)
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2. Project Objectives and Components

a. Objectives

The project objective, as stated in the Financing Agreement (p.5), as well as in the Project Appraisal Document (PAD) [p.7], was “to add hydropower generation capacity to supply the NEA grid through public private investment”.

b. Were the project objectives/key associated outcome targets revised during implementation?



No

c. Will a split evaluation be undertaken?

No

d. Components

The project had three components and activities as follows:

Kabeli-A Hydroelectric Project (KAHEP) Component (Estimated cost at appraisal: US\$102.6 million; Actual cost: US\$ 9.80 million): The activities under this component included construction of a diversion dam, water intake, settling basins, a headrace tunnel, a semi-underground power station and a tailrace canal.

Ministry of Energy (MOE, later renamed Ministry of Energy, Water Resources, and Irrigation (MOEWRI) Component (Estimated cost at appraisal US\$2.0 million; Actual cost: US\$1.3 million). The activity was designed to support MOEWRI in: (a) supervising the KAHEP component with the objective of ensuring compliance with the Project's Development Agreement (PDA) and the associated Environmental Management Action Plan (EMP) and the Social Action Plan (SAP); (b) building technical, environmental, and social safeguards capacity in integrated river basin management and cumulative impact management for sustainable hydropower development, including development and adoption of guidelines for cumulative impact assessments (CIA), resettlement and restoration of livelihoods; and (c) financing incremental operating costs for project implementation.

The Investment Board of Nepal (IBN) Component (Estimated cost at appraisal: US\$4.0 million; Actual cost: US\$ 0.4 million): This component was aimed at improving the IBN's ability to carry out its mandate of facilitating the development, in Nepal, of large hydropower projects in accordance with applicable international performance, technical, environmental, and social standards equivalent to WBG Safeguards Policies and Performance Standards. This was to be achieved through support for: (a) conducting additional due diligence and PDA negotiations of large hydropower projects proposed by the private sector (4 projects totaling 3050 MW); (b) supervision of such projects to ensure their compliance with the terms and conditions of the PDAs and the projects' sustainability; (c) building IBN's capacity in procurement, financial management, environmental and & social (E&S) and technical areas; and (d) financing of incremental operating costs for project implementation

Revisions in Project Components

Revisions were made to the MOEWRI and IBN components during Level 2 restructurings carried out on July 9, 2018 and on November 3, 2019.

The rationale for the first restructuring was to: (a) strengthen the institutional capacity of both MOEWRI and IBN to carry out their project development and supervision activities by enabling them to finance procurement of goods, non-consulting services, training, workshops and study tours under the project; (b) amend the IBN component by removing the provision for construction supervision services of projects; and (c) include financing support for hydropower project feasibility studies managed by the IBN. The use of IDA resources to finance supervision services for construction of hydropower projects in which IDA itself was not directly involved was considered to entail huge reputational risks, given the high profile of fiduciary, environmental and social issues in such projects. Hence, the decision was taken, with the agreement of the Nepalese authorities, to remove this funding.



The second restructuring involved adding a fourth component for a River Basin Management Study that was already being implemented by the Water and Energy Commission Secretariat (WECS) under another IDA project - the Power Sector Reform and Sustainable Hydropower Development Project (PSRSHEP, P150066). WECS was facing a funding shortfall of US\$5.4 million and had requested IDA for support in filling this gap. Since IBN was facing implementation challenges and was not going to be able to use the full \$4 million allocated to its component the restructuring was intended to reallocate US\$2 million to WECS's River Basin Management Study. Further, the study neatly aligned with development objective of the Kabeli-A Project in supporting sustainable hydropower development and was expected to disburse USD 2 million by the closing date of this project. In addition to the description of the new component and costs, other amendments to the project documents included the addition of WECS as an implement agency, the reallocation of funds among disbursement categories and changes to the Results Framework to include 2 intermediate indicators for the new component.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

At appraisal, total project costs were estimated at US\$108.6 million and were to be financed through a US\$40 million IDA credit, a US\$6 million IDA grant, a US\$38.6 million IFC Loan (of which US\$19.3 million was to be provided by the Canadian Climate Change Program - CCCP), a US\$1 million local commercial IDA loan and US\$23 million equity injection by the shareholders of the project company - Kabeli Energy Limited (KEL). Actual total project costs of US\$12.92 million were only about 11.9% of the appraisal estimate of US\$108.6 million and included only disbursements of the IDA Credit and Grant. Annex 3 of the ICR shows total project costs of US\$13.01 million – a slight discrepancy of about US\$80,000 compared to the data sheet figure of US\$12.92 million. The very low utilization of the committed funding resulted from the non-implementation of most of the project activities.

