PROJECT FEASIBILITY REPORT

FOR

Passenger Ropeway

AT

Nandankanan Zoological Park,

Dist-Khordha, Odisha

Project Execution By

Damodar Ropeways & Infra Ltd.
1 / A, Vansittart Row, Kolkata – 700001
West Bengal

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Chapter-1-Executive Summary

1. Introduction:

Nandankanan Zoological Park at Bhubaneswar has decided to get installed a Passenger Ropeway in their Park to provide the tourists to have a ride enjoying the scenic beauty of the Kanjia Lake from the top. As well as for this purpose, the Nandankanan Zoological Park Authority invited tenders on B.O.T basis and Damodar Ropeways & Infra Limited (DRIL) has shown their interest submitting competitive Bid. The Authority has selected the Bid submitted by DRIL and awarded the Contract to them.

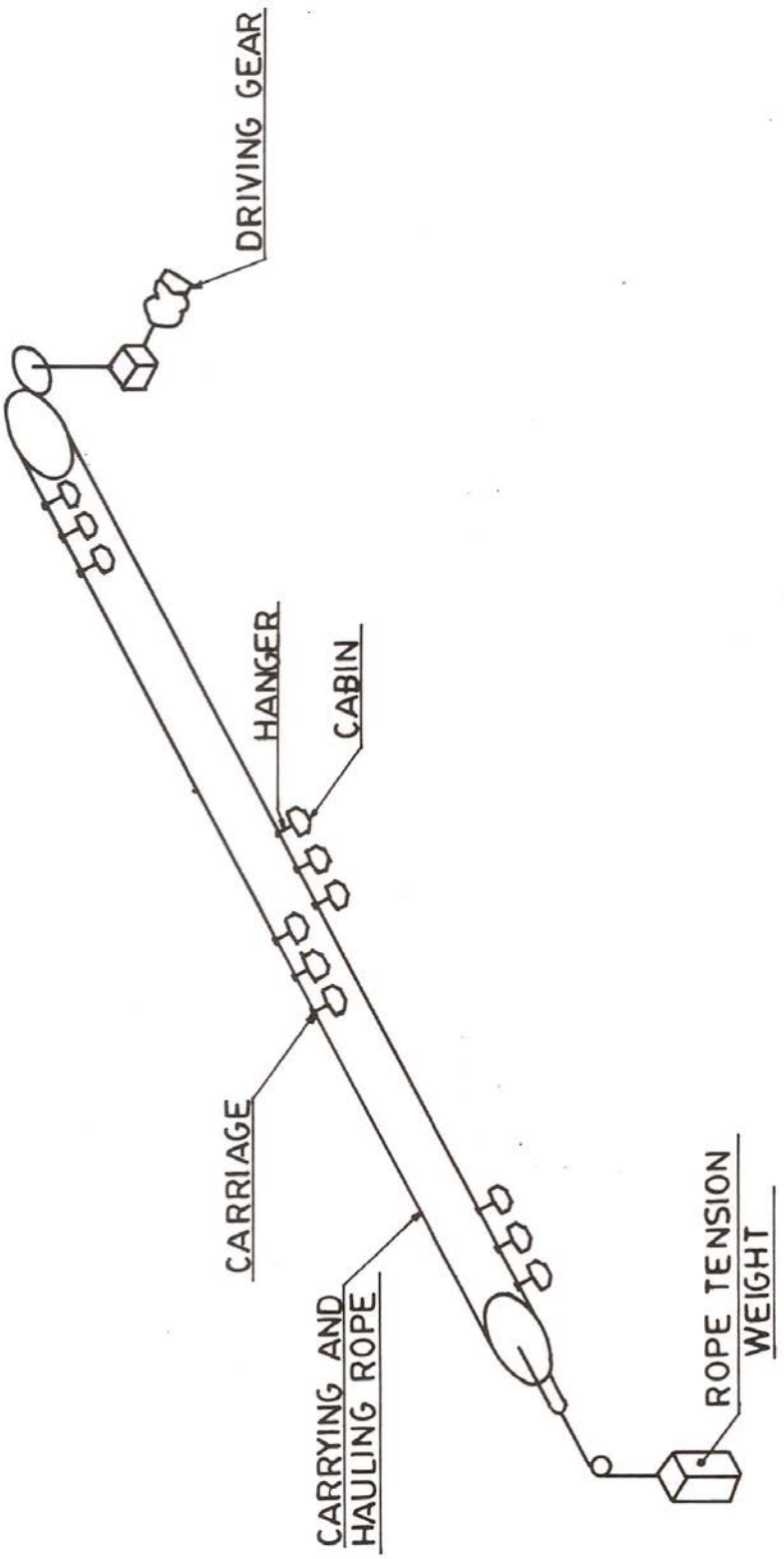
1.1 Executed Projects by DRIL:

