

Unleashing the ropeways

Indians are not unfamiliar with ropeways. Many domestic locations provide their own special appeal. These include the Gulmarg Gondola, the Auli cable car in Uttarakhand, the ropeways at Dhuandhar in Madhya Pradesh, Karni Mata in Udaipur, Girnar in Gujarat, Raigad in Maharashtra, Malampuzha in Kerala, and the Darjeeling and Gangtok ropeways, and many others. Views of coal moving in strung overhead buckets are also familiar.

But it is ever since the finance minister's pointed reference in her Budget speech on February 1 that the spotlight has turned to ropeways, not merely as tourist attractions, but as transportation solutions. This is what she had to say: "Parvatmala, or the National Ropeways Development Programme, is a preferred ecologically sustainable alternative to conventional roads in difficult hilly areas. It will be taken up in PPP (public-private partnership) mode. The aim is to improve connectivity and convenience for commuters, besides promoting tourism. This may also cover congested urban areas, where a conventional mass transit system is not feasible. Contracts for eight ropeway projects for a length of 60 km will be awarded in 2022-23."

It is noteworthy that the government's vision of "ropeways as transportation solutions" covers congested urban areas and river-crossings too.

On urban connectivity, getting acclaim internationally is Colombia's largest public works project — the new mass transit cable car service in the capital city of Bogota. Inaugurated on December 27, 2018, it connects high points of two of the city's low-income neighbourhoods. It is able to transport 3,600 passengers per hour and benefits 700,000 residents who are now able to make a trip in 10 minutes that earlier took 60-90 minutes.

On river-crossings, India has its iconic project across the Brahmaputra river. In the summer of 2020, a 1.8 km ropeway was commissioned, making it the longest river ropeway in the country. Thousands of

people commute every day between Guwahati and North Guwahati. The ropeway enables travel in 10 minutes — a journey that otherwise takes 45 minutes by ferry, or over an hour by road. As a bonus, it also offers breathtaking views of the Brahmaputra and its surroundings!

Passenger ropeways are classified according to their operational characteristics. The more common forms are aerial tramways, gondolas, funiculars, and chair lifts. As a transportation alternative, they present clear advantages, with reference to specific terrains. They result in lower land acquisition costs, are environmentally friendly and contrary to popular belief, can handle volumes. A robust ropeway can carry up to 10,000 passengers an hour — the equivalent of 200 busloads. Ropeways can handle steep gradients. Where a road or railroad needs switchbacks or tunnels, a ropeway can negotiate the same in a straight line. In urban settings, the fact that only narrow-based vertical supports are needed at intervals, leaving the rest of the ground free, makes it possible for ropeways to be constructed in built-up areas and in places where there is intense competition for land use.

The Ministry of Road Transport and Highways (MoRTH) has been

made responsible for the development of ropeways and alternative mobility solutions. It thus now has the responsibility for crafting a regulatory regime for the sector, including issues related to choice of technology, safety and operational guidelines. Within MoRTH, an in-house subsidiary, the National Highways Logistics Management Ltd (NHLML), has been assigned to undertake all the work related to the development of ropeways. It is understood from MoRTH sources that following the FM's Budget announcement, the ropeways market has been buzzing. Proposals have been pouring in from different parts of the country — including from the state governments of Himachal Pradesh, Manipur, Arunachal Pradesh, Sikkim, Maharashtra,

and Jammu and Kashmir. Seven projects in Uttarakhand have been identified and a Memorandum of Understanding (MoU) has been signed with the Uttarakhand Tourism Development Board. In May 2022, NHLML, invited bids for the first ropeway project for city commuters in India. It is the 3.8-km ropeway link connecting Varanasi's Cantonment railway station and Godowlia Chowk, to be developed with an investment of ₹461 crore, under the "hybrid annuity model."

Safety is paramount. The Union home ministry issued an advisory to all states in April in the wake of a ropeway accident that happened in Deoghar district of Jharkhand. The ministry has stressed the need to have detailed standard operating procedures and a contingency plan on ropeway operations to prevent the occurrence of any such incidents in future. Internationally, the ropeways industry is dominated by EU companies, which account for 90 per cent of the industry worldwide. The EU has specific safety legislation in place.

It is expected that with an emphasis on "Atmanirbharta", India's existing ropeway manufacturers and developers — who have been relatively unrecognised, will now get an opportunity to scale up and emerge as key players in a global context. A key development has been the MoU signed between WAPCOS and Doppelmayr for providing end-to-end solutions for passenger ropeway projects. WAPCOS is a leading engineering consultancy of the Government of India and Doppelmayr of Austria is the world's largest ropeway manufacturer with more than 15,000 ropeway installations across the world. Many more such collaborations are expected now.

Union transport minister Nitin Gadkari is well-known for his innovative ideas, and he has been advocating the development of ropeways and alternative mobilities for quite some time. With MoRTH now duly empowered under his leadership to craft this new transportation market, India should be in for some exciting times on ropeways.



INFRATALK

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