Dates

The project's original and actual closing date was December 31, 2019. Project effectiveness was expected to take place by September 30, 2019 i.e., within 3 months of Board approval on July 1, 2014. However, it was not until about 21 months later and several postponements that the Credit finally became effective on June 20, 2016. Delays in executing and providing legal opinions on a suite of legal agreements were largely responsible for the delays in Credit effectiveness and project start-up. These included: (a) the Hydroelectricity Investment and Development Company Limited (HIDCL) subsidiary agreement under which the Nepalese Treasury would on-lend IDA Credit to HIDCL for further on-lending to the project company, the Kabeli Energy Limited (KEL) under; (b) the KEL subsidiary agreement; and (c) the Power Purchase Agreement between KEL and the Nepal Electricity Authority (NEA). The latter was initially a dated covenant but later became a condition for effectiveness as it was not fulfilled on time. Financial closure was further delayed until June 2017 due to the delayed finalization of a consortium master security agreement among the lenders.

As a result, project implementation start-up - which had been originally expected in September 2014 - was severely delayed. On September 8, 2016 the contractor was given a Limited Notice to Proceed (LNTP) so that some work could start on project design, and access roads, camps and temporary housing and tunneling. Even then it was not until February 2017 that the LNTP works commenced.



3. Relevance of Objectives

Rationale

Country context: At the time of project preparation Nepal's economic growth had slowed down compared to the decade up to 2012 due to, amongst other reasons, reduced public and private sector investment in infrastructure, including in electricity. The limited public and private investment in power infrastructure was caused by constrained public sector resources, including the financial weakness of the national power utility and by the absence of developed policies, regulations, procedures, and risk sharing mechanisms to facilitate the mobilization of private sector financing. Consequently, electricity supply lagged substantially below peak demand (625 MW compared to 1,095 MW in November 2012) resulting in load shedding of up to 18 hours/day in dry seasons when available hydropower capacity was much reduced. Thus, despite Nepal's substantial hydropower resources (estimated viable hydropower potential of 43GW at the time) power deficits persisted, posing an enormous constraint to economic growth, competitiveness, and human development.

Alignment with strategies: According to the PAD the Government of Nepal's (GoN) power sector strategy was aimed at addressing the energy crisis and eventually achieving reliable, affordable and sustainable power supply by: (a) reducing system losses and quickly adding generation capacity in the short term; (b) achieving electricity demand-supply balance in the medium term through commissioning of new hydropower capacity and through power imports from India; and (c) developing its large hydropower resources to sustain growth and earn export revenues in the long term.

This project was to support implementation of the GoN's strategy by facilitating private sector investment in the KAHEP; due diligence and negotiations of project development agreements of several large hydropower projects that were under preparation and building the capacity and procedures for planning hydropower projects, conducting feasibility studies, and managing environmental and social safeguards to international standards.

At inception the project was also consistent with the WBG CPS (FY14-FY16) for Nepal, which emphasized the importance of access to adequate, reliable, and affordable electricity for growth and competitiveness (Pillar 1 and Outcome 1.1). In addition, the project was part of a joint WBG business plan to support the "Nepal Hydro Power Transformational Engagement" – developed by the WBG, the Asian Development Bank and the UK's Department for International Development (DfID) in the mid-2000s, with the aim of helping Nepal to meet its immediate power needs and develop hydro resources as an engine for growth and for regional integration.

At closure the World Bank Group's Country Partnership Framework (CPF) for Nepal (FY19-23) had three focus areas covering: (a) public institutions; (ii) private sector-led jobs and growth; and (c) inclusion and resilience. In line with the findings of the Systematic Country Diagnostic (February 1, 2018) the CPF highlights the importance of improved access to adequate, reliable, and affordable electricity supply for increased growth and competitiveness. Energy, which is covered under Focus 2, Objective 2.1 includes WBG support to increase generation capacity and access through promotion of hydropower generation, renewable energy solutions, energy efficiency and regional integration to smoothen fluctuations in domestic supply and benefit from international power trade.

Thus, the project objective remained as relevant at closure as it was at inception.



Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

The project objective is to add hydropower generation capacity to supply the NEA grid through public private investment

Rationale

The project was developed to address the issue of limited access to adequate, reliable, and affordable electricity which was constraining economic growth and competitiveness. Given public resource constraints, a public/private sector model for private development of hydropower projects was an alternative approach, but this too faced multiple constraints, including: (a) the absence of developed policies, regulations, administrative procedures, risk sharing mechanisms; and limited capacity for planning, conducting feasibility studies and carrying out due diligence and monitoring implementation. The project was designed to address these issues and was to be an example for the structuring of follow-up projects in the future.