Sr. No.	Name of the work	Customer's Name	Position of work
1.	Design, supply, erection and commissioning of Fixed Grip Mono-cable Ropeway of 645/500 PPH on Build and Operate basis in at Appughar, New Delhi	Appughar, New Delhi	Completed
2.	Design, supply, erection and commissioning of one number ski lift of 400 Ski/hr and Detachable Chairlift of 400 PPH with M/s. Gimar Montaz Mautino of France	Garhwal Mandal Vikas Nigam Limited, Dehradun	Completed
3.	Design, manufacturing, supply, erection, commissioning and operation of Monocable Detachable ropeway 800 PPH at Shri Naina Devi Ji	Ganapati Ropeways (P) Ltd., [H.P. Tourism Project]	Completed
4.	Design, manufacturing, supply, erection and commissioning of a 650 PPH Pulsated Monocable Ropeway	National Council of Science Museum, Calcutta	Completed

	on Build and Operate basis in Science City, Calcutta on BOO Basis		
5.	Design, manufacturing, supply, erection, testing and commissioning of 250 PPH Bicable Jig Back Ropeway system between Deorali Bazar and Civil Secretariate at Sikkim with M/s. Von Roll Tramways Ltd. of Switzerland	Urban Development & Housing Department, Govt. of Sikkim	Completed
6.	Design, manufacture, supply, erection, testing & commissioning of a 500 PPH Monocable Detachable passenger ropeway at Trikut Hill, Deoghar, Jharkhand	M/s. RITES Limited, Gurgaon, Haryana for and on behalf of the Deptt. of Tourism, Govt. of Jharkhand	Completed
7.	800 passengers per hour Mono-cable Detachable System for Maa Sharda Devi Temple at Maihar on BOT basis	Sharda Prabandhak Samiti, Maihar	Completed
8.	Design, manufacture, supply, erection, testing & commissioning of a single Jigback Twin Track Bi-cable passenger ropeway system from Tawang Monestery to Ani-Gumpha	Executive Engineer, Tawang, PW Division, Arunachal Pradesh	Completed
9.	Design, manufacture & operating of Mono-cable Jigback Fixed Grip Passenger Ropeway at Amarabati Park, Digha on BOT basis	Digha Sankarpur Development Authority	Completed
10.	480 PPH Monocable Pulsated Fixed Grip Passenger Ropeway at Savitri Mata Temple, Pushkar, Rajasthan on BOO basis	Savitri Mata Temple trust	Completed

1.2 Selection of the System for Nandankanan:

Based on the detailed analysis of advantage and constraints of different ropeway systems and keeping the length, terrain and the hourly passenger capacity requirement in mind we have selected a Monocable Pulsated Fixed Grip Ropeway system. This system would be the most appropriate for the passenger ropeway both from technical as well as economical point of view.



PULSATED MONOCABLE
(shows a schematic of this system)

1.3 Tentative Capital Cost:

Sr.No.	Description	Rs. in Lakh
1.	Survey & Soil Investigation, Design & Engineering	35.00
2.	Supply of Structure, Mechanical / Ropes, Electrical & Spares / Tools	372.00
3.	Civil works including Tower foundation, Stations etc.	90.00
4.	Erection, Trial, Testing & Commissioning including final paint, Site Office Infrastructure etc.	75.00
5.	Insurance, Transportation, Overhead etc.	50.00
6.	Pre-construction expenses like statutory clearances, land development, water connection, Transformer etc.	45.00
7.	Environment Management Plan	2.00
8.	Financing Expenses	12.00
9.	Contingency, Escalation during construction	45.00
10.	Interest during construction	78.00
Total		**804.00** **Or say 805.00**

1.4 Project Schedule:

It is assessed that the ropeway can be commissioned within a period of 18 to 20 months from the date of getting possession of total project land, all statutory clearances and financial closure whichever is later.

Chapter-2-Introduction of the Project

2.1 Identification of Project & Project Proponent:

Nandankanan Zoological Park at Bhubaneswar has decided to get installed a Passenger Ropeway in their Park to provide the tourists to have a ride enjoying the scenic beauty of the Kanjia Lake from the top. As well as for this purpose, the Nandankanan Zoological Park Authority invited tenders on B.O.T basis and Damodar Ropeways & Infra Limited (DRIL) has shown their interest submitting competitive Bid. The Authority has selected the Bid submitted by DRIL and awarded the Contract to them.

Damodar Ropeways and Infra Ltd have been in the business of building cable cars since 1974. With 40 years of experience in the field, it is the pioneer in the field of Cable cars in India. DRIL is also engaged in turnkey construction of Steel / PRC Bridges, Rope Suspension Bridges and multi-storied buildings and undertakes work for revamping / up-gradation of capacity of existing ropeways, operation and maintenance of running aerial ropeways and material handling plants.

2.2 Brief Description of nature of the Project:

Nandankanan Zoological Park at Bhubaneswar has decided to get installed a Passenger Ropeway in their Park to provide the tourists to have a ride enjoying the scenic beauty of the Kanjia Lake from the top. As well as for this purpose, the Nandankanan Zoological Park Authority invited tenders on B.O.T basis and Damodar Ropeways & Infra Limited (DRIL) has shown their interest submitting competitive Bid. The Authority has selected the Bid submitted by DRIL and awarded the Contract to them.

2.3 Need for the project & its importance to the country & region:

- Tourists visit the Zoo will get an amusement ride through Ropeway which will become an extra attraction and generate additional revenue to the Authority from the increased number of visitors to the Zoo.
- Installation of a ropeway in the Nandankanan Zoological Park will boost the tourism to the country & region.
- Tourists can access quickly and more easily by the Ropeway from Zoological Park to Botanical Garden than the accessibility prevail at present.

2.4 Employment Generation due to the project:

Big opportunity of indirect employment to the local people will be created besides some direct employment of semi-skilled / unskilled people of the local area.

Chapter-3-Project Description

3.1 Type of Project:

M/s Damodar Ropeways & Infra Limited is going to set up a Pulsated Monocable System of 400 PPH capacities at Nandankanan Zoological Park, District- Khordha in the state of Odisha. It is a ropeway project on B.O.T basis.

