

ORISSA STATE ROAD PROJECT

PHASE - II,

Jagatpur – Chandbali Road Corridor (Package - P04)



Environmental Impact Assessment Report

July - 2013

Prepared By

ORISSA WORKS DEPARTMENT

GOVERNMENT OF ORISSA

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ABBREVIATIONS

ADB	Asian Development Bank
ASI	Archaeological Survey of India
ADVs	Animal Drawn Vehicles
BP	Bank Practices
BH	Breast Height
BR	Biosphere Reserve
CAMPA	Compensatory Aforestation Fund Management and Planning Authority
CD	Cross Drainage
CGWB	Central Ground Water Board
CoI	Corridor of Impact
CPCB	Central Pollution Control Board
CPR	Common Property Resources
CT	Census Town
DCAC	District Compensation Advisory Committee
DFO	Divisional Forest Officer
DOE	Department of Environment
DPR	Detailed Project Report
EA	Environment Assessment
EAC	Expert Appraisal Committee
EE	Environment Expert
EIA	Environment Impact Assessment
EIAA	Environment Impact Assessment Authority
EMAP	Environment Management Action Plan
EMP	Environment Management Plan
FACOR	Ferro Alloys Corporation of Odisha
F(C) Act	Forest Conservation Act
FGD	Focus Group Discussion
FRP	Fiber Reinforced Plastic
GoI	Government of India
GoO	Government of Odisha
GP	Good Practices, Gram Panchayat
HAL	Hindustan Aeronautics Limited
HdVs	Human Drawn Vehicles

Ibs	Inspection Bungalows
IER	Independent Environmental Review
IMD	Indian Meteorological Department
IMFA	Indian Metals & Ferro Alloys Corporation
IRC	Indian Road Congress
ISAP	Institutional Strengthening Action Plan
KBK	Koraput-Bolangir-Kalahandi
LCV	Light Commercial Vehicles
MDR	Major District Road
MoEF	Ministry of Environment & Forests
MoST	Ministry of Surface Transport
MOU	Memorandum of Understanding
NAC	Notified Area Council
NALCO	National Aluminium Company
NCDB	Noise Cum Dust (control) Barrier
NGO	Non Government Organization
NH	National Highway
NOC	No Objection Certificate
NTPC	National Thermal Power Corporation
O&M	Operation & Maintenance
OBCC	Odisha Bridge Construction Corporation
ODR	Other District Road
OFC	Optical Fibre Cable
OFDC	Odisha Forest Development Corporation
OP	Operational Policies
OSPCB	Odisha State Pollution Control Board
OSRP	Odisha State Roads Project
OT&OFPT Rules	Odisha Timber & Other Forest Produce Transit Rules
OUAT	Odisha University of Agriculture & Technology
OWD	Odisha Works Department
PA	Protected Areas
PAPs	Project Affected Persons
PC	Priming Coat
PCC	Portland Cement Concrete

PCCF	Principal Chief Conservative Forest
PF	Protected Forest
PHC	Primary Health Center
PHD	Public Health Department
PIA	Project Influence Area
PIU	Project Implementation Unit
PMU	Project Monitoring Unit
PRF	Proposed Reserved Forest
PRI	Panchayat Raj Institutions
RAP	Resettlement Action Plan
RCC	Reinforced Cement Concrete
RF	Reserved Forest
R&R	Rehabilitation & Resettlement
RD	Rural Development
ROB	Road Over Bridge
RoW	Right of Way
RPDAC	Resettlement and Periphery Advisory Committee
RWSS	Rural Water Supply and Sanitation
SC	Scheduled Caste, Supervision Consultant
SEZ	Special Economic Zone
SEIAA	State Environment Impact Assessment Authority
SH	State Highway
SHG	Self Help Group
ST	Scheduled Tribe
ToR	Terms of Reference
TW	Tube Well
VECs	Valued Environment Components
VF	Village Forest
WB	World Bank
ZOI	Zone of Influence

EXECUTIVE SUMMARY

ES 1.0 Introduction

The Government of India has requested the assistance of the World Bank for upgrading and rehabilitation of State Highways, Major District Roads and Other District Roads in the State of Odisha at a total estimated project cost of US\$ 265 million¹. The International Bank for Reconstruction and Development shall fund US\$ 196 million and remaining USD 69 millions shall be through the Odisha State funding. The Odisha Works Department (OWD) will be the executing agency for the Project.

The Odisha State Roads Project (OSRP) is a road upgrading and rehabilitation initiative of the Govt. of Odisha with financial assistance from the World Bank. The OSRP includes rehabilitation and improvement of existing roads by widening and strengthening pavements. In addition, minor realignments are being/will be carried out where found necessary. The intention is to remove transport bottlenecks in targeted corridors, thereby increase the capacity of the road, decrease travel time and reduce congestion thereby drawing greater investment and economic and social development activities in the state of Orissa.

The project was restructured in February 2013 and changes were made in “Road Corridor Improvement” component that includes widening, strengthening and selective realignment of about 310 km of existing roads in the State of Odisha to the double-lane standard, to be completed in two phases: (i) Phase I Roads, comprising about 204 km; and (ii) Phase II Roads, comprising 106 (Jagatpur - Chandbali) km.

Under Phase I of the Project, 204 km of State Highways have been selected for upgrading and rehabilitation and these works are currently under execution. These roads were short listed based on technical and economic evaluation studies conducted by Odisha Works Department (OWD) of Government of Odisha. The preparation of Detailed Project Reports for these State Highways under Phase I involved through on-site data collection on traffic volumes, existing pavement condition in terms of roughness and design, assets and resources within and outside the Right of Way. The technical and safeguard reports were prepared (including review by Independent Consultant) and disclosed in 2007. Also cost estimates, bid documents have been prepared along with measures to address environment and social issues in the light of World Bank guidelines, statutory requirements of Government of India and those of State Government.

The present Environmental Impact Assessment exercise relates to the fourth road, Jagatpur to Chandbali comprising of a length of 106 km that has been selected for inclusion as part of Phase II works under the project. The output of the EIA exercise is a corridor specific Environmental Management Plan, which is a stand-alone report in itself.

¹ As per the Project Restructuring carried out in January 2013. The figures in 2007 when the project was approved by the Bank were different.

Project Road

The Project Road Jagatpur – Chandbali starts from the junction of NH 5 (km 28) at Jagatpur (near Cuttack i.e. km 0 of project road) and ends at km 45 of SH 9 beyond Chandbali. The total length of the project road is 106 km.

The existing road is a single lane carriageway with condition of horizontal and vertical geometric varying from average to poor. The existing Project Roads has sharp horizontal curves and insufficient vertical design standard, which do not provide adequate overtaking sight and stopping distance even for 35 kmph thereby making the accidents more frequent.

Table ES 1.1: General Information about the Project Road

Project road Features	Description	
	Chainage	Geographical Coordinates
Starting Point	km 0.000	20°29'44"N, 85°55'23"E
Ending point	Km 45 of SH-9	20°48'22"N, 86°45'36"E
Road length	106 km	
State	Odisha	
District en-route	Cuttack, Kendrapada and Bhadrak	
Village along the road	Total: 113 villages (Cuttack – 44, Kendrapada - 62, & Bhadrak:07nos	
Proposed ROW	26 m in open area, 16m in built up area and 35 m for Bypasses	

ES 2.0 Project Description

The road corridor is proposed for widening and strengthening to two lane carriageway width hard shoulders on either side. In open/rural areas, the carriageway width has been taken as 7.0 m with 2.5m wide hard shoulders on either side. In built up areas, paved shoulder of 1.5 m widths shall be provided making total roadway width of 10 m. Beyond this, covered drains shall be provided at built-up areas which will be used as walkway.

Table ES 2.1: Proposed Paved Shoulder Stretches

S.No.	Chainage		Length (km)
	From	To	
1	0.000	54.250	54.250 (Continuous stretch)
2	57200	57400	200
3	58050	58450	400
4	62950	63200	250
5	65400	65900	500
6	69400	69650	250
7	72050	72450	400
8	84950	85550	600
9	94750	95000	250
10	95000	95400	400
11	99800	100100	300
12	100100	101400	1300
13	101400	101750	350
14	101750	102000	250
15	102000	102200	200
16	104500	104700	200
17	104950	105100	150

Table ES 2.2: Location of Service Road

S.No	Chainage		Length (m)	Remark
	From	To		
1	48.250	49.0	750	proposed for diversion of local traffic at Kendrapara
2	49.200	53.200	4000	

Table ES 2.3: Locations for New/Re-Alignment

Sl.No.	From	To	Length (m)
1	37.900	38.100	200
2	56.200	56.450	250
3	73.400	73.650	250
4	97.690	98.150	460
5	98.500	99.100	600

Table ES 2.4: Propose roadside drain locations

From	To	Sides	Length (m)	From	To	Sides	Length (m)
0	1.900	Both	1900	48.250	48.950	Both	700
2.200	2.400	Both	200	49.100	49.200	Both	100
2.530	2.800	Both	270	50.000	52.000	Both	2000
3.850	4.300	Both	450	53.200	54.000	Both	800
5.800	7.200	Both	1400	55.100	55.300	Right	200
7.550	7.950	Both	400	55.300	55.550	Both	250
9.300	9.6600	Both	360	56.600	56.850	Both	250
10.100	10.48	Both	380	57.200	57.400	Both	200
10.600	10.700	Right	100	58.050	58.450	Both	400
10.700	10.850	Left	150	62.950	63.200	Both	250
13.800	14.000	Both	200	65.400	65.900	Both	500
16.600	17.100	Both	500	69.400	69.65	Both	250
17.700	20.800	Both	3100	72.050	72.450	Both	400
22.150	22.500	Both	350	84.950	86.450	Left	1500
24.000	24.250	Both	250	84.950	86.450	Right	1500
26.600	26.800	Both	200	94.750	95.000	Left	250
27.250	28.400	Both	1150	95.000	95.400	Both	400
32.650	33.200	Both	550	99.800	100.100	Left	300
35.250	35.900	Both	650	100.100	101.400	Both	1300
38.600	39.550	Both	950	101.400	101.750	Left	350
41.400	41.600	Both	200	101.750	102.000	Both	250
43.300	43.600	Both	300	102.000	102.200	Left	200
44.300	44.800	Both	500	104.500	104.700	Right	200
44.800	45.150	Left	350	104.950	105.100	Both	150
47.950	48.250	Right	300	Total Drain Length		27860	

Table ES 2.5: Improvement Proposal for Bridges and Culverts

Structure Type	Total No. Existing	Retained	Replaced	Widened	Choked / Not Visible	New	Total after Improvement
Major Bridges	3	3	nil	nil	---	nil	3
Minor Bridges	13	8	5	Nil	Nil	3	16
Culverts	144	Nil	126	16	2	190	332

Pedestrian and Cattle Underpass

There is a provision of 5 cell 8 mts. span box cell culverts provided in the Pattamundai bypass section at Km.70+100 which shall work both as a drainage outlet and also as pedestrian under pass as there is no defined nullah in the stretch. Further, 6 cattle under passes have been proposed at km.78+980, 91+800, 92+800, 93+800, 96+320 & 96+920 due to high embankments at flood prone sections and bridge approaches.

Safety Crash Barrier

The Guard Posts has been proposed at 130 locations (**Annexure - 2.3**) and crash barrier has been proposed at 3 major bridges (250m at 2 sides on both ways) and 16 minor bridges (80m at 2 sides on both ways).

Table ES 2.6: The Abstract of Quantities of safety devices

Sl No.	Safety Devices	Quantity
1	Stop	183
2	Restriction Ends	63
3	Speed Limit-50	05
4	Speed Limit-65	57
5	School Zone	39
6	Compulsory Sound Horn	282
7	Cross Road	49
8	Right Side Road – T	95
9	Left Side Road – T	95
10	Right Hand Curve	58
11	Left Hand Curve	58
12	Right Reverse Bend	07
13	Left Reverse Bend	7
14	Pedestrian Crossing	161
15	Staggered Intersection	70
16	Left Side Road – Y	146
17	Right Side Road – Y	146
18	Narrow Bridge	19
19	Series of Bends	05
20	Hump	174
21	State Route Marker Sign	21
22	Petrol Bunk	21
23	Hospital	20

Table ES 2.7: Proposed Bus Bays Locations

Sl. No.	Chainage	Side	Sl. No.	Chainage	Side	Sl. No.	Chainage	Side	Sl. No.	Chainage	Side
1	1900	L	26	20300	L	51	43690	L	76	71400	L
2	2000	R	27	22220	L	52	44650	L	77	72710	L
3	3750	L	28	22300	R	53	44800	R	78	72810	R
4	4350	R	29	23900	R	54	45800	R	79	74631	R
5	5740	L	30	24300	L	55	45850	L	80	74651	L
6	6200	R	31	26900	R	56	48000	R	81	77500	L
7	7450	L	32	27160	L	57	48100	L	82	77900	R
8	7750	R	33	28000	L	58	49200	R	83	78990	L
9	9200	L	34	29650	L	59	50400	L	84	79750	R
10	9640	R	35	30950	R	60	51250	R	85	84820	L
11	10000	L	36	31000	L	61	51850	L	86	85550	R
12	10200	R	37	32850	L	62	51880	R	87	93865	L
13	10600	L	38	33000	R	63	53800	R	88	93900	R
14	10900	R	39	33700	R	64	54550	L	89	94830	R
15	12980	L	40	34000	L	65	54600	R	90	95400	L
16	13950	R	41	35250	L	66	55200	L	91	101600	R
17	14000	L	42	35750	R	67	56800	L	92	103020	L
18	15600	L	43	36950	L	68	57350	R	93	104180	R
19	15650	R	44	37000	R	69	58200	L	94	104420	L
20	16750	L	45	37800	R	70	58400	R			
21	17100	R	46	38370	L	71	61600	L			
22	18650	L	47	38570	R	72	61820	R			
23	18670	R	48	41150	L	73	62850	R			
24	19555	R	49	41155	R	74	63200	L			
25	19775	L	50	43230	R	75	65300	L			

ES 3.0 Policy, Legal and Administrative Framework

Review of the existing legislation, institutions and policies relevant to the Environmental Impact Assessment for Orissa State Road Sector Project at the National and State levels are reviewed and identified the clearance requirement for the project at various stages of the project. The requirement obtaining the clearances for the project at project preparation stages are summarised below;

ES Table 3.2: Key Regulatory Requirements for Jagatpur – Chandbali Road

Type of Clearance	Project Stage	Responsible Agency for Obtaining Clearance	Remark
Consent to Establish and Operate from OSPCB	Pre Construction	Contractor	Prior to installation of Plant (HMP, WMM, Concrete Batching Plant, Crushers etc).
Environmental Clearance from MoEF	Pre Construction	Odisha Works Department	As per EIA notification as amended in 2011, only construction of new and

Type of Clearance	Project Stage	Responsible Agency for Obtaining Clearance	Remark
			expansion of Expressway, National Highway and State Highway requires EC. The project road is categorised as Major District Road and does not fall under categories notified in EA notification. Hence, EC is not required for the road corridor.
Tree Cutting Permission	Pre Construction	Orissa Works Department	Obtained except for one section (on Jagatpur side)
Consents under Air and Water Act stage (Prior to initiation of any work) for establishment of construction camps	Construction stage	Contractor	Prior to initiation of any work.
Explosive License for storing fuel oil, lubricants, diesel, etc. at construction camp from Chief Controller of Explosives, Nagpur	Construction stage	Contractor	Prior to initiation of any work.

ES 4.0 Analysis of Alternatives

Analysis for alternatives was carried out for with project and without project scenario, taking into account different parameters as given in Table ES 4.1. Based on comparative analysis below, 'With' project scenario with its minor adverse impacts is more acceptable than the 'Without' project scenario which would mean an aggravation of the existing problems. The potential benefits of the proposed road improvements are substantial and far-reaching both in terms of the geographical spread and time. Hence, it is clear that the implementation of the project will be a definite advantage to State of Odisha in order to achieve all-round development of its economy and progress of its people.

Table ES 4.1: Comparative Analysis of 'With' and 'Without' Project Scenario

Component	With Project Scenario	Without Project Scenario
Carriageway	<ol style="list-style-type: none"> 7.0 m Carriageway with paved shoulder for 69 km. 7.0 m carriage way with hard shoulder for 37 km. Rigid concrete pavement for 30 km in built up area. Raising of embankment at all locations where submergence was there. Provision of 334 CDS for safe and quick discharge of water. 	<p>Carriage way varies from 3.50m to 5.5m all throughout.</p> <p>Existing 129 CDs are in poor condition and not catering to drainage requirements.</p>

Component	With Project Scenario	Without Project Scenario
Traffic congestion	<ol style="list-style-type: none"> 1. Bye pass suggested at Pattamundai. 2. Service lanes being provided at Kendrapara. 3. All utilities shifted beyond road area and drains provided. 	<ol style="list-style-type: none"> 1. Pattamundai market area is heavily congested. 2. Kendrapara market area is heavily congested. 3. Market area generally congested everywhere due to electric poles and poor drainage.
Road Safety	<ol style="list-style-type: none"> 1. The horizontal and vertical geometry shall be improved to provide a smooth and safe road. 2. Safety measures and devices shall be enhanced by providing white markings on the surfaces and providing adequate furniture, signage and appurtenances for better visibility at night. 3. Traffic islands, rumble strips are provided near Minor Junctions. 	Basically no road safety provisions in particular.
Environmental Quality	<ol style="list-style-type: none"> 1. Adequate and appropriate drainage facilities provided. 2. All the submersible areas have been improved to provide all weather access. 3. Slope protection measures have been taken with provision of erosion control blanket and stone pitching. 4. Provision of silt fencing made to reduce construction generated silt losses. 5. Wild life mitigation measures taken, reptile passes provided. 6. Precautions taken not to impact Water quality during construction and operation. 7. Air quality and noise pollution shall be improved in the congestion areas due to smooth traffic flow. 8. Biodiversity are embedded in the project scenario. 	Environment parameters were absent.
Better Transportation Facilities	The road shall be widened to cater to the projected traffic need after twenty years. The pavement condition would improve resulting into reduce the travel time, vehicle operating and maintenance cost etc. that will adds to accessibility of the road users to various important centers.	Narrow and poorly surfaced roads not facilitating easy transport, inaccessible to important centers due to high travel time.
Economic Development	The improve road will provide accessibility to markets and open opportunities to employments, trade and commercial activities. In addition to catering to the needs of social and environmental aspects of the locality so that there is spiraling growth of the area contributing immensely to the development of the state.	Meager economic activities going on at present. Also the external market and agencies do not reach the public in time.
Regional connectivity	All weather connectivity to the district Headquarters at Cuttack and Kendrapara shall be improved. Connectivity to the state capital shall be better.	No connectivity is available at present for the local people to approach the Administration during flood. The Administration too feels helpless being unable to extend its support and services during such peril.
Accessibility to growth centers/market	All weather connectivity to the growth centers at Cuttack and Bhubaneswar and market at Cuttack shall be improved.	People remain inaccessible for a long period every year due to flood which ruins their economic backbone.
Employment	Once this facility is put to operation, economic	Many people do not prefer to move out of

Component	With Project Scenario	Without Project Scenario
opportunities	and trade activities shall flourish and in turn shall generate employment opportunities.	their village due to poor connectivity.

ES 5.0 Description of Environment

Baseline data has been collected including meteorological data, water quality, air quality, soil quality, noise levels, flora, fauna, land used and socio-economic status for the Project influence area during the project preparation stage, which is summarized in **Table ES 5.1**.

Table ES 5.1: Summary of Baseline (Jagatpur –Chandbali)

Environmental Parameters	Remark
Physiography	Flat terrain
Gelogy	Rock formations belonging to Archaean system of Pre-Cambrian geological age and Recent to sub-recent sediments
Temperature	Maximum 35-40 °C Minimum 12-14°C
Rainfall	1500 mm
Soil Type	Lateritic, Coastal Saline And Alluvial, And Deltaic Alluvial
Surface water bodies crossing/ along the road: River/Canal/Stream/Ponds	3 Rivers, 44 Ponds
Ground Water Bodies along the road: HP/TW/Well/Stand Post	72 Wells, 37 Tube Wells, 36 Stand Posts
Surface and ground Water Quality	All parameters within permissible limit, except for Iron content that is exceeding the prescribed limit.
Air Quality	Within permissible limit
Noise Level	Within permissible limit
Forest Along the Road	Road side trees declared as Protected Forest in Odisha
Eco-sensitive area with 10 km	Bhitarkanika Wildlife Sanctuary
Avenue Trees along the road	7568 Nos.
Settlements Along the road	116 Nos.
Religious Properties along the road	165 Nos.
Educational Institutes Along the road	21 Nos.
Land Use Along the road	Agriculture, Built Up Area, Commercial Area, Industrial Area

ES 6.0 Public Consultation

The project has ensured involvement of various stakeholders and people in project planning, implementation and operation. The consultations under the project were conducted during Feasibility Stage and Detailed Project Preparation stage, so that people aspiration of people is assessed for collective and mutually agreed project decisions. The consultation mechanism has been designed in such a manner that every stratum of society and concerned administration is consulted at different spatial hierarchy.

- i. District Level consultation
- ii. Village Level Consultation
- iii. Focused Group Discussion

ES 6.1: Date and Venue of District Level Meeting

Sl. No.	Name of the District	Date of Meeting	Venue	Important Participants
1	Bhadrak	8-12-2006	DRDA Conference Hall	MP, MLA, Chairman, Zilla parishad and, Panchayat president, Vyapari sangh and District Officials, media persons
2	Cuttack	23-12-2006	DRDA Conference Hall	Officials from Revenue, line department, forest elected representatives and common people, media persons
3	Kendrapada	26-12-2006	DRDA Conference Hall	Officials from Revenue, line department, forest elected representatives and common people, media persons

Table ES 6.2: Date and Venue of Project Level Consultation

Sl. No.	Date of Meeting	Venue	Important Participants
1	21.04.2013	Gulnagar High School, Kendrapada	PAP's and residents along project road.
2	21.04.2013	Maa Tarini Peeth, Gopapur	
3	22.04.2013	Irrigation Inspection Bungalow, Gogua	
4	24.04.2013	Paga Bazaar Haat, Paga Bazaar	
5	24.04.2013	Maa Basulei Peeth, Padampur	
6	24.04.2013	Gokarneswar Shiv Temple, Kantapada	
7	25.04.2013	Maa Saheswari Temple Complex, Salepur	
8	25.04.2013	Sureswar Temple, Krushnapur	

ES 7.0 Environmental Assessment of the Project

The detailed design of the project has been closely coordinated with the preparation of this Environmental Impact Assessment Report and the Environmental Management Plans. The EA preparation led to identification of potential negative environmental impacts and their feasible remedial measures (including avoidance, mitigation and enhancements). Based on these findings Environmental Management Plans (EMPs) have been prepared (separate volume) for the implementation for the construction package. The EMPs detail the potential negative impacts and list specific mitigation measures that are required to be included and will form the part of the Contract documents between the Contractor and the Client.

Table ES 7.1: Impact Matrix

Sl. No.	Parameter	Details
Negative Impacts		
1	Hand Pumps/Tube wells Relocation (Nos.)	146
2	Religious	66
3	Total Land for Acquisition (ha.)	235.565 Ha
•	Private lands	72.288 Ha
•	Government lands	163.197 Ha
4	Borrow Earth (Cum)	1130432
5	Quarry Material (Cum)	556741
6	Water (Cu.m)	135562
7	Nos of trees to be felled (Nos)	7568
Positive Impacts		

Sl. No.	Parameter	Details
1	Enhancement sites	
A	Cultural/Religious Properties (Nos)	2
B	Surface water body	
•	Bathing Ghat (location)	4
•	Spillway Gate (location)	4
C	Sensitive Receptors (Educational Institutes/Hospital/Religious Place)	
•	MS Grill Gate (location)	21
•	Metal Barricades (location)	15
D	Utility Ducts (location)	65
E	Enhancement of Bus bays	94
F	Wall Noise Barrier	19
G	Reptile Under Passess	26
2	Protection Work	
A	Erosion Control Blanket (location)	2
B	Toe Wall (location)	44
3	Road safety Measures	
A	Minor junction improvement (nos.)	229
B	Bus Bays (nos.)	94
C	Cattle Underpass (locations)	7
D	Signage (nos.)	
•	Stop	183
•	Restriction Ends	63
•	Speed Limit-50	05
•	Speed Limit-65	57
•	School Zone	39
•	Compulsory Sound Horn	282
•	Cross Road	49
•	Right Side Road – T	95
•	Left Side Road – T	95
•	Right Hand Curve	58
•	Left Hand Curve	58
•	Right Reverse Bend	07
•	Left Reverse Bend	7
•	Pedestrian Crossing	161
•	Staggered Intersection	70
•	Left Side Road – Y	146
•	Right Side Road – Y	146
•	Narrow Bridge	19
•	Series of Bends	05
•	Hump	174

Sl. No.	Parameter	Details
•	State Route Marker Sign	21
•	Petrol Bunk	21
•	Hospital	20
•	Crash Barriers (locations)	19
•	Guard Post (location)	130
4	Drainage	
A	Drain (length in Km)	27.86
B	New Culverts	190
C	New Minor Bridges	3
D	Reconstruction & Replacing	126

Integration of Environmental and Social Considerations into Design

Collaboration between design engineers and environmental and social teams during the preparation of environmental and social assessment has ensured that the best design with minimal damage is adapted to minimize loss of significant of sensitive features such as road side vegetation, local water resources, sensitive cultural and religious sites, heritage trees and age old ritual sites. Care has been taken to ensure that the downstream users of drainage systems such as residents/inhabitants of the areas and agriculturalists are not distressed or seriously affected on account of certain road construction activity and designs, which otherwise would have undesirable consequences on the flora, fauna and the human habitations. Similarly certain designs were customized into standard designs to reduce impact on built-up areas - cross section, embankment height or pavement improvements have been adjusted so that the adverse impacts from design and construction works can be better managed. Since a substantial stretch of the road passes through thickly populated alluvial plains of the coastal districts, the road design in these localities have been prepared in such a manner that, minimum residents are affected on account of road widening. In village sections a minimum standard width 7mtr carriage way with 1.5mtr line drain to serve as drainage system cum utility tract and pavement for the pedestrians with pedestrian guardrails has been provided so that the direct effects of the widening can be reduced. The speed limit has been kept to around 60km per hour in stretches with road side habitations. Additionally, traffic claiming measures will be required to enforce the designated speed limits.

