

Source: The Himalayan Times, June 22, 2019

## **International Finance Corp joins hands with Nepal government**

International Finance Corporation (IFC), a member of the World Bank Group, has signed an agreement with the Forest Training and Research Centre (FTRC), under Ministry of Forests and Environment, to improve adherence to environmental and social (E&S) standards in hydropower development in Nepal.

Under the pact, IFC will provide advisory services to increase private sector compliance with E&S standards by improving development and implementation of regulatory frameworks for hydropower sector, including trainings in all seven provinces. The programme will also facilitate investments in hydropower sector by providing guidance on E&S standards and supporting inclusive development of hydropower in Nepal.

As a part of its support, IFC will focus on development and adoption of best practices, including capacity to implement the new Hydropower Environment Impact Assessment (EIA) Manual, released last year by the ministry and supported by IFC.

“To implement the EIA manual, we need to train our staff at all levels. This support will help us build our capacity as an oversight agency for environmental impact and to ensure effective compliance with environmental standards,” Deepak Kumar Kharal, director general of FTRC, has been quoted as saying in a media release issued here today.

Given the vast environmental and social challenges Nepal faces, capturing the impacts and risks associated with hydropower development remains critical to ensuring sustainable development in the country.

“This will enable both the public sector as well as the private sector to have a clear guidance on what is expected to identify risks and manage the impact associated with hydropower projects as well as assess cumulative the impact while managing river basins holistically, particularly where multiple hydropower projects are being planned,” Mohammad Rehan Rashid, IFC’s resident representative in Nepal, said.

The programme, funded by the governments of Australia, Japan and Norway, has a strong social inclusion component focused on building resilience in communities affected by hydropower projects.

Source: The Kathmandu Post, June 23, 2019

# Nepal, Bangladesh to use Indian grid for power trade

- PRAHLAD RIJAL, Kathmandu

Amid talks of Nepal-Bangladesh dedicated transmission line passing through the Siliguri corridor in India, the secretary level meeting between energy officials of both countries agreed to use the existing setup of Indian transmission lines to trade power in the short run.

The agreement was signed by Nepal's Energy Secretary Dinesh Ghimire and his Bangladeshi counterpart Ahmad Kaikaus during the Joint Steering Committee meeting at Cox Bazaar on Friday.

In line with the Memorandum of Understanding signed by the two countries on 'Cooperation in the Field of Power Sector' last August, the authorities have also decided to study the prospect of building dedicated power lines in the long term.

Discussions on the use of Indian transmission lines passing through the Siliguri Corridor, also known as Chicken's Neck, emerged in the wake of recent amendments to the cross-border energy trading regulations by India. The southern neighbour has relaxed earlier provisions and given explicit recognition to tripartite arrangements in cross-border electricity trade.

"The Transmission Planning Agency of India in consultation with the Transmission Planning Agency of the neighbouring country shall grant access to the Participating Entities to use Cross Border Transmission Link for cross border trade of electricity," states India's Cross Border Trade of Electricity Regulations, 2019.

During past meetings, Nepal and Bangladesh pledged to make their best efforts in devising such trilateral arrangements.

According to an official present in the meeting, the authorities from both countries have also planned to study and invest in 20 major hydropower project proposed in the white paper released by the energy ministry in May 2018.

The proposed projects include four storage and other major hydroelectric power plants such as Upper Arun, Dudhkoshi, Sunkoshi 2, Sunkoshi 3, West Seti and Phukot Karnali.

The estimated annual cumulative output of the proposed and under-study projects stands at 42713.18 GWhr, nearly 12 times Nepal's current total annual output.

"However, as majority of those projects are either under proposal or under study, the figures might vary in the final detail design," said the official.

Out of the 20 projects, the Nepal Electricity Authority is currently evaluating the detailed project report of the 800 MW Dudhkoshi Hydropower project and the recent project optimisation of Upper Arun, which revised its installed capacity from 725 MW to 1040 MW.

Bangladesh, one of the fastest growing economies aided by its manufacturing sector, is an energy-hungry nation which makes it a lucrative market for power produced in Nepal.

To satisfy its power demand, Bangladesh has floated plans to import around 9,000 MW from Nepal over the course of a decade.

And Nepal's power generation is poised to surge in the next fiscal year as 43 projects with installed capacity of 1149 MW are expected to roar into life.

Given that, the energy ministry has accorded importance to conclude construction of high capacity substations at cross-border trade points and finalise the modalities for developing the 400 kV Butwal-Gorakhpur Transmission Line to facilitate cross border power trade.

