Source: My Republica; April 7, 2019

# Bheri-Babai tunnel completed before deadline, within allocated budget

#### RUDRA KHADKA

KATHMANDU, April 7: At a time when almost all major development projects are plagued by persistent delays, the story of Bheri-Babai Diversion Multipurpose Project is going to be somewhat different.

The construction of 12.2-kilometer long tunnel, a major component of the national pride project, is almost complete, a year before the deadline and within the allocated budget.

The project had set a deadline of two and a half years for the construction of the tunnel by allocating a budget of Rs 10.56 billion. According to project officials, it took only 17 months for the construction of the tunnel.

Krishna Prasad Upadhyay, information officer of the project, said that construction of only two meters of the tunnel is left now.

As Prime Minister KP Sharma Oli is scheduled to inaugurate the tunnel in the first week of Baisakh (mid-April), digging of approximately two meters of tunnel has been left before the event, said Upadhyay.

Experts say that the construction of other development projects of the country can gain momentum if they follow the determination shown in the tunnel work of the Bheri-Babai project. They also say that the headwork and other construction works should also move on at the same pace.

Under this project, a dam will be constructed at Chiple of Surkhet to divert the water of Bheri River and generate hydro electricity by building a powerhouse at Hattikhola. Nearly 51,000 hectares of land in Bardiya and Banke districts is estimated to get irrigation facility from this multipurpose project that will also generate 48 megawatt of electricity. Tunnel boring machine was used for the first time in Nepal to construct the tunnel in this mega project.

Project staffers attribute the use of technology to the early completion of work. The tunnel boring machine could be used for other development projects as well after the completion of the Bheri Babai tunnel, according to them.

The Chinese contractor, China Overseas Engineering Group (COVEC), was the contractor for the construction of the tunnel. The project has already paid nearly Rs 7 billion to the contractor, according to Upadhyay. "The payment for the construction of some sections of the tunnel is still due. Still, the spending on the construction of the tunnel will not go beyond the limit of the allocated budget," he added.

PREPARATION TO UTILIZE TUNNEL

The project is mulling to release water through the tunnel during the winter season to

utilize the tunnel and provide irrigation facility even before the entire project is completed. As it will take few more years for completion, the project management is studying the possibility of releasing water through the tunnel to provide irrigation facility in Bardiya district, according to Upadhyay.

The remaining works include headworks, hydro-mechanical works, electro mechanical works, and construction of powerhouse. The project is projected to be complete by Fiscal Year 2022/23. According to Upadhyay, the project is planning to release water at the rate of 8 to 10 cubic meters per second (cusecs) through the tunnel during the winter season. The tunnel has a capacity of 40 cusecs. The project's estimated cost is Rs 33.19 billion.

Source: The Himalayan Times; April 5, 2019

### Bheri Babai Project: One step forward, two steps back

Works at Bheri Babai Diversion Multipurpose Project (BBDMP) will come to a halt for at least three months after excavation of a crucial tunnel, as the project office has not initiated procurement process to commence other pending works.

BBDMP is a national pride project, which will provide irrigation facility to 51,000 hectares of land in Banke and Bardia districts by channelling water from Bheri River to Babai River. The 33.09-billion-rupee project will also produce 48 megawatts of electricity.

Many have heaped praise on the project for completing construction of a crucial tunnel ahead of schedule, which is rare in Nepal's physical infrastructure development sector.

Construction of the 12,210-metre tunnel began in October 2016. A Tunnel Boring Machine was used for the first time in Nepal to excavate the tunnel. The project had been given a March 2020 deadline to complete the tunnel construction work. As of now, work on 12,208-metre segment has been completed, meaning only two metres of tunnel need to be excavated. The remaining work is expected to be completed within mid-April.

"We are planning to invite Prime Minister KP Sharma Oli to inaugurate the tunnel," said BBDMP Director Sanjeeb Baral.

Early completion of this work, however, may not mean the entire project would be completed ahead of schedule, because procurement process has not been initiated to conduct other works.