ES 8.0 Conclusion

The proposed up-gradation and strengthening of Jagatpur – Chandbali road will have multiple benefits in terms of economic development and fast connectivity. All environmental impacts identified and assessed are manageable to acceptable levels by implementing environmental management plan.

CHAPTER 1

INTRODUCTION

1.0 Background

The state of Odisha is located between latitude 17-48' to 22-34' North and 81-24' to 87-29' East longitude in the Indian Sub-continent as 10th large state of India with a geographical area of 155707 Sq. Km. It is bound by the Bay of Bengal in the East, West Bengal in the North East, Bihar & Jharkhand in the North, Chhattisgarh & MP in the West, South west, Andhra Pradesh in the South. The state has near about 480 Km of coast line.

The state has 3 revenue Divisions, 30 districts, 57 sub-divisions, 114 Tehsils, 314 Community development blocks for administration and community development. The decennial growth rate of the population was 20.06% from 1981 to 91. During 2001 this was found out to be average 236 persons per Sq.km, as against 203 persons during 1991. The male female ratio is 1000/972 against national average of 933. The Scheduled cast and Scheduled Tribe population comprise 16.20 and 22.21% respectively of the total population. The literacy rate was 49.09% in 1991 which has increased to 63.61% as per 2001 census data with increase in female literacy from 34.68% to 50.97%.

The annual average rain fall is around 1400 mm constituting 80.83% of this precipitation during monsoon months (June to September) and rest during post monsoon (October, November). The average number of rainy days is around 70 days. The most disturbing trend in the rain fall pattern is found out to be failure of monsoon precipitation at nick of the moment when the cropping pattern requirement is maximum leading to loss of agriculture. There has been another disturbing trend which shows a marked increase in the number of depressions in the Bay of Bengal & whirl winds in interiors areas of the state causing flash floods and series of destructions in the coastal as well as hilly tracts. The mean monthly temperature is around 37.1°C in the month of May, whereas the monthly minimum temperature is about 13.8°C mostly this is during mid-December to 2nd week of January. The highest temperature recorded is 52°C in Talcher surpassing the previous high of 47°C - 51°C. This is confined to pollution hot spots and low rainfall zones like Talcher, Rourkela, Ib valley, Joda – Badabil and Titlagarh.

The industries are now coming up in the state which are capital intensive and guzzlers of fossil fuel, minerals from mines and water from rivers, releasing millions of tons of un-utilizable wastes, particulate matter and bringing in wide spread loss of vegetation shall put the state under near desert conditions within the coming 20 years due to increase in temperature, pollution of air, loss of available water to sustain agriculture and Eco flow.

The economic prosperity of the state depends on its infrastructure. Surface transport is one of the main components of infrastructure which ushers in socio-economic development as roads are like arteries, which help in circulation of men, materials and economic benefits to the remote corners of the state. Highways are one of the major modes of inland transport of goods and services as compared to other mode of transport which can not deliver the goods and services at door steps. The pace of progress, in all fields from Mining to industry, Agriculture to defense all need a well designed road network to attract investment in industry, food production and trade, tourism and education, urban housing and health

services. Odisha with its poor roads condition, lack of funds to widen and maintain the existing ones have been the bottleneck for lagging behind in the economic front. The corridor development project was initially conceived in the year 2000 but could not proceed. The present Government has again embarked upon the road development in a big way through revival of the Odisha State Roads Project (OSRP), under Odisha Works Department (OWD).

1.1 Project Description

The Government of India has requested the assistance of the World Bank for upgrading and rehabilitation of State Highways, Major District Roads and Other District Roads in the State of Odisha at a total estimated project cost of US\$ 265 million². The International Bank for Reconstruction and Development shall fund US\$ 196 million and remaining USD 69 millions shall be through the Odisha State funding. The Odisha Works Department (OWD) will be the executing agency for the Project.

The Odisha State Roads Project (OSRP) is a road upgrading and rehabilitation initiative of the Govt. of Odisha with financial assistance from the World Bank. The OSRP includes rehabilitation and improvement of existing roads by widening and strengthening pavements. In addition, minor realignments are being/will be carried out where found necessary. The intention is to remove transport bottlenecks in targeted corridors, thereby increase the capacity of the road, decrease travel time and reduce congestion thereby drawing greater investment and economic and social development activities in the state of Orissa.

The project was restructured in February 2013 and changes were made in “Road Corridor Improvement” component that includes widening, strengthening and selective realignment of about 310 km of existing roads in the State of Odisha to the double-lane standard, to be completed in two phases: (i) Phase I Roads, comprising about 204 km; and (ii) Phase II Roads, comprising 106 (Jagatpur - Chandbali) km.

Under Phase I of the Project, 204 km of State Highways have been selected for upgrading and rehabilitation and these works are currently under execution. These roads were short listed based on technical and economic evaluation studies conducted by Odisha Works Department (OWD) of Government of Odisha. The preparation of Detailed Project Reports for these State Highways under Phase I involved through on-site data collection on traffic volumes, existing pavement condition in terms of roughness and design, assets and resources within and outside the Right of Way. The technical and safeguard reports were prepared (including review by Independent Consultant) and disclosed in 2007. Also cost estimates, bid documents have been prepared along with measures to address environment and social issues in the light of World Bank guidelines, statutory requirements of Government of India and those of State Government.

The present Environmental Impact Assessment exercise relates to the fourth road, Jagatpur to Chandbali comprising of a length of 106 km that has been selected for inclusion as part of Phase II works under the project. The output of the EIA exercise is a corridor specific Environmental Management Plan, which is a stand-alone report in itself.

² As per the Project Restructuring carried out in January 2013. The figures in 2007 when the project was approved by the Bank were different.

1.2 Objectives of the Project

The main objective of the OSRP is to increase the capacity of the roads and meet forecast increases in traffic, improve road conditions, decrease travel time, reduce congestion, provide improved operating costs to vehicle users and minimize environmental and social impact. Multiple secondary uses of the project road is also a prominent factor and due recognition will also be given to this issue.

Overall project aims are outlined in the Feasibility study includes:

- Reduce the transport operation cost by improving the riding quality of the roads
- Reduce journey time by minimizing congestion in urban centers:
- Minimize road accidents by increasing road widths, improving intersections and road geometry
- Upgrade roads to function in all weathers by improving drainage and raising road levels
- Provide route options to achieve better distribution of traffic
- Provide structurally sound roads capable of achieving their design life.
- Minimize subsequent in use annual road maintenance costs.
- Minimize the social and environmental impact from road improvement works.

1.3 Purpose of the Environmental Assessment

This EIA is both a planning tool and a mechanism for decision making. The main objectives are to:

- Assess potential environmental impacts associated with the project:
- Establish an engineering design philosophy that integrates environmental and social considerations into the project's detailed engineering/technical designs.
- Assess alternatives and provide inputs into project design.
- Design adequate and practical mitigation and management measures to be implemented during road construction and operation to avoid or minimize adverse impacts.
- Improve/manage health and safety conditions
- Propose and design environmental enhancements to be incorporated in the contract specification.

1.4 Boundaries of the Project Road

The Jagatpur – Chandbali project covers portions of MDR between Jagatpur to Baitarani Bridge over 99 km and remaining 7 km stretch of SH-9. The road covers the districts of Cuttack, Kendrapada and Bhadrak, which passes through thick habitations of Jagatpur, Bahugram, Salepur, Kendrapada, Patamundai, Aul up to Chandbali bridge and 7 km beyond Chandbali town across river Baitarani, the remaining portions of SH-9. This corridor provides access to main market of Jute, Rice and agricultural product, industries like Jute, Textile and paper mills and also connects places of tourism interests namely Ratangiri and Udaigiri and also breeding centers of crocodile and turtles at Bhitarkanika and Tikarpada. This road is located within 10 km radial distance of Bhitarkanika wildlife sanctuary and

National park, which is an important tourist spot for nature lovers and protection of rare flora and fauna.

1.5 Scope of EIA Report

The scope of this environment impact assessment study is to ensure that the EIA meets all requirements of World Bank Operative Directive 4.01 and the project complies with the statutory requirements. In addition to a standalone report already prepared for all the Phase –I roads, the report intend to assess the proposed project probable impacts that will be on

- Geophysical changes that may be brought under due to the corridor development, which are widely fluctuating from one corridor to other.
- The drainage systems and the effects of agriculture, that may undergo a change.
- The geological formation and the effects of road widening in ghats over the area and in the immediate vicinity and beyond to accesses the positive and negative effects.
- Standard design concept and specific environmental issues along the project corridor, those have been accommodated by integrating environmental and social requirements into detailed design and minimizing impacts thereby.
- Relevant legislations, policy and standards including statutory summary of the requirements by the GOI and State department with that of the World Bank requirements.
- EIA methodology including site investigation, research on issues, analysis of data and preparation of the report for EIA.
- Extensive community and Govt. consultation programs undertaken during the EIA preparation and summaries of the main issues raised during such public disclosure.
- Possible alternative to the OSRP designs and the do nothing options.
- Existing bio-physical environment and identification of relevant issues along the project corridor with baseline data to determine the impact based on VEC (Value Ecosystem Component) are defined by the World Bank.
- Existing socio economic conditions, including summary of community profiles.
- The main issues assessed such as land use, soil and segmentation, vegetation and wildlife, cultural and archeological sites, ambient noise, vibration, air and noise quality.
- Cumulative impact of the OSRP that may develop into potential effects on other major developments in the study area.
- Recommended mitigation measure to minimize impacts.
- Outline Environmental Management Plant (EMP) to be incorporated in the contract document and implemented during construction and operation period.
- Environment enhancement measures to improve or rehabilitate degraded areas.

1.6 Structure of EA Report

The Environmental Impact Assessment Report has been prepared as per format described in the EIA Notification-2006 of Govt. of India and in line with the guidance provided in Bank's operational policies. A separate standalone detailed Environmental Management Plan has

been prepared for the road corridor with detailed mitigation matrix, institutional arrangement, environmental monitoring and environmental budget. The EIA report contains following chapters.

Chapter 1 Introduction provides an introduction consisting of the background of project, brief description of nature, size, location of the project and its importance objectives of EIA and structure of EIA report.

Chapter 2 Project Description describes in terms of its basic activities. This chapter of the EIA report provides sufficient details on the project, need for project, location and description of the project.

Chapter 3 Policy and Legal Framework describes about various National Acts, Policies and Rules along with compliance to the World Bank safeguard policies. The chapter also enlists about details of statutory clearances that are required for the project.

Chapter 4 Analysis of Alternatives examines alternative means of carrying out a project involves description of each alternative, summary of adverse impacts of each alternative, mitigation measures proposed for each alternative and selection of best alternative.

Chapter 5 Description of the Environment provides the details of study area, period, components & methodology, establishment of baseline for valued environmental components, as identified in the scope, it deals with physical and biological environmental components of baseline environmental conditions in the study area of the project road, namely, soil, hydrology, water quality, climatology, meteorology, ambient air quality, noise levels and land use as well as terrestrial ecology. Baseline environmental conditions for demographic and socio-economic aspects are also presented briefly.

Chapter 6 Public Consultations details the overview of the stakeholders consultation carried out during the project preparation stage and people's perceptions of the project benefits and the potential impacts.

Chapter 7 Potential Impacts and Mitigation Measures describe the anticipated potential environmental impacts, both-direct and indirect, reversible and irreversible on different environmental parameters during construction and operation of proposed road.

In addition, to the avoidance and mitigation measures in the Environmental Assessment Report a separate Environmental Management Plan report has also been prepared that discusses management measures, institutional arrangement and various environmental enhancements suggested by the project including the enhancement of common property resources such as community wastewater bodies and cultural resources along the project.

CHAPTER 2 PROJECT DESCRIPTION

2.1 General Project Description

The project road starts from the junction of NH 5 (km 28) at Jagatpur (near Cuttack i.e. km 0 of project road) and ends beyond Chandbali (km 106) and passes through the districts of Cuttack, Kendrapada and Bhadrak. The majority of the project road length (Fig 2.1) is MDR between Jagatpur to Baitarani Bridge for a road length of 99 km (SH9A was de-classified to MDR vide government of Odisha gazette notification dated 24th November 2004 - Copy of Gazette notification enclosed at Annexure – 2.1) and 7 km stretch of SH-9A. The corridor passes through thick habitations of Jagatpur, Bahugram, Salepur, Kendrapada, Patamundai, Aul and Chandbali town. The entire road length is in plain terrain of densely populated and fertile agricultural land. This route has acquired great importance due to direct access to 4-Lane NH-5A (Kendrapada) connecting Paradeep port beside inter-region freight and passenger movement. This corridor provides access to main market of Jute, Rice and agricultural product, industries like Jute, Textile and paper mills and also connects places of tourism interests namely Ratnagiri and Udayagiri and also breeding centers of crocodile and turtles at Bhitarkanika. Recently two major bridges on river Kharashrota (Km 89/4) and Baitarani (Km 99/0) have been constructed and up-gradation of this road corridor will provide new dimensions on overall development of the project area and to the traffic plying through the corridor particularly to heavy commercial traffic.

Fig 2.1: Project Location Map

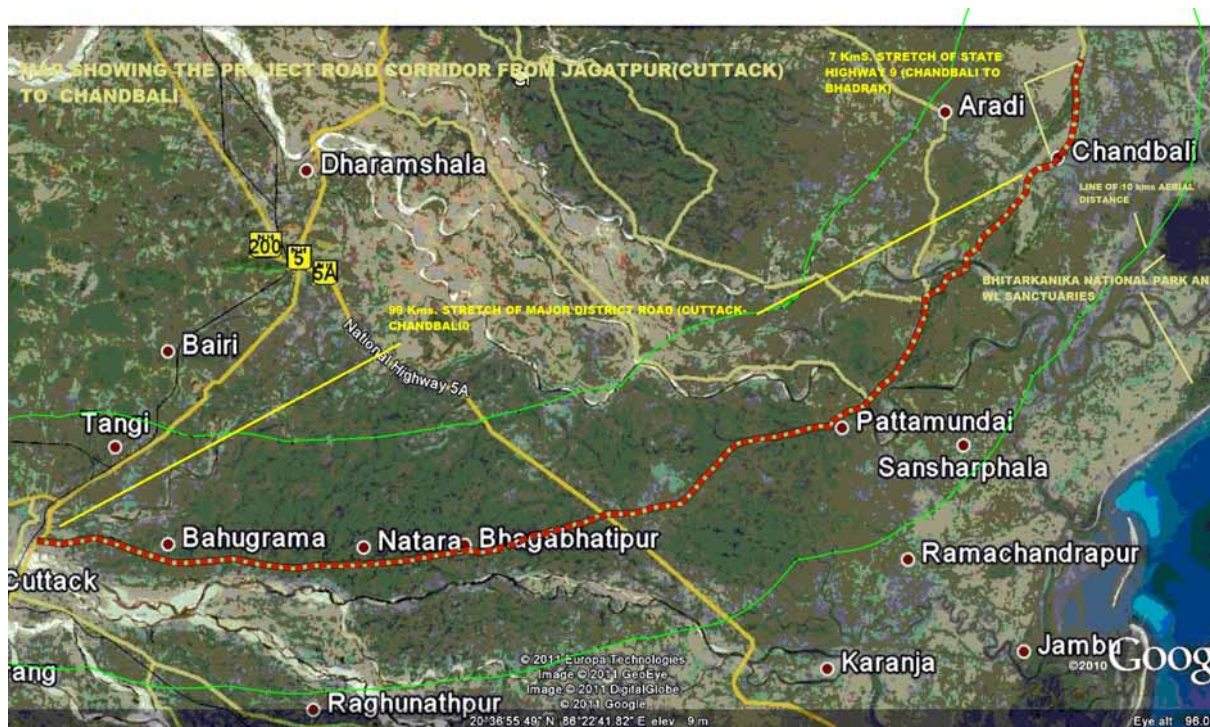


Table 2.1 General Information about the Project Road

Project road Features	Description	
	Chainage	Geographical Coordinates
Starting Point	km 0.000	20°29'44"N, 85°55'23"E
Ending point	Km 45 of SH-9	20°48'22"N, 86°45'36"E
Road length	106 km	
State	Odisha	
District en-route	Cuttack, Kendrapada and Bhadrak	
Village along the road	Total: 113 villages (Cuttack – 44, Kendrapada - 62, & Bhadrak:07nos	
Proposed ROW	26 m in open area, 16m in built up area and 35 m for Bypasses	

2.2 Expected Benefits of the Project

The Project is aimed to remove transport bottlenecks in the road corridor for greater investment and economic and social development activities in the three important coastal districts namely Cuttack, Kendrapada and Bhadrak. The major benefit will be improvement in the performance, safety, and carrying capacity of road in an environmentally and socially sustainable way. The existing horizontal have been modified at critical spots to avoid sharp curves and or accident black spots. Vertical and horizontal alignment designs cater at most of the places to serve the standards fit for good state highways i.e. a speed of 80 km per hour. Cross drainage structures have been widened to cater to the increased width of approach roads. Other aspects like lane marking, road signs, junction improvements with important major roads, providing road side appurtenances/amenities for trucks and buses and pedestrian amenities in built-up areas have all been incorporated in the designs to cater to public needs. Bypass options wherever the roads pass through heavily built up towns have been considered in consultation with OWD and the local public. One bypass alignment around congested town of Pattamundai has been considered to ensure smooth flow of traffic. The project also considers the need for wildlife movement at critical places and provides for animal crossings and reptile passes.

2.3 Existing Road Features

2.3.1 Land Use along the Project Road

The project road passes through district of Cuttack, Kendrapada and Bhadrak. Predominantly land use is under agricultural accounting to 64%, residential 21%, and commercial 15%. The detail break- up is as per given Table 2.2.

Table 2.2 Land Use Pattern of Project Districts (in '000 Ha)

Land use Pattern		Bhadrak	Cuttack	Kendrapada
Forest	Area	10	79	25
	%	1.24	16.68	8.21
Misc. tree crops & grooves	Area	17	5	6
Permanent pasture & other grazing land	Area	14	10	8
Cultivable waste land	Area	11	11	7
Land put to non - agricultural uses	Area	21	60	42
Barren & uncultivable land	Area	4	8	1
Current fallows	Area	8	13	14
Other fallows	Area	13	23	14
Net Area Sown	Area	170	164	138

Land use Pattern		Bhadrak	Cuttack	Kendrapada
Total	Area	268	373	255

2.3.2 Existing Right of Way (RoW)

The existing Right of Way along the project corridors varies from 15 m to 30 m. Encroachment is evident along the existing carriageway with shops and residences in the town areas. The narrow RoW at town and residential areas result into frequent traffic congestion and would pose a challenge during implementation stage. This would require for detailed planning & scheduling (especially monsoon period) of construction activities at such locations to prevent accident, inconvenience to road users, resident along the road and free movement of existing traffic. Details of RoW in project stretch is given in **Table 2.3**.

Table 2.3 Existing RoW of Project Road

From	To	Pavement Width (m)	RoW (m)	From	To	Pavement Width (m)	RoW (m)
01	00	5.5	17-21	32	31	3.9	24
02	01	5.5	22-26	33	32	3.70	20
03	02	5.40	27-21	34	33	5.70	21
04	03	5.3	19-27	35	34	5.0	22-24
05	04	5.3	18-21	36	35	4.2	20-24
06	05	5.9	22-16	37	36	5.45	21-23
07	06	5.3	7.3-25	38	37	5.5	20-21
08	07	5.3	14-10	39	38	4.9	22
09	08	5.5	15-18	40	39	5.2	24-21
10	09	5.8	10-17	42	41	5.2	22-24
11	10	5.10	17	43	42	5.9	24-15
14	13	5.5	21	44	43	5.5	23-20
15	14	5.5	23-22	45	44	4.8	23-18
16	15	5.4	21	46	45	5.6	20
17	16	3.9	22-20	49	48	5.5	18-16
18	17	3.5	22-20	50	49	5.5	29-25
19	18	4.5	22-21	51	50	6.8	52-20
20	19	7.0	20-16	52	51	5.5	21
21	20	4.5	22	54	53	5.4	22
22	21	3.5	22	55	54	5.5	21-22
23	22	5.2	20-24	56	55	4.8	20-22
24	23	3.5	23-22	57	56	5.0	22-20
25	24	3.5	20	58	57	5.2	22-20
26	25	3	22	59	58	4.0	20
27	26	5.00	21	62	61	4.8	30-20
28	27	5.5	22	63	62	3.5	24-22
29	28	3.9	21-19	65	64	5.5	20-23
30	29	3.5	25	66	65	5.5	28-20
31	30	3.6	24	67	66	5.5	32-24
73	72	5.00	28-27	86	85	4.00	20-21
74	73	6.00	34-28	87	86	3.50	18
75	74	3.7	32-30	91	92	3.00	29-20
78	77	3.8	36	93	94	3.00	15-12

From	To	Pavement Width (m)	RoW (m)
79	78	3.6	56-36
80	79	3	34-26
81	80	3.5	36-29
82	81	3.5	42-36
83	82	3.6	34-36
85	84	3.7	30-21

From	To	Pavement Width (m)	RoW (m)
94	95	3.00	30-20
95	96	3.0	27-21
97	98	6.0	19.5-33
99	100	6.0	River
100	106	6.0	15-20

2.3.3 Major Settlements En route and Built-up Area

The project road takes off from Jagatpur and passes through the following settlements. Details of major settlements are given in **Table 2.4** and details of built-up area in project road are given in **Table 2.5**.

Table 2.4 Name of Major Villages/Towns along the project road

District	Name of Villages/Towns
Cuttack	Badakhira, Tarol, Khaera, Imamnagar, Gunjarpur, Bhairapur, Mutarifa, Purvakacha, Trilochanapur, Mohajanpur, Bahadulpatna, Bahugram, Singamapur, Bhatapada, Gangapur, Bahabalapur, Sisua, Sapanpur, Balisahi, Chandradeipur, Lunahar, Betei, Dingeswar, Kulia, Arhanga, Badarautapati, Patapur, Matakatapur, Risho, Mohajanpur, Nischintakoili, Gopapur, Badakhira, Katarapada, Pithapada, Sukarapada, Ranipada, Julki pada, Aenda, Kendilo, Banamalipur, Paschimakhanda, Bhola, Ramarang, Katikata
Kendrapada	Ganeshpur, Bhanagaon, Chandola, Kesharpur, Badasalar, Rajanga, Daliji, Khamola, Syamsundarpur, Bhagabatapur, Jantilo, Badagaon, Jamadhar, Kasoti, Pandiri, Gualasing, Bhamaradiapatna, Tinipada, Gulangar, Ramanagarpata, Garapur, Kapaleswar, Alijanga, Jajanga, Khamarkespur, Trilochanapur, Tarando, Baro, Bharsing, Gangapada, Gagua, Sanamulabasanta, Badamulabasanta, Pohala, Belatala, Tanupur, Balipada, Balipada-A, Kasananta, Gopalpur, Bilikana, Patarapur, Mahasani, Chandiagadi, Sitaleswar, Niala, Balabhadrapur, Gaudapatna, Demala, Kalapahada, Lokapada, Ranipokhari, Nagapada, Bharigada, Barunadiha, Achutapur, Makundapur, Ganja, Gokaneswara, Gokaneswara-A, Kanthapada, Arasa, Barada, Ostia
Bhadrak	Chandaballi, Panchapada, Barehipur, Shyamdasapur, Krishnapur, Kakharudihi, Nischinta

Table 2.5 Built-up Area along the Project Road

Sl.no.	Chainage		Side	Distance
	Start	End		
1	0	1900	Both	1900
2	2200	2400	Both	200
3	2530	2800	Both	270
4	3850	4300	Both	450
5	5800	7200	Both	1400
6	7550	7950	Both	400
7	9300	9660	Both	360
8	10100	10480	Both	380
9	10600	10700	Right	100
10	10700	10850	Left	150
11	13800	14000	Both	200
12	16600	17100	Both	500
13	17700	20800	Both	3100
14	22150	22500	Both	350
15	24000	24250	Both	250

Sl.no.	Chainage		Side	Distance
	Start	End		
25	47950	48250	Right	300
26	48250	48950	Both	700
27	49100	49200	Both	100
28	50000	52000	Both	2000
29	53200	54000	Both	800
30	55100	55300	Right	200
31	55300	55550	Both	250
32	56600	56850	Both	250
33	57200	57400	Both	200
34	58050	58450	Both	400
35	62950	63200	Both	250
36	65400	65900	Both	500
37	69400	69650	Both	250
38	72050	72450	Both	400
39	84950	85550	Both	600

Sl.no.	Chainage		Side	Distance
	Start	End		
16	26600	26800	Both	200
17	27250	28400	Both	1150
18	32650	33200	Both	550
19	35250	35900	Both	650
20	38600	39550	Both	950
21	41400	41600	Both	200
22	43300	43600	Both	300
23	44300	44800	Both	500
24	44800	45150	Left	350

Sl.no.	Chainage		Side	Distance
	Start	End		
40	94750	95000	Left	250
41	95000	95400	Both	400
42	99800	100100	Left	300
43	100100	101400	Both	1300
44	101400	101750	Left	350
45	101750	102000	Both	250
46	102000	102200	Left	200
47	104500	104700	Right	200
48	104950	105100	Both	150

2.3.4 Existing Road Carriageway

The existing road is a single lane carriageway with condition of horizontal and vertical geometric varying from average to poor. The existing Project Roads has sharp horizontal curves and insufficient vertical design standard, which do not provide adequate overtaking sight and stopping distance even for 35 kmph thereby making the accidents more frequent. Existing road junctions are not properly designed (Details in DPR Report).

2.3.5 Pavement Conditions

Studies and investigations were carried out on existing pavement condition to determine the most technically sound and economically feasible pavements design. The investigations include Visual Inspection Survey, Pavement Composition, Roughness Survey and Benkelman Beam Deflection Survey.

The Visual Inspection Survey was carried out for the entire stretch under consideration. The parameters observed in this Survey were

- Type of surface
- Types of cracks (alligator/block/transverse/longitudinal) and its area.
- Pot holes, raveling and patching areas
- Shoulder condition
- Rutting (measured with a 3 meter long straight edge).