Theory of Change

The ICR derives a theory of change (Figure 1, page 3) for the project from the PAD Results Framework (Annex 1). The theory of change outlines groups of activities corresponding to the four project components as follows: (a) KAHEP component - construction at Kabeli river of a diversion dam, intake, settling basins, headrace tunnel, semi-underground power station and tailrace canal; (b) MOEWRI component - preparation of policies and guidelines for hydropower development and monitoring of compliance with the KAHEP PDA; (c) IBN component - project development and transactional support; and (d) WECS component - support for hydropower planning. All the groups of activities are linked to the long-term goal of enhanced access to electricity in Nepal but only the KAHEP activities are linked to the PDO/Outcome indicator of increased generation. In addition, no distinction is drawn between outputs and outcome indicators and some intermediate results from the Results Framework are not captured.

As pointed out by the ICR (page11) the PDO was based on one component (KAHEP) but could have been broader to capture the benefits from policy and institutional actions that were expected from other components. In addition, IEG also notes that the PDO was pitched at an output level, (added capacity resulting from construction activities rather than at the level of the result of such capacity addition). For example, incremental energy generated which is mentioned in the report, could have been a better indicator than capacity added.

Outputs



The output expected from the KAHEP component was delivery of 37.6MW of new hydropower capacity. This was not achieved as the project had stopped at the time of closure and there were no prospects for imminent completion. According to the ICR (and Results Framework and Key Outputs, Annex 1) the overall project completion was rated at only 12 percent representing 400 m of the access tunnel and 38, 650m of the headrace tunnel (total of tunneling done from both the powerhouse and outlet ends), the access road to the powerhouse and dam sites and some limited excavation works on the powerhouse and surge shafts.

The project's failure to deliver expected outputs within the project life was due to several factors.

First, while the main contractor (civil works and hydromechanical equipment, CMH) was expected to mobilize soon after contract signature in October 2015, notice for full mobilization was not given until January 1, 2018. The delay was caused by delays in achieving financial closure which in turn arose from delays in: (a) finalizing the on-lending arrangements for IDA funding to KEL; (b) finalizing the loan agreement among the consortium of lenders, partly due to land ownership requirements for loan securitization; (c) delays in clearance and approval of a suite of loan agreements signed by consortium lenders by the Nepalese Central Bank; and (d) approval of the PPA by the NEA board (May 2016). Although a "Limited Notice To Proceed" (LNTN) was given on September 8, 2016 to enable the contractor to proceed with partial mobilization and undertake some works (access roads, camps and temporary housing, initial detailed design), the contractor started the LNTN works several months later on February 20, 2017.

Second, the performance of the CHM contractor and the Owners' Engineer (OE) was marred by continual disagreements, different understandings of the contract provisions and failure to or unwillingness to cooperate with each other. For example, the contractor in some cases proceeded to undertake unauthorized tasks and without approved drawings and in other instances denied the OE access to site activities. At the same time the contractor also accused the OE of withholding authorization for drawings.

Third, both the OE and KEL did not have well-experienced staff at the site. KEL's attempts to resolve the issues through high level discussions did not change the dynamics at the site. They eventually decided to cancel both the CHM and OE contracts, issuing the first "notice to correct" on November 16, 2018 and finally terminating the CHM contract on March 26, 2019. All site-based activities had ceased as of January 2019.

In April 2019, based on an implementation support review in February, IDA informed the GON that the remaining KEL funding would be cancelled since the project was unlikely to be completed by the Credit closing date of December 31, 2019. A formal extension of closing date requested was submitted to IDA on November 15, 2019. However, given the project's history of unsatisfactory performance over a long period of time and without clarity on when it would be completed, the project closed on December 31, 2019 with very little accomplishments on the KAHEP component, as noted above.

The MOEWRI component achieved the targeted outputs on environmental and social safeguards policies and procedures; specifically, the production of guidelines for (a) environmental and social cumulative impact assessments (CIA) for the Tamor basin; (b) CIA studies in Nepal and their integration into regulatory frameworks; (c) resettlement and livelihood restoration processes for hydroelectric projects starting with KAHEP; and (d) benefit sharing for hydroelectric projects.

MOEWRI was also required to provide monitoring support to ensure compliance of the KAHEP component with the E&S provisions of the PDA. However, the IDA team's supervision records do not indicate an active role by the DOED, which is surprising given the enormous problems that were encountered with environment, health and safety and social safeguards issues at the site. In addition, the ICR does not reflect



expected outputs from the procurement of vehicles, IT tools and training – activities that were added to the project when it was first restructured on July 9, 2018.

IBN component: Except for the signing of two large hydropower PDAs early in the project’s life and the procurement of motor vehicles and hiring of staff, little else was achieved under this component.