Technical Parameters:

System	Monocable Pulsated
Length	628 mtrs.(approx)
Level Difference	15 mtrs.(approx)
Capacity	400 PPH
No. of Group	4 Group
No. of Cabin per Group	3 nos.
Cabin Capacity	4 Seater
Total no. of Cabin	12
Rope DIA	42 MM
Power Requirement	100 KW
D.G.Set	300 KVA & 20 KVA

3.2 System Description:

In Pulsated Monocable System, only one rope termed as hauling rope not only supports the cabins but also hauls the cabins.

There are groups of cabins with numbers of cabins in each group. Groups of cabins will be equi-spaced on line – one group at the Lower Terminal, one group at the Upper Terminal and two other groups on the line one each at the centre on either sides of the line.

At the time of starting the passengers at the Lower Terminal enter the cabins and the ropeway is started. After accelerating for a while and running at the constant speed by which time, cabins which were at a centre reach the two terminals the ropeway stops. The boarding and de-boarding of cabins takes place and the process is repeated again and again.

The Pulsated Monocable system is most application for increase and decrease the capacity without disturbing the main system only adjustment of speed and number of cabins according to actual requirements as well as simplicity of operation and maintenance.

3.2.1 Raw Material Requirement:

- The raw materials required during the construction phase will be procured from local market.

3.2.2 Solid Waste Generation:

- Solid waste generated by the Ropeway Passengers will be collected from the dustbins put in the Ropeway compound and dumped on the bins provided by the Park Authority.

  Color of bin that will be provided at the project site for segregation of waste are:

  - Blue: Recyclable Waste.
  - Green: Bio Degradable Waste.

3.2.3 Availability of Water:

The water required during construction, operation period and for drinking purpose will be supplied by the Zoo Authority. **Copy of Letter giving consent by the Authority in this regard is enclosed.**

3.2.4 Energy / Power & its Source:

100 KW motor is required for ropeway operation and it will be supplied by the Zoo Authority from their existing power line. In case of power failure standby D.G.Set of 300 KVA at Lower station & 20 KVA at Upper station (Acoustically enclosed) as per latest guidelines shall be provided for full capacity operation.

Chapter-4-Site Analysis

4.1 Connectivity:

The Zoo is situated at Bhubaneswar. Zoo is less than 1 km away from Barang railway station and is well connected by City buses, Auto, Jeeps, and Tempo etc. This distance chart of major cities from the project Site is as below.

To	Distance in kms (Approx.)
Cuttack	17
Bhubaneswar	20
Puri	78.7

4.2 Land form, Land use & Land ownership:

The total land requirement for proposed project is 0.6343 Hectares. Nandankanan Zoo Authority will give the total land for construction of ropeway. **Copy is attached as Annexure No.2.**

4.3 Location of the Project:

Zoo Authority selected the ropeway alignment. The proposed ropeway UTP area at the Botanical Garden and LTP area at Nandankanan Zoological Park.

The U.T.P is proposed in the State Botanical Garden, as the location for the upper station is fixed. The Zoo Authority selected the route so that, the U.T.P cannot be change to other place.

The proposed project is at distance of around less than 1 km. of Barang Railway Station, Bhubaneswar Railway Station is 18 km. & Cuttack Railway Station is 15 km. These stations are well connected with other major cities.

The nearest airport is Bhubaneswar Airport at distance of about 20 km. (approx) from the proposed project site.

The Lower Terminal Station (L.T.P) of proposed ropeway will be located at longitude $85^0$49'11.91"E and latitude $20^0$23'53.24"N and Upper Terminal Station (U.T.P) at longitude $85^0$49'21.95"E and latitude $20^0$24'11.51"N. The elevation is 15 Meter from mean sea level at Nandankanan Zoological Park, District- Khordha in the state of Odisha.

This site is favorable for installation of ropeway because of following reason:

1. L.T.P is near the main gate of park.
2. Availability of adequate space for proposed terminal stations.
3. Passengers can easily access to ropeway station.
4. Minimum possible infringement with the environment.
5. Length is 628 mtrs. (approx.).
6. Power is available.