It was observed from the above studies that the road quality is poor. There are cracking, raveling, pot holes, high pavement edge drop, poor embankment condition, very low embankment height and absence of road side drains.

2.3.6 Roadside Drains

The project road has pucca drain at built up areas (Table 2.6). The pucca road side drains existing along the corridor are nonfunctional.

Table 2.6 Details of Pucca Drains at Built-up Areas

Sl.No	Settlement /Built-up Name	Chainage		Length (m)	Drain Type	Remark
		From	To			
1	Jagatpur	0+200	0+800	600	Open	Nonfunctional.
2	Madhubazar	6+200	6+500	300	Open	Nonfunctional.
3.	Salipur	18+600	19+300	700	Closed	Nonfunctional.
4.	Kendrapara	50+000	51+000	1000	Open	Nonfunctional.
5.	Pattamundai	69+900	70+600	700	Open	The road is bypassed.
6.	Alu	85+250	85+500	250	Open	Nonfunctional.

2.3.7 Existing Cross Drainage Structures

A detailed condition survey (visual inspection) of the existing structures has been carried out by the concerned key professionals to assess and ascertain the existing condition/characteristics of bridges and other structures

i) Bridges

There are 3 major bridges and 15 minor bridges located on the project road. These are all High Level Bridges in good condition. The project road has also 15 minor bridges, 5 are weak/narrow; submersible. Existing bridge at Ch. 69/900 needs realignment as per site conditions. The expansion joints are buried and not functioning in most of the bridges. The bridge at Ch. 66/700 is recorded as submerged and also in poor condition. The bridge at Ch.32/075 is narrow in width and having inadequate vent for the flow of canal water.

Table 2.7: Details of Existing Bridge

Sl. No.	Location/ Chainage	Existing Span Arrangement	Type of Superstructure	Type of foundation	Overall condition/ Recommendation
Jagatpur – Chandbali					
1	2/145	5 x 8.8	RCC solid slab	Open foundation	Good, Rehabilitation required
2	10/400	1 x 8.15	RCC Cell Box	Raft foundation	Good, Rehabilitation required
3	15/900	1 x 8.75	RCC solid slab	Open foundation	Good, Rehabilitation required
4	32/075	2 x 3.9	RCC solid slab	Open foundation	Reconstruction due to poor condition, inadequate vent way and narrow width
5	51/700	2 x 33.0	RCC Box Girder	Well foundation	Good, Rehabilitation required
6	56/350	3 x 8.5	RCC solid slab	Open foundation	Good, Rehabilitation required
7	61/200	1 x 7.0	RCC solid slab	Open foundation	Reconstruction due to poor condition
8	63/400	3 x 4.7	RCC solid slab	Open foundation	Good, Rehabilitation required
9	66/700	2 x 4.4	RCC solid slab	Open foundation	Reconstruction due to submergence and poor condition
10	69/900	3 x 6.75	RCC solid slab	Open foundation	Good, realignment required
11	71/050	5 x 3.8	RCC solid slab	Open foundation	Good, Rehabilitation required
12	71/200	2 x 4.25	RCC solid slab	Open foundation	Reconstruction due to poor condition
13	74/000	(1 x 7.0) + (3 x 116.0) + (1 x 7.0)	Balanced cantilever	Well foundation	Good, nothing to be done
14	78/800	4 x 7.0	RCC solid slab	Open foundation	Good, Rehabilitation required
15	89/500	(4 x 40.0) + (1 x 7.0) + (3 x 104.0) + (1 x 7.0)	Balanced cantilever	Well foundation	Good, nothing to be done
16	97/000	(1 x 7.0) + (2 x 106) + (1 x 7.0) + (2 x 33.0)	Balanced cantilever	Well foundation	Good, nothing to be done

Sl. No.	Location/Chainage	Existing Span Arrangement	Type of Superstructure	Type of foundation	Overall condition/ Recommendation
17	98/500	1 x 6.85	RCC Cell Box	Raft foundation	Good, Rehabilitation required
Chandbali – Bhadrak					
1	46/700	10 x 0.45	-	-	Vented causeway to be Reconstruction due to submergence

ii) Culverts

The project road has 144 culverts (**Annexure – 2.2**). These cross drainage structures are mostly old, has insufficient vent and in poor condition causing difficulties in draining of water. Most of the CD culverts are having overall width less than 12 m. Return walls, Head walls or parapet wall of most of the culverts are damaged and needs to be reconstructed where culverts condition are in good conditions and alignment permits. At certain locations ground levels and road levels are almost at same level due to which area becomes submerged. Most of the culverts do not meet the considerations of maintenance of culverts (minimum vent size) as specified in IRC: SP-13: 2004, para 13.3.2.

Table 2.8 Details of Existing Culverts

Sl.No	Type of Culvert	Nos.
1	Pipe	77
2	Slab	47
3	Arch	16
4	Choked	4
Total		144

2.3.8 ROB/Flyover

There is no Railway over Bridge or Flyover existing along the corridor.

2.3.9 Flood Prone Section

The project road is located in flood prone area and three road sections along the corridor have been identified that are prone to flooding. The road sections are as follows.

1. Km.69/800 to Km.74/000
2. Km.75/000 to Km.78/000
3. Km. 91/000 to Km.93/000

2.3.10 Junctions and Intersections

Though the present project road does not have any Major junctions, but 35 minor junctions are present. These junctions had not been designed as per the standards, had insufficient sight distance, turning radius etc. In addition, these junctions from road safety perspective lacks appropriate road markings to guide the merging as well as the main road traffic, pedestrian crossing facility, and junction signage's etc. Thereby, needs appropriate intervention during design stage of road corridor.

Table 2.9: List of Minor Junctions

Sl no	Chainage	Type of Junction	LHS/RHS	Name of the Village
1	512	Y-Intersection	Left	Jagatpur
2	1182.5	Y-Intersection	Left	Jagatpur
3	1800	T-Intersection	Right	Jagatpur
4	5161	Y-Intersection	Left	Gajarpur Village
5	7641	T-Intersection	Left	Kazibazar Village

Sl no	Chainage	Type of Junction	LHS/RHS	Name of the Village
6	10858	T-Intersection	Right	Bahugram Village
7	13900	Cross Intersection		Nandalgada
8	15646	Y-Intersection	Left	Jowari
9	16892	Y-Intersection	Right	Sisua Village
10	18655	Y-Intersection	Left	Salipur
11	19642	Y-Intersection	Right	Salipur
12	24112	Y-Intersection	Right	Kendupatna
13	24428	Y-Intersection	Left	Kendupatna
14	33133	T-Intersection	Right	Sugarpada
15	35335	T-Intersection	Right	Katikata
16	36269	Y-Intersection	Left	Katipada
17	36730	Y-Intersection	Left	Bharatpada
18	38930	Y-Intersection	Left	Danpur
19	38944	Y-Intersection	Right	Danpur
20	41446	T-Intersection	Right	Paradeep Road-NH Crossing
21	50850	Cross Intersection		Kendrapara
22	53113	T-Intersection	Right	Kendrapara
23	55970	T-Intersection	Right	
24	61800	Y-Intersection	Left	
25	69700	Cross Junction		Pattamundai
26	70400	Cross Intersection		Thanpur
27	71400	Y-Intersection	Right	
28	72478	T-Intersection	Right	
29	75195	T-Intersection	Right	Narendarpur
30	79885	T-Intersection	Right	Singira
31	85910	T-Intersection	Right	Aul Ring Road
32	93850	Cross Intersection		
33	94700	T-Intersection	Left	
34	97600	Y-Intersection	Right	Chandbali
35	100564	Y-Intersection	Right	Chandbali

2.3.11 Existing Traffic

The traffic surveys were conducted to determine classified traffic volumes in terms of Annual Average Daily Traffic (AADT), directional split, hourly variation, trip length pattern, travel pattern of goods and passenger traffic, commodity flow and axle loads. Traffic surveys were conducted at three locations (Table 2.10) along project road to capture existing traffic volume, pattern and its composition. On the basis of traffic survey, two wheelers and slow moving traffic at present comprised the majority of road user, but with improvement of road corridor, the volume of fast moving traffic might increase, thereby posing road safety concern at later stage.

Table 2.10: Details of Traffic Survey Locations

Sl.No	Chainage	Location/Village
VC 01	5/500	near Nuapatna
VC 02	76/000	Singiri
VC 03	5/500	near Barik Chhak

Table 2.11: Location wise ADT (No. and PCU in Both Directions)

Count Station	Description	FAST MOVING VEHICLES											SLOW MOVING VEHICLES			
		2W	3W	Car/Jeep/Van/Taxi	Bus		LCV	TRUCK			Agri. Tractor		Cycle	Rickshaw	Animal DRAWN	
					Mini	Full		2-Axle	Multi-Axle	Articulated	With Trailer	No Trailer			Bullock Cart	Horse Drawn
VC-01	AADT	4,621	471	1,502	147	116	361	323	89	19	27	52	3,878	96	11	1
	PCU	2,310	471	1,502	221	348	542	968	266	85	124	78	1,939	192	91	4
	%	39.45%	4.02%	12.82%	1.25%	0.99%	3.08%	2.76%	0.76%	0.16%	0.23%	0.44%	33.11%	0.82%	0.09%	0.01%
VC-02	AADT	1103	53	307	14	31	19	58	13	2	21	5	1082	25	2	0
	PCU	553	53	307	22	93	28	173	40	9	94	8	541	51	15	0
	%	40.33%	1.94%	11.22%	0.51%	1.13%	0.69%	2.12%	0.48%	0.07%	0.77%	0.18%	39.56%	0.91%	0.07%	0.00%
VC-03	AADT	2141	143	795	128	71	102	146	2	3	2	10	1952	104	0	0
	PCU	1071	143	795	192	213	153	439	7	15	11	15	976	208	0	0
	%	38.24%	2.55%	14.20%	2.29%	1.27%	1.82%	2.61%	0.04%	0.05%	0.04%	0.18%	34.86%	1.86%	0.00%	0.00%

2.3.12 Road Accident

Based on the Statistical Abstract of Odisha, the numbers/rate of road accidents (Table 2.12) and fatality has increased in state of Odisha over the year (till 2009). To understand road accident and its causes along project road corridor, road accident data (Table 2.13) from FIR records were collected from concerned police stations under whose jurisdiction different road sections fall. It is evident from data that majority of accident is reported for two wheelers followed by trucks. The information on accident location, cause and fatality of these accidents was not available, but the possible reason for accident can be attributed to human driving behavior, poor road condition, narrow carriageway width, congestion etc.

Table 2.12: Road Accident Data, Odisha

Sl.No.	Types of accident	2006	2007	2008	2009
1	Total Number of Road Accidents	7729	8213	8181	8887
2	Total Number of Persons Injured in Road Accidents	9763	11305	10378	11296
3	Total Number of Persons Killed in Road Accident	2755	3000	3079	3527
4	Total Number of Road Accidents on State Highways	2088	2198	1964	2386
5	Total Number of Persons Killed on State Highways	710	803	625	955
6	Total Number of Persons Injured on State Highways	2931	3093	2631	3270
7	Total Number of Fatal Road Accidents	2456	2726	2838	3043

Source: Statistical Abstract of Orissa. P.169

Table 2.13: Road Accidents due to Conveyances in Project Districts

District	Bus	Truck	Jeep / Car & Taxi	Motor Cycle & Scooter	Three wheelers
Bhadrak	NA	NA	NA	13	3
Cuttack	63	115	26	230	15
Kendrapada	4	74	19	11	2
Total	67	189	45	254	20

Source: Police Station FIR Record.

2.3.13 Utility Shifting

Different types of existing utility services (Table 2.13) like Optical Fiber Cables (OFC), Electric poles, transformers, Telephone poles are existing and that will be affected during

implementation stage and may require shifting for widening of road into two-lane carriageway. The summary of existing utilities is in Table 2.14.

Table 2.14: Summary of Utility

Sl.No.	Type of Utility Services	Unit	Quantity
1	Electric Poles	Km.	121km (Each sides)
2	Transformers	Nos.	106
3	Water supply line	m	17380

2.4 Improvements Proposal

The road corridor is proposed for widening and strengthening to two lane carriageway width hard shoulders on either side. During road design, due importance has been given to environmental and social issues. The coordination between Environmental, Social and Design team helped in minimizing the negative impact due to Project. In view of its proposed development, widening options i.e. concentric or eccentric in addition to design modification alternatives were also considered to avoid extra land acquisition, minimize the negative social and environmental Impact. Unlined open trapezoidal drains for the rural sections and RCC Box covered drains for the Built-up Sections have been used.

2.4.1 Proposed Carriageway Width

The Project road has been designed as a two-lane carriageway with hard shoulders. The carriageway width has been taken as 7.0 m with 2.5m wide hard shoulders on either side. Total roadway width has been taken as 12.00 m in rural areas. In built up areas, paved shoulder of 1.5 m widths shall be provided making total roadway width of 10 m. Beyond this, covered drains shall be provided at built-up areas which will be used as walkway.

Extra widening on curves as per provision of IRC: 73 – 1980 section 9.8 are given in following table.

Extra Widening at Curve

Carriageway	Radius of Curve (m)				
	Up to 20	21 to 40	41 to 60	61 to 100	101 to 300
Two Lane	1.5	1.5	1.2	0.9	0.6
Single Lane	0.9	0.6	0.6	-	-

Wherever the radius is less than that specified for minimum design speed, the transition curve, super elevation and pavement widening has been introduced. This will minimize the intrusion of vehicles on to adjacent lanes, tend to encourage uniformity of speed and increase vehicle speed at the curves.

2.4.2 Geometric Improvement

The existing road geometric component at certain stretches or locations does not confirm with State Highway Standard as specified in the IRC: 73-1980 “Geometric Design Standard for Rural (Non-urban) Highways” guidelines. Locations and road stretches that are associated to congestion, road users safety, poor geometry i.e. sharp curve, blind curves, less sight distance etc. have been identified and has been proposed for realignment. Under the project at five locations (for smoothening curves not meeting IRC: 73 – 1980 requirements) realignment and one bypass from Km.69/700 to 71/500 for Pattamundai town has been proposed in the Project (Details of bypasses in **Chapter 4**).

The locations proposed for new alignment is in Table 2.15 listed below.

Table 2.15: Locations for New/re Alignment

Sl.No.	From	To	Length (m)
1	37/900	38/100	200
2	56/200	56/450	250
3	73/400	73/650	250
4	97/690	98/150	460
5	98/500	99/100	600

The road geometry has been designed to meet the State Highway standards as specified in the IRC: 73-1980 “Geometric Design Standard for Rural (Non-urban) Highways” guidelines. The design has been done to match horizontal alignment and vertical grades as to eliminate elements of surprise to the drivers. Overtaking sight distances have been provided to increase safe overtaking opportunities and to reduce accidents. At heavy built up / village sections speed limits have been reduced to 50 kmph to 65 kmph considering the heavy pedestrian and local traffic movement by posting appropriate signs. In open uninhabited areas where the existing alignment is safe enough to maintain a speed of 80 kmph, the design speed of 100 kmph has been adopted with minor changes to the alignment.

All the narrow bridges (less than 7.5m carriageway) are proposed for development to minimum of 7.5m carriageway and narrow culverts are proposed for development to full formation width i.e. 12.0 m.

2.4.3 Roadside Drain

Most of roadside drains are either choked or nor functional and would not be effective in draining out storm water runoff. Considering settlements along road, un-functional and absence of roadside drain at many settlements, under the project drains have been proposed for a total length of of 27.86 km. The details location of drains proposed is in table 2.16.

Table 2.16: Propose roadside drain locations

From	To	Sides	Length (m)	From	To	Sides	Length (m)
0	1.900	Both	1900	48.250	48.950	Both	700
2.200	2.400	Both	200	49.100	49.200	Both	100
2.530	2.800	Both	270	50.000	52.000	Both	2000
3.850	4.300	Both	450	53.200	54.000	Both	800
5.800	7.200	Both	1400	55.100	55.300	Right	200
7.550	7.950	Both	400	55.300	55.550	Both	250
9.300	9.6600	Both	360	56.600	56.850	Both	250
10.100	10.48	Both	380	57.200	57.400	Both	200
10.600	10.700	Right	100	58.050	58.450	Both	400
10.700	10.850	Left	150	62.950	63.200	Both	250
13.800	14.000	Both	200	65.400	65.900	Both	500
16.600	17.100	Both	500	69.400	69.65	Both	250
17.700	20.800	Both	3100	72.050	72.450	Both	400
22.150	22.500	Both	350	84.950	86.450	Left	1500
24.000	24.250	Both	250	84.950	86.450	Right	1500
26.600	26.800	Both	200	94.750	95.000	Left	250
27.250	28.400	Both	1150	95.000	95.400	Both	400

From	To	Sides	Length (m)	From	To	Sides	Length (m)
32.650	33.200	Both	550	99.800	100.100	Left	300
35.250	35.900	Both	650	100.100	101.400	Both	1300
38.600	39.550	Both	950	101.400	101.750	Left	350
41.400	41.600	Both	200	101.750	102.000	Both	250
43.300	43.600	Both	300	102.000	102.200	Left	200
44.300	44.800	Both	500	104.500	104.700	Right	200
44.800	45.150	Left	350	104.950	105.100	Both	150
47.950	48.250	Right	300	Total Drain Length			27860

2.4.4 Improvement proposed for Bridges and Culverts

Weak and narrow major/minor bridges are proposed to be reconstructed based on the requirements laid down in IRC SP 73. All proposed new bridges have been proposed to accommodate two-lane traffic adopting cross sections as per MoRTH guidelines issued during March 2009.

In proposed project improvement, all 3 major bridges that are existing are in good conditions are proposed to retain. 5 minor bridges are to be replaced and 3 new minor bridges will be newly constructed. A total of 332 culverts are proposed for improvement that includes 16 proposed for widening, 123 to be replaced and 196 new culverts are to be added. The summary of CD structures proposed for improvement is given below **Table 2.17**.

Table 2.17: Improvement Proposal for Bridges and Culverts

Structure Type	Total No. Existing	Retained	Replaced	Widened	Choked / Not Visible	New	Total after Improvement
Major Bridges	3	3	nil	nil	---	nil	3
Minor Bridges	13	8	5	Nil	Nil	3	16
Culverts	144	Nil	126	16	2	190	332

2.4.5 Paved Shoulders

For safety of pedestrians and cyclist in urban areas, paved shoulder (Rigid) of 1.5m width is provided on either side. The composition of the paved shoulder is same as with carriageway.

Table 2.18: Proposed Paved Shoulder Stretches

S.No.	Chainage		Length (km)
	From	To	
1	0.000	54.250	54.250 (Continuous stretch)
2	57200	57400	200
3	58050	58450	400
4	62950	63200	250
5	65400	65900	500
6	69400	69650	250
7	72050	72450	400
8	84950	85550	600
9	94750	95000	250
10	95000	95400	400
11	99800	100100	300
12	100100	101400	1300
13	101400	101750	350
14	101750	102000	250
15	102000	102200	200

S.No.	Chainage		Length (km)
	From	To	
16	104500	104700	200
17	104950	105100	150

2.4.6 Junction Improvements

There is no major junction along project road, though 229 minor junctions exist that has inadequate sight distance, turning radius, no appropriate road markings and does not comply with IRC design requirements. Envisaging the road safety issue after the up-gradation of road, the improvement of 229 minor junctions has been proposed under the project.

2.4.7 Traffic Projection

The traffic forecast has been made on the basis of elasticity of transport demand keeping in view present growth in registration of vehicles, economic indicators like Net State Domestic Product, Per Capita Income, Net National Domestic Product and growth in population. The projected traffic in different years is shown in Table 2.18.

Table 2.18: Projected Traffic

Year	AADT			PCU		
	VC-01	VC-02	VC-03	VC-01	VC-02	VC-03
2006	11714	2735	5599	9141	1987	4238
2007	12199	2835	5816	9606	2077	4433
2008	14003	3284	6704	11129	2525	5242
2009	14710	3434	7023	11818	2671	5542
2010	15470	3595	7366	12564	2830	5866
2011	16288	3769	7735	13373	3001	6217
2012	17168	3955	8131	14251	3188	6596
2013	18115	4155	8557	15203	3390	7007
2014	19159	4375	9025	16255	3613	7460
2015	20285	4612	9530	17398	3855	7951
2016	21500	4868	10074	18641	4118	8484
2017	22810	5143	10659	19993	4404	9062
2018	24223	5440	11289	21463	4714	9689
2019	25618	5732	11910	22934	5025	10314
2020	27115	6045	12575	24526	5360	10989
2021	28721	6380	13287	26248	5723	11717
2022	30445	6739	14050	28112	6115	12503
2023	32295	7124	14867	30130	6540	13353
2024	34092	7498	15660	32106	6955	14183
2025	36010	7896	16505	34232	7401	15074
2026	38057	8320	17405	36518	7880	16030
2027	40240	8772	18363	38976	8396	17057
2028	42571	9253	19385	41622	8950	18160

The existing traffic composition is higher for slow moving traffic and factoring provision of paved shoulders has been made in order to provide additional space for overtaking, slow moving and non-motorised traffic and for parking in the built up section. A wide cross-section (7.0 m carriageway + 1.5 m paved shoulder) has been used in to increase safety, by allowing separation of slower traffic, which can travel on the relatively wide paved shoulder,

rather than completely in the main carriageway, which is now the case. This manner further helps to reduce accidents and increase road capacity.

2.4.8 Safety Crash Barrier

Taking into safety of road users at high embankment locations and approach to bridges, safety Crash Barrier and Guard Post has been proposed under the project. The Guard Posts has been proposed at 130 locations and crash barrier has been proposed at 3 major bridges (250m at 2 sides on both ways) and 16 minor bridges (80m at 2 sides on both ways).

2.4.9 Pedestrian and Cattle Underpass

There is a provision of 5 cell 8 mts. span box cell culverts provided in the Pattamundai bypass section at Km.70+100 which shall work both as a drainage outlet and also as pedestrian under pass as there is no defined nullah in the stretch. Further, 6 cattle under passes have been proposed at km.78+980, 91+800, 92+800, 93+800, 96+320 & 96+920 due to high embankments at flood prone sections and bridge approaches.

2.4.10 Traffic Signs

Different type of traffic signs that includes regulatory, informatory and caution have been proposed throughout the whole project road to facilitate the road users for giving proper direction and warning to the driver, as well as direct them the route they want to follow. The traffic signs will be as per IRC Standard as will be of “Retro Reflection Type”. The Summary of proposed traffic Signs in Project section is summarized below:

Table 2.19: The Abstract of quantities of safety devices

Sl No.	Safety Devices	Quantity
1	Stop	183
2	Restriction Ends	63
3	Speed Limit-50	05
4	Speed Limit-65	57
5	School Zone	39
6	Compulsory Sound Horn	282
7	Cross Road	49
8	Right Side Road – T	95
9	Left Side Road – T	95
10	Right Hand Curve	58
11	Left Hand Curve	58
12	Right Reverse Bend	07
13	Left Reverse Bend	7
14	Pedestrian Crossing	161
15	Staggered Intersection	70
16	Left Side Road –Y	146
17	Right Side Road – Y	146
18	Narrow Bridge	19
19	Series of Bends	05
20	Hump	174
21	State Route Marker Sign	21
22	Petrol Bunk	21
23	Hospital	20

2.4.11 Bus Bays

Bus bays are proposed as per the recommendations of IRC: 80-1981. The following data was gathered during field visits.

- All though there were considerable through bus traffic movements, the number of buses stopping at existing bus stops was few.
- People travelling from villages to nearby towns make use of taxicabs, jeeps and other light commercial vehicles including goods vehicles in preference to buses.
- The number of trips made by other carriers was greater than those made by buses.
- Local consultations were held to study the need for bus bays in specific villages by collecting details pertaining to the number of buses, frequency of buses stopping to pick up passengers, duration of bus stops, etc.
- The need for bus bays at religious places, educational institutions, public buildings, intersections of minor roads leading to interior villages, which are not connected to the bus route network, were studied.

Taking into account above data bus bay locations are provided in all 94 up-gradation links as required.

Table: 2.20 Proposed Bus Bays Locations

Sl. No.	Chainage	Side	Sl. No.	Chainage	Side	Sl. No.	Chainage	Side	Sl. No.	Chainage	Side
1	1900	L	26	20300	L	51	43690	L	76	71400	L
2	2000	R	27	22220	L	52	44650	L	77	72710	L
3	3750	L	28	22300	R	53	44800	R	78	72810	R
4	4350	R	29	23900	R	54	45800	R	79	74631	R
5	5740	L	30	24300	L	55	45850	L	80	74651	L
6	6200	R	31	26900	R	56	48000	R	81	77500	L
7	7450	L	32	27160	L	57	48100	L	82	77900	R
8	7750	R	33	28000	L	58	49200	R	83	78990	L
9	9200	L	34	29650	L	59	50400	L	84	79750	R
10	9640	R	35	30950	R	60	51250	R	85	84820	L
11	10000	L	36	31000	L	61	51850	L	86	85550	R
12	10200	R	37	32850	L	62	51880	R	87	93865	L
13	10600	L	38	33000	R	63	53800	R	88	93900	R
14	10900	R	39	33700	R	64	54550	L	89	94830	R
15	12980	L	40	34000	L	65	54600	R	90	95400	L
16	13950	R	41	35250	L	66	55200	L	91	101600	R
17	14000	L	42	35750	R	67	56800	L	92	103020	L
18	15600	L	43	36950	L	68	57350	R	93	104180	R
19	15650	R	44	37000	R	69	58200	L	94	104420	L
20	16750	L	45	37800	R	70	58400	R			
21	17100	R	46	38370	L	71	61600	L			
22	18650	L	47	38570	R	72	61820	R			
23	18670	R	48	41150	L	73	62850	R			
24	19555	R	49	41155	R	74	63200	L			
25	19775	L	50	43230	R	75	65300	L			

The typical bus bay consists of deceleration and acceleration lanes of 45m length with stopping lane of 3.5m wide, 15m long. Adequate arrangements have also been made to drain off surface water. Typical bus bay layout and schedule of locations are included in the Drawings Volume.

2.4.12 Truck Lay Bys

No truck lay byes has been proposed under the project.

