

WORKABLE TOURISTS CABLECAR EQUATION IN EMERGING EAST

BY SHEKHAR CHAKRAVARTY



PREAMBLE

The utility of Ropeway varied, vary and will further vary in the future, from one country to another. In the postwar period, as the construction of Material Ropeways started fading out in the developed countries, it was seen that in the developing countries in Asia, particularly, in India, it was a boom, but started tapering off in late Seventies.

Passenger Cableways on the other hand saw an explosion in Europe and USA from Seventies onward, particularly, in Winter Sports. Initially they were expensive earlier, but soon started meeting common pockets, and thus there was a steep climb in demand.

In Asian countries, commensurate to spending capacities, people started spending on domestic tourism first, mainly to hill resorts and religious shrines, many of which are located on hills also. It is not really sports, like in the West but the tourism factor, both to hills and shrines that gave a boost to the Cablecar business in the Emerging East, and it is strongly felt that, it would continue to be so, in the foreseeable future.

Majority of the tourists in the East, the Indian sub-continent, travel inland by trains and buses to reach their destinations. Cost of travelling, on an average, for middle income group, remain limited to less than US 0.02 per KM/ person, a real contrast to Western Standard.

In Europe and American countries, one would be able to find a common ratio between normal tariffs for Ropeway rides and common wages, which is inversely proportional to popularity for Cableway rides, in respective countries.

No wonder, in Europe, first, as this ratio factor diminished, the consequence was flooding of snowbound slopes, with Gondola lifts, and also multiseater Detachable Grip Chairlifts. To keep with demand their capacities increased phenomenally, almost ten times, over the last couple of decades. Today one can see a good number of Chairlifts and Gondolas, carrying 10,000 to 15,000 skiers per day.

Likewise, in the urban, semi-urban areas and other places of attraction in South Asean countries, the popularity for Cablecar was witnessed, and they started sprouting, in places also, in a modest fashion, in the Seventies.

It is, in fact, in Nineties that, with rise in living standard, installation of a number of Passenger Ropeways was witnessed. But everywhere, the main criteria was the level of investment, and, which in turn was dependant on the spending capacity of common people. As interest and depreciation on investments, contributed to the main bulk of the operating expenses, they effected the viability factor, and ride rates too.

INVESTMENT IMPACT ON TARIFF

Aerial Ropeway being of tailor-made nature, unlike the automobile sector and its like, the advantages of mass production of its items, cannot be availed of. The incidence of development and manufacturing cost thus are considerably high. Cost of Ropeway installations over unit distance experienced a steeper rise compared to other standard items of mass manufacture, like in the automobile sector, for example. The rise has been, largely proportionate to that of manhour cost in respective countries. In places, where skilled labour are cheap, advantage on economy of project cost, automatically followed with consequent economy in ride rate.

The table below will give an idea of The Ropeway ride rates at some Gondola installations in various countries in Europe, USA, South-East Asia, and Indian Subcontinent also.

i)	Santosa Island, Singapore	U \$ 6.0
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In Asian countries, Ropeways which do not depend much on Western tourists have to limit Ropeway tariff within \$1.0 to \$2.0, to become affordable to local people. In Europe and North American countries, the average tariff is around \$8.00/ 10.00 for a ride. Operators and Developers, have to take the common Users of their countries into consideration before deciding on the tariff issue.

For an affordable Ropeway ride rate, obviously, one can not play around with the basic features and safety factors. The items which could be compromised with, are normally of cosmetic nature, which are expensive, and constitute a sizeable percentage of the installation cost. The Passenger Ropeway Designers in the East, got clues to basic design features, safety factor criteria of Ropeway designs from associations/ collaborations with companies in the West or from the existing installations in Europe and American continent. So, in basic design approach, not much difference would be there.

Of investment pattern in West and in the East in analysed, then one would find that there is a sizeable difference between the two, while serving similar Ropeway working conditions. In Europe, particularly, in Alpine Region, the competition being severe, and alternatives available being more within short travelling distances, the other attraction features normally play an important role. The investors pay real attention to comfort, infrastructure relating to approach, parking, hotel facilities and utilities etc.. The architectural aspect of the terminal stations and the type of slope available, also feature. While on the other hand, in the East, the attention attached to these factors of Ropeway installations do not feature much, which in one stroke, saves investment of rather high magnitude.

TARIFF EQUATION IN EAST

The tariff equation in East is drawn, basically, on the engineering approach of the installation with nominal infrastructural involvement. As far as an Operator is concerned, he tries to provide an enjoyable and adventurous ride, but makes every effort to save on the investment otherwise, and keep the tariff as low as possible in order to meet ends, and at the same time make it affordable to common users.

AN EXAMPLE

Looking into the details of a recently commissioned Monocable Gondola System in Darjeeling, called the “Queen of Hills” at an altitude of 2200 M in India, one would find that, its main objectives were to, (i) revamp a very old Ropeway by changing the system and increasing the capacity by almost 20 folds, to attract more tourists, (ii) provide the tourists a joyous and adventurous ride and (iii) maintain capital investment as low as possible while retaining the basic engineering and safety features, upto-date.