The Transmission System Development Plan, unveiled by the ministry in July 2018, has also highlighted the need to have a robust distribution system to evacuate power to energy starved regions and facilitate electricity export to India and China.

In April 2017, Bangladesh had signed a Memorandum of Understanding with India's NTPC Vidyut Vyapar Nigam to import 500 MW of electricity from the 900 MW Upper Karnali Scheme being built by Indian developer GMR in Western Nepal.

However, the parties are yet to finalise a power purchase agreement on trading electricity generated by Upper Karnali through the Indian grid.

Also, energy authorities of Bangladesh and Nepal have agreed to form a committee to study the prospect of transferring solar power technologies available in Bangladesh to Nepal.

Source: The Kathmandu Post, June 23, 2019

## Joint investment in hydropower planned

### • *NEPAL-BANGLADESH JSC MEET*

Nepal and Bangladesh have agreed to jointly invest in some feasible hydropower projects in Nepal.

A two-day Joint Steering Committee (JSC) meeting on energy cooperation between the two countries has also decided to hold talks with India to export power from Nepal to Bangladesh by utilising electricity transmission lines of India.

A meeting of the energy secretaries from the two countries on Friday decided to make joint investments in projects like the 1,110-megawatt Sunkoshi II and 536MW Sunkoshi III reservoir hydropower projects.

Dinesh Kumar Ghimire, secretary at the Ministry of Energy, Water Resources and Irrigation (MoEWRI), informed that the meeting agreed to jointly invest in hydropower projects and collaborate on alternative energy besides exporting electricity from Nepal to Bangladesh.

“We held discussions on some other issues on enhancing energy trade and investment between the two countries,” said Ghimire, adding that both the nations have also agreed to build a new high-voltage transmission line to Bangladesh through India.

The second meeting between the respective authorities of the two countries was held after Nepal and Bangladesh inked a memorandum of understanding (MoU) on energy cooperation in August last year in Kathmandu. The first meeting was also held in Kathmandu.

The Nepali delegation in the JSC meeting was led by Ghimire while the Bangladeshi team was led by Abu Hena Md Rahmatul Muneem, secretary at the Ministry of Power, Energy and Mineral Resources of Bangladesh.

As per the previous pact, Nepal and Bangladesh had agreed to cooperate on electricity generation, development of hydroelectricity, cross-border transmission lines,

development of efficient human resources in the hydroelectric sector, promotion of government-to-government and private sector investments, grid connectivity and investment in renewable energy, among others.

Bangladesh has already formulated a policy to import 9,000 megawatts of electricity from Nepal by 2040. For this, construction of transmission line, selection of projects and cooperation on alternative energy are in focus.

Source: My Republica, June 23, 2019

## **Nepal, Bangladesh agree to make joint investment in Nepal's hydropower**

RSS

Nepal and Bangladesh were agreed to jointly invest in the feasible hydropower project in Nepal.

A meeting of the Energy secretaries from the two countries on Friday decided to make a joint investment in the projects as stated in the whitepaper issued after the last meeting.

The Energy Ministry had included the projects ensuring at least one in each State.

Energy Secretary, Dinesh Kumar Ghimire, informed that the recent meeting agreed for the joint investment on hydropower, collaboration, and cooperation on alternative energy and electricity export to Bangladesh.

Bangladesh has formulated a policy to import 9,000 MW electricity from Nepal by 2040. For this, construction of transmission line, selection of projects and cooperation on alternative energy are in focus.

At a press meet organized after the meeting, Chairman of Independent Electricity Producers' Association Nepal (IEPAN), Shailendra Guragain, informed that Bangladesh was ready for the joint investment on hydropower production in Nepal.

Source: The Himalayan Times, June 24, 2019

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Source: Nepal Energy Forum, June 24, 2019

## Nepal, Bangladesh shown interest to construct 1,110-MW Sunkoshi II and 536-MW Sunkoshi III hydropower projects

An agreement has been reached on seeking electricity trade potentiality and various aspects of hydropower between Nepal and Bangladesh. The agreement was made at a joint steering committee meeting on energy cooperation between Nepal and Bangladesh on June 20 and 21.

This information was shared at a press conference organised here in the Ministry of Energy, Water Resources and Irrigation on Sunday.