2.4.13 Service Road

Service road at chainage KM.48/250 to 49/0 & Km.49/200 to 53/200 has been proposed to be provided for diversion of local traffic at Kendrapara.

2.4.14 Toll Plazas

Toll Plaza has been proposed at Km.31/330 to Km.31/670

2.5 Natural Resource Requirements

Potential sources of material for construction, the survey and investigation for different construction materials were carried out in respect of their likely sources and the availability and suitability of various materials. Relevant laboratory tests were conducted on representative samples as per requirement. The estimated quantities for different construction materials for up-gradation of entire road base on design cross-section are in Table 2.20.

Table 2.21: Summary of Construction Materials

Sl.No	Construction Materials	Units	Quantity
1	Earth	Cu.m	1130432
2	Aggregate	Cu.m	556741
3	Sand	Cu.m	1017592
4	Bitumen	Cu.m	6487
5	Water	Cu.m	135562

2.5.1 Borrow Area

Extensive survey was conducted to locate the potential source of borrow area soils required for the construction of embankment and sub-grade. The location, type of soil, available quantity and approximate distance from the project road is given below in Table 2.21.

Table 2.22: Details of Borrow Areas

Sl.No	Chainage	Side (Left/Right)	Borrow Area Location	Lead From Project Road (km)	Type of Soil	Quantity Available Cu.m)
1	0.00 Kms	RHS	Neulpur	40	Murram	100000(Approx)

2.5.2 Aggregate

Extensive survey has been carried out to identify the suitable stone quarry nearer to the project road. There are good quality stone quarries are available in the vicinity of project road. Details of stone quarries for the project road are presented in Table 2.19.

Table 2.23: List of Quarry Locations

Sl.No	Chainage	Quarry Location	Lead project road (km)	Remark
1	Baghua	Baghua	50	Aggregate

2.5.3 Sand

Sand quarries have been identified for suitable sand nearer to the project road. There are only few good quality sand quarries available in the vicinity of project road with in the economical lead. Details of quarry sources for sand to be used under the project road are given below.

Table 2.24 List of Sand Quarry Locations

Sl.No	Chainage	Quarry Location	Lead project road (km)
1	35.300	Asuraswar	3.0 (RHS)
2	39.500	Danapur	3.0 (RHS)
3	49.000	Basipur	10.0 (RHS)
4	63.000	Brahmani	6.0 (LHS)
5	93.500	Singur	25.0 (LHS)

2.5.4 Water Requirements

For up-gradation of the project road, approx 88.8 cum/day (excluding drinking/domestic requirement for construction camp) water is likely to be needed for construction purpose depending upon construction activities. Water for construction of the road will be extracted from river water /ground water sources after obtaining necessary permission. Details of the water requirement assessed for the project are presented in Table 2.24.

Table 2.25: Requirement of Water for Proposed Construction Works

Purpose	Water Requirement (Cum/day)
Earth Work	66.5
Sub-base/base course	12.3
Concrete Works(Culverts, Bridges, drains)	10.0
Total	88.8

2.5.5 Fly Ash Utilisation

As per Fly ash Notification 2009, use of Fly ash is mandatory in highway projects where the project is situated within 100 km radius from any Coal based thermal Power Plant. The nearest Thermal power plant is located at Kanihia at distance of 160 km distance from project road. Hence, the use of fly ash from this thermal power plant would not be economically viable for the proposed project on account of high lead and transportation cost.

2.6 Project Implementation Schedule

The project road will be divided into two contract packages. The project duration for each contract shall be 27 months from date of start of award of contract.

2.7 Manpower Requirements

The construction of the project road would require labour and is estimated that about 200 workers at each contract including management and supervisory staff will be deployed at each contract package. During hiring of labour both skilled and unskilled, priorities and preference would be given to workers come from local area.

2.8 IRC Guidelines for widening & up-gradation of Highway

Following IRC Guidelines followed for widening & up-gradation of Road

For Survey & Investigation	For Design
Traffic Survey & Studies: IRC-SP-41 and Approved methodology Covering All the aspects of TOR	For geometric design: IRC38-1990, IRC SP23-1983, IRC 73 – 1980, IRC 66 – 1976. TRL Research Report 114A ‘Review of some recent geometrical road standards and their application to developing countries and its guide to geometric design
Pavement Condition, Materials & Sub-Grade Investigation: Latest IRC-SP-19, IRC 37, IRC 81, IRC-82, IRC SP-19, BIS codes, AASHTO Method, OECD, TRL & W.B. Publication. Geotechnical Investigation for Bridges: Latest IRC 78, IRC-SP-19 and in accordance with Relevant IS Codes. Hydrological Studies & Condition Survey of Bridges: IRC 5, IRC-78, IRC SP-13 IRC-SP-35, SP-37 & SP-40	For Road Safety & Drainage: IRC: 103: 1988, IRC: SP: 44, IRC: SP: 55:2001, IRC: SP: 42- 1994, IRC: SP: 50-1990 For pavement design: IRC 37, IRC-58, IRC 81, IRC 58 AASHTO Method, TRL Road Note 31 For structural design: Latest editions of IRC-5, IRC-6, IRC-21, IRC-18, IRC-78, IRC-83 etc.

CHAPTER 3

POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

3.1 General

This Chapter deals with the legislative and administrative requirements that are to be fulfilled in course of various activities in the project as per the existing law. This includes statutory requirements laid down under the Forest (Conservation) Act 1980, the Wildlife Protection Act., the Environment Protection Act, the Pollution Control norms (laid down by Central and State Pollution Control Boards), the Indian Road Congress Guidelines, the Technical Specifications of the Ministry of Road Transport and Highway Development (MoRTH) as well as Acts relating to use of natural resources, prevention of air, noise and water pollution standards.

In 1976 the 42nd Constitutional Amendment created Article 48A and 51A, placing an obligation on every citizen of the country to attempt to conserve the environment. As a result, a number of laws related to environment were passed to strengthen the existing legislation. Environment (Protection) Act, 1986 is the landmark legislation as it provides for the protection of environment and aims at plugging the loopholes in the other related acts.

The Ministry of Environment and Forest made it mandatory for introducing environment assessment into the planning process of road projects as well as environmental impact appraisal as per Environmental Protection Act, 1986. The Ministry of Environment and Forest (MoEF) has overall authority for the administration and implementation of government policies, laws and regulations. At the state level, the Department of Environment and Forest implements the policy and legal requirements laid down by the center.

This was a category “A” project as per environmental grading by MoEF, in their notification No. 1433 dated 14/09/2006. But subsequently on amendment to the Environment Protection Act vide Notification No.695 (A) Dtd 4th April 2011, this road project does not attract environment clearance from the MoEF because its 0 to 99 Kms stretch falls under MDR category and rest 7 Kms from 100 to 106 Kms which is part of SH-9 does not lie in eco sensitive area, which has been well confirmed by the PCCF (Wildlife) Odisha.

However, as the road runs at nearest aerial distance of 10 kms from Bhitarkanika National Park, and wildlife sanctuary and salt water crocodile habitat, the PCCF (Wildlife) Odisha was consulted and as per his suggestion, some wildlife related mitigation and conservation support activities have to be undertaken along with road construction.

In OSRP, like other development projects, the environment acts, policy guidelines of both State and Central Government will be applicable. As these acts/regulations have varying procedures, requirements depending on type of Project, a detailed discussion is required in this report to study the extent of applicability, procedures and requirements to be met by OSRP implementing authorities. The following subsections summarize the legislative framework in which OSRP will be addressing the environment & social issues.

3.2 Natural environment

The laws, regulations, and guidelines that govern the issues of natural environment associated with planning, construction and operation of the project are summarized in **Table 3.1**.

Table 3.1 Legal Framework – Natural Environment

Law / Regulation/ Guidelines	Relevance	Responsible Agency
The Forest (Conservation) Act, 1980	Applies to natural forest areas - Authority to issue clearance: (i) if area of forest >40ha (10ha in hilly area)→ Central Government; (ii) 0ha–40ha, Regional Office of Chief Conservator of Forests (central) eastern region; (iii) if tree density >40%, permission for any work must come from the Central Government, regardless of area of forest to be cleared.) As per the prevailing timber and other forest produce transit rules 1980 in Orissa as amended up to date, the felling of trees from any govt. land and private land requiring removal from stump site shall be jointly verified by revenue and forest department and permission for felling, logging, removal will be issued by the DFO having jurisdiction over the area. Accordingly the PIU has to apply in form no.3 under OT and OFPT rules to the DFO in this regard for tree removal.	PMU of OWD, Govt. of Orissa, Forest & Environment Department, MoEF
The Environmental (Protection) Act, 1986, and Rules, 1987-2006 (various)	The various aspects of the Environment (Protection) Act and Rules apply to the road construction projects. The standards for discharge of pollutants in the atmosphere and noise levels are fixed. These standards are directed primarily at the industrial pollution, but are also applicable to road construction activity. The GoI, MoEF Notification of 10 April 1997 empowers the State Pollution Control Board to hold public hearing for all projects requiring environmental clearances from the MoEF.	MoEF, GoI; DoE, GoO; CPCB; OSPCB
The Environmental Impact Assessment Notification No.1533, Dt. 14 th September 2006 and ammendements	Stipulates any new State High Way or State Highway at above 1000 mtr. MSL or in eco-sensitive areas.	MoEF, GoI; DoE, GoO; OSPCB; CPCB
The Wildlife (Protection) Act, 1972	Provides for the creation, conservation and protection of National Parks and Sanctuaries and wildlife.	Chief Wildlife Warden, Forest Dept., GoO.
National Forest Policy, 1952, 1988 (Rev.)	To maintain ecological stability through preservation and restoration of biological diversity and sustainable use of resources.	Forest Department, GoI and GoO
The Water (Prevention and Control of Pollution) Act, 1974	Central and State Pollution Control Board to establish/enforce water quality and effluent standards, monitor water quality, prosecute	OSPCB

	offenders, and issue licenses for construction/operation of certain facilities including permission to use natural water sources as well as under-ground water.	
The Air (Control of Pollution) Act, 1981	Empowers SPCB to set and monitor air quality standards and to prosecute offenders, excluding vehicular air and noise emission, in accordance with the standard set up by the CPCB of Govt. of India.	OSPCB & Transport Department.
Hazardous Wastes (Management and Handling) Rules, 1989; 2006. Public Liability Insurance Act, 1991 and Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.	The rules prescribe the details of management of hazardous industrial solid wastes from its generation to final disposal (cradle to grave) and fixes responsibilities on the generator, the transporter and the disposal agencies. Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas. Special responsibilities are fixed on the managers of hazardous industries, Factory Inspectorates, Pollution Control Boards, local and district authorities, the State Government and the Central Government.	State Government and OSPCB
The Motor Vehicular Act, 1988 Central Motor Vehicles Rules, State Motor Vehicles Rules	Empowers State Transport Authority to enforce standards for vehicular emissions and control pollution. Govt. of India in their August 1997 proclamation have fixed the standards of emissions from different equipment and machineries, auto mobiles etc. for issue of "Pollution Under Control Certificate" if the emissions are within the standard set forth by the GoI.	Transport Department, State Government.
Guidelines for Rail, Road and Highways Projects, 1989	Issued by the MoEF and the MoST as a standard recommended practice. However, this serves the purpose of a useful framework for environmental reporting in case of any lapses.	MoEF & MoST
World Bank Guidelines	Operational Policies (OP) 4.01 4.36, 4.04, 4.11, including those related to disclosure of information	State Government/ Project Authority and World Bank
The Noise Pollution Control Act, 1990.	The MoEF for various categories of area has promulgated the ambient standards for noise levels applicable for day and night in residential, industrial and urban areas.	OSPCB
The Mining Act	The mining act has been notified for safe and sound mining activity.	Orissa State Department of Mining
Orissa Minor Mineral Concession Rules, 2004	Leases for mining of construction materials and STP for borrow pits etc.	Department of Mines and Geology Govt. of Orissa.

3.4 Other legislations applicable to road projects

During road construction stage generally equity, safety and health issues of workers and public are involved. The Orissa State Road Project is to be implemented complying with laws of the land, which include *inter allia*, the following:

- Workmen's Compensation Act, 1923 (the Act provides for compensation in case of injury by accident arising out of and during the course of employment);
- Payment of Gratuity Act, 1972 (gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years);
- Employees PF and Miscellaneous Provision Act, 1952 (the Act provides for monthly contributions by the employer plus workers);
- Maternity Benefit Act, 1951 (the Act provides for leave and some other benefits to women employees in case of confinement or miscarriage, etc.);
- Contract Labour (Regulation and Abolition) Act, 1970 (the Act provides for certain welfare measures to be provided by the contractor to contract labour);
- Minimum Wages Act, 1948 (the employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the);
- Payment of Wages Act, 1936 (it lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers);
- Equal Remuneration Act, 1979 (the Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees);
- Payment of Bonus Act, 1965 (the Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages);
- Industrial Disputes Act, 1947 (the Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment);
- Industrial Employment (Standing Orders) Act, 1946 (the Act provides for laying down rules governing the conditions of employment);
- Trade Unions Act, 1926 (the Act lays down the procedure for registration of trade unions of workers and employers. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities);
- Child Labour (Prohibition and Regulation) Act, 1986 (the Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labour is prohibited in Building and Construction Industry);
- Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979 (the inter-state migrant workers, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home to the establishment and back, etc);
- The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996 (all the establishments who carry on any building or

other construction work and employs 10 or more workers are covered under this Act; the employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for Workers near the workplace, etc.);

- The Factories Act, 1948 (the Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours and rendering information regarding accidents or dangerous occurrences to designated authorities);
- Orissa Panchayat Raj (OPR) Act, 1964 (Panchayat has been delicate power to manage/ maintain/ develop assets like pond, tank, waste land, follow land, tube wells, wells, burial grounds under OPR Act 1964 and its amendments. Primary schools are also being looked after by village level education standing committee of Panchayat. Any short of in the project needs approval of local PRIs like Grampanchayat, Gramasabha etc. There is provision in recent Orissa R&R Policy that before acquiring any land in rural areas for any development project should be discussed in Gramasabha/ Pallisabha).

3.5 Salient features of important laws/regulations

i. Forest (Conservation) Act, 1980

This Act is of particular significance in case the project corridor requires acquisition of forestland. The Forest (Conservation) Act 1980 was promulgated to check the rapid loss of forest for various non-forest activities for which forest lands were indiscriminately leading to deforestation throughout the country. At the state level, the government was empowered to declare reserve and protected forest and was also given the authority to acquire land for extension and preservation of the forests. An advisory Committee was formed to supervise compliance of the act within other government departments including forest department. The interpretation of "Forest" apart from its dictionary meaning for the purpose of F(C) Act, 1980 was further clarified by the apex court in their judgment in December 1996.

In the present case this act will be applicable for all the roads irrespective of the presence or absence of reserved or protected forest along the road corridors as per the prevailing legal positions, wherever any forest land is proposed to be acquired for the road development. Besides this the zone of impact on account of the road development shall be considered under environment notification SO.1533 dated 14/09/2006, to a radial distance of 10km either side of each corridor to determine the positive and negative impacts on the resident animals and plant life together with the ambient air, water and noise quality, so that mitigation and controlling measures can be considered by the statutory authority before issue of any environmental clearance for such projects.

The F(C) Act has undergone several changes so far and several guidelines have been issued by the MoEF, GoI, from time to time for regulating the activities relating to non forest use of forest land procedure for submission of application to obtain forest clearance for non forest purposes etc. The Forest (Conservation) Rules 2003 is now vogue and the rules revised in 2004 by the GoI, have been stayed by the Hon'ble Supreme Court until for the orders.

The Act prohibits diversion of any forestland for any non-forestry purpose and certain activities in the forestry operations by even forest department.

As per the Section – 2 of the Act, the definition of forestland include not only forest as understood in the dictionary sense, but any area recorded as forest in the Government record

irrespective of its ownership. The provisions enacted in the forest conservation Act 1980 for the conservation of forests and the matters connected there which shall apply clearly to all forests so understood irrespective of the ownership or classification there of.

The term “Forest land” mentioned in Section 2 of the Act refers to Govt. Reserved Forest, Protected forest or any area recorded as forest in the Govt. records. Lands, which are notified under section 4 of Indian Forest Act, would also come within the preview of the Act (Supreme courts Judgment in NTPC’s case). It would also include ‘forest’ as understood in the dictionary sense (Supreme Courts order dt 12.12.1996 in WP No.202/1995). All proposals for diversion of such areas for any non-forestry purpose, irrespective of its ownership would require prior approval of the Central Govt.

(Boulders, bajri, stone etc. in the river beds located within forest areas would constitute a part of the forest land and their removal would require prior approval of Central Government)

Diversion of Forest land for Non-Forest Purpose

Any proposal for diversion of forest land for non-forest purposes, involving Reserve Forest and Proposed Reserve Forest are to be very carefully examined and detailed justification after exhausting all alternatives for locating the project in this forest area should be given while forwarding the proposal.

It is essential to have the opinion of the local people whenever the project is coming up in the area. Therefore any proposal for diversion of forestland should be accompanied by a resolution of the “Aam Sava” of the Gram Panchayat or local body of the area endorsing the proposal that the project is in the interest of the people.

Map of the forest area required showing boundary of adjoining forests etc. is to be furnished along with the prescribed form No. ‘A’. This should normally be on 1:50000 scale original Survey of India topo sheets.

Species wise, diameter class wise abstracts of trees to be felled should be furnished in the prescribed form. Total enumeration of such trees is necessary only up to 10 ha. For larger areas species wise and diameter class wise abstract of trees may be computed either from the Working plans or by standard sampling methods.

Compensatory Afforestation

Compensatory afforestation is one of the most important conditions stipulated by the Central Govt. while approving proposal for diversion of forestland for non-forest use. It is essential that a comprehensive scheme for compensatory afforestation is formulated and submitted to the Central Govt. Provided further that, incase of the total Forest land proposed to be acquired up to 1 ha shall not require equivalent non forest area to be identified for compensatory afforestation. Only the plantation cost of 10 times the number of plants to be removed from such land shall be deposited with the CAMPA or as directed by the MoEF in their orders.

The scheme should include details of non-forestland or degraded forestland identified for compensatory afforestation, map of the areas to be taken up for compensatory afforestation, year wise phased forestry operations, details of species to be planted and suitability certificate from afforestation/management point of view along with cost structure of various operations to be furnished.

The compensatory afforestation schemes must have technical and administrative approvals, from the competent authority and should be in conformity with cost norms based on species, type of forestland and site conditions.

Where non forest land for compensatory afforestation is not available compensatory, afforestation may be carried out over twice the area of degraded forests subject to production of

certificate of non availability of non forest land within the entire state for compensatory afforestation from the Chief Secretary of the state.

Components of Scheme for Compensatory Afforestation:

- a) Details of equivalent non-forest or degraded forestland identified for raising compensatory afforestation.
- b) Delineation of Proposed area on a suitable map
- c) Agency responsible for afforestation.
- d) Details of work schedule proposed for compensatory afforestation.
- e) Cost structure of Plantations, provision of funds and mechanism to ensure that the funds will be utilized for raising afforestation.
- f) Details of proper monitoring mechanism.

Non-forestlands identified for compensatory afforestation are to be transferred to the Forest department and declared as Reserved or Protected forests so that the plantation raised can be maintained permanently. The transfer and notification must take prior to the commencement of the project. This has been modified later by MoEF to ensure notification under State Forest Act to be declared as a demarcated protected forest or a reserved forest, according to its location and contiguous nature of existence for inclusion as a part of adjacent existing reserved forest. The Nodal officer is to ensure final notification as demarcated protected forest or RF within 6 months. The honorable Supreme Court of India in their orders on 30.10.2002 in 1A No.566 writ petition (Civil) No. 202 of 1995 have directed regarding the creation of a body for “Compensatory Afforestation Management and Planning Agency” to be constituted in each state. This body will look after the receipt of such compensatory afforestation fund from the user agency, the net present value of forest land (NPV) fund, the catchments area treatment fund, the wild life management plan fund etc. for the conditions stipulated by the Central Govt. Compensatory Afforestation fund Management and Planning Authority (CAMPA) has been notified in the official gazette on 23rd April-2004 by GOI.

Applicability of the provisions of this act to the linear plantations was modified by notifications from the GoI, MoEF, dated 18th February 1998. The spirit behind the Forest (Conservation) Act was conservation of natural forest, and not strip plantation. In case of the “notification to be protected” road side plantations, the clearance now may be given by the concerned Regional Offices of the MoEF, irrespective of the area of plantation lost. While issuing the approval, in place of normal provision for compensatory Afforestation, the Regional Offices will stipulate a condition that Afforestation to be compensated in planting three times for felling down of every tree where the forest area to be released does not exceed 20ha. If the concerned Regional Offices do not accord the decision within 30 days of the receipt of fully completed application, the proponent agency may proceed with the widening/expansion under intimation to the State Forest Department and MoEF.

The approval requires that all forested land to be used must be surveyed and the species, size, number of trees and their location to be recorded. These data, plus other specific data must be prepared in a lengthy application for clearance.

ii. Wild Life (Protection) Act

The Wildlife (Protection) Act, 1972 has allowed the Government to establish a number of National Parks and Sanctuaries to protect and conserve the flora and fauna of the state.

The Wildlife Protection Act, (1972) is the first comprehensive act enacted to protect the wild animals and their habitats. It will improve protection measures of the existing National Parks and Sanctuaries and strengthen the Protected Areas (PA). The objectives of the act include to protect the rapidly declining wild animal and birds of the country, control trade in wildlife products, streamline and strengthen wildlife setup at Central and State level and establishment of Wildlife Advisory Board. In the extensive amendment in 1991, endangered wild plants have also been included within the protective umbrella of this Act.

In the present case this act will be applicable, in case of all the packages from P01 to P08, at different stages since there are Elephant, Bear, Panther movement areas along with Ungulates, Reptiles and Amphibians movement across the project roads requiring careful planning for preservation and protection of wildlife and natural habitats without any critical damage to the flora and fauna. Special mention may be made with regard to the isolated elephants of Rayagada, Gajapati and Keonjhar districts as well as the sporadic movement else where. In addition to this Similipal hills and the Biosphere reserve buffer zone are more specified in their Biodiversity and evolutionary process of activity. Wildlife Park, Sanctuary exists within close vicinity (up to 10Kms). None of the project route passes through Wildlife Park, Sanctuary and Biosphere reserves. The applicability and clearance procedure of Forest (Conservation) Act and Wild Life (Protection) Act are discussed in more details in Biodiversity Assessment and Management Plan.

iii. The Water (Prevention and Control of Pollution) Act, 1974 resulted in the establishment of the Central and State level Pollution Control Boards whose responsibilities include managing water quality and effluent standards, as well as monitoring water quality, prosecuting offenders and issuing licenses for construction and operation of any facility. This will include generation of liquid effluent during construction of road from civil engineering activities or from domestic activities in workers' camp. There are specific penalties for violation, which include imprisonment for responsible officials. This act will apply to all corridors under consideration.

iv. The Air (Prevention and Control of Pollution) Act, 1981 empowers Central and State Pollution Control Boards for managing air quality and emission standards, as well as monitoring air quality, prosecuting offenders and issuing licenses for construction and operation of any facility. Air quality includes noise level standards. There are specific penalties for violation, which include imprisonment for responsible officials. This act has notified National Ambient Air Quality Standard for different regions e.g. Industrial, Residential and Commercial areas. Air quality during construction and operation phases will be guided by this specific act. This act will apply to all corridors under consideration.

vi. The Noise Pollution Regulation and Control Act has been issued to promulgate noise level standards for various land uses. Under this act day and time noise levels and other regulations have been issued to regulate noise levels. This act will apply to all corridors under consideration.

vii. The Mining Act has been enacted for safe and sound mining activity. This act will apply for all corridors under consideration, as construction materials are to be procured at all corridors from mine in near vicinity.

viii. The Environment (Protection) Act, 1986: This act was passed as an overall comprehensive act "for protection and improvement of environment" Under this act rules

have been specified for discharge/emission of effluents and different standards for environmental quality. These include Ambient Noise Standard, Emission from Motor Vehicles, Mass Emission standard for Petrol Driven Vehicles, General Effluent Standards etc. especially important for road project.

3.6 Applicability of Acts and Rules to OSRP

Table 3.3: Applicability of Acts and Rules to OSRP

Act/Rules	Applicability Yes/No	Remark
Environment (Protection) Act, 1986	No	99 kms of the stretch is MDR status. Only balance 7 kms are part of SH-9 which is not in eco sensitive area.
Environmental Impact Assessment Notification Dt.14 th September 06.	No	99 kms of the stretch is MDR status. Only balance 7 kms are part of SH-9 which is not in eco sensitive area.
The Forest (Conservation) Act 1980 and Forest (Conversion) Rules 2003	No	No forest stretch required to be diverted.
Wild Life (Protection) Act, 1976	No	However as the road corridor is near to Bhitarkanika WL sanctuary and National Park suggestions has been invited from the Chief WL Warden , Odisha and mitigation measures as suggested by the Authority have been incorporated in the project, including the budget for environment management.
Water (Prevention & Control of Pollution) Act	Yes	This act will be applicable during construction for establishments of hot mix plant, construction camp, workers' camp, etc.
The Air (Prevention & Control of Pollution) Act, 1981	Yes	This act will also be applicable to the OSRP project during construction; for obtaining NOC for establishment of hot mix plant, workers' camp, construction camp, etc.
Central Motor Vehicle Act and Central Motor Vehicle Rules	No	These acts and rules are not applicable to OSRP. These will be applicable to road users.
Ancient Monuments & Archaeological Sites and Remains Act	No	This act is not applicable to OSRP as none of the project route is close to ancient monument declared protected under the act.
The Land Acquisition Act	Yes	This act will be applicable to OSRP as there will be acquisition of land for geometric improvements, bypasses and realignments.
Noise Pollution (Regulation & Control Act)	Yes	This act will be applicable to OSRP as vehicular noise on project routes required assessing for future years and necessary protection measure need to be considered in design.
The Mining Act	Yes	The construction of project roads under OSRP will require sand aggregates. These will be procured through mining from riverbeds and quarries.
Minor Mineral Concession Rules, 2004	Yes	Leases for mining of construction materials and STP for borrow pits
Orissa R & R Policy, 2006	Yes	This act will be applicable to OSRP as there

Act/Rules	Applicability Yes/No	Remark
		will be acquisition of land, displacement of people and need for subsequent R & R operations
Labour Act. 1984	Yes	Deal with matter relating to engagement of labour under various activities.

