

Environment Versus Economy: Nepal's Dilemma with Electric Vehicles

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Summary

Nepal has set a very high target of replacing conventional vehicles by electric vehicles to achieve its high ambition of net-zero greenhouse gas emissions by 2045. Given the structure of Nepal's revenue basket, a rapid switch from conventional to electric vehicles (EVs) might substantially reduce Nepal's revenue. Hence, Nepal needs to find the right balance between its revenue collection and the transition to EVs.

At the 28th United Nations (UN) Climate Change Conference (COP28), Nepal's Prime Minister, Pushpa Kamal Dahal, [reiterated](#) Nepal's commitment of achieving net-zero greenhouse gas (GHG) emissions by 2045. Nepal had made this pledge in its ['Long-term Strategy for Net-zero Emissions'](#) that it unveiled in 2021. The ['Second Nationally Determined Contribution'](#) (NDC) that Nepal submitted to the UN Framework Convention on Climate Change in December 2020 had mentioned Kathmandu's then-ongoing preparation of the long-term strategy that would have a goal of achieving net-zero emissions by 2050. When finalising the long-term strategy, for some reason, Nepal's ambition to achieve net-zero emissions was brought forward by five years than had been initially planned.

Nepal's Second NDC has identified several strategies in different sectors for the gradual reduction of GHG emissions. In the transport sector, the strategies in relation to electric vehicles (EVs) are to ensure that:

1. In 2025, of the total sales of vehicles, 25 per cent of all private passenger vehicles and 20 per cent of all public passenger vehicles (excluding electric rickshaws and electric tempos) will be EVs; and
2. By 2030, sales of EVs will be increased to cover 90 per cent of all private passenger vehicle sales, including two-wheelers, and 60 per cent of all public passenger vehicle sales (excluding electric rickshaws and electric tempos). If these targets are met by 2030, then, by 2045, there could be a complete switch to electricity from fossil fuels in the road transportation sector in Nepal, which could contribute to Nepal's ambition of net-zero emissions by its stated deadline.

All kinds of vehicles, their accessories and the fuel required to run the conventional vehicles are imported into Nepal. Customs duties on conventional vehicles, particularly those used for private passenger transport, are as high as [80 per cent in Nepal](#). When excise duty and value added tax (VAT) are added to the customs duty, the total import tax on conventional private passenger vehicles reaches a maximum of 317 per cent. This has not discouraged the import of conventional vehicles into Nepal. Instead, huge imports of such vehicles, and high import taxes levied on them, have generated [significant revenue](#) for Nepal. In the past

decade, revenue collected from the import of vehicles and their accessories into Nepal constituted about one-fifth to one-third of the country's total customs revenue. In addition, revenue collected from the import of petroleum products (also used by other industries) has been equally high. Thus, over the past decade, Nepal's customs revenue collected from the import of vehicles, their accessories and petroleum products contributed to about 40-46 per cent of the country's total customs revenue.

Despite such importance of customs revenue generated from the import of conventional vehicles, Nepal has been encouraging the import and sale of EVs by imposing low duty rates. In FY2021-22, customs duties on EVs were in the range of 10-40 per cent, with no imposition of excise duty. The total import taxes on EVs, with 13 per cent VAT, ranged from 24.3 per cent to 58.2 per cent, which were significantly lower than the import taxes on conventional vehicles. As a result, prices of comparable conventional vehicles and EVs were almost similar in the Nepali market, unlike in many countries, such as India, where EVs are more expensive than conventional vehicles. Hence, from a price perspective, Nepali consumers' choices have been EVs over conventional vehicles, although [the lack of adequate infrastructure](#) for EVs have made them a bit hesitant in picking EVs over conventional vehicles.

While Nepal government's policies on EVs have been hailed by many, particularly environmentalists and climate activists, there are also concerns about the country's potential revenue loss. This is a reason that, in FY2022-23, there was an upward revision in the customs duty and introduction of different rates of excise duties on EVs having motor capacities above 100 kilowatts (kw). In the current financial year, this has been further revised to slightly increase the customs duty and to also impose excise duty on EVs with motor capacities between 50kw and 100kw. Yet, the total import taxes on EVs that are most commonly sold in the Nepali market are still substantially lower than those on comparable conventional vehicles.

With [the progress](#) being made in EV infrastructure development, there is [an increasing trend](#) in the sales of EVs in Nepal, and it appears this will grow further in the days ahead. Despite this, Nepal might not achieve its targets on EVs it has set in the Second NDC. At the same time, with the anticipated gradual decline in the import of conventional vehicles and petroleum products, Nepal might see reductions in its customs revenue, and, consequently, its total revenue. Thus, Nepal's government seems to be in a dilemma.

Finding the right balance between the promotion of EVs and arresting the loss of revenue is urgent for Nepal. It has been trying to find this balance through the maximum utilisation of hydroelectricity, the production of which has progressed well in the country in [recent years](#). The outlook for Nepal's enhanced hydropower generation is also positive. It remains to be seen whether hydropower can be the lever in balancing Nepal's economy and the environment.

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