On the occasion, Secretary of the Ministry Dinesh Kumar Ghimire informed that the meeting focused on cross-border transmission lines between Nepal and Bangladesh and on Bangladesh's commitment to purchase 500 megawatts of energy produced by the Upper Karnali hydropower project, and decided to endorse the decision related to power efficiency and investment in renewable energy.

The project is being developed by India-based Grandhi Mallikarjuna Rao (GMR) Group.

The date has been extended due to lack of financial management. Final preparation has been nearing completion to turn the agreement into power purchase agreement. Bangladesh has stipulated provision at policy level to purchase around 9,000 megawatt of electricity from Nepal by 2040.

The government of Bangladesh during the visit of Minister for Energy, Water Resources and Irrigation Barshaman Pun in his last visit to Bangladesh in September last year had proposed a joint investment on hydropower projects in Nepal terming electricity to be one of the most essential commodity for Bangladesh.

According to the Joint-Secretary at the Ministry of Energy, Water resources and Irrigation Prabinraja Aryal, agreement was made between the countries for collaboration in the field of renewable energy.

Agreement has been made that that joint technical team from the both country to conduct feasibility study regarding construction of transmission line for a long-haul.

Similarly, Alternative Energy Promotion Centre of Nepal and Sustainable and Renewable Energy Development Authority of Bangladesh have also agreed to collaborate. A mechanism would be made for exchanging experience of Bangladesh in alternative energy sector and biogas of Nepal as well as collaboration in this regard.

Joint-Secretary of the Energy Ministry, Prabin Aryal, and Executive Director of Nepal Electricity Authority, Kul Man Ghising, among others were in the team.

Bangladesh has shown its interest to construct 1,110-MW Sunkoshi II and 536-MW Sunkoshi III hydropower projects.

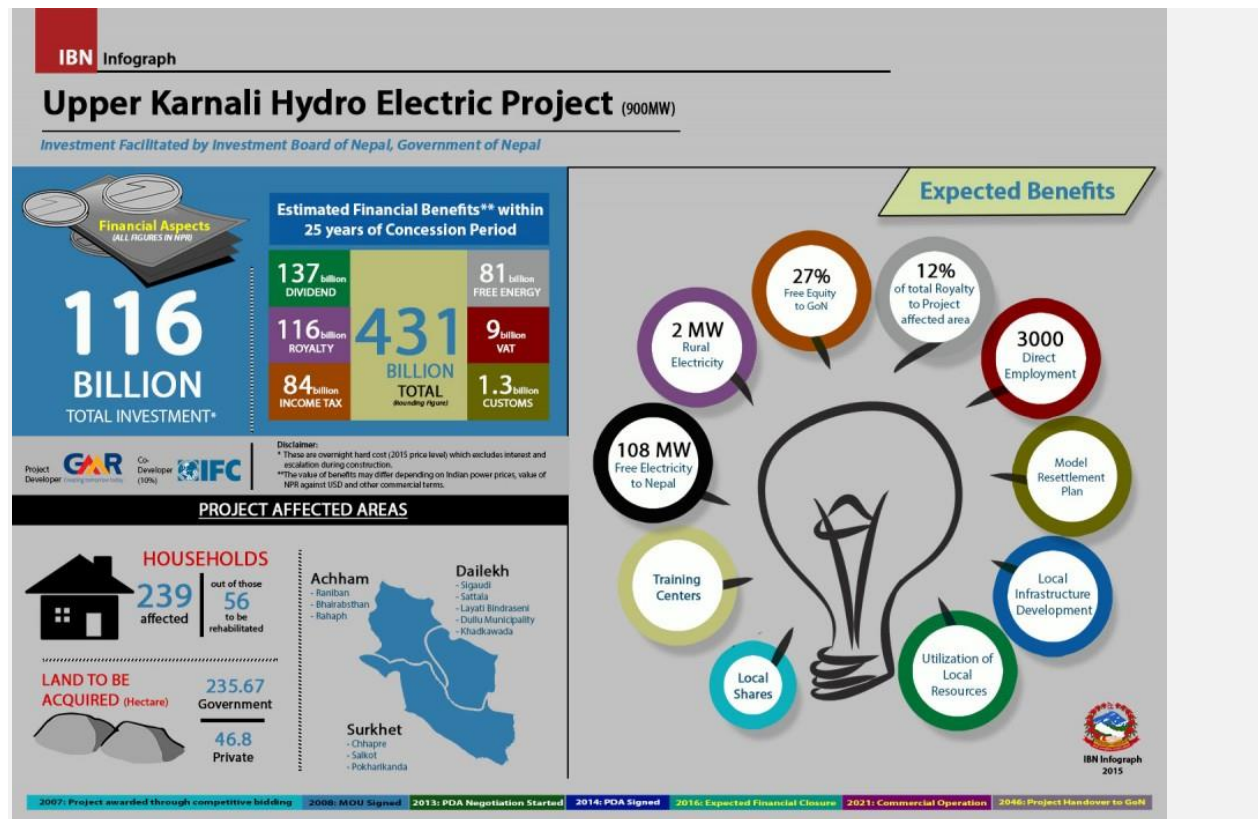
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Source: The Kathmandu Post, June 26, 2019

