

Parvatmala Scheme

For Prelims: Parvatmala Scheme, Ropeway.

For Mains: Significance of Parvatmala Scheme and Benefits of Ropeways.

Why in News?

Recently, the Union Finance Minister in the <u>Union Budget for 2022-23</u> announced **National Ropeways Development Programme - "Parvatmala"** to improve connectivity in hilly areas.

What is the Scheme?

- The scheme will be taken up on PPP (Public Private Partnership) mode, which will be a preferred ecologically sustainable alternative in place of conventional roads in difficult hilly areas.
- The idea is to improve connectivity and convenience for commuters, besides promoting tourism.
- This may also cover congested urban areas, where conventional mass transit systems are not feasible.
- The scheme is being presently started in regions like Uttarakhand, Himachal Pradesh, Manipur, Jammu & Kashmir and the other North Eastern states.
- The Finance Minister announced that contracts for 8 ropeway projects for a length of 60 km would be awarded in 2022-23.

Who is the Nodal Ministry?

- The Ministry of Road Transport and Highways (MORTH) will have responsibility for development of ropeway and alternative mobility solutions technology, as well as construction, research, and policy in this area.
- In February 2021, the Government of India (Allocation of Business) Rules 1961 was amended, which enabled the MORTH to also look after the development of Ropeways and Alternate Mobility Solutions.
 - The move will give a boost to the sector by setting up a regulatory regime.
 - The MORTH has so far been responsible for development of Highways and regulating the road transport sector across the country.

What is the Significance?

- Economical mode of transportation:
 - Given that ropeway projects are built in a straight line over a hilly terrain, it also results in lower land acquisition costs.
 - Hence, despite having a higher cost of construction per km than roadways, ropeway projects' construction cost may happen to be more economical than roadways.
- Faster mode of transportation:

 Owing to the aerial mode of transportation, ropeways have an advantage over roadway projects where ropeways can be built in a straight line, over a hilly terrain.

Environmentally friendly:

• Low dust emissions. Material containers can be designed so as to rule out any soiling of the environment.

Last mile connectivity:

• Ropeway projects adopting 3S (a kind of cable car system) or equivalent technologies can transport 6000-8000 passengers per hour.

What are the Benefits of Ropeways?

Ideal for difficult / challenging / sensitive terrain:

- **Long rope spans:** The system crosses obstacles like rivers, buildings, ravines, or roads without a problem.
- Ropes guided over towers: Low space requirements on the ground, and no barrier for humans or animals.

• Economy:

- Ropeway having multiple cars propelled by a single power-plant and drive mechanism.
- This reduces both construction and maintenance costs.
- The use of a single operator for an entire ropeway is a further saving, in labor cost.
- On level ground, the cost of ropeways is competitive with narrow-gauge railroads, in the mountains the ropeway is far superior.

Flexible:

 Transport of different materials - A ropeway allows for the simultaneous transport of different types of material.

Ability to handle large slopes:

- Ropeways and cableways (cable cranes) can handle large slopes and large differences in elevation.
- Where a road or railroad needs switchbacks or tunnels, a ropeway travels straight up and down the fall line. The old cliff railways in England and ski resort ropeways in the mountains take advantage of this feature.

Low footprint:

 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.

Source: PIB

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