The WECS component was incorporated into the project through a restructuring just two months before Credit closing date to help fill a financing gap on a regional hydropower planning master plan which was being financed under another project. The US\$2 million allocated to the component was to be used largely to finance costs that had already been incurred. According to the Restructuring Paper the component was to contribute to two expected outputs - number of river basin plans, including hydropower master plan, prepared with an integrated water resource management (IWRM) approach; and number of workshops on Strategic Environmental and Social Assessment (SESA)/Cumulative Impact Assessment (CIA) conducted. The ICR (Theory of Change, page 3, and Annex 1) is, however, vague in mentioning the hydropower master plan as the only output to which the component was expected to contribute.

Outcomes

The project design at appraisal made its PDO outcome dependent entirely on successful completion of the KAHEP component. Since added generation capacity, the outcome indicator of the KAHEP component, was not achieved due to non-completion of the power plant, the overall project’s efficacy outcome was negligible. The PDO could have been framed to also include the benefits that were expected to flow from the other components. Although this would not have changed the project’s efficacy rating it would, have enabled a broader assessment of outcomes, including crediting the project for the modest policy achievements under the MOEWRI component.

Rating
Negligible

OVERALL EFFICACY

Rationale

The project's main component, to which the Project Development Objective was linked, was not completed, and therefore did not add the power generation capacity that was intended. As such, the project’s overall efficacy was negligible.

Overall Efficacy Rating
Negligible

Primary Reason
Low achievement

5. Efficiency



At appraisal, the project's efficiency analysis was conducted on the following basis: (a) comparison of the project to alternatives; (b) economic analysis of the project; and (c) financial analysis without loan financing. The results were to produce an EIRR of 42.3% for the KAHEP component when compared to diesel as the most feasible alternative generation option; 13.3% for the economic analysis using long run marginal cost tariffs for benefits and without carbon pricing or 15.2% with carbon pricing. The financial analysis indicated an incremental financial rate of return of 10.5% - which was low, given that IDA lending rates were averaging 10-12% in the domestic market. The financial analysis thus indicated that the project was not viable without IDA and CCCP concessional financing. The economic analysis was also marginal given a discount rate of 12%.

No economic and financial analysis was conducted at project closure because the project had not been completed and, therefore, the expected benefits had not materialized.

Efficiency Rating

Negligible

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	13.30	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The relevance of the objectives was High as described above. Project efficacy was Negligible because the objective of adding generating capacity was not achieved since the KAHEP component was not completed. Although there were some policy achievements under the institutional components, these were modest and in any event were not part of the PDO. As the economic analysis was based on the KAHEP component, its non-completion also renders the project's efficiency rating Negligible. Based on the above ratings, the project's Overall Outcome is rated Highly Unsatisfactory.

a. Outcome Rating

Highly Unsatisfactory

7. Risk to Development Outcome



Risks to development outcomes refer to development outcomes that have been realized or are expected to be realized by the project. The economic and financial benefits that were expected to be realized from the KAHEP component have not been achieved due to non-completion of the project and there is no clear information on when and how the project will be completed, if at all. Such information as is available suggests that if the project were to be completed its benefits would likely be lower than those forecast at appraisal, for the following reasons: (a) the project's financial viability depended on concessional funding which may no longer be available; and (b) KEL's failure to achieve the commercial operation date agreed under the PPA would likely trigger the liquidated damages further eroding the project's financial viability. Further, a pumped storage project that is planned for development downstream would inundate part of the Kabeli-A structures and KEL's decision whether to proceed would likely take this factor into account, including the GON's commitment to provide compensation. The Investment Board of Nepal's component covering transactional work has similarly not been completed. Therefore, the project faces a high risk to development outcomes.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project was designed primarily to increase private sector investment in the short term through the KAHEP component and in the medium and long term through the policy and institutional support components under the DOED, IBN and the WECS component that was added towards project closure.

In 2007 the GoN selected KEL as the private sector developer following an international competitive bidding process which was reviewed by IDA and found to be in accordance with good practice. IDA, thus, gave its no objection to the award of the contract to KEL. The contractual structure that emerged for the project and to which IDA contributed had the following design features for encouraging private sector participation: (a) availability of debt financing on more favorable terms (both tenor and interest) than was available in the domestic market; (b) take or pay clauses in the PPA to manage demand and/or dispatch risks by obligating NEA to pay for power in the event KEL was unable to be dispatched due to reduced demand or network constraints; (c) commitment by the GON under the Financing Agreement with IDA to cover payment risks in the event NEA failed to pay amounts it owed to KEL for electricity supplied; and (d) partial indexation of the tariff to allow payment to KEL in US\$ for the first 15 years of operation, thus shielding KEL from impacts of large local currency devaluations.

Since IDA Guidelines allowed competitively selected sponsors to procure all goods, works and services required for the project according to acceptable commercial practices, IDA reviewed KEL's procurement procedures and found them to be acceptable. Thus, KEL prepared project designs and bidding documents with the assistance of a local consulting firm and had these reviewed by an international consulting firm, the Lender's Engineer, and a Panel of Experts. In addition, IDA and IFC also reviewed contract packages for all major contracts.