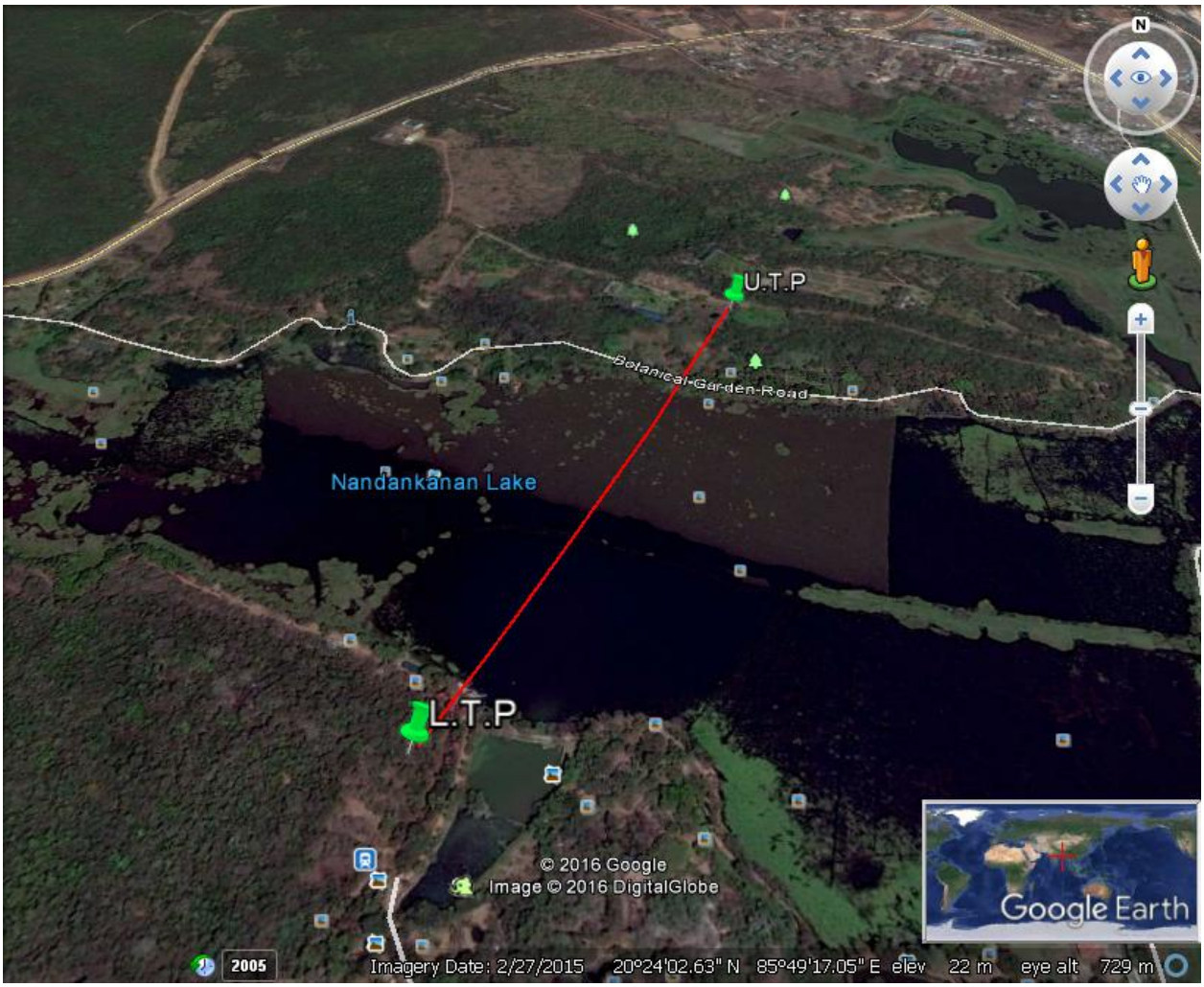


Figure.4.1-Satellite Google Imaginary for the proposed project site

4.4 Alternative Route Assessment:

A reconnaissance survey was first conducted starting from the Lower station located near the zoo to the area adjoining to the botanical garden. As per the survey, out of the four alternatives routes the Alternative-1 demarcated by green line on the Google map below was found appropriate as it was the most stable stretch and availability of flat land, the requirements of space was minimum and minimal no. of tress will be disturbed. The selected site was the most stable stretch, requiring less construction works for flattening of land and no tree cutting was required. The total length of proposed ropeway alignment works out to be 628 m. the selected ropeway alignment is shown in green color in figure below.

Alternate 1: Green color; Alternate 2: Red color; Alternate 3: Yellow color; Alternate 4: Pink color

Merits of Selected Alignment

- L.T.P is near the existing road.
- Availability of adequate space for proposed terminal stations.
- Tourists can easily access to ropeway station
- Minimum number of tress to be cut.
- Minimum possible infringement with the environment.
- Power available is adjacent to the LTP point.
- Major points / locations to be connected along the route
- Minimum possible infringement with the environment
- No rehabilitation or relocation involved
- Financial feasibility of constructing terminal stations.
- Minimum no. of intermediate towers to be constructed.

4.5 Topography:

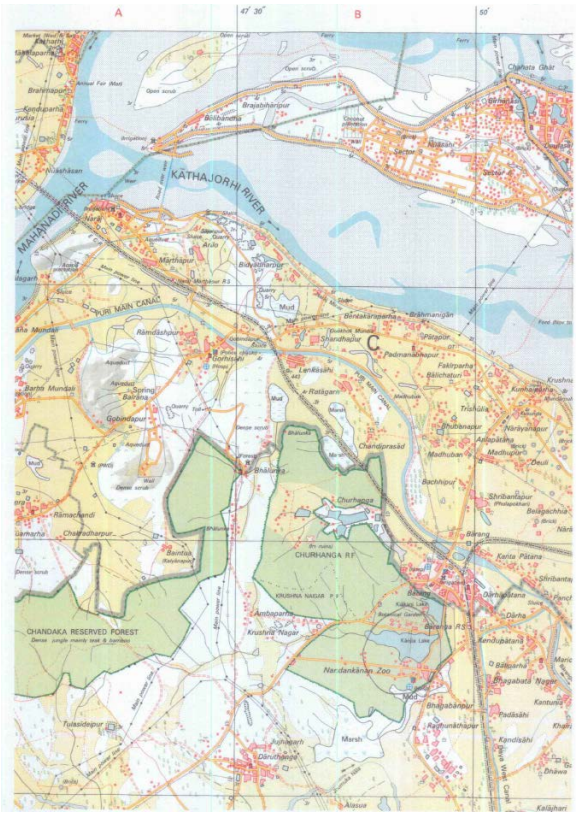


Figure- 4.2-TOPOSHEET OF PROJECT SITE

Khordha district with an area of 2813 sq. km. It is bounded in the north and northeast by Cuttack district, on the west and southwest by Nayagarh and Ganjam districts, on the southeast by Chilika Lake & Puri district.The district is divided into two subdivisions, namely Bhubaneswar and Khordha. The district headquater is connected to all the block headquaters and important towns by all weather roads.