3.6 World bank requirements

The World Bank requirements from environment point of view are based on a three part classification system such as Category A, Category B, and Category C as defined by the World Bank OP 4.01. A project designated as Category A requires a full environmental assessment followed by Independent Environmental Review (IER) by an independent consultant and Category B projects require a lesser level of environmental investigations.

A brief description about applicable Bank policies is provided below:

Environmental Assessment (OP 4.01)

Environmental Assessment is used in the World Bank to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank's lending operations early-on in the project cycle. The policy states that Environment Assessment (EA) and mitigation plans are required for all projects having significant adverse environmental impacts or involuntary resettlement. Assessment should include analysis of alternative designs and sites, or consideration of "no option" and require public participation and information disclosure before the Bank approves the project.

In World Bank operations, the purpose of Environmental Assessment is to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been properly consulted and their concerns addressed. The World Bank's environmental assessment policy and recommended processing are described in Operational Policy (OP)/Bank Procedure (BP) 4.01: Environmental Assessment.

Natural Habitat (OP 4.04)

The policy implementation ensures that Bank-supported development projects give proper consideration to the conservation of natural habitats, in order to safeguard their unique biodiversity and ensure the sustainability of the environmental services and products which natural habitats provide to human society.

This policy is applicable when a project (including any subproject under a sector investment or financial intermediary loan) with the potential to cause significant conversion (loss) or degradation of natural habitats, whether directly (through construction) or indirectly (through human activities induced by the project).

Forest Policy (OP 4.36)

The implementation of the policy ensures that envisaged forest sector activities and other Bank sponsored interventions which have the potential to impact significantly upon forested areas:

- Do not encroach upon significant natural forest areas that serve important social, environmental or local economic purposes.
- Do not compromise the rights of local communities to continue their traditional use of forests in a sustainable fashion.
- Do not finance commercial logging operations, in the case of primary tropical moist forest, nor any purchase of equipment for this purpose.

Cultural Property (OP 4.11)

The World Bank Policy OP/BP 4.11 defines physical cultural resources as movable or immovable objects, sites, structures, groups of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements. The borrower addresses impacts on physical cultural resources in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process.

Additionally, a brief mention about the two applicable social safeguard policies is given below. Stand-alone Social Impact Assessment Report and Resettlement Action Plan has been prepared to address the requirements set forth in these policies.

Indigenous People (OP 4.10)

This policy states that any development process under the Bank finance should fully respect the dignity, human rights, economies, and cultures of Indigenous Peoples. Project should engage in a process of free, prior, and informed consultation with IPs that should result in broad community support to the project by the affected Indigenous Peoples.

Projects should include measures to avoid potentially adverse effects on the Indigenous Peoples' communities or when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Project should ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and inter-generationally inclusive.

The Policy will apply if there is presence of IPs in the sub-project area and if there are, the project will consult the indigenous community and will prepare vulnerable community development plan.

Involuntary Resettlement (OP 4.12)

OP 4.12 recognizes that involuntary land taking resulting in loss of shelter, assets or access and income or sources of income should be addressed by the project. Displaced persons should be meaningfully consulted, given opportunities to participate in planning and implementing resettlement programs and assisted in their efforts to improve their livelihoods and standards of living. Absence of legal title to land should not be a bar for compensation, resettlement, and rehabilitation assistance. Vulnerable groups such as indigenous people, women-headed households, and senior citizens should be entitled to special benefit package in addition to compensation and resettlement. The Operational Policy will be applicable in case there is involuntary land taking resulting in displacement of people and / or loss of livelihood or source of livelihood.

3.8 Interface with Department of Revenue, GoO

For land acquisition purpose, an effective interface with the District and Tahasil level Offices of the Land & Revenue Department is necessary. With the authentication of the information compiled by the PIU by these offices, the District Collector can expedite the process. Public grievance in such matters complicates the schedule of implementation of the project. Therefore, it is recommended that no construction work should start before completing land acquisition process ending with payment of compensation and/or rehabilitation.

3.9 Interface with the Department of Forests of the GoO

For this particular project there is no need of regulatory clearances in terms of environment and forest acts. However, due to its proximity to Wildlife sanctuary extra precautionary measures have been taken up by involving the Park Authorities and the Chief Wildlife Warden, Odisha. The mitigation measures as suggested by the Authority have been adopted and integrated into sub-project design.

Also, when road developments projects require felling of trees along RoW, consent of the Forest Department, Revenue Department of the State is required. The trees on private land and those on the non-forest land that require removal for the project shall be counted separately. Separate records shall be maintained by PIU/OWD in both these cases. The trees on non-forest land shall be cut following the Forest Act provisions - only after the final/formal clearance has been received by the PIU/OWD. The project may seek the help of OFDC in cutting the trees on private land. Modalities (including distribution of sale proceeds) for the same should be as per the regular norms in the state and these too should be covered in the agreement/MoU mentioned in point 36.

3.10 Interface with the District Magistrate Office, Municipal authorities, local administrative officials and Panchayat raj Institutions:

This kind of interface is essential at the time of demolishing of encroached structures from RoW. The Magistrate of the District would take all actions on clearance of these encroachments. Rehabilitation of the displaced persons would need the assistance of District Magistrate Office, Municipal authorities, local administrative officials and Panchayat Raj Institutions. These offices should be approached while formulating the Resettlement & Rehabilitation Plan. Observations on this issue would come in the R&R Plans, which would be presented, in a separate report. However, in the context of environmental management, no construction work should start before the displaced persons are resettled and rehabilitated.

3.11 Interface with the Department of Mines, GoO

Permission shall be sought for opening and operating existing or new quarry sites for exclusive /extensive use of quarry materials from specific locations according to the approved quality standards to be issued in favor of the contractor by the Revenue Authorities /Irrigation department Govt. of Orissa, under Orissa Minor Minerals Concession rules 2004 and relevant mines act where ever applicable.

3.12 Capability of OWD for interface management

In the past prior to the preparation and implementation of the OSRP, the Orissa Works Department had no special wing to deal with environment management, land acquisition, compensatory afforestation and carrying out resettlement & rehabilitation operations. However, now the present Project Management Unit (PMU) has the involvement of a multidisciplinary team, which is involved and will continue to work and coordinate on the various environmental activities for this corridor.

CHAPTER 4

ANALYSIS OF ALTERNATIVES

4.1 General

The mandate of the current project is to widen the existing road to two lanes with paved/hard shoulder. The chapter discusses on the “**With**” and “**Without**” project scenarios. The methodology that has been adopted for the evaluation of the alternate alignment route for construction of Project Road and the selection based on engineering, economic, environmental and social considerations have been highlighted. The minimization of environmental impacts by considering design alternatives determines the extent of mainstreaming of the environmental component. An evaluation of the various alignment options has been evaluated for arriving at the most promising alignment. This chapter looks at the decisions made during the project when alternatives were available and describes the rationale behind each decision.

4.2 With and Without Project Alternatives

The corridor with a total length of 106 kms is passing through the thickly populated coastal districts of Odisha such as Cuttack, Kendrapara and Bhadrak. This corridor originates from Jagatpur near Cuttack and runs parallel to the river Mahanadi. The majority of road length comprises of Major District Road and part of State Highways 9. It passes through the plain terrain of densely populated and fertile agricultural land. This corridor provides access from the main market of jute, rice and other agricultural products to the industries like jute, textile and paper mills. It also connects places of Historical tourism interest namely Ratnagiri, Udayagiri. It also leads to the eco-tourism sites like Bhitarkanika and Gahiramatha which are breeding centers of crocodiles and Olive Ridley turtles. This route has acquired great importance due to direct access to 4-lane NH-5A (Kendrapara) connecting Paradeep port besides inter-region freight and passenger movement. Moreover, fast emerging Dhamra port and Industrial park would further boost the freight and passenger movement.

‘Without Project’ Scenario

The project road corridor has varying carriageway width from single lane to intermediate lane. Major part of the road passes through plain terrain of agricultural land, industrial area at Jagatpur and built up areas at Jagatpur, Padmapur, Paga Bazar, Salepur, Kendupatana, Nischintakoili, Kendrapara, Patamundai, Aul, Rajkanika and Chandbali. Since the road passes through areas of rich cultural heritage and big trading centers, there is ample opportunity for the local people to grow once they are well connected with the important growth centers. High growth of vehicle population as envisaged in the traffic project model adds to the apprehension of future congestion and unsafe conditions on the road. The travel time now is quite high considering the narrow width of carriage way, poor geometry, especially unsafe curves with less or no transitions, inadequate superelevation, improper sight distances and poor offsets. Heavy water logging, insufficient cross drainage works and excessive surface failures following every monsoon period add to the misery of the commuters.

“With Project” scenario

The project once completed will vastly improve the environment and enhance social and economic development of the region compared to the “Without project” scenario. Technical interventions shall be made for catering to the needs of social and environmental aspects of the locality so that there is spiraling growth of the area contributing immensely to the development of the state. The road shall be widened to 2 lanes carriageway with paved/hard shoulders to cater projected traffic need after twenty years. Simultaneously, the horizontal and vertical geometry of the road shall be improved to provide a smooth and safe driving experience to the traffic. Safety measures shall be further enhanced by providing white markings of the surfaces and providing adequate furniture, signage and appurtenances for better visibility at night, thereby minimizing loss of property and life.

Major junctions shall be improved for clear visibility and smooth movement of traffic. Bus shelters shall be provided at the villages. Toe walls in the ponds shall check erosion of the embankments. Utility ducts across the road in the villages shall be provided to facilitate availability of amenities and facilities on either side of the localities.

The road shall be raised in the flood prone locations with adequate numbers of cross drainage structures and reconstructing the existing CDS in poor conditions, so that all weather movement is facilitated. Cattle under passes shall be provided for movement of animals and people on either side of the embankments. Bye pass shall be provided at Pattamundai where the present road passes through heavy congestion and flood prone area. Once this facility is put to operation, economic and trade activities shall flourish and in turn shall generate employment opportunities.

Considering the site conditions and the scope of development of the area, the ‘With Project’ and ‘Without Project’ scenarios have been compared as given in **Table 4.1**.

Table 4.1: ‘With’ and ‘Without’ Project Scenario

Component	With Project Scenario	Without Project Scenario
Carriageway	<ul style="list-style-type: none"> • 7.0 m Carriageway with paved shoulder for 69 km. • 7.0m carriage way with hard shoulder for 37km. • Rigid concrete pavement for 30km in built up area. • Raising of embankment at all locations where submergence was there. • Provision of 334 CDS for safe and quick discharge of water. 	<ul style="list-style-type: none"> • Carriage way varies from 3.50m to 5.5m all throughout. • Existing 129 CDs are in poor condition and not catering to drainage requirements.
Traffic congestion	<ul style="list-style-type: none"> • Bye pass suggested at Pattamundai. • Service lanes being provided at Kendrapara. • All utilities shifted beyond road area and drains provided. 	<ul style="list-style-type: none"> • Pattamundai market area is heavily congested. • Kendrapara market area is heavily congested. • Market area generally congested everywhere due to

Component	With Project Scenario	Without Project Scenario
		electric poles and poor drainage.
Road Safety	<ul style="list-style-type: none"> The horizontal and vertical geometry shall be improved to provide a smooth and safe road. Safety measures and devices shall be enhanced by providing white markings on the surfaces and providing adequate furniture, signage and appurtenances for better visibility at night. Traffic islands, rumble strips are provided near Minor Junctions. 	<ul style="list-style-type: none"> Basically no road safety provisions in particular.
Environmental Quality	<ul style="list-style-type: none"> Adequate and appropriate drainage facilities provided. All the submersible areas have been improved to provide all weather access. Slope protection measures have been taken with provision of erosion control blanket and stone pitching. Provision of silt fencing made to reduce construction generated silt losses. Wild life mitigation measures taken, reptile passes provided. Precautions taken not to impact Water quality during construction and operation. Air quality and noise pollution shall be improved in the congestion areas due to smooth traffic flow. Biodiversity are embedded in the project scenario. 	<ul style="list-style-type: none"> Environment parameters were absent.
Better Transportation Facilities	The road shall be widened to cater to the projected traffic need after twenty years. The pavement condition would improve resulting into reduce the travel time, vehicle operating and maintenance cost etc. that will adds to accessibility of the road users to various important centers.	<ul style="list-style-type: none"> Narrow and poorly surfaced roads not facilitating easy transport, inaccessible to important centers due to high travel time.
Economic Development	The improve road will provide accessibility to markets and open opportunities to employments, trade and commercial activities. In addition to catering to the needs of social and environmental aspects of the locality so that there is spiraling growth of the area contributing immensely to the development of the state.	<ul style="list-style-type: none"> Meager economic activities going on at present. Also the external market and agencies do not reach the public in time.
Regional	All weather connectivity to the district	<ul style="list-style-type: none"> No connectivity is available

Component	With Project Scenario	Without Project Scenario
connectivity	Headquarters at Cuttack and Kendrapara shall be improved. Connectivity to the state capital shall be better.	at present for the local people to approach the Administration during flood. The Administration too feels helpless being unable to extend its support and services during such peril.
Accessibility to growth centers/market	All weather connectivity to the growth centers at Cuttack and Bhubaneswar and market at Cuttack shall be improved.	People remain inaccessible for a long period every year due to flood which ruins their economic backbone.
Employment opportunities	Once this facility is put to operation, economic and trade activities shall flourish and in turn shall generate employment opportunities.	Many people do not prefer to moveout of their village due to poor connectivity.

4.3 Analysis of Alternative Alignments

The proposed road passes through Pattamundaitown between Km. 68/700 to Km. 72/500 that is densely populated residential and market area for a length of about 1.5km. The Government offices are situated in this stretch and during the day time, the market attracts consumers, thereby leads to a lot of crowding. People who come to the market for their purchases, park their vehicles on the road and the effective carriage way left for through traffic reduces to less than 3.75mtrs almost during the entire day. It has been observed that the vehicles plying on this route run their engines in idling conditions for quite a long time in order to negotiate the traffic and maneuver their vehicles. The local administration, in order to reduce the congestion inside the town, has restricted the entry of bigger vehicles to the town during the business hours. Hence, to address the issue of traffic congestion, road users safety, travel time, vehicle operating cost, exposure of residents to vehicular emission etc. bypass has been proposed for Pattamundai town.

The various alternative alignments were studied keeping in view of the following considerations:

- Avoidance marshy ground and areas subject to flooding and inundation.
- Shorter route length
- Minimum impact on existing settlements, businesses and public utilities
- Improvement in geometrics
- Avoid conflict with future planned developments
- Integrate with existing roads to important towns and villages
- Optimization of traffic capacity and road safety
- Minimum impact to the environment

Based on above consideration, three alternative options have been identified for proposed Pattamundai bypass.



Fig. 4a: Pattamundai Town Bypass with alternative alignments options

Option – 1

The proposed option is on green field where new alignment is proposed after Km.69/700 where it would go straight crossing the Pattamundai main canal through the agricultural field. The total length of proposed alignment is 1.7 km with acquisition of 35 m land width. The road has to be constructed over a high embankment as this area shall be inundated during rainy season. The road shall cross a village road maintained by Rural Works Department connecting three villages namely Tanupur, Balipatna, Khadipal. Population in these villages is about 3000 and the prime occupation of the inhabitants is agriculture. These villages are situated on the southern side bank of river Brahmani. The alignment shall meet the existing road at Km.71/400 in village Ballipada, and before village Kasananta.

Option – 2

This option proposes widening portion of existing canal embankment that is being currently used for diverting of heavy vehicle during business hour. The existing right of way available is 20 m and a total of 1.8 km is proposed for improvement. The canal embankment is the property of Water Resources Department. Adopting this alignment would necessitate improvement of two junctions with the present road, involving significant dislocation.

Option – 3 (Improvement of Existing Alignment)

The third option is improvement of existing alignment for a length of 2.04 km, where the existing available Right of Way is 12 m. As the available RoW is less, accommodating the 16 m cross sectional width is not viable and geometric improvement has to be made at many locations as there are sharp bends with inadequate site distances and set-back distances. This requires acquisition of land and there it is likely to affect 450 structures on both sides during widening.

4.4 Evaluation of Options

A comparative evaluation of all these alternatives has been given in **Table 4.2**, which will help in selecting the alignment with least social and environmental issues as well addressing the engineering requirements. On the basis of comparative analysis, Option – I is the recommended option with minimal social and environmental issues in comparison to other two alternatives.

Table 4.2: Comparative Analysis of Proposed Pattamundai Bypass

Parameters		Unit	Alternative Options		
			Option 1	Option 2	Option 3
Length (m)		m	1701	1840	2041
Right of Way	Existing	m	NIL	20	20
	Proposed	m	35	16-26	16-26
Land to be Acquired		Acre	12.1	6.8	3.0
Diversion of Forest Land		Acre	Nil	Nil	Nil
Structure Affected		Nos.	07	65	450
Number of PAP		Nos.	98	150	245
Trees to be cut		Nos.	07	30	35
Cost of Land		Lakh	Rs. 85 (Rs.7Lakh/a cre)	Rs. 102 (Rs.15Lakh/ acre)	Rs.75 (Rs.25Lakh/ac re)
Cost of R&R compensation	Land	Lakh	Rs.30	Rs. 25	Rs.25
	Structure	Lakh	Rs.35	Rs. 65	Rs.65
Cost of Road Construction		Lakh	Rs.510	Rs.552	Rs.612
Total Cost of improvement		Lakh	Rs.660	Rs.744	Rs.1787

CHAPTER 5

DESCRIPTION OF ENVIRONMENT

5.0 Introduction

Environment embraces all the three components like the physical, biological and the socioeconomic environment that would have repercussion of project when project planning is of short vision. To ensure adequate integration of these components in project planning and design, EIA is to be carried out which is a formal decision making process for identifying the likely effects of particular activities or projects on the environment and human health. The process also encompasses the development of mitigation measures to address these impacts and suggested approaches for implementation of mitigation and monitoring measures. Hence, establishment of baseline data is essential to identify the likely effect of the project and developing avoidances or preventives or mitigating measures for the project to minimize the negative impact. For Environmental assessment along the project road, information and data have been obtained by intensive site visits, primary data collection, secondary data from published sources, and various government agencies.

5.1 Methodology for EIA

The EIA procedure proceeded simultaneously with design of the project road. The important findings of the assessment gave important feedback to the design team, especially in terms of the sensitive receptor utilities /facilities to be impacted, water logged stretches and locations of religious properties. It helped modify the designs at locations where impacts had to be avoided and incorporate mitigation measures wherever the impacts were unavoidable due to other constraints. The steps covered in the preparation of EIA are as follows:

- Review of Documents;
- Reconnaissance Surveys;
- Collection of Secondary Data and Generation of Primary Data;
- Documentation of Baseline Conditions;
- Assessment of Potential Impacts;
- Identification of Mitigation and Enhancement Measures;
- Analysis of Alternatives;
- Public Consultations; and
- Preparation of the Environmental Management Plans.

5.2 Study Area

5.2.1 Corridor of Impact

The primary baseline data has been collected within the proposed right of way that is 30 m for bypasses, 20 m for open/ rural areas and 16 m in built-up areas. The overall project's direct impact has been identified for the areas coming under Corridor of Impact.

5.2.2 Project Influence Area

As per guidelines of EIA Notification-2006 and MoEF Environmental Impact Assessment Guidelines Manual for Highways, the Project Influence Area (Fig 5.1) has been defined as 10

km on either side (Aerial distance) from boundary of road for collection of secondary data, including impacts due to ancillary sites like borrow areas, quarry, material storage and disposal areas.

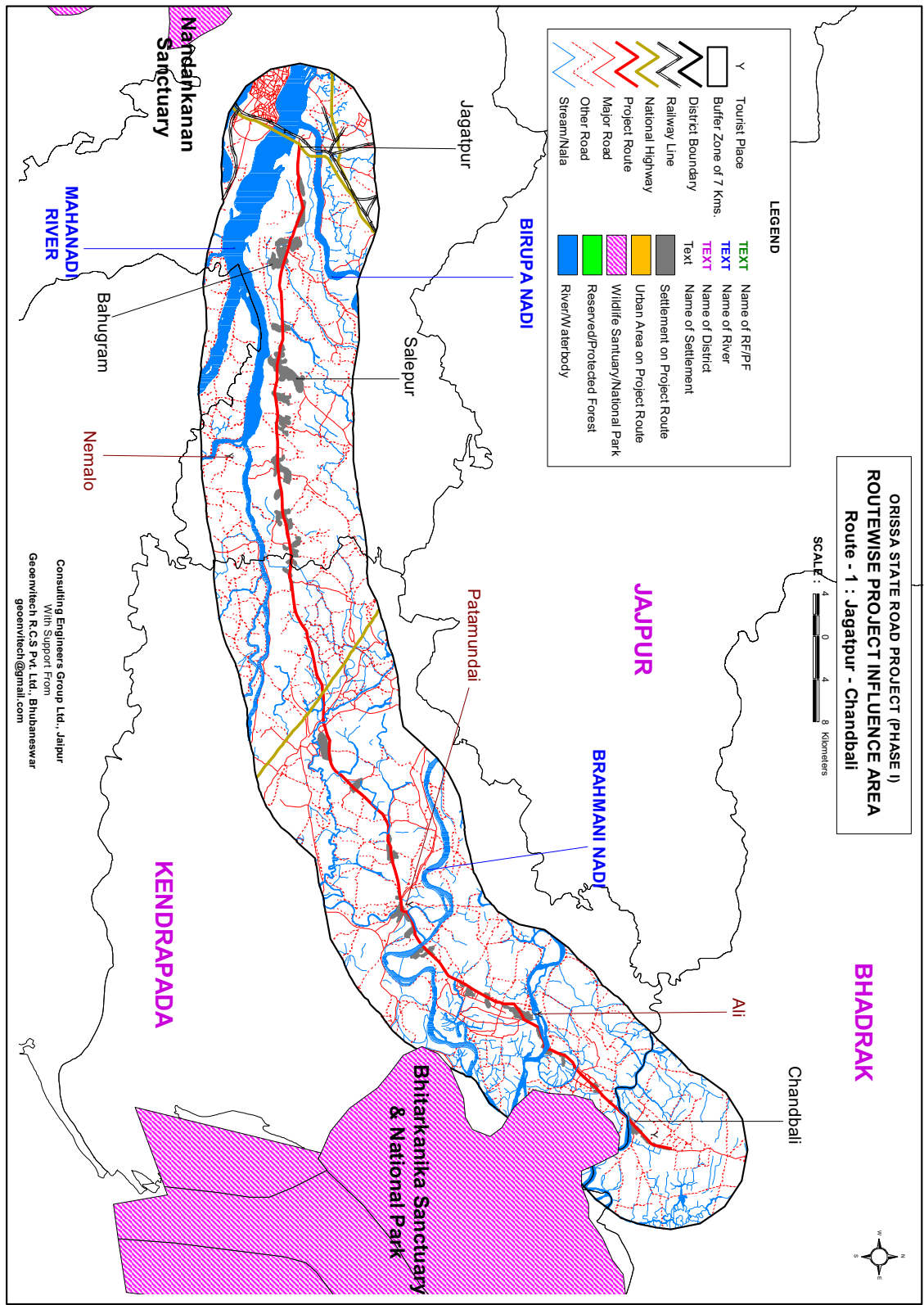


Fig 5.1: Project Influence Area

5.3 Land Environment

5.3.1 Physiography

The project districts i.e. Bhadrak, Cuttack and Kendrapada are located in Coastal Plain formed due to alluvial deposit of the rivers originating in the Eastern Ghats and flowing eastwards draining into the Bay of Bengal. The project road corridor passes through flood plains of Baitarani River in the deltaic region between river Budhabalanga and Baitarani. The area has flat topography extending in the north-south direction along the coast and topographical gradient is towards east where the elevation is very negligible leading to persistent water logging during rains in all these tracts along the coast.

5.3.2 Geology

Odisha has three distinct geological provinces, The Singhbhum - North Orissa creation occupies Mayurbhanj, Keonjhar, parts of Balasore, Dhenkanal, Deograh, Sambalpur and Sundargarh districts. The litho assemblage in this sector comprises Banded Iron Formation, Green stone, and Granite association. The southern portion of the state is covered with the rocks of Eastern Ghats mobile belt. It comprises mainly granitic suite, charnokite, khandelite etc. These rocks of Precambrian age cover the vast stretch of Cuttack, Khurda, Nayagarh, undivided Bolangir, Sambalpur, Phulbani, Ganjam, Kalahandi and Koraput districts. In the western sector lies the Bhandara creation, which comprises greenstone, granite, and granulite etc facie assemblages along with upper Proterozoic sedimentary rocks. The Preoterozoic sedimentary rocks cover parts of Nuapara, Bargarh, Koraput, Nawarangpur and Malkanagiri districts. Boundaries in between these three Precambrian provinces are marked by structural lineaments.

Table 5.1: Distribution of major geological units in the State

Geological Age	Rock formation		Districts
CONSOLIDATED FORMATION			
Pre-Cambrian	Archaean complex	Granite gneiss Charnockites, Khondalites, Schist, Phyllite, slates, Granulite, Banded Haematite-Quartzite etc.	Occur in all districts except Kendrapada, Jagatsinghpur, Bhadrak
	Cuddapah Vindhyan	Shale, Sand Stone, Quartzite, Limestone etc.	Koraput, Nawarangpur, Bargarh, Nuapara, Khurda, Cuttack, Sundargarh
SEMI – CONSOLIDATED FORMATION			
Palaeozoic – Mesozoic	Gondwana Group	Boulder bed, Sandstone, Shale and coal seams	Angul, Sambalpur, Jharsuguda, Dhenkanal, Angul, Sundargarh,
Tertiary	Baripada beds	Loosely cemented calcareous sandstone	Mayurbhanj, Cuttack, Khurda, Nayagarh
Unconsolidated Formation			
Pleistocene to Recent		Alluvium (clay, silt, gravel and sand in varying proportion)	Ganjam, Gajapati, Mayurbhanj, Khurda, Puri, Cuttack, Kendrapara, Jajpur, Bhadrak, Balasore, Keonjhar, Rayagada, Koraput, Nawarangpur.