In summary, the overall the project preparation for the KAHEP component included best practice standard features for private sector power projects including: (a) the hiring of an internationally reputable firm to review the designs; (b) the preparation of Geotechnical Baseline Report (GBR) and Risk Register whose results were incorporated in the bidding documents to provide reference data for construction and for resolving contractual disputes; (c) a multi-layered supervision approach comprising an Owner's



Engineer (OE), Panel of Experts (POE) comprising both technical and Environmental, Health and Social experts, (d) a Lender's Engineer (LE); and (e) an International Environmental and Social Consulting firm for monitoring and reporting on project compliance with E&S obligations.

However, there some shortcomings during project preparation which the ICR describes very candidly (ICR, page 16, para. 48). In particular, the impacts of the GON's slow decision making on key project milestones during implementation were not strongly evaluated. Specifically, the project timelines, taken as whole from Board approval to completion, inclusive of the time needed to achieve effectiveness of loans and financial closure were tight. This is not because of the construction period of 5 years which was reasonable for a simple hydropower project of this nature but was due to the extended delays in finalizing the financing agreements, including the underlying land security requirements by lenders. The delays also arose because this was the first time in Nepal that government-procured debt was being extended to the private sector through an intermediary lending arrangement. More thorough analysis of decision-making routines within GON and of the lenders' requirements could have reduced the time elapsed between approval of IDA financing (July 1, 2014) on one hand and credit effectiveness (June 30, 2016) and financial closure (June 16, 2017) on the other hand, thus speeding up contractor mobilization. Past practices in other public/private sector projects have been to delay submission of projects to IDA's Board of Directors for approval until financial closure was considered imminent. A more thorough analysis of the time requirements for the GON decision making on lenders' requirements could also have resulted in a delayed submission of the project to the Board until financial closure was imminent in this case.

As described above the project due diligence, including assessment of the capacity of the project sponsor was carried out comprehensively with the participation of both IDA and IFC as well as the POE. The assessment of KEL's capacity did, however, indicate, according to the PAD (Annex 6, page 56) that there was a ". risk inherent in KEL's limited construction management experience." The identified risk mitigation measures relied on the inputs of international consulting firms for design review and review of bidding documents, verification of headworks through a physical model study, and the support of the OE and the POE. In addition, the KAHEP team was to receive training in construction management prior to the launch of construction and periodically throughout the implementation period in specific aspects relevant to the project.

The project also included support for development of guidelines on environmental and social policies, capacity building on project supervision and monitoring, preparation of feasibility studies and sustainable hydropower planning.

The institutional and policy components were well designed with the following exceptions: (a) the reputational risks of financing IBN's supervision of non-IDA financed activities could have been foreseen and avoided; and (b) the outputs from the components were not fully accounted for in the results framework; and (c) the PDO could have been better formulated to also include outcomes from the institutional and policy component (e.g. adoption or codification of environmental, social and or resettlement policies for hydropower projects developed through the project), and could have been pitched at the level of outcomes instead of that of outputs (energy generated instead of capacity addition).

While IDA supported a comprehensive due diligence of the sponsor, design of the project's contractual framework and a multi-layered support structure to the client, including international consulting firms and a panel of Experts as described above, a significant flaw in the project preparation/appraisal process was the underestimation of the time required to achieve effectiveness of IDA financing and financial closure



on lenders' loans. Other shortcomings related to the statement of the PDO and non-accounting of outputs of the institutional components as described above. The inadequacy of timelines that were built into the project schedule was a significant shortcoming that contributed to the failure of the project to achieve its objective. Hence, the project's quality at entry is rated Moderately Satisfactory.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

The project was originally expected to be implemented over a period of about 5 1/2 years between July 31, 2014 and December 31, 2019. However, the project was closed on December 31, 2019 without completion of its major component – the Kabeli-A Hydroelectric Plant.

The project was regularly supervised, and at least two ISRs prepared each year. Project files also indicate at least two annual IDA supervision missions although the level of effort was probably higher when informal missions are considered and given the implementation difficulties that were being encountered. Despite IDA's supervision effort, the project was rated moderately unsatisfactory for implementation performance for most of its duration. The project performance was influenced by several factors some of which the IDA supervision mission team could have influenced and others which were outside the team's control. To provide a sense of the quality of the IDA team supervision mission's inputs the paragraphs below summarize the evolution of the project implementation.