Based on the physiographic setup, the district may be broadly divided into four natural divisions such as Coastal Sand Dune, Alluvial Plain, Lateritic Upland and Hilly Terrain.

The dunes having limited width occur along the Chilika coast discontinuously. These deposits are fluvio aeoline in origin and are of longitudinal type. Alluvial plain is the most potential hydrogeomorphic unit. It occurs as narrow strip along Chilika coast in the south east & along the coarses of major rivers. The Alluvial plain in the northeast is a part of Mahanadi delta system.

The lateritic upland constitutes the major parts of the district. This forms an undulating terrain covered with lateritic capping over Gondwana sand stone and Precambrian rocks. The hilly terrain is prominent in southwestern and western part. The area is underlain by Precambrian hard rocks and major part of this terrain is capped by laterities and lateritic gravels. The subunits in this terrain are – Shallow buried pediplain, moderately buried pediment, Pediments, Intermontane valley, Residual hills, Structural hills etc.

4.6 Soil Classification:

There are three types of soil generally find in the district. These are – Alfisols, Ultisols & Entisols.

Alfisols: The deltaic alluvial soil in the eastern part of the district and the red loamy soils in the northwestern part of the district come under this class. It

consists of a wide range of soils including mixed red and black soils, red earth, red loamy soils, red sandy soils, red gravelly soils and other alluvial soils. The red soils are light textured, usually devoid of lime concretions deficient in nitrogen, phosphate & organic matter.

Ultisols: These include laterite & lateritic soil, red and yellow soils of the northern and north central part of the district. They are characterized by low contents of Nitrogen, Phosphate, Potassium & Organic Matter.

Entisols: These include the coastal alluvial soils along the Chilika lake and younger alluvial soils in the central part of the district. The texture in general is sandy to loamy and soils in general are deficient in nitrogen, phosphoric acid and humus.

4.7 Climate Data from Secondary Sources:

The district is characterized by a tropical monsoon climate having three distinct seasons in a year, viz summer, rainy and winter seasons. May is the hottest month with mean daily maximum temperature of 38 degree Celsius, while December is the coldest month with mean daily temperature of 15.7 degree Celsius. The normal annual rainfall is 1449 mm and the average rainfall is 1436 mm. The relative humidity in the district varies from 48% to 85%.

Surface water- The district is drained by a number of streams which are mostly tributaries and distributaries of the river Mahanadi and a few other streams discharging into lake Chilika. The important distributaries of Mahanadi are the Kuakhai, Bhargabi, Kushabhadra and the Daya River. The tributaries of the Mahanadi are the Ran and Kalijiri. The streams draining the southern parts of the district are Sulia, Kharia and the Kusumi. All the streams are ephemeral and effluent in nature. Chilika, the largest salt water lake of India is situated in the southeastern part of the district.

Geohydrology & Ground Water – The Geohydrological map of Khordha district is shown in Figure 4.3 Aquifer system of the area may be divided into fissured, porous types based on the lithological characteristics of the area. The pheratic zone constitutes the most potential ground water reservoir in the district. This zone has been mapped in course of hydrogelogical surveys. The depth of water table values depend on several factors like rainfall, topography, drainage characteristics, proximity to drainage channels, lithology, water bearing and water yielding properties of the rocks. Groundwater development in the district is mainly through dug wells, dug-cum-bore wells and bore wells. Groundwater is mainly used for domestic and irrigation purpose and in a limited scale for industrial purpose.