Tunnel construction constitutes only 28.7 per cent of the entire project work. The major work is related to civil construction, which includes completion of headwork and construction of surge shaft and power house. Also, land needs to be acquired to build irrigation channel and power house for which environmental impact assessment must be conducted. The project also needs to complete hydro-mechanical and electromechanical works and build a transmission line.

"It will take at least three months to prepare documents required to float tender notice," said Baral.

So why did the project office fail to initiate these works early on although it was aware that tunnel construction work would be completed ahead of schedule due to use of tunnel boring machine?

"Considering the topography, we thought even the tunnel boring machine would take longer time to excavate the tunnel. We got it wrong because this was the first time Nepal had ever used the machine," said Baral, adding, "We are now planning to float tender notice early next fiscal year and complete the project by fiscal year 2022-23."

Source: My Republica; April 8, 2019

### **Upper Naugarh to start power generation by mid-May**

#### PREM CHUNARA

DARCHULA, April 8: Upper Naugarh Gad Small Hydroelectric Project (8 MW) of Darchula is starting power generation by mid-May.

Construction of the project is at the last stage, according to the project management. "We had to revise our generation deadline by a month from mid-May as construction work was affected by floods in August last year," Madhusudan Koirala, in-charge of the project, told Republica.

"As per the work plan, first unit of 4 megawatts will start generation by mid-May, while the second unit of similar capacity will be ready a month later."

The project is located in Naugad Rural Municipality of Darchula district.

"We have already installed penstock pipes in the powerhouse. Similarly, works on fixing machine and surge tank are underway," said Koirala.

The power generated by the plant will be connected to the national grid through the substation of the Nepal Electricity Authority (NEA) in Balanch of Shailya Shikhar Municipality-1.

The power developer has already built 9-kilometer 33 kV transmission line to connect to the substation.

The hydropower project is being developed by Api Power Company Ltd. The estimated cost of the project is about Rs 1.44 billion.

Api Power Company Ltd has already built 8.5-megawatt Naugad I Hydropower Project in Shailya Sikhar Municipality on the district.

The company is also preparing to build Upper Chamelia Hydropower Project (40 MW) in Marma Rural municipality in Darchula district.

Source: My Republica; April 8, 2019

### Work resumes in Koshi Corridor

KATHMANDU, April 8: Work on Koshi Corridor Transmission Line has resumed after the Nepal Electricity Authority (NEA) has resolved differences with the locals of Dharan Sub-Metropolitan

City.

According to officials of the power utility, the local unit now has no objection over building transmission line on the route finalized by the NEA.

Work to erect 17 pylons was affected for over five months after Dharan Sub-Metropolitan City Office asked the NEA to avoid the Bishnupaduka route, arguing that it has tourism prospects.

Bishnupaduka lies in Ward 20 of the sub-metropolis.

Talking to Republica, Rajan Dhakal, project manager of Koshi Corridor Transmission Line Project, said that work on the project will begin at the earliest. "The local unit has told us that we can build the transmission line as per the original plan," he added.

The delay in construction of transmission line had left many independent power producers (IPPs) worried as there was the risk of power generated by their projects located in the Koshi corridor going to waste. These include projects having combined capacity of 550 MW in Bhojpur alone.

Though the NEA compensates them for the loss due to delay in construction of transmission line, it is too low compared to their projected earnings.

Many political leaders and lawmakers as well as Chief Minister of Province 1, Sher Dhan Rai, had taken initiative to resolve the issue. But it took months to resolve it.

Chief Minister Rai had formed a panel under Chief District Officer of Sunsari Prem Prakash Upreti to look into the issue and suggest options to avoid the Bishnupaduka route. But the panel concluded that there was no other viable route to build the transmission line. It also concluded that the transmission line won't make negative impact on tourism potentials of Bishnupaduka as claimed by the sub-metropolis.

Similarly, it also told the provincial government that any delay in construction of transmission line would affect hydropower projects under construction in the Koshi corridor.