The geology of the project area is mainly comprised of rock formations belonging to Archaean system of Pre-Cambrian geological age and Recent to sub-recent sediments deposited by various river systems built up at deltas at the river mouths.

5.3.3 Sismicity

As per the Bureau of the Indian Standards (BIS) map IS: 1983-1984, the district of Cuttack and Kendrapara lies in Zone III, and Bhadrak lies in zone II. Zone III is a moderate earthquake zone whereas zone II is a low damage risk zone. Map showing seismic zone of India and Odisha is given below in **Figure 5.2** and **Figure 5.3** respectively.

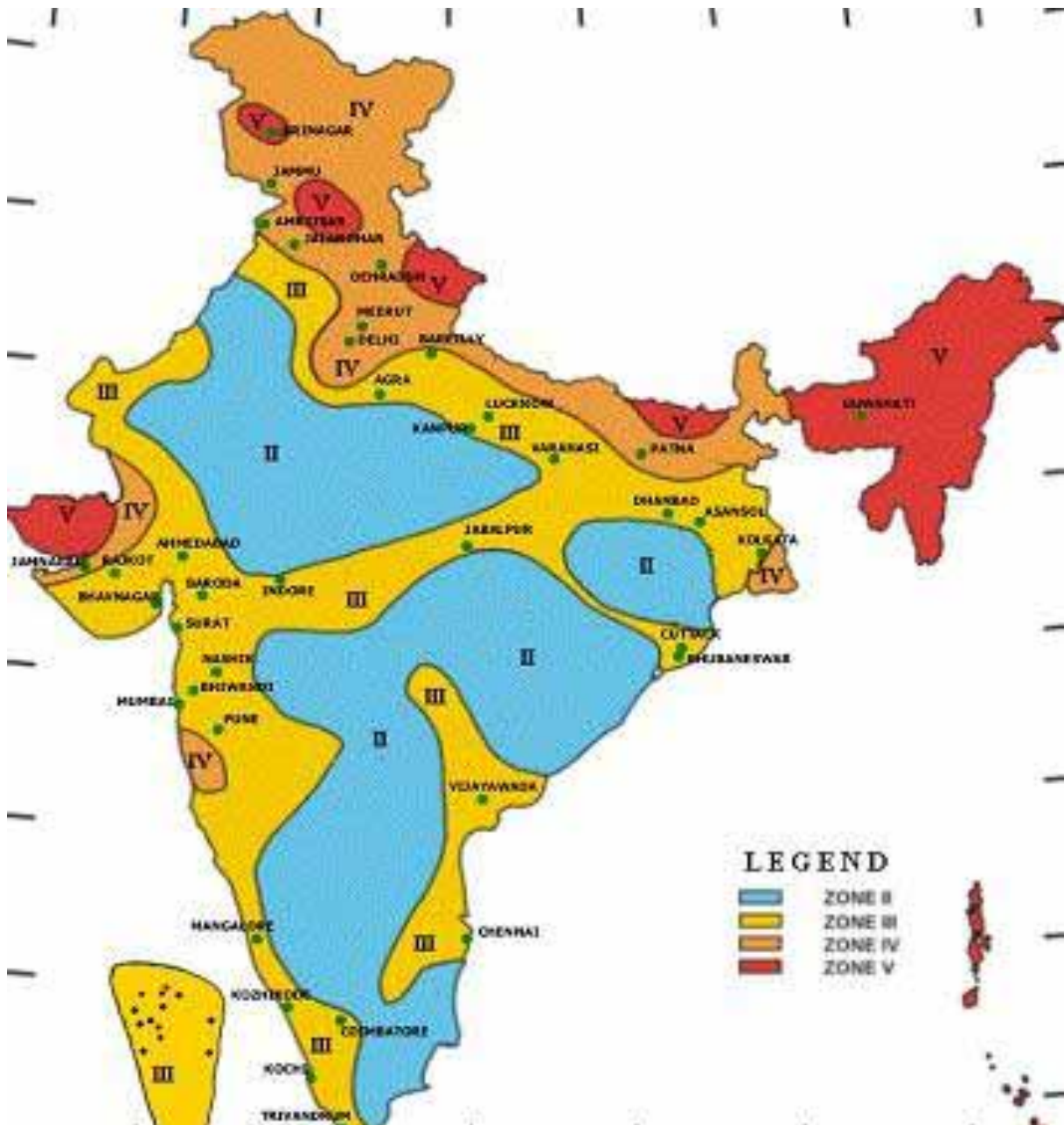
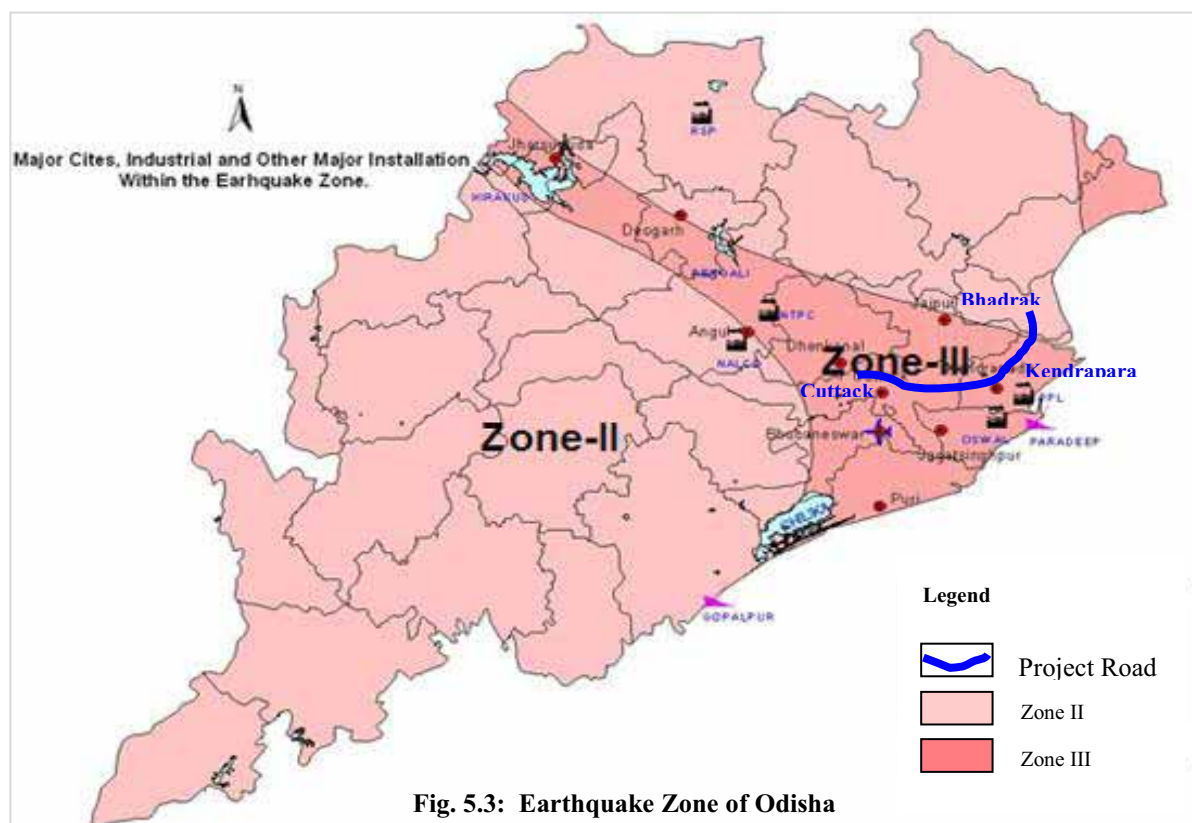


Fig 5.2: Seismic Zoning Map of India



It is evident from the earthquake zoning map of Odisha that majority of project road lies in Zone III, which is a moderate earthquake zone.

5.3.3 Hydrology

Three major hydrological units have been identified in the State based on the geological set up, occurrence and distribution of aquifers and their yield potentials, and they are: (i) Consolidated formation includes mainly granites, gneisses, schists, amphibolites, khondalites, charnockites, Pre-cambrian sandstones, and shales, quartzites, and limestones, basic and acid intrusions. They occupy about 70% of the geographical area of the state; (ii) Semi-consolidated Gondwana formations and Tertiary deposits the weathered, friable and loosely cemented sandstones forms the aquifer and (iii) Un-consolidated formation include alluvial deposits in the coastal tract and river alluvium along with the major rivers and streams. The project districts has both consolidated and un-consolidated hydrological units. Depth to water level varies from 0 to 2m in the post-monsoon and 2 to 4m in pre-monsoon periods. Yield of tube wells in these tracts can be of 18 to 76 lps. The hydrological map of Odisha is in Fig 5.4.

The project road is falling under three river basins, namely Baitarni, Bhramani and Mahanadi, though majority of the road length is coming under Bhramani and Baitarni river basin (Fig 5.5). The project road crosses three major rivers namely Baitarani, Bhramani and Kharshrota. The Brahmani River rises near Nagri village in Ranchi district of Jharkhand at an elevation of about 600 m and has a total length of 799 km. The Baitarani River rises in the hill ranges of Keonjhar district of Orissa at an elevation of about 900 m and has length of about 365 km. The important tributaries of Brahmani are the Karo, the Sankh, and the Tirka and those of Baitarani are the Salandi and the Matai. These river systems outfalls are into the

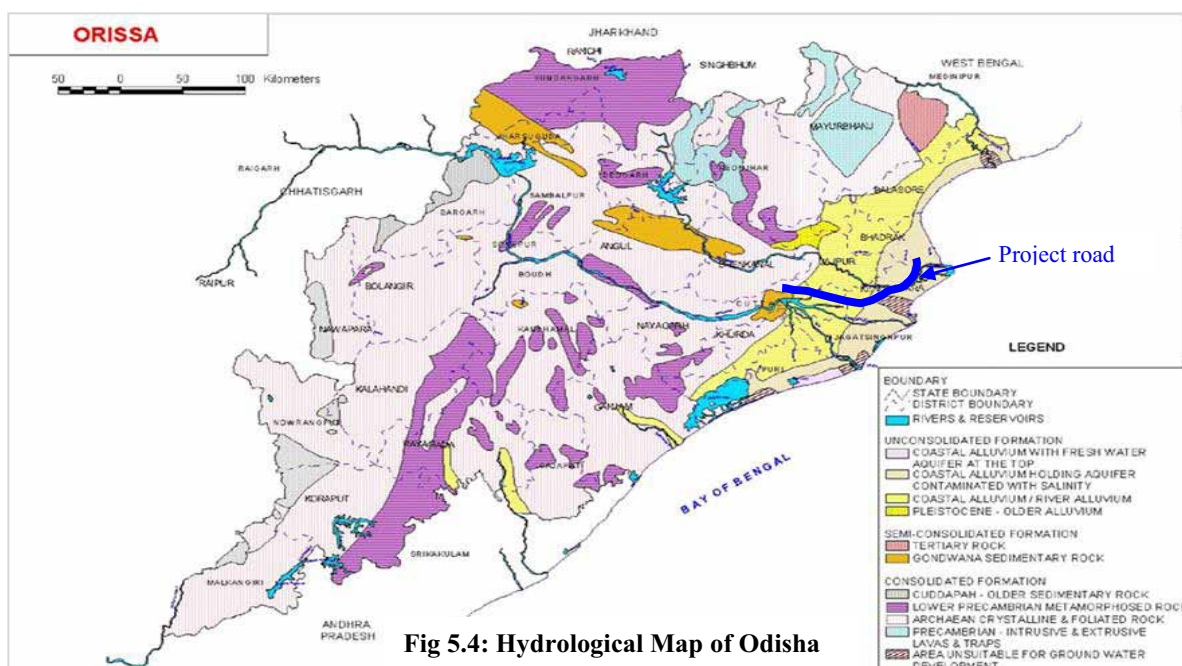


Fig 5.4: Hydrological Map of Odisha

Bay of Bengal forming a common delta area with minimum level difference with the sea make the project districts prone to ravages of frequent flood, inter tidal inundation, water logging and cyclonic storms besides being enriched by the silt deposits caused 2 to 3 times repeatedly every year on accounts of floods.

5.3.4 Land Use

Project highway traverses through plain area. The project road passes through district of Cuttack, Kendrapada and Bhadrak. Predominantly land use is under agricultural, residential, and commercial. There is no forest (Except road side plantation), environmental sensitive places, notified industrial areas and lake along the project road. Project road passes through 116 villages/ settlements in 3 districts.

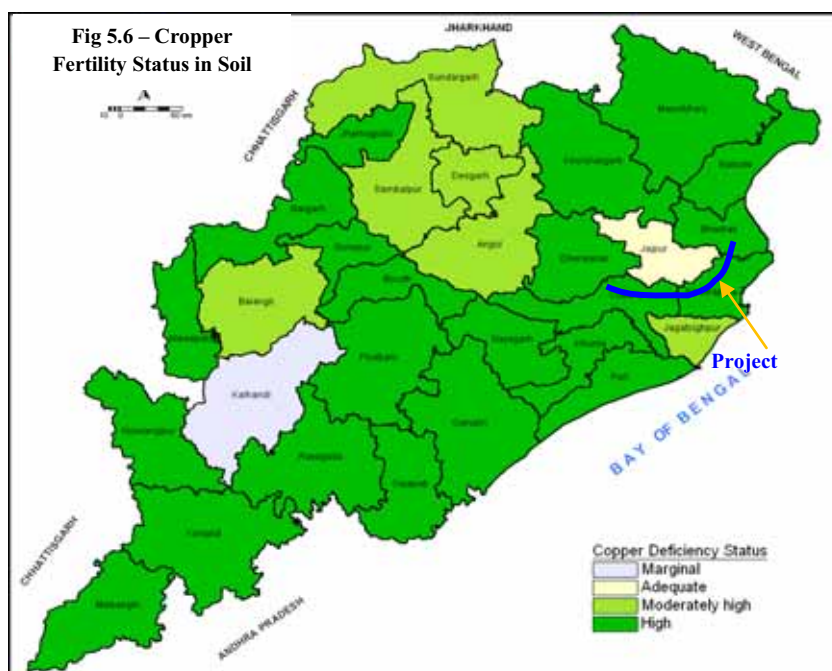


Fig 5.5: Baitrani and Bhamani river Basin

5.3.5 Soil

Based on soil types, rainfall, temperature etc. the state has been divided in to ten Agro climatic zones (Table 5.2). The project road comes under three agro climatic zone of the state namely, North Eastern Coastal Plain, East and South Eastern Coastal Plain and Mid-Central Table Land Agro Climatic Zone respectively. The soil types along project roads area are mainly lateritic, coastal saline and alluvial, and deltaic alluvial soil on both sides.

The soil texture vary from sand loam to loamy sand in few road stretches in Cuttack, while it is clayey texture in road stretch passing through deltic alluvial and coastal saline and alluvial soil type in Cuttack, Kendrapara and Bhadrak. Because of the location being in the deltic region of river Brahmani and Baitarani, the project area has fertile land due to alluvial deposits, over which the districts are located (Fig 5.6).



Source: Department of Soil Science & Agril. Chemistry, Orissa Agricultural University, Bhubaneswar, Orissa

Table 5.2: Soil types in different Agro Climatic zones of Orissa state

Sl. No	Agro-climatic zones	Districts	Soil Group
1	North Western Plateau Zone	Sundargarh, Deograh	Red, Brown forest, Red & yellow, Red and black
2	North Central Plateau Zone	Keonjhar, Mayurbhanj	Lateritic, Red & Yellow, Mixed red & black
3	North Eastern Coastal Plain Zone	Balasore, Bhadrak, Keonjhar, Jajpur	Red & laterite, Deltaic alluvium, Coastal alluvium including saline
4	East and South Eastern Coastal Plain Zone	Cuttack, Jagatsinghpur, Kendrapara, Khurda, Puri, Nayagarh, Ganjam	Coastal saline & sandy, Lateritic alluvial, black, red and lateritic
5	North Eastern Ghats Zone	Phulbani, Rayagada, Gajapati, part of Ganjam	Brown forest, Lateritic, Alluvial, red, Black, Red and yellow
6	Eastern Ghats Highland Zone	Koraput, Nawarangpur	Red, Mixed red and black, Mixed red and yellow, Alluvial
7	South Eastern Ghats Zone	Malkanagiri, Jeypore	Red, lateritic, Black
8	Western Undulating Zone	Kalahandi, Nuapara, part of Nawarangpur	Red, Red and yellow, Yellow, Red and black, Black, Deltaic alluvium
9	West Central Table Land Zone	Sambalpur, Sonapur, Bargarh, Bolangir	Alluvial, red and yellow, red and black, Black, Lateritic red, Forest
10	Mid- Central Table Land Zone	Dhenkanal, Angul, part of Cuttack	Alluvial, Black, red and laterite, Lateritic red

Source: Directorate of Research office, OUAT, Bhubaneswar

5.3.6 Water Resources and Drainage

Surface Water

Water bodies in the project area mainly include rivers, ponds, canals, tanks etc. Major rivers flowing in and around project area are Brahmani, Kharasrota and Baitarani. These rivers are most problematic rivers along the corridors that inundate vast stretches of the corridor and

residential localities around. The project roads also have man-made water storage tanks in shape of ponds, irrigation tanks and minor water harvesting structures besides dug up depression created along coastal traps coming within inter tidal zones to harvest fish and crustacea that move about with the rise and fall in water level. These artificial impounding of precious water harvesting units not only serve as major ground water recharging unit but also provide cheap protein to the rural population while serving as source of irrigation, bathing, washing and feeding domestic cattle. During the field survey, 44 water bodies have been identified and located within 10 to 15 mtrs of the toe line on either sides of the road (details at **Annexure 5.2**).

Ground Water

Besides the ponds, water harvesting structures, there are potable water sources in the form of open shallow wells of coastal districts, deep wells and bore wells, piped water supply units in rural, semi urbane and urbane locations on either side of the corridor which are going to be shifted and reestablished away from the existing corridor. As the health and wellbeing of a community depends on the health and sanitation facilities in which **water plays an important role**, the detail locations of these utilities were recorded and with the opinion of the stakeholders these are to be relocated at alternate sites on high ground with better sanitation and waste water management devices. Wells have been abandoned or less frequently used in many localities owing to the sinking of bore wells or deep hand pump units under **RWSS and Swatchha jaladhara programme**. The Table 5.3 below presents the summary of existing potable water sources that are along the road (for details at **Annexure 5.1**).

Table 5.3: Existing Potable Water Sources

Sl.No	Type of Structure	Number
1	Well	72
2	Tube Well	37
3	Stand Post	36
		145

Water Quality

To understand baseline conditions of water quality, samples from six locations for surface-water quality and six locations for ground water quality were collected. The sampling locations were selected after the field investigations and review of all the water bodies/resources along the project stretch. Baseline information on the quality of surface and ground water sources along the alignment of proposed road is required before predictions can be made of the future quality.

Grab samples were collected from these locations and were analyzed for various parameters as per the procedures laid down in the APHA & BIS. The location details of water quality monitoring stations are presented in **Table 5.4**.

Table 5.4: Details of Water Quality Monitoring Locations

S.No.	Ground Water		Surface Water	
	Description	Chainage	Description	Chainage
1	Jagatpur	3.500	Brahmini River	73.000
2	Salepur	20.000	Baitarini River	87.500
3	Kendrapada	51.00		
4	Pattamundai	72.00		

These water samples were collected as grab samples and were analyzed for various parameters and compared with the standards for drinking water as per IS 10500: 1991 (**Annexure 5.4**). Ground water samples were collected from most commonly used sources along the project road. Surface water samples were collected from Brahmani and Baitarani River crossing the project road. The analysis of surface water quality has been done as per water quality standards prescribed by Centre for Pollution Control Board (**Annexure 5.3**). Analysis results for ground water samples and surface water are given in **Table 5.5**.

Table 5.5: Water Quality in the Project Area

Sl. No	Parameters	Ground Water Sample Jagatpur Chainage 3.500	Ground Water Sample Salepur Chainage 20.000	Ground Water Sample at Kendrapada Chainage 51.00	Ground Water Sample at Pattamundai Chainage 72.00	Water Sample of Brahmini River at Chainage 73.000	Water Sample of Baitarani River at Chainage 87.500
1	PH value	7.9	6.5	7.5	7.2	6.8	7.0
2	TDS, mg/l	362	349	352	358	73	76
3	Oil & Grease, mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	1.2
4	BOD (27°C 3 days), mg/l	3.1	2.2	2.5	3.0	4	5
5	COD, mg/l	19	12	14	15	20	25
6	Chloride as Cl, mg/l	16	11	12.5	12	4	5
7	Sulphate as SO ₄ , mg/l	13	10	11	10	3.9	5.0
8	Salinity	7.9	2.5	4.2	5.8	6.9	7.3
9	Dissolved Oxygen, mg/l	5.5	4.3	4.9	5.0	6.0	7.0
10	Iron as Fe, mg/l	1.45	1.00	1.02	1.25	1.2	0.8
11	Copper as Cu, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
12	Zinc as Zn, mg/l	0.05	0.03	0.04	0.04	0.03	0.03
13	Lead as Pb, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
14	Chromium as Cr, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
15	Cadmium as Cd, mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	MPN Coliform	Nil	Nil	Nil	Nil	29	31
17	E-Coli	Absent	Absent	Absent	Absent	Present	Present
18	Total Hardness as CaCO ₃ , mg/l	325	305	312	318	110	119
19	Total Suspended Solids, mg/l	5.3	4.1	4.2	4.9	42	47
20	Color, NTU	3.8	3.0	2.9	3.0	7.9	8.5
21	Odour	Absent	Absent	Absent	Absent	Absent	Absent
22	Turbidity, NTU	5	4	4	4	10	12

It is revealed from observations that all essential parameters of water samples are well within the prescribed limit for potable water as per IS: 10500-1991. Except for Iron content that is exceeding the prescribed limit.

The surface water quality of Brahmani and Baitarini River was found satisfactory and is fit for bathing and domestic purposes. Water quality of Brahmani and Baitarini River was under class 'B' of CPCB standard.

5.3.7 Meteorological Conditions

Geographically the state is located on the coastal belt as a result the weather in Orissa is greatly influenced by the sea. Orissa is lying just south of the Tropic of Cancer and the climate of the region is tropical resulting in very high temperature in the months of April and May. On the contrary, the Eastern Ghats of the state experience an extremely cold climate.

Temperature

The project districts are located in coastal plain. The climate in project area is equable but highly humid and sticky. As per the meteorological information the summer maximum temperature ranges between 35-40° C and the lowest temperature are usually between 12-14°C. The and the low temperatures are usually between 12-14° C. Winter is not very severe except in some areas in Koraput and Phulbani where minimum temperature may drop to 3-4° C.

Rainfall

The average annual rainfall in the project area is 1500 mm, experienced as the result of south west monsoon during July-September (Fig 5.7 and 5.8). The month of July is the wettest and the major rivers may get flooded. The state also experiences small rainfall from the retreating monsoon in the months of October-November. January and February are dry.

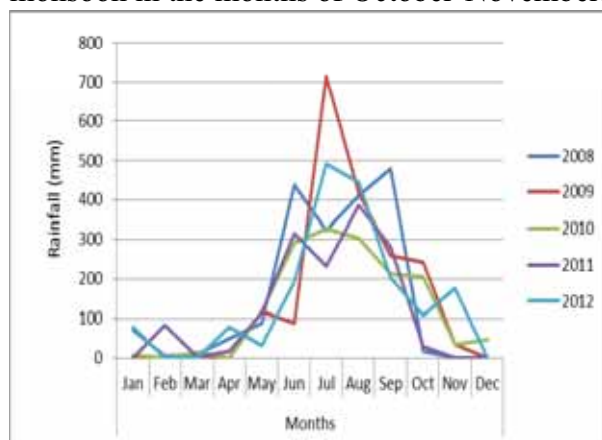


Fig 5.7: Cuttack Rainfall Trend

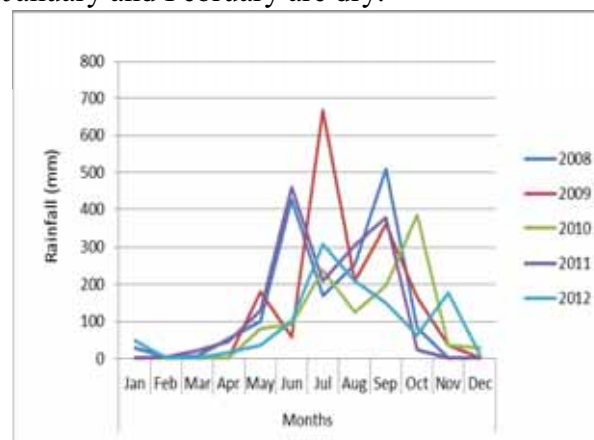


Fig 5.8: Kendrapara Rainfall Trend

Table 5.6: Rainfall Data - Cuttack

Month Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	71.1	5.4	9.3	50.3	87.4	436.8	321.9	410.9	479.6	17.0	0.0	0.0
2009	0.0	0.0	0.4	1.0	118.0	88.3	712.9	417.5	259.7	243.2	35.3	0.0
2010	8.4	0.0	15.7	0.0	116.4	291.8	327.1	302.5	211.7	206.6	34.6	46.9
2011	0.0	84.5	2.1	17.6	116.1	314.3	232.6	387.2	282.1	29.4	0.0	0.0
2012	79.3	0.0	0.0	77.8	31.8	192.9	491.8	445.7	202.3	106.7	175.5	0.0

Source: IMD

Table 5.7: Rainfall Data - Kendrapara

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year												
2008	27.3	4.0	5.0	52.0	101.0	428.	168.3	254.3	508.0	83	0.0	0.0
2009	0.0	0.0	0.0	2.0	179.7	58.7	667.3	209.0	360.3	164.0	35.7	0.0
2010	0.0	0.0	0.3	0.0	81.0	92.7	238.3	123.7	196.3	384.3	35.0	27.3
2011	0.0	3.7	21.0	45.3	129.7	460.2	209.3	305.2	378.4	23.3	0.0	0.0
2012	47.3	0.0	0.7	17.0	36.9	100.2	307.0	207.9	149.2	63.8	176.2	9.5

Source: IMD

5.3.8 Air

The ambient air quality with respect to the study area along the project road form baseline information. The study area represents mostly rural/residential as well as urban. The sources of air pollution in the region are mainly vehicular traffic; dust arising from unpaved road and domestic fuel burning etc. The prime objective of the baseline air quality study is to establish the existing ambient air quality along the project road. This will be useful for assessing the conformity to standards of the ambient air quality specified by CPCB due to the construction and operation of the project road. The ambient air quality monitoring has been carried out as per new notification, issued on 16th November 2009.