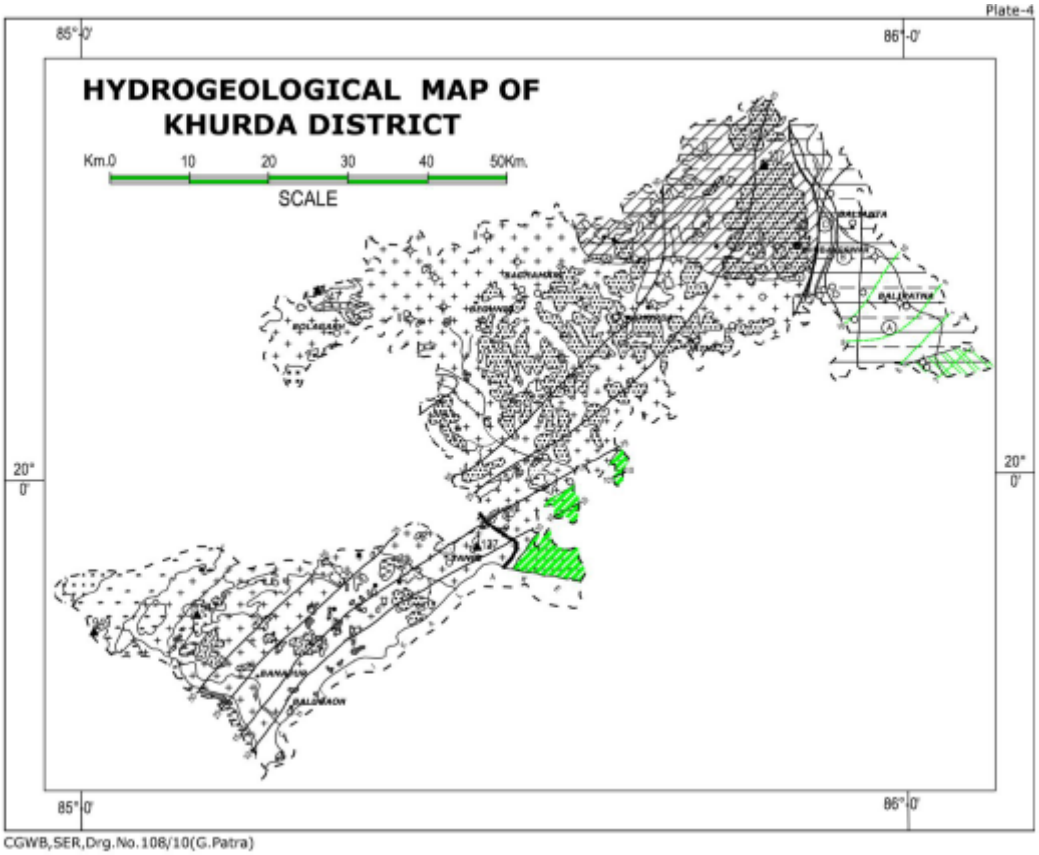


Figure- 4.3-Hydrogeological Map of Khordha District

4.8 Social Infrastructure Availability:

All infrastructure facilities such as Education, Health facilities and other Social facilities are adequate at Bhubaneswar City which is around 20 km. from the proposed project site. Entire area is enjoying the modern facilities. DRIL will always tries to uplift socio-economic of entire area.

Chapter-5-Proposed Infrastructure

5.1 Planning Concept (facilities, transportation etc) Town and Country planning / Development authority Classification:

- Tourists visit the Zoo will get an amusement ride through Ropeway which will become an extra attraction and generate additional revenue to the Authority from the increased number of visitors to the Zoo.
- Installation of a ropeway in the Nandankanan Zoological Park will boost the tourism to the country & region.
- Tourists can access quickly and more easily by the Ropeway from Zoological Park to Botanical Garden than the accessibility prevail at present.

5.2 Population Projection:

As per 2011 census, 2, 251, 673 lives in the Khordha District.

5.3 Land use planning:

SR. NO.	Area Description	Area in hectare
1	UPPER STATION (U.T.P)	0.3114
2	LOWER STATION (L.T.P)	0.3229
TOTAL AREA		**0.6343**

5.4 Assessment of Infrastructure Demand:

Nandankanan Zoological Park at Bhubaneswar, the Nandankanan Zoo Authority keen to install a Passenger Ropeway to facilitate tourists to have comfortable ride and enjoying the scenic beauty of the Kanjia Lake from the top. For this purpose, Zoo Authority floated a tender on B.O.T basis. Damodar Ropeways & Infra Ltd. and into an agreement with Damodar Ropeways & Infra Ltd. for installation of the ropeway at Nandankanan Zoological Park.

5.5 Amenities / Facilities:

All the facilities like Drinking water, Toilet etc. will be providing by the Zoo Authority.

Chapter-6-Environment Management Plan

6.1 Air Pollution Management Plan:

- Ropeway will be operated on electricity. DG will be used only at the time of electricity failure and using of DG in the project area will be selected as per the D.G. Act considering Air pollution will be as approved by relevant authorities.

6.2 Noise Pollution Management Plan:

- Noise is generating mainly from DG set when it is in use during power failure, but DG set will be provided with acoustic enclosure.

6.3 Water Pollution Management Plan:

- Minimum quantity water will be requiring in the construction phase for civil works and water sprinkling for dust emission purposes and it will be provided by the Zoo Authority.
- Water during operation phase will be from equipment washing, hand washing etc. and it will be very nominal. Labour will be use existing Zoo premises toilet / latrine.

6.4 Solid Waste Management Plan:

- Solid waste generated by the Ropeway Passengers will be collected from the dustbins put in the Ropeway compound and dumped on the bins provided by the Park Authority.

Color of bin that will be provided at the project site for segregation of waste are:

- Blue: Recyclable Waste.
- Green: Bio Degradable Waste.

6.5 Occupational Health Management Plan:

Construction activities are emitting large pollution to environment. Large volumes of suspended particulate matters are released to the environment which are creates health problems of the workers. Unhygienic site sanitation facilities also create health problems of the workers.

The objective is to ensure health of the workers during construction for the basic facilities of sanitation, drinking water etc.

- Zoo Authority will be provide clean drinking water to the all our workers / Staff.
- Zoo Authority will be provide adequate number of decentralized latrines and urinals to the construction and operation workers / staff.

6.6 Green Belt Development Plan:

- Trees filter particulates and are effective as sink of pollutants. Tree also reduces noise level and regulates the oxygen balance in the area by consuming released carbon dioxide. Hence, greenbelt development shall be part of pollution control measure adopted in the open spaces in the plant area.
- In order to enhance land use as well as to compensate for any loss in ecology during construction, adequate plantation programme has been planned and shall be adopted with plantation of adequate number of trees.

Green belt development shall be taken up starting from the construction phase of the proposed project.

- Considering the need of open space for fire fighting and safety requirement, greenbelt has been planned along the periphery in addition to small patches of green area in the unutilized open space, roadside tree plantation and grass lawns.

6.7 Power Requirement:

- 100 KW motor is required for ropeway operation and it will be supply by Zoo Authority from their existing power line. In case of power failure standby D.G.Set of 300 KVA in Lower station & 20 KVA in Upper station (Acoustically enclosed) as per latest guidelines shall be provided for full capacity operation.