The NEA also argued that the route was selected as per detailed project report which was prepared after taking into consideration several issues.

Few political leaders, who were member of the panel, however, refused to sign the panel's report, according to NEA officials.

NEA's Managing Director Kulman Ghising had been arguing that change of route was impossible as it would take a long time to complete environment impact assessment and feasibility study.

NEA has already signed agreement to purchase power of 28 projects having combined capacity of 550 MW. These projects are in different stages of development.

The NEA is building transmission line using soft loan of Exim Bank of India. It connects Sankhuwasabha with Sunsari passing through Terhathum and Dhankuta districts.

Along with protest by Dharan sub-metropolis, the project also suffered delay in cutting down of trees to clear the project's right of way.

Source: The Himalayan Times; April 8, 2019

# Construction of Koshi Corridor transmission line resumes

The Dharan sub-metropolis and locals have agreed not to raise any further obstacles during the construction of the Koshi Corridor transmission line, which has been halted since the last five months.

The Dharan sub-metropolis had obstructed the construction work of Koshi Corridor transmission line — the transmission line corridor from Inaruwa to Taplejung — claiming that the double-circuit 220 kVA line will damage the potential of paragliding from Chundanda.

It had also raised concerns related to the cutting down of trees that lie along the path of the corridor. The local body is also not happy that the 105-kmlong line passes through Gorkha Park.

The local body had blamed Nepal Electricity Authority for disrupting tourism activities in the region and local community forest societies had also objected to the construction of the project as approximately 9,000 trees along the corridor will have to be cut down.

According to NEA, the Dharan sub-metropolis, locals and community forest societies of Sunsari district have agreed to the construction of the double-circuit transmission line.

Kul Man Ghising, managing director of NEA, said that the local body along with affected locals had agreed to the construction of the transmission line after the government pledged that it would help promote community based development programmes in the affected areas.

Meanwhile, to resolve the aforementioned problem, Chief Minister of Province 1 Sherdhan Rai, had taken the initiative to coordinate with the related local bodies. A meeting between the local body, engineers, contractors, affected local committees, consultant company and members of local political parties have signed an agreement not to halt construction works. The corridor passes through five districts including Taplejung, Sankhuwasabha, Tehrathum, Dhankuta and Sunsari.

Ghising further said that the power utility is committed to meeting the deadline to complete the construction of the Koshi Corridor transmission line within 15 months to ensure that electricity that is generated by various hydropower projects being built along the corridor can be connected to the national grid.

As per NEA, the 51-megawatt Mewa Khola hydropower project and 15MW Maya Khola project that are being constructed by independent power producers will come into operation in the next 18 months.

According to NEA, if there is delay in completing the Koshi Corridor transmission line then 510 megawatts of electricity will go to waste. Moreover, NEA has already signed Power Purchase Agreements to purchase nearly 1,000 megawatts of electricity from various hydropower projects being built along corridor.

Forces behind lenghty power cuts trying to weaken

me: Ghising

KATHMANDU, April 9: Nepal Electricity Authority (NEA) Managing Director Kulman

Ghising on Monday said that certain forces, which forced people to live without

electricity for as long as 16 hours a day for over a decade, were trying to weaken him.

Organizing a press meet in Kathmandu, Ghising, who has received accolades from all

quarters for eliminating load-shedding in 2016, said he was feeling insecure at work

because of these forces. "We are dedicated toward effective service delivery. We are

active round the clock. But some people are spreading rumors against us," Ghising

said.

The NEA was suffering a loss of around Rs 9 billion a year when Ghising assumed

office in 2016. It was under Ghising's able leadership that the loss-making power utility

made a remarkable turnaround in its fortune, logging profit in Fiscal Year 2017/18.

Ghising neither elaborated on rumors against him, nor divulged details of the forces

behind such rumors. Sources at NEA, however, said Ghising was referring to 'planted'

news reports and campaigns against him in social media.