Selection of Sampling Locations

Air quality monitoring was done at four locations. The sampling of the ambient air quality has been established through a scientifically designed ambient air quality monitoring network and is based on the following considerations:

- Meteorological conditions on synoptic scale;
- Topography of the study area;
- Representatives of likely impact areas along the project road.

The samples were analysed for pollutants of interest (CO, NO_x, SO₂, SPM and RPM) using the appropriate method prescribed by Bureau of Indian Standards and Central Pollution Control Board. Reparable dust samplers/high volume samplers of Envirotech Instruments were used for monitoring suspended particulate matters (SPM), reparable particulate matters (RPM), SO_x, and NO_x

Sampling and Analytical Techniques

Ambient air quality monitoring has been carried out at Jagatpur, Kendrapara, Pattamundai and Chandbali locations along the project road. The ambient air quality monitoring stations were selected with major settlement with large population and proximity to/along the project road. Monitored values are compared with National Ambient Air Quality Standards (Table 5.8) prescribed by Central Pollution Control Board (CPCB).

Table 5.8: National Ambient Air Quality Standards (CPCB, 1997)

Pollutant	Time Weighted Average	Concentration in Ambient air ($\mu\text{g}/\text{m}^3$)		
		Industrial	Rural and Residential	Sensitive
Sulphur Dioxide (SO_2)	Annual Average*	80	60	15
	24hr**	120	80	30
Oxides of Nitrogen (as NO_2)	Annual Average *	80	60	15
	24hr**	120	80	30
Suspended particulate Matter (SPM)	Annual Average *	360	140	70
	24hr**	500	200	100
Respirable particulate matter ($<10\mu\text{m}$) (RPM)	Annual Average *	120	60	50
	24hr**	150	100	75
Lead	Annual Average *	1.0	0.75	0.50
	24hr**	1.5	1.00	0.75
Carbon monoxide mg/m^3	8hr	5.0	2.0	1.0
	1hr	10.0	4.0	2.0
<p>* Annual Arithmetic mean of minimum 104 measurements in a year taken for a week 24 hourly at uniform interval.</p> <p>** 24 hourly/8 hourly values should meet 98 percent of the time in a year</p> <p>Source: Central Pollution Control Board (1997) National Ambient Air Quality Monitoring Series, NAQMS/a/1996-97.</p>				

The monitoring result of all five parameters in Table 5.9 showing the survey station for air quality monitoring indicates the level of various parameters being far below the ambient levels prescribed by the Govt. of India as regards air quality along the corridors proposed to be developed, as can be seen from the average reading derived at each survey station on specific corridors.

Table 5.9: Ambient Air Quality Status along the Project Road

No. of Reading	SPM ($\mu\text{g}/\text{m}^3$)	RPM ($\mu\text{g}/\text{m}^3$)	SO_2 ($\mu\text{g}/\text{m}^3$)	NO_x ($\mu\text{g}/\text{m}^3$)	CO (ppm)
Survey Station (SS): Jagatpur Chainage (3.500)					
1.	185.0	60.2	8.3	10.7	1.32
2.	200.0	50.0	9.1	17.3	1.18
3.	209.1	69.7	9.3	9.2	1.25
4.	210.1	70.7	9.5	10.2	1.15
Average Reading	201.05	62.65	9.05	11.85	1.225
Survey Station (SS): Kendrapara Chainage (52.000)					
1.	258.0	92.5	9.3	14.3	1.5
2.	185.0	61.8	10.1	19.5	1.8
3.	174.0	57.9	7.3	13.7	1.0
4.	165.0	49.8	9.8	15.5	1.2
Average Reading	195.5	65.5	9.125	15.75	1.375
Survey Station (SS): Pattamundai Chainage (72.000)					
1	188.0	69.3	7.9	16.2	1.5
2	164.0	65.2	8.9	13.0	1.6
3	152.4	43.1	7.5	13.8	2.1
4	147.6	42.1	6.8	12.0	1.8
Average Reading	163	54.925	7.775	13.75	1.75
Survey Station (SS): Chandbali Chainage (99.000)					
1	163.3	52.2	9.9	14.4	0.6
2	179.0	61.0	9.7	6.2	0.8
3	59.6	17.7	5.6	10.2	0.5

No. of Reading	SPM ($\mu\text{g}/\text{m}^3$)	RPM ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO (ppm)
4	54.5	16.4	6.2	9.2	0.3
Average Reading	114.1	36.825	7.85	10	0.55

5.3.9 Noise

A preliminary reconnaissance survey was undertaken to identify the major noise generating sources along the project road. The noise monitoring at five locations considering all categories like commercial, residential and silence zone has been carried out. The monitoring result (Table 5.11) has been analysed with Ambient Noise Standard, CPCB (Table 5.10).

Table 5.10: National Ambient Noise Level Standards

Area Code	Category	Limits in Decibels (dB A)	
		Day Time	Night Time
A	Industrial	75	70
B	Commercial	65	55
C	Residential	55	45
D	Silence Zones	50	40

Source: Central Pollution Control Board, New Delhi

- Note: (1) **Daytime:** 6 AM to 9 P.M., **Night-time** 9 PM to 6 AM;
 (2) Silence zone is an area up to 100 m around premises as hospitals, educational institutions and courts.

Table 5.11: Ambient Noise Level at Project Area

Sl.No	Sampling Locations	Leq day (15 hourly) dB (A)	Leq night (9 hourly) dB (A)	Leq day (15 hourly) dB (A)	Leq night (9 hourly) dB (A)
1	Jagatpur	49.8	42	50	42.8
2	Kendrapara	47	36.7	47.6	37
3	Pattamundai	42.2	39.2	43	39.6
4	Aul Market	43.5	36.7	43.8	37
5	Chandbali	50.7	46	51	46.5

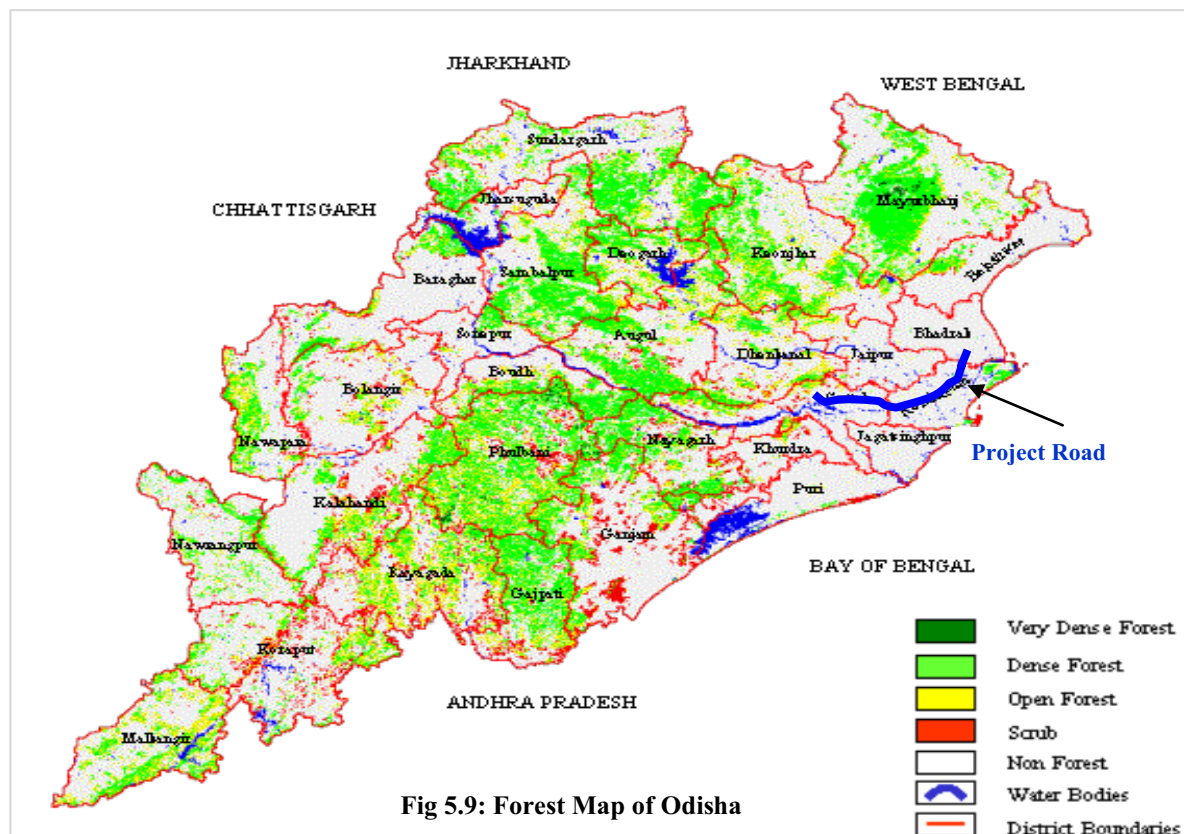
Day and night time noise level at all monitored site was noted under permissible limit of CPCB.

5.4 Biological Environment

5.4.1 Forest

As per the report of the Forest Survey of India using remote sensing techniques, the forest cover in the State is 48,855 sq. kms of which 7,073 sq. kms is very dense forest. The moderately dense forest extends over 21,394 sq. kms while open forest is over 20,388 sq. kms. The forest cover in the State constitutes 31.38% of the geographical area. Besides this, there exists tree cover outside the forest over 2.85% of the geographical area of the State. Thus the forest and tree cover in the State is 34.23% of the geographical area.

The project road does not pass through any forest area (Fig 5.9) either reserved forest or protected forest. Plantation along the road sides is observed and this plantation has been notified as protected forest.



Source: Forest Department, Govt. of Odisha

5.4.2 Protected Natural Habitat and Wildlife Movement

Bhitarkanika wildlife sanctuary is situated within 10 km radius from the project road. As per Wildlife (Protection) Act 1972, necessary Wildlife Clearance needs to be obtained for the project road from Wildlife Department.

No specific wildlife movement zone confined to land on either sides of water body and rivers have been noted during surveys, consultation with people and wildlife departments.

5.4.3 Flora

The project road has green tunnel for a total 15 km road length. The widening of road will involve cutting of 7568 trees that are coming within Corridor of Impact (**Details in Annexure 5.5**). During the pre-construction phase many of the huge and aged (more than 120 year old) trees standing there as towers to prevent wind damage in its leeward side will be lost along with the very shelter belt character of these trees, after the avenues are cut and removed for the widening.

Major tree species under avenue plantation in the road corridor includes *Anogeissus latifolia*, *Azadirachta indica* (Neem), *Eucalyptus*, *Acacia*, *Simul*, *White Simul*, *Patuli*, *Kuruma*, *Tentuli*, *Mango*, *Pepal* (*Ficus religiosa*), *Banyan* (*F.bengalensis*), *Kadamba*, *Ficus glumerata*, *F.infectoria*, *Palmyra palms*, *Date palms*, *Strebulus asper*, *Acacia nilotica*, *A.leucophlea*, *Buchanania lanjan* (Chiranj), *Butea monosperma* (Palas), *Careya arborea*, *Cassia fistula*, *Dalbergia Latifolia* (Sishu), *Diospyros melanoxylon* (Kendu), *Madhuca Indica* (Mohua),

Phyllanthus emblica (Amli), *Scleichera oleosa* (Kusum), *Samecarpus anacardium* (Bhalia), *Semaruba glauca*, *Shorea robusta* (Sal), *Syzygium Cummini* (Jamum), *Tectona grandis*, *Terminalia arjuna* (Arjun), *Terminalia belerica* (Bahera), *Terminalia chebula*, *Wrightia arborea*, *Zizyphus oenoplia*, *albizia lebecs*, *cassia siamia*, *samania saman*.

Similarly, important medicinal plants found in the project along the road are chandan (*santalum album*), bija (*pterocarpus marsupium*), rohini (*ssoyimida fabrifuga*), fanfana, (*oroxylon indicem*), kamalagudi (*malotus philipinansis*), patuli (*pterospermum swave*), chadeigodi (*vitex peduncularis*), bidanga (*embelia ribes*), modafal (*helioteres isora*), banapipali (*piper longum*), karpura haldi (*curcuma aromatica*), iswari (*aristolochea indica*), bridha daruka (*aargeyreia durvula*) etc.

An exhaustive list of vegetation along the corridor including the forest and non-forest land has been providing in Table 5.12.

Table 5.12: List of Flora Species

Sl. No.	Local Name	Scientific Name
1	Banyan	<i>Ficus bengalensis</i>
2	Aswath	<i>Ficus religiosa</i>
3	Udumbara	<i>Ficus glumerata</i>
4	Jari	<i>Ficus infectoria</i>
5	Tentuli	<i>Tamarindus indica</i>
6	Karanja	<i>Pongamea pinnata</i>
7	Dharunja	<i>Holoptelia integrifolia</i>
8	Bada Chakunda	<i>Samania saman</i>
9	Chakundi	<i>Cassia siamea</i>
10	Sirisa	<i>Albizia lebeck</i>
11	Simul	<i>Ceiba patendra</i>
12	Fasi	<i>Annogeissus acuminata</i>
13	Amba	<i>Mangifera indica</i>
14	Limba	<i>Azadirachta indica</i>
15	Mahala	<i>Ailanthus exelcessa</i>
16	Mahula	<i>Madhuca latifolia</i>
17	Kochila	<i>Strychnos nuxvomica</i>
18	Ritha	<i>Sapindus emarginatus</i>
19	Akash malli	<i>Melingtonea hortensis</i>
20	Jamun	<i>Cizygium cumini</i>
21	Kendu	<i>Diospiroous montana</i>
22	Sisoo	<i>Dalbergia sisoo</i>
23	Chhatiana	<i>Alstonea scholaris</i>
24	Arjuna	<i>Terminalia arjuna</i>
25	Harida	<i>T.chebula</i>
26	Bahada	<i>T.bellerica</i>
27	Ainala	<i>Phyllanthus emblica/ Emblica officinalis</i>
28	Harasingar	<i>Nyctanthes arbortristis</i>
29	Sahada	<i>Strebulus asper</i>
30	Ankula	<i>Alangium hexapetalum</i>
31	Baula	<i>Mymosops elengi</i>
32	Champa	<i>Michelia champaca</i>
33	Katha champa	<i>Plumeria alba /P.rubra</i>
34	Sunari	<i>Cassia fistula</i>
35	Atundi	<i>Combretum decandrum</i>
36	Baigaba	<i>Jatropha curcas /J.gossypifolia</i>
37	Palasa	<i>Beutia frondosa</i>
38	Gambhari	<i>Gmelina arborea</i>

Sl. No.	Local Name	Scientific Name
39	Gohira	<i>Acacia leocophloea</i>
40	Babul	<i>Acacia nilotica</i>
41	Bela	<i>Aegle marmelus</i>
42	Puruni (Ghodapuruni)	<i>Boerhovia diffusa</i>
43	Apamarga	<i>Achyranthes aspera</i>
44	Bhui neem	<i>Andrographis paniculata</i>
45	Ayyapan	<i>Aristolochia indica</i>
46	Tihudi	<i>Operculina turpethum</i>
47	Sugandhi	<i>Hemidesmus indicus</i>
48	Arka	<i>Calatropis gigantia</i>
49	Gunja / Kaincha	<i>Abrus precatorius</i>
50	Pasaruni	<i>Pederia foetida</i>
51	Mersunga	<i>Muraya koengii</i>
52	Banatulasi	<i>Ocimum gratissimum</i>
53	Kateri/Chakadabheji	<i>Solanum xanthocarpum</i>
54	Bala	<i>Sida cordifolia</i>
55	Dengabheji	<i>Soalanum torvum</i>
56	Fanafana	<i>Oroxylon indicum</i>
57	Guduchi	<i>Tinospora cordifolia</i>
58	Salaparni	<i>Desmodium gangeticum</i>
59	Bankulthi	<i>Tephrosia purpuria</i>
60	Arrow root	<i>Curcuma aungustifolia</i>
61	Daskerenta	<i>Barleria cristata</i>
62	Dahidahika	<i>Cocculus hirsutus</i>
63	Satabari	<i>Asparagus racemosus</i>
64	Baidanka	<i>Muccuna Pruriens</i>
65	Gokshura (Bada)	<i>Pedaliu murex</i>
66	Sangokshura	<i>Tribulus terrestris</i>
67	Patalgaruda	<i>Rauvolfia serpentina</i>
68	Dhataki	<i>Wood forida fruticosa</i>
69	Keruan	<i>Holarhena antidysenterica</i>
70	Baruna	<i>Creteva religiosa /C . nurvula</i>
71	Puruni/Atikapudi	<i>Trianthema portulacastrum</i>
72	Narguni	<i>Atlantia manophylla</i>
73	Nagarmatha	<i>Cyperus rotundus</i>
74	Krushnaparni	<i>Uraria picta</i>
75	Sankarjata	<i>Urenia lagopoides</i>
76	Mendi or Anantamula	<i>Tylophora indica</i>
77	Keu	<i>Costus speciosus</i>
78	Gaigobra / Langalangalia	<i>Gloriosa superba</i>
79	Sankhapuspi	<i>Clitorea ternatia</i>
80	Bhuin amla	<i>Phyllanthus fraternus</i>
81	Atibala	<i>Abutilon indicum</i>
82	Bala	<i>Sida cordifolia</i>
83	Chiller	<i>Caesal pinea sappan</i>
84	Gillo	<i>Caesalpine cristata</i>
85	Bajradanti	<i>Barbaria crista</i>
86	Bakuchi	<i>Psoralea corrylifolia</i>
87	Sweta sorisha	<i>Cleome gynandraCleome viscosa</i>
88	Sweta tila	<i>Digitalis purpurea</i>
89	Pasanabhedi (Paunsa paunsia)	<i>Erva lanata</i>
90	Keshdura or Bhiringaraj	<i>Eclipta prostrata /E. erecta</i>
91	Keshranjani	<i>Wadellia chinensis</i>
92	Bana alu	<i>Dioscorea digitalis</i>
93	Mundi	<i>Speranthus indicus</i>
94	Pokasunga	<i>Baliospermum montanum</i>
95	Pasanabhedi	<i>Collius freschli</i>

Sl. No.	Local Name	Scientific Name
96	Bidarikand	<i>Pruraria tuberosa</i>
97	Gudmari	<i>Gymnema silvestre</i>
98	Bada Pokasunga	<i>Cineraria versicolour / Cineraria maritime</i>
99	Indramarisha	<i>Acalypha indica</i>
100	Indrayan	<i>Citrallus colocynthis</i>
101	Uturudi	<i>Pergularia damea</i>
102	Sivalingi	<i>Diplocyclos palmatus</i>
103	Asadhua	<i>Caparis horrida</i>
104	Guduchi	<i>Tinospora cordifolia</i>
105	Baigoba	<i>Jatropha curcas</i>
106	Nalibaigoba	<i>Jatropha gossypifolia</i>
107	Gandhana	<i>Premna tomentosa</i>
108	Modafal	<i>Helectris isora</i>
109	Tundapoda	<i>Todalia asiatica</i>
110	Sunsunia	<i>Oxalis Corniculata</i>
111	Pita saga	<i>Malugo pentahyla</i>
112	Lahanga	<i>Cellosia arjenta</i>
113	Monsa rohini	<i>Soymida febrifuga</i>
114	Basanga	<i>Justacia adhatoda / Adhatoda vasica</i>
115	Bramhi	<i>Bacopa monieri</i>
116	Thalkudi	<i>Centella asiatica</i>
117	Kani khanda	<i>Ipomea haderacia / Ipomea nil</i>
118	Palm	<i>Borassus flabelifer</i>
119	Cocoanut	<i>Cocous nucifera</i>
120	Lotus	<i>Nilumbo nauchali</i>
121	Water lily	<i>Nilumbo nucifera</i>
122	Singada	<i>Trappa bispinosa</i>
123	Blue lotus(Pundarika)	<i>Euryle ferox</i>
124	Gandhi(Lankamarichia)	<i>Croton bonpalandianus</i>

5.4.4 Fauna

Faun species like hyaena, jackles, fox etc have been spotted in vicinity of project during course of field investigations. Various types of fauna species of reptiles, amphibian and aves have also been observed in the project area are listed in Table 5.13.

Table 5.13: List of Fauna Species

Sl. No.	Names	Scientific name
Mammalia		
1	Monkey	<i>Rheses macaque / Macaca mulata</i>
2	Hanuman	<i>Presbytis entellus</i>
3	Pangoline	<i>Manis crassicaudata</i>
4	Mongoose	<i>Herpestes edwardsii</i>
5	Small mongoose	<i>Herpestes javanicus</i>
6	Bat	<i>Cynopterus sphinum</i>
7	Jackle	<i>Canis aureus</i>
8	Hyaena	<i>Hyaena hyaena</i>
9	Small squirrel	<i>Funambulus penanti</i>
10	Fox	<i>Vulpes bengalensis</i>
11	Otter	<i>Lutra perspicillata</i>
12	Civet	<i>Viverricula indica</i>
13	Hare	<i>Lepus nigricollis</i>
14	Rat(Wild)	<i>Ratus ratus</i>
Amphibia		
15	Toad	<i>Bufo melanostictus</i>

Sl. No.	Names	Scientific name
16	Bull frog	<i>Rana tigrina</i>
Reptilia		
17	Chameleon	<i>Chameleon calcuratus</i>
18	Calotis	<i>Calotis vericolar</i>
19	Mabuya	<i>Mabuya bibro</i>
20	Lizard	<i>Hemidactylus flaviviridis</i>
21	Varanus	<i>Varanus salvator</i>
22	Cobra	<i>Naja naja naja</i>
23	Keutia (Naga)	<i>Naja naja Kaouthia</i>
24	Krait	<i>Bungarus caeruleus</i>
25	Green snake	<i>Dryophis nasutus</i>
26	Rat snake	<i>Ptyas mucosus</i>
27	Water snake	<i>Natrix piscator</i>
28	Blind snake	<i>Typhlops brahminus</i>
29	Sand Boa	<i>Eryx stolata</i>
30	Indian python	<i>Python molurus</i>
31	Saw scaled viper	<i>Echis carinatus</i>
32	Russell's viper	<i>Vipera russelli russelli</i>
Aves		
33	Snake bird	<i>Anhinga rufa</i>
34	Pond Heron	<i>Ardela grayii</i>
35	Pea fowl	<i>Pavo cristatus</i>
36	Brown dove	<i>Streptopilia senegalensis</i>
37	Parakeet	<i>Psittacul eupatria</i>
38	Crow pheasant	<i>Centopus sinensis</i>
39	King fisher	<i>Alcedo atthis</i>
40	Wood pecker	<i>Dinopium bengalense</i>
41	Myna	<i>Acridotheres tristis</i>
42	Bulbul	<i>Pycnonotus cafer</i>
43	Sparrow	<i>Passer domesticus</i>
44	Crow	<i>Carvus splendens</i>
45	Grey Harnbill	<i>Tockus birostris</i>
46	Pied hornbill	<i>Anthracerous coronatus</i>
47	White belliled drongo	<i>Discurus caeruleus</i>
48	Sun bird	<i>Nectarinia asiatica</i>
49	Little egret	<i>Egretta garzetta</i>
50	Median egret	<i>Mesophoryx intermedia</i>
51	Cattle egret	<i>Bubulcus ibis</i>
52	Large egret	<i>Casmerodius albus</i>
53	Cormorants	<i>Phalacrocorax raxniger</i>
54	Indian roller or Blue Jay	<i>Coracias bengalensis</i>

Based on secondary data i.e. Wildlife (Protection) Act, 1972, IUCN report and during primary data collection i.e. public consultation and observations, it has been found that no rare or endangered species of flora and fauna exist in project area

5.5 Socio Economic Environment

5.5.1 Demography

The population of the state as enumerated in 2001 census is about 3.68 crores of which, about 1.87 crores are males and about 1.81 crores are females. The populations are spread over an area of 155707 sq.km and are distributed in about 7.7 lakhs households. The population density of the State is 236 and the average size of household is 4.8. The sex ratio of the population (females per thousand males) is 972 and that of 0-6 years is 953. The population growth rate during the decade 1991-2001 is 1.63 averaged annually.

The state has a literacy rate of 63.1 percent. The male literacy rate is 75.35 percent but female literacy is 50.51 percent. The work participation rate is 38.79 percent. Of the total workforce 26 percent are main workers and 12.7 percent are marginal workers. Non workers constitute 61.21 percent. Safe drinking water is available in 98.27 percent of villages. Electricity is available in 65.32 percent of villages of which only 9.52 percent of villages use it for agriculture purposes.

5.5.2 Industries

Till 1950's, Orissa did not have any industry worth the name except for a few sawmills and some ice factories near Cuttack. Exploitation of its natural resources began in the 1950's with the construction of Hirakud Dam and Rourkela Steel Plant. The progress of development was slow during the first three Plan Periods. Beginning from the 1970s, more dams, mines and industries were setup and use of mineral and other natural resources started at a faster rate. Formulation of new Industrial Policy in 2001 and higher emphasis on industrialization by elected Government, Orissa has witnessed a huge influx of corporate giants to set up Industries in the State.

Along the project road there are many industries varying from Rice mills, fish processing, milk and milk products, beverages, vegetable and edible oil, soak and chemical, ferrochrome etc.

5.5.3 Archeological Monuments and Tourist Places

No archaeological sites are so far reported to be located within project area of the road corridor. Only tourist places are located, the details of which are presented in Table 5.15.

