

Nepal

Advancing Green Growth in Nepal through Electric Mobility



GGGI in Nepal: Integrating the first set of electric buses in Kathmandu for eco-mobility © BYD

In 2018, Nepal took great steps to roll out Kathmandu's first fleet of electric buses and drive the way toward cleaner, greener public transport.

Twelve-year-old Ubhisha Khatri—a fifth-grade student in the Nepali capital—gives reasons for wanting to ride an electric bus to school: *“There is no smoke when the electric bus runs, and I do not have to wear a mask every day.”* She is one of the millions of public transport users across Nepal who struggle through dust, soot, and black smoke on their daily commute.

Across Nepal's cities, air pollution is causing serious health issues, with pollutants from fossil fuel-powered vehicles being a major contributor to poor air quality.

“Electric mobility will allow us to reduce local air pollutants,” said Bishwa Nath Oli, secretary at the Ministry of Forests and Environment.

Nepal's new electric buses will help the government fulfill its commitment under the country's Nationally Determined

Contribution, which sets targets for air quality and electric vehicle adoption. A collaborative effort by the Ministry of Forests and Environment, Ministry of Physical Infrastructure and Transport, and Global Green Growth Institute (GGGI) led to the launching of Nepal's first National Action Plan for Electric Mobility—a road map for achieving the NDC targets. The National Action Plan, which recommended the establishment of a fund, unit, and program for electric mobility, was launched by Prime Minister K.P. Sharma Oli.

“Greenhouse gas emissions in Nepal are closely correlated with the transport sector,” said Oli. *“As the number of vehicles in Nepal increases, so do our GHG emissions. Therefore, switching to electric transport is a key component of our Nationally Determined Contribution [to the Paris Agreement], as it allows us to reduce GHG emissions in that sector.”*

Sajha Yatayat, Nepal's largest public bus operator, is in the process of procuring and deploying electric buses and, over the long-term, greening its entire fleet and operations. The inaugural buses expected for 2019 will be the first of an eventual fleet of 71 electric buses that the operator plans to roll out over the next five years.

The business decision Sajha Yatayat made to begin transitioning its fleet was backstopped by a GGGI feasibility study that mapped the financial, technical, and operational viability of deploying electric buses on the operator's existing routes.

"Sajha Yatayat has long set the standard for bus operators here," stated Rowan Fraser, GGGI's country representative in Nepal. *"Going electric is an excellent next step for them. If we can manage the higher upfront costs, then the operational, strategic, and financial benefits are considerable. Going electric also contributes to a range of Sustainable Development Goals."*

Bhushan Tuladhar, Sajha Yatayat's executive director, said the buses are not only a step toward providing the country with pollution-free, sustainable travel but also a milestone in the paradigm shift to cleaner energy.

"At this point, most of our own energy production is hydropower. So, by shifting to electric vehicles, we can not only use the clean energy that we produce but also save as much as 80% on fuel costs. So, it's win-win," explained Tuladhar.

However, Nepal does not currently subsidize clean energy, which is a challenge for business owners as well as investors.

"We are lobbying the government to sell us surplus power—especially power produced at night—at a subsidized rate. We are also urging the government to invest the money collected as pollution tax from fossil fuel users into electric transport. If this can be done, the cost of transportation would come down significantly," Tuladhar added.

Beyond providing policy advisory services at the federal level, such as developing the National Action Plan for Electric Mobility, GGGI in Nepal is also supporting investment. The institute is working with Sajha Yatayat to specify, procure, and deploy electric buses and establish charging regimes.

"We are now asking GGGI to monitor and study vehicle performance and assess the tendering policy of our neighbors. For example, India is demanding that 60% of equipment in a clean transport project be bought from local businesses. In Nepal, we can't ask that. So, what is the implication of a tender such as this for us? We are asking GGGI to help us find that and more," said Tuladhar.



GGGI in Nepal: Lowering GHG emissions and transitioning to clean energy