Meanwhile, NEA has said that it was positive about revise tariff of electricity supplied

through dedicated feeders. Issuing a statement, NEA said that tariff revision is

necessary as all power supply is dedicated now.

This is the second time that Ghising organized a press meet to tell media persons about

the campaign to weaken him. In 2017, he choked during the press meet after he was

accused of irregularities in while trying to import energy-efficient LED bulbs for managing effective power supply.

The plan to distribute energy-efficient LED bulbs to consumers was dropped later on after the procurement process fell into controversy.

Distributors of inverters and generator were reportedly against the plan to import cheaper but efficient LED bulbs from the Government of India to reduce electricity consumption. NEA had planned to supply the bulbs at Rs 150 per unit which was far lower than the market price which hovered around Rs 400 per unit.

NEA had said at that time that use of LED bulbs would reduce household power consumption by about 100 MW.

Source: The Himalayan Times; April 9, 2019

# Sanjen, Rasuwagadi hydels to issue public shares from April 19

The Ministry of Energy, Water Resources and Irrigation (MoE- WRI) has said that the Sanjen and Rasuwagadi hydropower projects will be issuing shares to the public under the second phase of the government's flagship programme titled 'Nepal's Water, People's Investment' from April 19.

The government had included the 42.5-megawatt Sanjen, 14.8MW Upper Sanjen and 111MW Rasuwagadi hydropower projects in the programme on April 2.

The meeting of the programme's coordination committee then had also decided to issue an extra 15.4 million units of shares for both the projects.

The ministry has said that the Sanjen and Upper Sanjen hydropower projects will issue 5.47 million units and the remaining 9.93 million units be issued by Rasuwagadi hydel project.

Sanjen has completed 70 per cent of construction works, Upper Sanjen has completed 77 per cent and Rasuwagadi has completed 71 per cent of works.

The projects are being developed by subsidiary companies of Nepal Electricity Authority — Rasuwagadi Hydropower Company Ltd and Sanjen Jalavidyut Company Ltd.

Minister for Energy, Water Resources and Irrigation Barsha Man Pun has said that the government's flagship programme will increase people's stake in hydropower shares as per the government's plan to provide hydropower shares to every Nepali.

The government had launched the 'Nepal's Water, People's Investment' programme on February 13 with an aim to raise Rs 102.3 billion through equity shares from the public to build over 19 hydropower projects.

The programme aims to generate 3,479 megawatts of electricity by investing Rs 698.8 billion in 19 hydropower projects by 2028.

As per the government's energy plan, the government had earlier issued shares of the 37MW Upper Trishuli III B hydropower project located in Nuwakot district.

"The government has selected the projects whose rate of return is good. It will help the respective projects to collect necessary funds," Minister Pun stated.

Source: The Kathmandu Post; April 11, 2019

## Restoration of power poles to take a month

The reconstruction of the storm-ravaged 66 kVA double-circuit Parwanipur-Birgunj and 33 kVA Birgunj-Kalaiya transmission lines is expected to take at least a month, the Nepal Electricity Authority said.

The power utility said that it was still assessing the details of the extent of the damage caused by the rainstorm in Bara and Parsa. Many electricity pylons need to be reinstalled, and it can take up to two months, the utility said.

Around 1,500 power poles were knocked down by the rainstorm causing damage estimated at Rs150 million, the electricity authority said.

Source: The Kathmandu Post; April 11, 2019

## Electricity tariffs to be slashed for industrial users

- PRAHLAD RIJAL

Nepal is poised to produce surplus energy from the next fiscal year, and the Nepal Electricity Authority has started work to revise electricity tariffs in a bid to encourage industrial utilisation of the increased output. The power utility plans to offer electricity at a discount to factories when power demand goes down, particularly during nighttime hours, authority officials said.

The Nepal Electricity Regulatory Commission will set the tariff and implement it, said Kul Man Ghising, managing director of the state-owned power utility, but the government is yet to appoint its office bearers. The commission was established as a powerful body to oversee the country's energy sector and fix tariffs. Parliament passed legislation setting up the commission more than a year ago, but it remains immobilised due to lack of officials.