# Upper Karnali Hydropower Project bogged down in price negotiations

- PRAHLAD RIJAL, Kathmandu



A year after the Post's revelation that Indian company Grandhi Mallikarjuna Rao (GMR), the developer of the 900 MW Upper Karnali hydropower project, offered to sell electricity produced by the plant to Bangladesh at 10 cents per unit, negotiations are still stuck over the power purchase and sales agreement.

A government official who was present at a recent meeting between Bangladeshi and Nepali energy authorities in Cox's Bazar said that the Nepali side unsuccessfully asked for a three-month timeframe to reach an agreement.

“We asked for a deadline to make a deal, but Bangladeshi authorities rejected the idea and said an agreement would be forged soon,” said the official who asked not to be

named. “Our counterparts updated us that multiple negotiations over the tariff had failed to produce results. But they were positive about fixing the rates soon.”

The uncertainty means that the market for the electricity generated by the project is yet to be secured by the developer allowing it to arrange funding for the construction of the plant in western Nepal.

Also, the Nepal Electricity Authority, one of the stakeholders, will have to wait for the 108 MW that it is slated to receive free of cost from the project.

Bangladesh had signed a memorandum of understanding with India’s NTPC Vidyut Vyapar Nigam to import electricity from the Upper Karnali scheme via India during Bangladeshi Prime Minister Sheikh Hasina’s visit to India in April 2017. But the parties have not been able to strike an agreement that will allow the developer to perform financial closure.

Investment Board Nepal, which has already extended the financial closure deadline for the Indian developer twice, has balked at extending it further despite company’s request.

“The company has asked for an extension, but without any significant progress and a favorable environment for the project to move ahead, we are not in a position to extend the deadline,” said Maha Prasad Adhikari, the board’s chief executive officer. “Once the purchase agreement with Bangladesh is fixed, it will be easy for us to extend the financial closure deadline.”

A principal agreement on the commercial terms of the power purchase agreement excluding tariff rates was reached between the Bangladesh Power Development Board and GMR last year, paving the way for GMR to export 500 MW to power-hungry Bangladesh. “But the two parties are yet to finalise and sign a power purchase agreement, probably because of the ‘high rate’ proposed by the developer,” said the official.

The export-oriented Upper Karnali project has a high price tag due to surcharges placed on the use of Nepali and Indian transmission grids. As the developer is

required to relay energy using Nepali and Indian infrastructure, it will have to pay wheeling charges to both Nepal and India. Apart from the charges, the loss of electricity in long distance transmission is also usually high.

Without the Indian developer finding a potential lender to finance the construction of the project, the cross-border trade of electricity from western Nepal to Bangladesh via India is likely to happen later than expected.

Source: My Republica, June 25, 2019

## Minister Pun refutes rumor of handing over Budhi Gandaki hydro project to Gezhoubu

Bipana Thapa

KATHMANDU, June 24: Minister for Energy, Water Resources and Irrigation Barsha Man Pun has clarified that the government has not awarded anyone to construct Budhi Gandaki Hydropower Project.

Minister Pun, while speaking at the meeting of the Federal Parliament on the deliberation on fiscal year budget of the ministry, reiterated that the government has not handed over the project to any companies. Lawmakers from the main opposition Nepali Congress questioned the government for handing over the project to Chinese company Gezhoubu and reminded that the party-led government had decided to construct the project with domestic investment.

Responding to the lawmakers, Minister Pun said that the government had three levels of dialogue with the company five months ago; however, the government has not taken any decision regarding the issue. He refuted the rumors in the media that the government has awarded the project to Gezhoubu for the construction of the hydropower.

He reiterated the government's commitment to using the project of national pride for the benefit of the country. He informed that the budget allocated for the project is only for the distribution of the compensation.