In the year 1968, M/s. Riblet Tramway Company, USA, built a Single Cabin Jigback Ropeway System having 4 sections over a hostile Himalayan terrain for transportation of men and material for the Forest Department, Government of West Bengal, India. The Ropeway helped negotiate a distance and difference in level of 8300 M and 1500 M respectively. **Fig-1** shows the alignment. The Ropeway was to help transportation from Sikkim also, which earlier was an independent kingdom, and subsequently, merged with India.

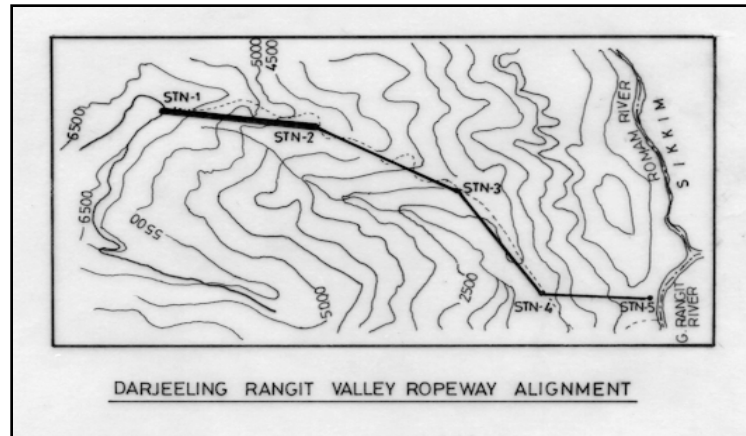


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The complexion of the Ropeway, initially, was a transportation link between the place named Shingla Bazar at the border of Sikkim to Darjeeling touching 3 (three) villages, in 4 sections. The capacity of the system was very low :

For passenger only over 8 hours operation	: 96 Passengers Per Day
Material only	: Approx. 8.0 Tonne Per Day

Over the years the Ropeway fell prey to various problems. In 1992, it ended up converting itself into an one section operator, transporting tourists up and down only to the Tea gardens from Darjeeling level. Demand for the Ropeway ride was very high, and passengers during peak seasons often had to book well in advance for a ride. For a to and fro ride on the Ropeway in 1996, it would cost around \$ 1.0, It desperately needed a turnaround through revamp which led to its handover to a private Operator for revamping and converting it to a 400 PPH Detachable Grip Monocable Gondola System to cater to the daily traffic of approx. 2000 passengers. **Illustration-1** shows old Ropeway cabin and tower.



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The income estimated during the first, second and third years were US \$ 225,000, US \$ 280,000 and US \$ 320,000 at a tariff rate of US\$ 1.25, US\$ 1.40 and US\$ 1.50 respectively. which alone had to make the project viable. High interest (17%), repayment of loan, and depreciation (15%) plus other costs of operation had to be considered to make the project bankable.

REVAMPED 400 PPH GONDOLA IN DARJEELING, ITS ECONOMICS

The Ropeway provided for all basic features of a 6-seater Detachable Grip type Gondola System for negotiating steep hilly terrain having the following operating conditions :

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Difference in level	:	530 Meters
Cabin capacity	:	6 Passengers

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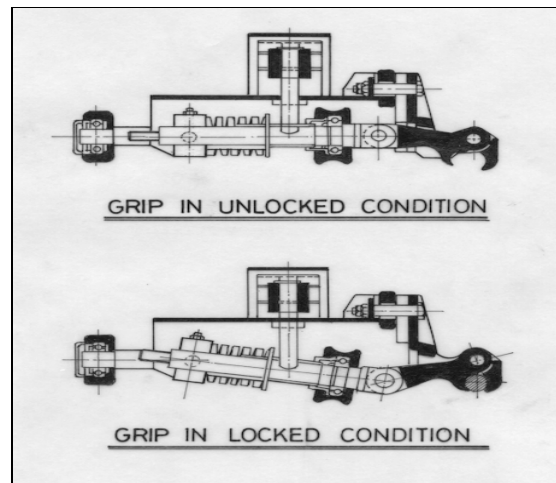


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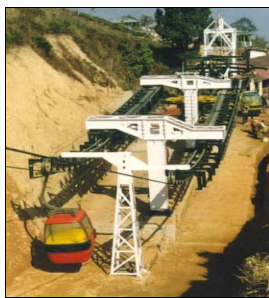


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So, it was the Ropeway basic features first, followed by provisions for interest, debt repayment, depreciation which constituted the compulsion, and then came the infrastructural cosmetics, that were catered, ensuring that the bottom line remained green right from the year one.