First, initial project implementation delays were caused by delayed effectiveness of IDA financing and financial closure on the lenders' financing. Credit effectiveness was extended for 4 times from the initial date of September 30, 2014 to June 20, 2016 i.e., a delay of about 21 months. Even after credit effectiveness several conditions related to lenders agreements which needed to be completed to allow for the first IDA drawdown remained outstanding until June 16, 2017. These delays meant that the contractor could not be granted permission to fully mobilize until January 1, 2018 i.e., about 3 ½ years since Board approval or just over 2 years since contract signature. KEL had issued the contractor a Limited Notice to Proceed (LNTP) on September 8, 2016 to allow construction of access roads, temporary workers' housing and camps, detailed project design and adit tunnel to commence. Even then it was not until February 20, 2017 (about 5 months later) that the works under the LNTP began.

By July 2017 the issues related to the lenders' agreements had been solved and the first IDA drawdown was effected. However, the contractor had been slow to mobilize equipment and staff to site and the work was proceeding at a very slow pace. By the time of the mid-term review mission in October 2017 the seriousness of the problems at site had come into sharp relief. In addition to the construction delays, there were also numerous issues related to the environmental, health and safety aspects with the contractor reportedly ignoring instructions from the OE and sometimes constructing works without authorized drawings. The contractor, on his part, indicated that the OE sometimes withheld authorizing drawings.

The supervision reports attributed the implementation problems to: (a) lack of communication and cooperation between the CHM and the OE at site; (b) absence of project handbook and implementation schedule; (c) a heavily modified FIDIC contract design; (d) a lack of understanding and interpretation of the contract by the CHM and the OE; and (e) the absence of proper coordination by KEL. KEL had modified



the contract packages and FIDIC contract documentation which probably contributed to the confusion. IDA's analysis of the problems at site were consistent with that of the LE who had also warned of delayed completion, increased project costs and inferior quality of works.

An action plan was prepared and discussed with IDA in early December 2017 and a follow-up technical team was planned for mid-December 2017 to monitor progress. About six months later in June 2018 a desktop ISR indicted that there had been no progress in implementing the remedial action plan that had been reviewed by IDA in December 2017. Although the contractor had since received a full notice to proceed on January 1, 2018, he had only mobilized about 12% and 50% of required staff and equipment respectively and work progress was only 10% instead of the planned 20%. On April 4, 2018 KEL and CHM had signed an MOU (another action plan) outlining remedial measures to speed up implementation of the project.

An IDA mission in July 2018 had again requested KEL to prepare and submit a "catch-up" implementation plan. In the absence of progress in the implementation of remedial action plans KEL finally issued the contractor a "Notice to Correct" on November 16, 2018 – effectively a suspension of contract and finally terminated the contract on March 26, 2019.

IDA's supervision effort, as in most power projects involving private sector developers, appears to have been that of broad oversight of project performance (technical, E&S, financial management and procurement; etc.) and assisting all parties to resolve issues. In addition, the strategy was based on interactions with client-sourced experts and with the Lender's Engineer. The implementation support plan was provided in the PAD Annex 5, page 46. The annual resource budget at US\$120,000 in 2014 dollars appears to have been reasonable at about 1.5 times the normal supervision coefficient at the time. Actual costs ranged from about US\$ 102,000 in FY15 to about US\$295,000 in FY19.

However, there were some shortcomings in the quality of supervision. First, although it was primarily the role of the project company to manage the execution of the contracts for the KAHEP, including that of the OE, IDA had the obligation to ensure that the project was implemented efficiently to achieve its project objectives. In that context IDA could have taken stronger measures to deal with issues of non-performance and not wait for the KEL to enforce its contracts which happened only about a year before closure. Discussions with the project team indicated that IDA's reluctance to take stronger measures arose from: (a) initial expectations that once financial closure had been reached and the contractor mobilized, construction would proceed speedily; (b) the hope that the "model" project financing structure for small hydropower schemes could still succeed; and (c) the desire to maintain country relations. The supervision mission reports do not reflect an active role for the DOED which was funded to supervise the project to ensure compliance with the PDA.

A second shortcoming was the failure to restructure the project to improve its PDO by pitching it at the level of outcomes as well as perhaps linking it to institutional and policy components. Instead, the first restructuring provided funding for training and supervision equipment (motor vehicles and computers) – although very little supervision appears to have been carried out by the MOEWRI. The second restructuring was carried out about two months before project closure to reallocate grant funds to activities under another project where a deficit had occurred.

The IDA supervision team closely monitored the required actions to achieve project effectiveness and financial closure on the lenders' loans. IDA team tried to facilitate the design and monitoring of remedial action plans to address implementation problems at the KAHEP project site, but its efforts were



ineffective. As such the problems persisted from the time the LNTP was issued in September 2016 through to termination of the CHM contract on March 26, 2019. IDA could have taken stronger measures, including sending early signals of its preparedness to cancel IDA financing which could have provided incentives for the GON to leverage KEL to address the issues more aggressively and, perhaps, saved the project from total failure. This was a significant shortcoming on part of IDA's supervision efforts that contributed to the project's failure to achieve its objective. Hence, the quality of supervision is rated Moderately Unsatisfactory.