In another context, Minister Pun informed that Nepal is importing five hundred megawatts electricity from India. He, however, maintained that Nepal will be exporting electricity from next year and will be established as a country of fully exporting the electricity within five years.

Source: The Kathmandu Post, June 26, 2019

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PRAHLAD RIJAL

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Without the Indian developer finding a potential lender to finance the construction of the project, the cross-border trade of electricity from western Nepal to Bangladesh via India is likely to happen later than expected.

Source: The Kathmandu Post, June 26, 2019

Source: The Himalayan Times, June 26, 2019

## **'Allow private sector to sell electricity in international market'**

Independent Power Producers' Association, Nepal (IP- PAN) has asked the government to bring a policy allowing the private sector to sell electricity in the international market.

After India and Bangladesh expressed their interest to buy electricity from Nepal, IPPAN has urged the government to allow the private sector players to sell electricity to international consumers. Recently a representative team of IPPAN had visited India for discussions on the probability of regional energy trade.

During the visit, India showed interest to buy 18,000 megawatts of electricity, while Bangladesh expressed interest to purchase 9,000 MW from the private sector, according to IPPAN.

Speaking at a press meet today, Shailendra Guragain, president of IPPAN, said that Indian stakeholders have conveyed a positive response towards the achievement of the Nepali private sector in power generation.

“It became imminent through this visit that Indian market is open for Nepali hydroelectricity,” he said, “The legal provisions of the Indian government for electricity development clearly indicates that Nepal can supply electricity to India as well as to third countries via India.”

Guragain, however, said that there are lots of legal hurdles in Nepal either to sell electricity to India or to other countries. “With existing laws and regulations, we are unable to compete in the international market. Thus, the Nepali government has to hold discussions with Indian government and ensure access for private sector in Indian and third-country markets,” he added.

He further said that after fulfilling the internal demand of electricity, the surplus energy could be supplied to the regional market.

Thus, considering the longterm benefits, the government has to amend the existing policies to make them more contextual, he added.



He further said that the government must hold discussions regarding this issue in upcoming bilateral meetings with the Indian government.

“High-level meetings between the two governments are a must in order to create a conducive environment for the private sector,” he said adding, “The government should bring a precise policy regarding power export and regional trade.”

Meanwhile, highlighting interest of Bangladesh, he said government also has to hold tripartite meeting with India and Bangladesh.

Source: The Rising Nepal, June 28, 2019

## Foundation stone laid for hydro power project

*Surkhet, June 28:* Foundation stone has been laid for the construction of a single megawatt hydropower project at Patarasi rural municipality-1, Gadigaun in Jumla.

Minister for Internal Affairs and Law of Karnali State, Naresh Bhandari laid the foundation stone for the construction of Chukeni Rivulet Small Hydropower Project on Thursday.

The Minister said the power generated from the hydropower would be a boon for remote area people.

The project is being constructed by Chukeni Rivulet Power Cooperative Organization.

"Electricity is the most significant foundation of infrastructure and the hydro project would bring out Jumla from the era of darkness", Bhandari added.

The project is also expected to bring improvements to the economic status of people here, Minister said.

Gor Bahaudr Budha, chairperson of the Chukeni Rivulet Electricity Cooperative Organization, said the project will be constructed at an estimated cost of Rs 470 million.

"We are working in such a way that the project construction will be completed within one and a half years". (RSS)

Source: The Himalayan Times, June 28, 2019

## Successful installation of Penstock pipe in vertical tunnel

Installation of the first penstock pipe was successfully completed in the vertical tunnel of a 456 MW Upper Tamakoshi Hydropower Project at Lamabagar of Bigu Rural Municipality, Dolakha, last evening.

Project spokesperson Ganesh Neupane said Railway Engineering of Contractor Texmaco had installed the pipe weighing nine tonnes in the 310-metre long vertical tunnel. The penstock pipe was installed by a crane with capacity of 35 tonnes. It took two hours to install the penstock pipe in the presence of project chief Dinesh Jung Rana.

In accordance with the latest schedule, the hydro power is slated to produce 76 megawatt power from its first unit by 31 December 2019.

Hydropower Project Chief Executive Officer Bigyan Prasad Shrestha claimed that construction of the project would be completed within the revised deadline.

“One of the most arduous tasks of installing the penstock pipe in the vertical tunnel has been completed,” he added.