As per current tariffs, the government charges Rs8.50 per unit for average household energy consumption of 31 to 50 units. Industrial tariffs have been set in line with the voltage required-Rs7.50, Rs8.60 and Rs7.80 per unit--for high, medium and low voltages respectively for rural and domestic industries.

The move to revise the tariff follows expectations that electricity generation will exceed demand during the monsoon season after the completion of a number of projects including the 456 MW Upper Tamakoshi Hydropower Project in Dolakha. "As we need to manage the excess energy, a change in the tariff structure is the best option to encourage industries to utilise power during the nighttime hours at a concessional rate," he said.

Nepal's electricity output is slated to double in the next fiscal year 2019-20 when another 983 MW will be fed into the national grid, the Energy Ministry said. The expected increase in energy generation is almost equal to the current maximum annual production of 1,027 MW.

The country's electricity requirement totals 1,200 MW, and with a bevy of power plants poised to churn out more than 2,200 MW from next year, the bad old days of load-shedding will be permanently gone, according to analysts.

Energy Secretary Dinesh Kumar Ghimire recently told the parliamentary Finance Committee that 23 projects, including the 456 MW Upper Tamakoshi, were on track to come into operation by the next fiscal year and produce 983 MW. The Upper Tamakoshi is expected to come online by November and will fulfil Nepal's energy requirement during the dry season.

This fiscal year, 18 privately funded hydropower projects are scheduled to roar into life. According to the ministry, 287 MW will be added to the national grid by this fiscal year ending mid-July. This energy will come from the 60 MW Upper Trishuli 3A, 14 MW Kulekhani-3 and 22 MW Bagmati Hydroelectric and other projects. Three plants have already entered the testing phase.

Apart from the electricity authority's plan to curb surplus electricity spillage, Nepal and India have also recently agreed to set up an energy banking mechanism under which Nepal can send surplus electricity to India.

Source: The Rising Nepal; April 12, 2019

### Study suggests taking measures to save fish

#### By A Staff Reporter

Kathmandu, Apr. 12: The Asian Development Bank (ADB) stressed special measures in hydro and irrigation projects in Nepal to arrest rapidly declining fish stocks in rivers of Nepal.

According to a new ADB study, 'The Impact of Dams on Fish in the Rivers of Nepal', published by ADB assessed the impact of projects, including the construction of dams on aquatic biodiversity and came up with several recommendations to save fish population in the rivers of Nepal.

"Early findings of this study suggest that the fish population in river basins with dams is in sharp decline," said Deepak Bahadur Singh, ADB's Senior Environment Officer and co-author of the study. "Some technical considerations; while building dams or other such projects can go a long way in saving the fish population. Providing a fish ladder, building a fish passage, and a fish bypass channel, are some examples."

In addition, breeding fish in hatcheries and annually releasing them upstream and downstream of the dam to maintain their populations could also be effective, says the study.

The study also recommends a "fish screening framework" for identifying the scale of impact on fish by a development project and adopting typical mitigation measures.

The study assessed the operation of selected hydropower and irrigation systems with dams to divert water. The systems included the Kali Gandaki, Marshyangdi, Middle Marshyangdi, Kulekhani, Khimti, and Trishuli hydropower projects, and the Babai irrigation project. The study also reviewed international good practices, particularly in South Asia, on mitigating the impacts on fish while constructing projects with dams on rivers.

The study suggests that effective regional cooperation between Bangladesh, India, and Nepal could help conserve the valuable and threatened aquatic fauna by ensuring the animals' trans boundary movements for feeding and reproduction.

"We hope, this study will open the door for more discussion and extensive research on this important topic," said Mukhtor Khamudkhanov, ADB's Country Director for Nepal.

The study was jointly authored by Singh and Deep Bahadur Swar, senior fisheries expert.