Survey revealed that, for 600,000 tourists, mostly from middle income group, who annually visit Darjeeling, during their Himalayan Sojourn, the Ropeway ride, providing an opportunity for a wonderful sail over lush green Tea gardens, with the snow capped Kanchanjungha (3rd highest peak) Range in front, as it travels down, the glide, an enjoyable experience, would constitute one of the top 3 attractions in Darjeeling. So, conclusively, as the ride became the primary attraction, other criteria were relegated to secondary status. Capitalizing on this aspect alone gave dividend from the very first operational year. Investments on a village at the Lower Terminal, Restaurants, Bar, Shopping enclave etc. have been avoided in initial years, for the sake of viability. The approach roads to Terminals were there, as it was an operating ropeway.

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USE OF ROPEWAY FOR COMMUTERS IN HILLS

There are more than 100 million people of all ages and sex, who live in lower Himalayan region. They negotiate distances and heights on foot for hours weathering sun, rain and leachbites, to get to teaching, medical and other work places, and carrying essentials also. wasting enormous time and energy.

For links of this 100 million people in the hills with the plains, there are arterial cart roads, where vehicles ply and are availed by a limited section of people. But Ropeways can play a very important role in providing links to the cluster of villages and places of activities, which are normally negotiated on foot.

In fact, behind the construction of the Ropeway in Darjeeling, built by RIBLET in '68, earlier referred, such objective of providing link services was there, as it linked a number of villages with Darjeeling and a major Sikkimese town called Jorthang, over a total level difference of 1500 M. As on today, the link earlier established does not exist, except the first section from Darjeeling to Tukvar Village, which has now been revamped and converted primarily to cater for tourists.

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Unfortunately, inspite of Ropeways being able to provide much simpler, cheaper, and quicker mode of transport , its cause is not promoted, and they continue to be discriminated against roads. It is hightime that, specially in hills, the investment approach on roads and ropeways are brought at par.

The transportation problems in Himalayan range was highlighted by the author in 6th OITAF Congress, held in Grenoble in 1987, in his presentation titled "Culture of transportation by rope in developing countries". A special commission-VII was formed under OITAF. Unfortunately, the commission could not proceed much.

It is strongly felt that a constitutional change in the outlook, in recognising Ropeway transportation in hills, in particular, at par with vehicular roads, is the need of the hour, It has large potential for cablecar infrastructural growth, and contribution to the social aspects in hills of developing countries too.

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OITAF having as one of its main objectives to develop the cause of Aerial Ropeways, it would be befitting for it to utilise its forum to propagate, and help millions living in distress, in hills.

Beginning has been conceived in India through formation of Aerial Ropeway Development Corporations, in the hill States mainly to help tourism, but the objective could go a bit further to cater the needs of common commuters. The cause would be better served if the Member countries in Asia, beset with the problem of transportation in hills form special Groups, deliberate and arrive at solutions.

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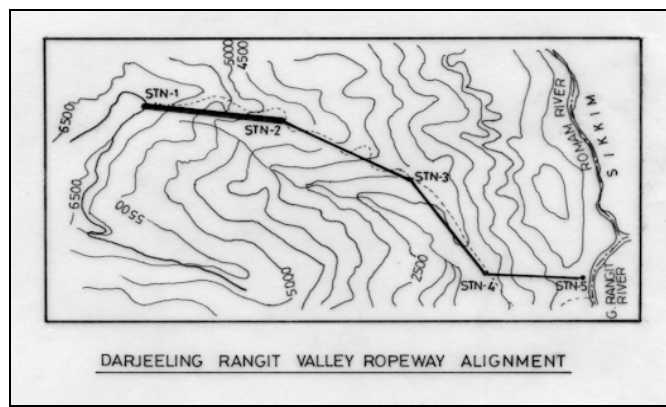
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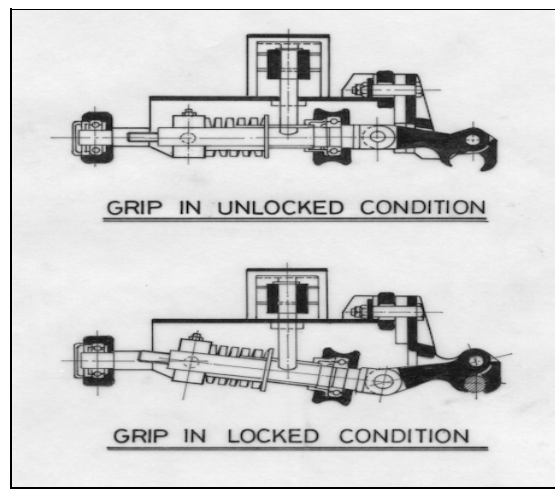
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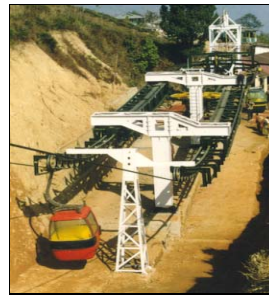
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