Source: The Kathmandu Post, June 28, 2019

## Energy officials lean towards Dudh Koshi Hydroelectric Project

Prahlad Rijal

Daunted by the uncertainty, massive costs and high payout associated with the much-hyped Budhi Gandaki Hydroelectric Project, energy officials have decided to construct the Dudh Koshi Storage Hydroelectric Project, another storage type project with less social impact, first.

A day after Energy Minister Barsha Man Pun met Chinese Ambassador to Nepal Hou Yanqi and sought help from the northern neighbor to arrange funds for the Dudh Koshi scheme, Nepal Electricity Authority officials revealed that they were finalising a detailed design and had updated the feasibility study for the project.

The preparatory studies are nearing completion nearly six years after the Asian Development Bank provided a grant assistance of \$21 million to carry out studies for high priority hydropower schemes including the Dudh Koshi.

The approval of the final design will pave the way for the state-owned power utility to arrange finance and build the power plant located in Okhaldhunga and Khotang districts in eastern Nepal.

As per the draft final design obtained by the Post, the total cost of the project has been estimated at \$1.523 billion excluding taxes and other financial costs.

In 1998, Canadian International Water and Energy Consultants carried out the first feasibility study and suggested generating 300 MW from the plant. In 2013, a review of the feasibility study carried out by the electricity authority upgraded the capacity to 635 MW.

The state-owned power utility, which plans to build the scheme through a subsidiary company, appointed ELC Electro Consult of Italy and NEWJWC Inc of Japan as engineering consultants to the projects in 2016. The consultants recently submitted a draft of the final detailed design.

The updated feasibility study for the Dudh Koshi Storage Hydroelectric Project recommends building a main underground powerhouse near the Sunkoshi River with four units generating 150 MW each and a small 35 MW hydro unit near the toe of the dam.

The dam will be located on the Dudh Koshi River in a gorge nearly 1 kilometre downstream of the confluence of the Dudh Koshi River and the Thotne Khola. The main dam will have a height of 220 metres and hold back 1,581 *cubic megametres* of water.

The reservoir type project will produce 3,443 GWh annually, higher than the expected annual output of 3,383 GWh of the proposed Budhi Gandaki scheme.

The snowmelt-fed Dudh Koshi River originates in the foothills of Mt Everest, allowing the plant to perform efficiently even in the dry season.

The report shows that the social impact of the Dudh Koshi scheme will be less as only 162 households will be severely impacted while 1,150 households will be partially affected.

“Its sound economic performance, as a possible storage hydropower project candidate, is dramatically strengthened by the negligible social impact, limited to a few tens of households,” the report said. “No potentially insurmountable impacts were identified which would necessitate a fundamental alteration of the proposed project design parameters.”

According to Nepal Electricity Authority Managing Director Kulman Ghising, the Dudh Koshi scheme will also be vital for cross-border power trade with neighbouring countries.

“The project will allow us to easily export energy under cross-border agreements, and its development and social costs are reasonable compared to other proposed storage projects,” said Ghising. “The project is also a viable candidate for financing by the government and international institutions including the Asian Development Bank.”

As per the draft detailed design, it will take six years to build the dam and other project structures.

Japanese and Italian consultants have estimated the cost of the civil works at both power houses at \$304.42 million. The estimated spending on the electromechanical works is \$169.73 million. Environmental and social impact mitigation would cost the project \$104.39 million.

The scheme, which is expected to enter the construction phase in 2020, will also build a \$58.31 million high capacity transmission line and two substations which will relay power to the interconnection point at Dhalkebar substation. A 22.3 km double circuit 400 kV line will run from the Sun Koshi River to the Dudh Koshi switchyard and a 90.9 km long line will relay power from Dudh Koshi to Dhalkebar.

The project will also build three access roads running through the Mid-Hill Highway and Dudh Koshi Valley and restore connectivity of three routes in the Thotne Khola and Rawa Khola area.

As per the feasibility study, non-energy benefits of irrigation, increased agricultural yields, improved flood control and tourism development will also be realised by the country.

## **HIGHLIGHTS**

**Cost** (excluding taxes and other costs): \$1.523 billion

**Main Powerhouse:** 600 MW

**Outdoor Powerhouse:** 35 MW

**Annual Output:** 3443 GWh

**Affected households:** 1150 (162 severe impact)

**Estimated Construction Period:** 7 years

**Expected Construction Start:** 2020

**Transmission lines:** 113.2 km double circuit 400 kV from Sun Koshi to Dhalkebar

**Non-Energy Benefits:** Irrigation, fishery prospects, flood control and tourism