6.8 Connectivity:

Road Connectivity:

- It is well connected by City buses, Auto, Jeeps, and Tempo etc. to reach the Nandankanan Zoological Park.

Rail Connectivity:

- Nearest Railway Station is Barang which is less than 1km away from Zoo boundary and Bhubaneswar Railway station is around 18km from the site. It is connected to major cities by daily express and passenger trains.

Airport:

- Nearest Airport Biju Patnaik International Airport, also known as Bhubaneswar Airport which is about 20 km from the project site.

6.9 Monitoring Scheme:

- As needed on time to time basis monitoring will be carried out.

Chapter-7-Rehabilitaion & Resettlement(R& R) Plan

7.1 Introduction

Total land requirement is 0.6343 hectares & Nandankanan Zoo Authority is given us for construction & operation of the proposed passenger ropeway.

The proposed project is in the Nandankanan Zoological Park. So, there was no residential habitat. Rehabilitation and Resettlements (R&R) plan is not required.

Chapter-8-Project Schedule & Cost Estimate

8.1 Likely Date of Construction & Completion:

It is assessed that the ropeway can be commissioned within a period of 18 to 20 months from the date of getting possession of total project land, all statutory clearances and financial closure whichever is later.

8.2 Estimated Project Cost along with Analysis in terms of Economic Viability of the Project:

Sr.No.	Description	Rs. in Lac
1.	Survey & Soil Investigation, Design & Engineering	35.00
2.	Supply of Structure, Mechanical / Ropes, Electrical & Spares / Tools	372.00
3.	Civil works including Tower foundation, Stations etc.	90.00
4.	Erection, Trial, Testing & Commissioning including final paint, Site Office Infrastructure etc.	75.00
5.	Insurance, Transportation, Overhead etc.	50.00
6.	Pre-construction expenses like Statutory Clearances, Land Development, Water Connection, Transformer etc.	45.00
7.	Environment Management Plan	2.00
8.	Financing Expenses	12.00
9.	Contingency, Escalation during construction	45.00
10.	Interest during construction	78.00
	Total	**804.00** **Or say 805.00**

Chapter-9-Analysis of Proposal

1.1 Financial and Social Benefits:

- The proposed project is in Nandankanan Zoological Park, there will be no displacement or immigration of the human population due to the project.
- The ropeway will boost the local economy when larger number of visitors will visit Nandankanan Zoological Park.
- The ropeway will give a boost to the tourism potential.
- Primary and Secondary employment generation which will create positive impact on Quality of life of surrounding area.
- Because of the influx of more number of tourists, the Zoo Authority will benefit which will enable them to provide better services and take up more development activities.
- Ropeway transportation system is pollution free & eco friendly.

1.2 Cost & Benefit Analysis:

a) The ropeway will boost the local economy when larger number of tourists will visit Nandankanan Zoo.

b) The ropeway will provide directly or indirectly employment of the local people.

c) The ropeway will give a boost to the tourism potential.

d) Primary and Secondary employment generation which will create positive impact on quality of life in the surrounding area.

e) Because of the influx of more number of tourists, the Zoo Authority will benefit which will enable them to provide better services and take up more development activities.

f) Ropeway transportation system is pollution free & eco friendly.

Chapter-10-Conclusion

It is considered that for a tourism infrastructure development project of this nature Government of Odisha are recommended for the initial stages of the ropeway operation.