Quality of Supervision Rating

Moderately Unsatisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

According to the ICR (page 14), the design of the M&E was straightforward, with two types of reporting by KEL and the LE. KEL's was obligated to monitor and report on the implementation of the KAHEP component including the environmental and social plans. In addition, the DOED was to monitor and report on KAHEP's compliance with the environmental and social obligations under the PDA. In addition, according to the PAD (page 11), the M&E also included reporting requirements by DOED and IBN on their components which the ICR notes were received on a regular basis. Similarly, the 2019 project Restructuring Paper imposed reporting obligations on WECs on its component, although this was with only two months left before project closure.

On IDA's side the results framework (Annex 1 of the ICR) was apparently not updated, as specifically provided for in the Restructuring Paper of November 3, 2019. A further observation is that there was no update of the Results Framework to provide for monitoring of outputs from the additional activities introduced during the July 7, 2018 restructuring – motor vehicles, IT equipment and training, and therefore no accounting for these or related outputs.

b. M&E Implementation

The ICR reports (page 14) that both KEL and the LE provided their required M&E reports on a regular basis and so did the DOED and IBN. There are no indications from supervision reports of significant delays in the submission of reports or of non-compliance with reporting obligations.

c. M&E Utilization

The M&E reports were used during the bi-annual Implementation Status and Results Report (ISR) missions between IDA, KEL and GON agencies to review achievement of activities, indicators, and



progress. They thus, formed the basis for decisions on remedial actions. While action plans were designed several times for the KAHEP component their implementation was not carried out as earlier described.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as Environmental Category A according the Bank's safeguard policy on Environmental Assessment (OP/BP4.12). The following safeguard policies were also triggered: Involuntary Resettlement (OP/BP 4.12), Indigenous People (OP/BP4.10), Forests (OP/BP 4.35), Safety of dams (OP/BP 4.37, and Projects on International Waterways (OP/BP 7.50).

The ICR indicates that the Environmental Management Plan (EMP) and the Social Action Plan (SAP) for implementation of the Environmental Impact Assessment (EIA) and Social Assessment (SA) were developed in a consultative and participatory process in such a manner as to secure broad community support for the proposed mitigation measures, including from Indigenous Peoples. The SAP was comprehensive and included all the appropriate mitigation measures, benefit sharing, resettlement and compensation and livelihood assistance, grievance redress mechanism; etc. The institutional arrangement for implementation - the Kabeli Environment and Community Development Unit was established and appropriately staffed. Compensation payments were made to all affected households - both titleholders and non-titleholders who put forth their requests. The SAP included a rural electrification plan which received financial support from some municipalities.

A GRM was established and accompanied by wide dissemination. Consequently, 41 grievances were received 40 of which were resolved. The unresolved grievance was due to non-substantiation of the subject matter of the complaint.

The construction environmental, social, health, and safety management plan prepared by the contractor fared less well as with other activities under the CHM. Thus, implementation of community safety, environment, social, and health management; waste disposal; solid waste management; slope stabilization and dust control were not satisfactory during the construction period. After termination of the contract KAECU ensured clear demarcation of the sites by fencing according to a request by IDA and deployed security guards and signages in the appropriate locations. Whereas the ICR (page 15) states that KAECU had ". implemented the World Bank-suggested measures to bring the performance to Moderately Satisfactory at the time of project closure", the last archived ISR shows an overall Safeguards rating of Unsatisfactory.

b. Fiduciary Compliance



Financial management was rated Moderately Satisfactory over most of the project period but turned Moderately Unsatisfactory towards the end. The main FM issues were timeliness of reporting, which was a problem for all agencies, absence of thorough reviews of supporting documents from KEL by the on-lending agency (HIDCL); and inadequate government budget resulting in the charging of ineligible expenditures to IDA grant (DOED and IBN). Overall, the lack of financial management staff dedicated to the project contributed to these FM issues.

KEL, DOED and IBN were required to submit annual audited financial statements, including audits of the designated special accounts. Project correspondence indicates that all reports have been submitted, including the latest statements for 2019/2020. Both the KEL and DOED audit financial statements for FY2019/2020 were found acceptable by IDA, but minor management letter recommendations remained to be resolved by DOED.

Since the project sponsor was competitively selected IDA guidelines allowed for the project company to procure goods, works and services using its own procedures, provided they confirmed to acceptable commercial practices. IDA, thus, reviewed KEL’s procedures and found them to be acceptable. Therefore, IDA limited its procurement support to reviewing designs and contract packages and bidding documents but did not provide “no objections” for contract awards.