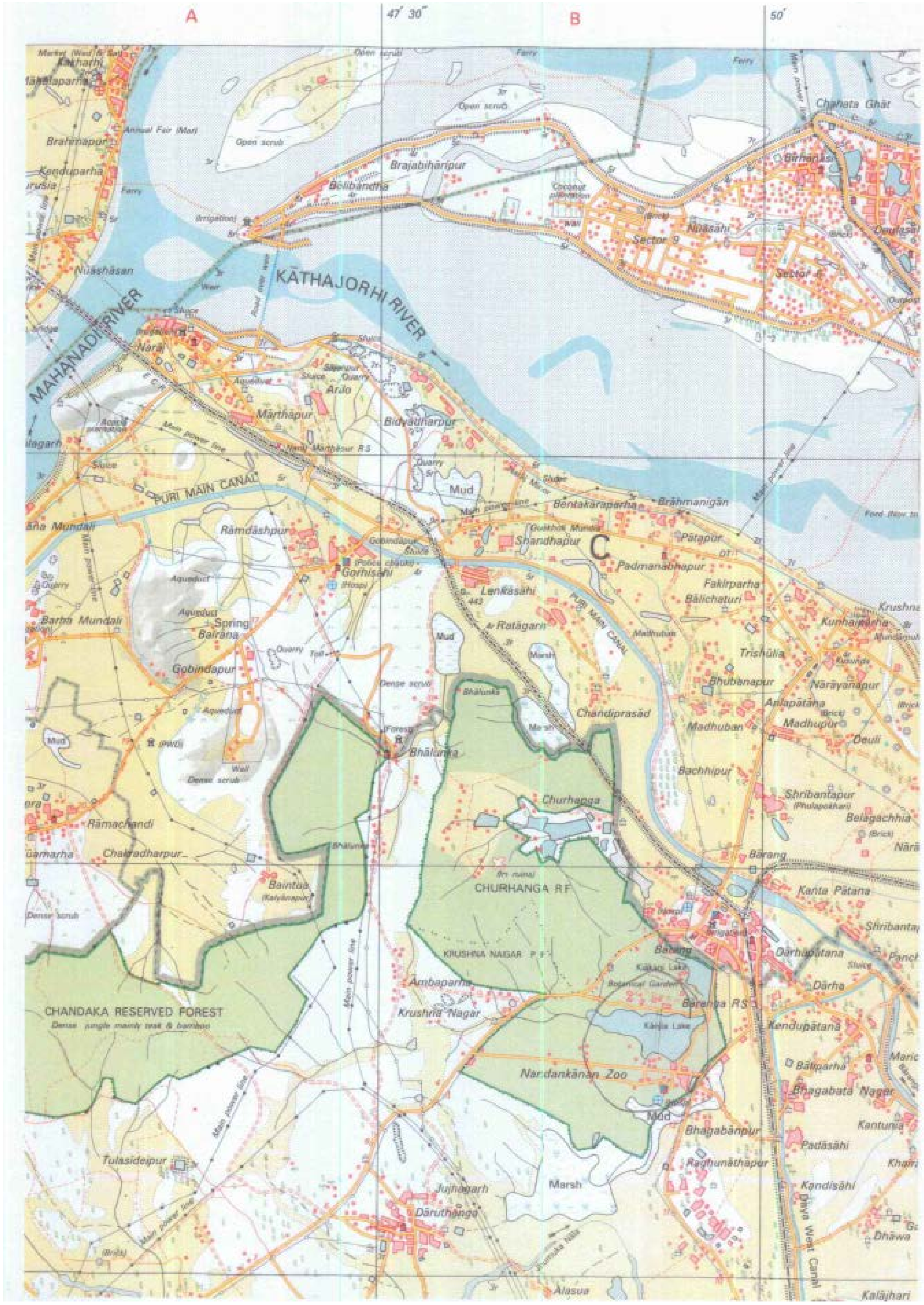
Beside ropeway system would lead to:-

- Reduced pollution
- Improved environment.
- Traffic de-congestion
- Energy conservation
- Better tourism potential

It is expected that once tourists and local people become aware of the utility of the ropeway system, there would be no looking back and the ropeway system would be self-sustaining.

ANNEXURE

TOPOSHEET DEMARCATING PROJECT SITE


A
B
C
KATHAJORHI RIVER
MAHANADI RIVER
PURI MAIN CANAL
CHURHANGA R F
CHANDAKA RESERVED FOREST
Nandankanan Zoo
Kanjia Lake
Barang
Chandiprasad
Bhalunka
Churhanga

COPY OF LAND GIVEN FOR PROPOSED ROPEWAY, SUPPLY OF ELECTRICITY & WATER, FACILITY OF USING SANITATION OF ZOOLOGICAL PARK

DEPUTY DIRECTOR,
NANDANKANAN ZOOLOGICAL PARK
P.O-BARANG,DIST-KHURDA,PIN-754005
PHONE/FAX NO-0674-2466075,(M) 9437022023
Email: deputydirector.kanan@gmail.com

NANDANKANAN
Web: www.nandankanan.org

OFFICE OF THE DY. DIRECTOR NANDANKANAN ZOOLOGICAL PARK

Date: 18th March, 2017.

TO WHOM IT MAY CONCERN

This Certificate is being issued to M/s. Damodar Ropeways & Infra Limited (DRIL) having its registered office at 1/A, Vansittart Row, Kolkata – 700001, West Bengal confirming the following arrangement shall be provided to them by Nandankanan Zoological Park Authority in relation to the construction of Passenger Ropeway inside the Nandankanan Zoological Park.

a) Total clear land for subject project shall be provided by the Department free from all encumbrances.
b) The power supply for the subject project shall be provided from already existing 400V-3phase near the area. The cost of supply and consumption of electricity for the ropeway system will be borne by DRIL.
c) Department shall arrange for supply of water at the construction site as also at both ropeway stations. The cost of laying pipe lines and other incidental cost for procuring supply of water from the nearest place as also consumption charges will be borne by DRIL.
d) The Department shall allow Passengers to Ropeway and DRIL's Employees to use the existing passenger amenities like toilet, drinking water etc. inside the Nandankanan Zoological Park.

Deputy Director,
Nandankanan Zoological Park.
Po: Barang, Dist : Khordha
PIN-754005, Odisha.

Deputy Director
Nandankanan Zoological Park

NOC COPY FROM WILDLIFE

GOVERNMENT OF ODISHA

FOREST AND ENVIRONMENT DEPARTMENT

* * * *

No. FE-WL-WLF-0032-2016/ 7088 / F&E, dated 07.04.17

From:

Shri Debidutta Biswal, IFS

Special Secretary to Government

To

The PCCF (WL) & CWLW, Odisha

Sub: Issue of NOC in favour of M/s Damodar Ropeways & Infra Limited Kolkata for construction and operation of passenger aerial Ropeway at Nandankanan Zoological Park.

Sir,

In inviting a reference to your letter No. 2498 dt. 20.03.2017, on the subject cited above, I am directed to say that NOC is here by granted in terms of clause 19(l) of the agreement dated 29.07.2016 in order to enable M/s Damodar Ropeways & Infra Limited, I/A, Kolkata to apply for environmental clearance, as per prevailing rules and regulations, for construction and operation of passenger aerial Ropeway at Nandankanan Zoological Park.

Yours faithfully,

Special Secretary to Government

Memo No. 7089 / F & E, Dt. 07.04.17

Copy forwarded to the Director / Deputy Director Nandankanan Biological Park for information and necessary action.

Special Secretary to Government