While DOED had relatively experienced procurement staff, the selection of consultants was considerably delayed due to slow decision making in the agency. In IBN, procurement could not be completed within the project period. Thus, procurement performance was rated Moderately Unsatisfactory for most of the project’s life, including at project closure.

c. Unintended impacts (Positive or Negative)

Not Applicable

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Unsatisfactory	Highly Unsatisfactory	
Bank Performance	Moderately Satisfactory	Moderately Unsatisfactory	The Bank’s underestimation at project preparation/appraisal of the time required to achieve project effectiveness and financial closure on lenders’ loans and its delay in taking stronger actions to address



issues of non-performance during project implementation contributed, among other factors, to the project's failure to meet its intended objectives.

Quality of M&E	Substantial	Substantial
Quality of ICR	---	Modest

12. Lessons

The following are key Lessons Learned from the preparation and implementation experience:

(a) Recognizing the complexity of project planning and implementation in hydropower project development.. Hydropower projects are complex to prepare and implement because they involve a wide range of issues related to geological conditions, hydrology, dam safety, multiple licensing and permitting requirements, environmental and social ecosystems, risk identification, mitigation, and allocation; etc. This complexity demands a wide range of expertise and experience and skilled management to ensure careful coordinated planning of activities and their smooth implementation. Specifically, in the context of this project, more detailed planning during the preparation phase could have surfaced potential delays due to land securitization requirements, time requirements for approval of loan agreements by the Central Bank of Nepal and the PPA by NEA. Having the right expertise and skilled management at the project site could have avoided or reduced the disagreements between the OE and the contractor at the KAHEP site and resulted in a better outcome.

(b) Timing for submission of operations involving private sector financing to IDA's Board. In the past the standard practice has been to submit projects for Board approval only when financial closure was imminent. This practice requires that the assessment of imminence be rigorous. Had the assessment of timelines required to meet the various lenders' requirements been robust, the lengthy period of more than 2 years between signature of the CHM contract and full mobilization would have been avoided.

(c) The importance of sound due diligence of project sponsors and ensuring their successful procurement of goods, works and services for the project. In private sector projects where IDA has no oversight role in procurement due diligence of the sponsors and their project management arrangements are extremely important. It appears that in this project the due diligence was conducted comprehensively with the participation of IDA and IFC teams and the Panel of Experts. Measures were put in place to mitigate the identified risks such as KEL's limited construction management experience and these included the hiring of international consulting firms to review designs and bidding documents, panel of experts to advise on a range of technical issues. Training was provided to KEL staff on construction management. Despite an impressive project management structure drawn up at appraisal during implementation KEL faced difficulties in managing the project, specifically in effectively resolving conflicts between its OE and the civil works and hydromechanical works contractor and in staffing its own site supervision team. Once selected, KEL had the responsibility for engaging and monitoring the performance of the OE and the CHM. Although IDA's review indicated that KEL had sound and acceptable procurement practices



and had supported KEL by reviewing bidding documents for all major contract packages the selected contractor and OE failed to perform their tasks according to expectations. An important lesson is that, perhaps, sole reliance on submitted bids without verification of actual previous performance elsewhere may not always result in the selection of good contractors. IDA and clients may require changes in policies and procedures to enable additional verification of bidders' performance outside submitted documents.

(d) **Ensuring sound project objectives.** Revisiting project objectives during implementation, especially mid-term review missions can reveal opportunities for restructuring to correct deficiencies. In the context of this project the opportunity was lost to revise the PDO and pitch it at the outcome rather than the output level at which it was set at appraisal. In addition, the PDO could have been broadened by linking it to policy and institutional components instead of retaining its linkage to only one component.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR provides a clear, concise, and easy-to-read description of the context in which the project was conceived and implemented and the key factors that led to its failure to achieve its intended objective. There are however several shortcomings. These are as follows: (a) the write up on IDA performance, particularly the subsection on supervision (pages 16 and 17), lacks details on specific actions taken by IDA to address the project performance problems that plagued the project as well as explanations of why they were not effective; (b) the Environmental, Social and Fiduciary Compliance section (pages 14, 15 and 16) does not provide any reference to the findings of the Panel of Experts or those of the Independent Environmental and Social Consultant – both services were retained by KEL as part of the multi-layered implementation support structure; (c) the ICR does not confirm whether the EMP and SAP were complied with in accordance with the Financing Agreements, at least up to the point of termination and although the ISRs indicate compliance, the safeguard ratings and in particular the rating for OP/BP 4.02 suggest otherwise; (d) the ratings for overall safeguards and for financial management quoted (pages 15 and 16) are also not consistent with the final archived ISR (Sequence 9, archived April 6, 2019).

a. Quality of ICR Rating

Modest