Table 5.15: Places of Tourist interest in Project Districts

Districts	Tourist Spot
Bhadrak	Aredi - Akhandalamani Temple, Bhadrakali Temple, Chandbali, Dhamnagar, Dhamra, Iswarpur, Guamala Nuasasana,
Cuttack	Anshupa, Charchika Temple Banki, Bhattarika, Chuduar, Barabati Fort, Dhabaleswar, Lalitgiri, Nemala, Nialimadhaba, Naraj, Kakudiapada, Paramahansa, Satkosia Gorge, Singhanatha,
Kendrapada	Bhitarkanika, Aul, Kendrapada, Tamala sasan, Rajnagar, Gahiramatha, Kendujhar, Badaghagara, Kosaleswara, Ghatagaon, Gonasika, Gundicha ghai, Hadagarh, Handibhanga, Kanjipani, Khandadhar, Murgamadhaba, Podasingidi, Sanaghagra, Saraikesarikunda, Sitabinji

5.5.4 Sensitive Receptors (schools, colleges, health centers, hospitals)

Educational Institutes

Along the project road, there are many schools, which are located close to the project road. Chainage wise location details of schools are presented in **Table 5.16**. Most of these are located close to the project road, therefore, road safety and noise control measures near school are important issues to be taken care during design of the project road.

Table 5.16: List of Educational Institutes (schools/colleges)

Sl No.	Side (L/R)	Chainage	District	Revenue Village
1	Left	3-4	Cuttack	Gujarpur

2	Left	11-12	Cuttack	Bhatapada
3	Left	36-37	Kendrapara	Bhanagaon
4	Left	44-45	Kendrapara	Bhagabatpur
5	Left	48-49	Kendrapara	Kasati
6	Left	58-59	Kendrapara	Baro
7	Left	59-60	Kendrapara	Baro
8	Right	62-63	Kendrapara	Gangapada
9	Right	75-76	Kendrapara	Bilikan
10	Left	79-80	Kendrapara	Chandigadi
11	Right	82-83	Kendrapara	Sitaleswar
12	Right	82-83	Kendrapara	Sitaleswar
13	Left	91-92	Kendrapara	Achhutapur
14	Left	100-101	Bhadrak	Chandabali
15	Right	55-56	Kendrapara	Jajanga
16	Left	64-65	Kendrapara	Gogua
17	Right	65-66	Kendrapara	Badamulabasanta
18	Left	50-51	Kendrapara	Guhalsingh
19	Right	69-70	Kendrapara	Belatala
20	Right	72-73	Kendrapara	Kasananta
21	Right	95-96	Kendrapara	Kantapada

5.5.5 Community Property Resources (hand pumps, wells, religious structures etc.)

Religious Structures

Under the direct and indirect impact zone there is no Site or Property protected under the Archeological Survey of India and the State Archaeological Department. However, there are 165 religious structures located within existing Right of Way all along project road stretch. Chainage wise details of these are presented in Table 5.17 below:

Table 5.17: List of Existing Religious Structure within RoW

S.No	Side (L/R)	Chainage	District	Revenue Village	Type of Religious Structure
1	Right	1-2	Cuttack	Jagatpur	Temple
2	Left	5-6	Cuttack	Bhairpur	Tulasi Chaura
3	Right	5-6	Cuttack	Bhairpur	Bishnu Mandir
4	Right	6-7	Cuttack	Mutarifa	Tarini Statue
5	Right	6-7	Cuttack	Mutarifa	Religious Platform
6	Left	7-8	Cuttack	Mutarifa	Chaura
7	Left	7-8	Cuttack	Mutarifa	Temple
8	Right	7-8	Cuttack	Mutarifa	Temple
9	Right	8-9	Cuttack	Bahadulpatna	Temple
10	Left	9-10	Cuttack	Bahadulpatna	Hara Parbati Temple
11	Left	10-11	Cuttack	Singmapur	Akhandalamani Temple
12	Right	10-11	Cuttack	Bahugram	Temple
13	Right	10-11	Cuttack	Bahugram	Shiva Mandira
14	Right	11-12	Cuttack	Bhatapada	Manument of Bull
15	Right	11-12	Cuttack	Singmapur	Manument of Bull
16	Left	15-16	Cuttack	Gangapur	Maa Tarini Mandap
17	Right	17-18	Cuttack	Sapanpur	Chandini
18	Right	18-19	Cuttack	Balisahi	Tarani temple
19	Left	18-19	Cuttack	Balisahi	Santosi Mandhir
20	Left	18-19	Cuttack	Sapanpur	Chaura
21	Right	19-20	Cuttack	Balisahi	Temple
22	Right	19-20	Cuttack	Balisahi	Tulasi Chaunra
23	Left	22-23	Cuttack	Kulia	Kulia Matha
24	Left	22-23	Cuttack	Kulia	Trinath Mandir
25	Right	24-25	Cuttack	Patapur	Durga Mandap

S.No	Side (L/R)	Chainage	District	Revenue Village	Type of Religious Structure
26	Left	24-25	Cuttack	Patapur	Temple of kamakshya Durga
27	Right	24-25	Cuttack	Patapur	Durga Mandap
28	Left	29-30	Cuttack	Gopapur	Lord Shiva Mandir
29	Left	29-30	Cuttack	Gopapur	Maa Tarini Temple & Kitchen Room of temple
30	Left	30-31	Cuttack	Salipur	Maa Basulie Mandap
31	Left	33-34	Cuttack	Ranipada	Pedestral for Manument of Bull of Lord siva Temple
32	Right	33-34	Cuttack	Julikipara	Shiva Mandira
33	Right	34-35	Cuttack	Banamalipur	Lord Shiva Temple
34	Right	34-35	Cuttack	Kendila	Trinath Temple
35	Right	35-36	Cuttack	Paschimakhanda	Hanuman Temple(Broken)
36	Left	36-37	Kendrapara	Ganeshpur	Hanuman Temple
37	Right	37-38	Kendrapara	Bhanagaon	Tarini Temple
38	Right	37-38	Kendrapara	Bhanagaon	Mahadev Temple
39	Right	39-40	Kendrapara	Chandol	Shiva Mandap
40	Right	39-40	Kendrapara	Chandol	Lord Shiva Temple
41	Left	40-41	Kendrapara	Kesharpur	Salar Matha
42	Right	41-42	Kendrapara	Daliji	Religious Platform
43	Left	42-43	Kendrapara	Daliji	Lord Shiva Temple
44	Left	42-43	Kendrapara	Khamal	Mahadev Temple
45	Right	43-44	Kendrapara	Syamsundarpur	Trinath Mandap
46	Left	43-44	Kendrapara	Syamsundarpur	Trinath Temple
47	Right	44-45	Kendrapara	Bhagabatpur	Thanapati Mandap
48	Right	44-45	Kendrapara	Bhagabatpur	Katekaswar temple
49	Left	44-45	Kendrapara	Bhagabatpur	Mahavir Mandap
50	Right	47-48	Kendrapara	Jamadhara	Arakhat Mahapurus Temple
51	Left	58-59	Kendrapara	Baro	Chaura
52	Left	58-59	Kendrapara	Baro	Laxmi Mandap
53	Left	58-59	Kendrapara	Baro	Siba Temple
54	Left	58-59	Kendrapara	Baro	Sarala Temple
55	Left	59-60	Kendrapara	Baro	Laxmi Narayan Temple Baro
56	Left	59-60	Kendrapara	Baro	Akhandalamani Temple
57	Right	61-62	Kendrapara	Bhairsing	Temple Gate / Two Lion Statue
58	Left	62-63	Kendrapara	Gangapada	Statue Ganakabi Gopala Das
59	Right	74-75	Kendrapara	Patrapur	Hanuman Chabutara
60	Right	74-75	Kendrapara	Patrapur	Chakradhar Baba Samadhi Mandir
61	Left	74-75	Kendrapara	Patrapur	Mahadev Chabutara
62	Right	74-75	Kendrapara	Patrapur	HanumanChabutara with Statue
63	Right	77-78	Kendrapara	Mahasahani	Tarini Chabutara
64	Left	77-78	Kendrapara	Mahasahani	Mahadev Temple
65	Right	79-80	Kendrapara	Chandigadi	Hanuman Temple
66	Right	79-80	Kendrapara	Chandigadi	Malapatana Batagosain Chabutara
67	Right	80-81	Kendrapara	Chandigadi	Religns Platform / Malapatana Grama Devi
68	Left	80-81	Kendrapara	Chandigadi	Tarini Chabutara with Statue
69	Right	80-81	Kendrapara	Chandigadi	Mahadev Temple
70	Right	80-81	Kendrapara	Chandigadi	Hanuman Chabutara with Statue
71	Left	81-82	Kendrapara	Sitaleswar	Mandap
72	Right	81-82	Kendrapara	Sitaleswar	Hanuman Chabutara with Statue
73	Left	82-83	Kendrapara	Balabhadrapur	Mahadev Chabutara

S.No	Side (L/R)	Chainage	District	Revenue Village	Type of Religious Structure
74	Left	86-87	Kendrapara	Kalapahada	Mahadev Temple
75	Left	87-88	Kendrapara	Nagapada	Thakurani Temple
76	Left	87-88	Kendrapara	Nagapada	Hanuman Temple
77	Right	87-88	Kendrapara	Ranipokhori	Common Worship place
78	Left	87-88	Kendrapara	Nagapada	Hanumana Chabutara with Statue
79	Right	91-92	Kendrapara	Achhutapur	Sani Temple
80	Right	91-92	Kendrapara	Achhutapur	Sani Chabutara
81	Left	91-92	Kendrapara	Achhutapur	Brundabati Chaura
82	Left	91-92	Kendrapara	Achhutapur	Tarini Chabutara
83	Right	91-92	Kendrapara	Achhutapur	Tarini Temple
84	Left	93-94	Kendrapara	Ganja	Ghanteswar Mahadev Chabutara
85	Left	99.5-100	Bhadrak	Simulia	Maa Tareni Temple
86	Left	100-101	Bhadrak	Chandabali	Rameswar Temple (R)
87	Left	100-101	Bhadrak	Chandabali	Rameswar Temple (L)
88	Right	100-101	Bhadrak	Chandabali	Tarini Pindi/Hundi (2 Nos.)
89	Left	100.85-102	Bhadrak	Chandabali	Hateswar Temple
90	Left	101-102	Bhadrak	Chandabali	Hargouri/Siba Mandir
91	Right	101-102	Bhadrak	Chandabali	Siba Mandap
92	Right	101-102	Bhadrak	Panchapada	Tarini Mandir
93	Right		Bhadrak	Panchapada	Siba Mandir
94	Left		Bhadrak	Panchapada	Trisakha mandir
95	Left		Bhadrak	Panchapada	Siba Mandir
96	Right	102.702-103	Bhadrak	Panchapada	Tarini Pindi/Mandir
97	Right	103-104	Bhadrak	Kuansar	Bhagabat Tungi
98	Right		Bhadrak	Panchapada	Jodanasini Temple gate
99	Left	104-105	Bhadrak	Kuansar	Shib Mandir
100	Left	104-105	Bhadrak	Kuansar	Tulasi Chaura
101	Right	104.05-105	Bhadrak	Kuansar	Tulasi Chaura
102	Right		Bhadrak	Panchapada	Radhakrishna Mandir
103	Left		Bhadrak	Panchapada	Mahadev Mandir
104	Left	104.35-105	Bhadrak	Kuansar	Jagannath Mandir
105	Left	55-56	Kendrapara	Jajanga	Laxmi Mandap
106	Left	55-56	Kendrapara	Jajanga	Gajalaxmi
107	Right	55-56	Kendrapara	Jajanga	Trinath Mandir
108	Right	56-57	Kendrapara	Khamarkespur	Manibaba Temple
109	Left	56-57	Kendrapara	Khamarkespur	Tarini Mahadev Mandir
110	Left	56-57	Kendrapara	Khamarkespur	Dakhina Kali Mandir
111	Left	56-57	Kendrapara	Khamarkespur	Kitchen of Maa Dakhina Kali Mandir
112	Left	57-58	Kendrapara	Bhamaradiapatna	Haraparabati Mandap
113	Left	63-64	Kendrapara	Gangapada	Mahabir Mandap
114	Left	63-64	Kendrapara	Gangapada	Gaja Laxmi Temple
115	Right	63-64	Kendrapara	Gangapada	Akhandalamani Temple
116	Left	63-64	Kendrapara	Gangapada	Jaya Guru Ashram
117	Left	63-64	Kendrapara	Gangapada	Laxmi Narayan Puja Mandap
118	Right	63-64	Kendrapara	Gogua	Siba Mandir
119	Right	64-65	Kendrapara	Sanamula Basanta	Hanuman Statue
120	Right	64-65	Kendrapara	Sanamula Basanta	Maa Mangala Temple
121	Left	64-65	Kendrapara	Gogua	Chaura
122	Left	64-65	Kendrapara	Gogua	Bhagabat Tungi
123	Left	64-65	Kendrapara	Gogua	Chaura / Laxmi Narayan Puja Mandap
124	Right	64-65	Kendrapara	Gogua	Mahadev Temple Mukasala
125	Left	65-66	Kendrapara	Badamulabasanta	Tulashi Chaura
126	Left	65-66	Kendrapara	Badamulabasanta	Akhandalamani Temple

S.No	Side (L/R)	Chainage	District	Revenue Village	Type of Religious Structure
127	Left	65-66	Kendrapara	Badamulabasanta	Tarini Temple Mukhasala
128	Right	65-66	Kendrapara	Badamulabasanta	Hanuman Mandap
129	Left	65-66	Kendrapara	Badamulabasanta	Laxmi Narayan Mandir
130	Left	65-66	Kendrapara	Badamulabasanta	Dhabaleswar Mahadev Mandir, Mukhasala
131	Right	65-66	Kendrapara	Badamulabasanta	Mangala Temple
132	Right	65-66	Kendrapara	Badamulabasanta	Chaura
133	Left	49-50	Kendrapara	Kasati	Laxmi Mandap
134	Right	49-50	Kendrapara	Kasati	Satasanga Kendra
135	Right	50-51	Kendrapara	Bhamaradiapatna	Mani Manap
136	Right	50-51	Kendrapara	Guhalsingh	Laxmi Mandap
137	Right	50-51	Kendrapara	Bhamaradiapatna	Mani Mandop / College Square Tarini Temple
138	Right	50-51	Kendrapara	Guhalsingh	Laxmi Mandap
139	Right	50-51	Kendrapara	Guhalsingh	Laxmi Mandap
140	Left	51-52	Kendrapara	Gulnagar	Mahalaxmi Puja Committee
141	Left	51-52	Kendrapara	Gulnagar	Mani Temple
142	Left	51-52	Kendrapara	Bhamaradiapatna	Gaja Laxmi Puja Committee / Tinimuhani Laxmi Mandap
143	Left	51-52	Kendrapara	Bhamaradiapatna	Laxmi Mandap
144	Left	52-53	Kendrapara	Gulnagar	Trinath Mandir
145	Right	53-54	Kendrapara	Garapur	Mani Mandap
146	Left	54-55	Kendrapara	Kapaleswar	Hanuman Temple
147	Right	54-55	Kendrapara	Kapaleswar	Maa Magala Temple
148	Right	54-55	Kendrapara	Haladi Diha	Haladi Diha Thakurani Gate / Haladi Diha Chhak Elephant Lion Staatue
149	Right	68-69	Kendrapara	Belatala	Siba Temple
150	Right	68-69	Kendrapara	Belatala	Maa Tarini Temple
151	Right	68-69	Kendrapara	Belatala	Siba Temple
152	Right	68-69	Kendrapara	Belatala	Maa Tarini Temple
153	Left	72-73	Kendrapara	Kasananta	Jagannath Mandap
154	Left	72-73	Kendrapara	Kasananta	Durga Mandap
155	Right	72-73	Kendrapara	Kasananta	Maa Tarini Tungi
156	Left	84-85	Kendrapara	Niala	Mahadev Temple
157	Right	84-85	Kendrapara	Aul	Choura
158	Left	85-86	Kendrapara	Demala	Mahadev Temple
159	Right	85-86	Kendrapara	Demala	Hanuman Chabutara with Statue
160	Left	85-86	Kendrapara	Demala	Puja Mandap / Dasahara Mandap
161	Right	95-96	Kendrapara	Kantapada	Mahadev Temple with Bull
162	Left	95-96	Kendrapara	Arsha	Arsha Mahadev Temple
163	Right	95-96	Kendrapara	Arsha	Mahadev Temple
164	Right	97-98	Kendrapara	Ostia	Temple Under Constration
165	Right	97-98	Kendrapara	Ostia	Hanuman Temple

CHAPTER 6

CONSULTATION WITH STAKEHOLDERS

6.1 General

Stakeholder's consultations and participation have been viewed as a continuous two way process, involving, promoting of public understanding of the processes and mechanisms through which developmental problems, needs are investigated and resolved. The stakeholder consultation, as an integral part of environmental impact process throughout the project preparation stage not only minimizes the risks and unwanted political propaganda against the project but also abridges the gap between the community and the project formulators, which leads to timely completion of the project and making the project people friendly.

6.2 Definition of Stakeholder

Stakeholder consultation is a two way process, which involves the interaction of various stakeholders and the project proponent. It is highly desirable for all key stakeholders to arrive at a consensus on sensitive features, impacts and remedial actions.

6.3 Types/ Categories of Stakeholders

Based on their role towards the project, stakeholders have been categorized into following;

(i) Owners or Project Proponent

This is related to the stakeholder who risks their own money in a venture. Whilst they will get a return on their investment, usually in the form of a dividend they have a vested interest in seeing the Organization being successful, to not only guarantee their dividend but also to ensure it grows.

(ii) Government Agencies

Some government departments which will be affected positive or negative or both by proposed road are required to give their inputs to make project successful. These government agencies are Revenue department, Forest department, Electricity department, Agriculture department, Panchaytiraj department, Education department etc.

(iii) Communities

This is very important stakeholder category i.e. PAFs/PAP who are being affected directly through land acquisition or their structures removal full or partial. Persons other than PAF/PA but residing in same location are also significant to provide their opinions/suggestions in terms of project design.

(iv) Non-Governmental Organizations (NGOs)

The non-government organizations which are working in project affected area can be considered as stakeholder.

6.4 Process of Stakeholder consultation

Public consultation is an important method of involving various stakeholders particularly, local community with reference to the proposed development initiatives. It provides a platform to participants to express their views, concerns and apprehensions that might affect them positively or negatively. Through participation and consultation stakeholders influence development initiatives, and decision making process. The effectiveness of participation and consultation is directly related to the degree of involvement by the likely project affected persons and the local community and integration of outcome of consultations wherever feasible in the proposed development initiatives. Detailed planning is required to ensure that likely project affected persons, local community, interested groups, non-governmental

organizations, civil society organizations; local government, line departments, etc. are consulted regularly, frequently and purposefully during different stages of the project including project preparation.

Type of Consultations

Various types of Public Consultation have been carried out during the project preparation stage which includes

- individual consultations,
- public meeting,
- focus group discussion
- consultation with stake holder institution at the Project Level
- consultation with stake holders institutions at District Level

6.5 Public Consultations Strategy

The preparation of OSRP ensures involvement of various stakeholders and people in project planning, implementation and operation. The consultations under the project were conducted during Feasibility Stage and Detailed Project Preparation stage, so that people aspiration of people is assessed for collective and mutually agreed project decisions. The consultation mechanism has been designed in such a manner that every stratum of society and concerned administration is consulted at different spatial hierarchy.

6.5.1 District Level consultation

District level consultation witnesses active involvement of elected representatives (MP, MLA, President ZilaParishad, Municipality chairman, Block chairman, Vyaparisangh, PanchayatPradhan, Women elected member and others), Revenue Official, Forest Official, officials of line department, media persons, common people and other stakeholders such as lawyers, business man who can enhance the quality of planning because of their past working experiences in the region, including project affected persons. The consultation focused on technical, environmental and social aspects of the project. Community development component was major attraction of discussion.

The district level consultations were held in all districts namely Bhadrak, Cuttack and Kendrapada, through which the project road is passing. Dates of District level Meeting was advertised in local newspapers and consultations were conducted between 2nd– 26thDecember 2006. Outcome of these meetings has received due attention by electronic visual media and print media. The Table 6.1 summarizes date and venue of District level Consultations.

Table 6.1: Date and Venue of District Level Meeting

Sl. No.	Name of the District	Date of Meeting	Venue	Important Participants
1	Bhadrak	8-12-2006	DRDA Conference Hall	MP, MLA, Chairman, Zillaparishad and, Panchayat president, Vyaparisangh and District Officials, media persons
2	Cuttack	23-12-2006	DRDA Conference Hall	Officials from Revenue, line department, forest elected representatives and common people, media persons
3	Kendrapada	26-12-2006	DRDA Conference Hall	Officials from Revenue, line department, forest elected representatives and common people, media persons

Technical team and District Level Consultation Committee formed under the project participated and presented on engineering details, environmental issues and social issues, to understand opinion and preferences of PAPs, elected representatives and people from revenue, forest administration, line departments of the areas and other stakeholders. The consultation goals was also to engage/participation of local administration in the project planning and to understand major bottlenecks in implementation; accordingly to suggest remedial measures for smooth and speedy implementation.

Provisions of the Odisha resettlement and Rehabilitation Policy 2006 have been discussed in detail. Entitlement for the project affected families in present project improvement has been explained and people were requested to comment and give their views about entitlement.

The main issues/component discussed at the District level meeting

- Classification of road under Phase-I/Year-2 roads and road improvement proposal likely to take place in the Districts.
- Plan and profile of the road under improvement proposal and carriageway configuration.
- Pavement design/Overlay composition of proposed improvement
- Alignment proposal, location of realignment, geometric improvement and bypasses in the concerned district.
- Location of road safety measures such as junction improvement, service road etc proposed in the district.
- Improvement/reconstruction proposal of minor bridges.
- Extent and type of land acquisition in the district.
- Characteristics and type of loss of properties in the district.
- Importance of involvement of community in planning
- Highlights of **the Odisha Resettlement and Rehabilitation Policy 2006**
- Entitlement framework proposed in the OSRP
- Major environmental features, issues along the road.
- Tree cutting, loss of community resources etc.
- Status of air quality, water quality areas of soil erosion, hill cutting (if any)
- Provision of mitigation measures proposed
- Proposed environmental enhancement.
- Basic feature of environmental management plan
- Preventing movement of heavy vehicles carrying mined out iron ore on Karanjia – Anandapur (SH-53) corridor for wildlife and Biosphere Reserve (BR) as well as Elephant movement tracks.
- Reducing the carriageway width to minimum requirement to avoid / minimize acquisition of forest land and tree felling from RFs in buffer zone / additional buffer zone of Similipal BR.

6.5.2 Village Level Consultation

At the feasibility stage of project preparation, consultations were held at *Nukkad* level, hamlet level, village level and Panchayat level. The following methodologies have been adopted for carrying out public consultations in this project area:

- (a) Disseminating information about the project and requesting villagers to attend the public consultation meetings;
- (b) Sharing the opinions and preferences of the potential project affected persons;

- (c) Involving the affected persons in decision-making such as proposition of bypasses or realignments, public amenities available and required, availability of community infrastructure in the village etc.
- (d) Information dissemination through Educating PAPs such as Pictorial Methods using board/ Marker. Design of the proposed road explained to the people on the board.

Consultations during project preparation involved agreements on compensation and assistance options, entitlement package, road designs, submergence stretches, tree cutting, congestion options of bypasses and realignment.

6.5.3 Focus Group Discussion

The Census/Survey Team carried with assistance of OWD field engineers, Focused Group Discussions (FGDs) were conducted primarily in settlements with problems of traffic congestion, dense informal/squatter settlement, close junctions and road intersections. During the survey, intensive discussion and consultation meetings were conducted with large number of PAPs in nearly every affected village where in issues related to R&R policy; displacements and other related issues were discussed. Suggestions and comments of PAPs were incorporated in the project road design as well as the policy measures for resettlement management. Public discussions were conducted at important points, where people could assemble in large numbers. Panchayat members were contacted to inform the people. The Team also had informal meetings with village head, *panchayat* and other district level government officials, leaders of local level organization like *Vyapari* (business community) association, truckers, and village women groups.

The survey team also conducted meeting at block level/Tahsil level. The meeting primarily focused on community development initiatives, options of income generation available through government schemes especially in tribal areas and implementation arrangement of land acquisition plan. Land alienation in tribal areas for the development and construction of road was also discussed in detail. The participants were block chairman and other representatives like Sarpanch, Tahasildar, Block Development Officer and others of District Administration.

The findings of District Level Consultation have been documented in **Annexure 6.1**

6.5.4 Consultation Findings

Overall District level meeting was a grand success and cooperation in implementation of the project has been promised from every corner of society including elected representatives irrespective of their affiliation from different ideological background.

Following are major findings of the District level meeting:

- Assistance to Kiosks @ Rs.5000 is very high amount it should be reduced
- Implementation of RAP should be done through RPDAC
- Local level committee should be formed for land acquisition to negotiate with District administration.
- Drainage system should be adequately design to cater the requirement of storm water flow.
- Development of perennial ponds along Chandbali – Jagatpur section should be prioritized.
- Community based Management and planning of storm water drainage system would ensure active community participation.
- Peoples representatives could also be part of implementation and community participation should be ensured through them.
- Mechanism to prevent further influx of the informal dwellers should be transparent
- Establishment of detail compensation procedure for partial acquisition of structures.
- Borrow areas should be converted into pond as component of CD initiatives.
- Community (Women groups) should manage road side plantation as a component of social forestry

- In Jagatpur-Chandbali section along congested settlement carriageway width should be 10 meter so that extra 2-meter could be utilized for motorbike and cycle parking.

6.6 Follow-up Consultations

Odisha State Road Project has experienced considerable implementation issues resulting in low disbursements, primarily due to delays in pre-construction activities and unsatisfactory project/contract management. As a result, the disbursement was suspended and remains suspended for almost more than one year. Subsequently, it was restructured in February 2013 after GOO's shown interest in the project along with substantial compliance to agreed Bank's Actions for lifting suspension. Hence, a project level follow-up consultations were again conducted at 8 locations after giving due notice (**Annexure 6.3**) between 21th- 25th April, 2013 to update issues and finding identified during earlier consultations that were carried out in 2006. The consultations were carried out by OWD engineer and the NGO (M/s CART) hired by OWD responsible for implementation of RAP activities under the project. The details of consultations that were conducted are tabulated in Table 6.2.

Table 6.2: Date and Venue of Project Level Consultation

Sl. No.	Date of Meeting	Venue	Important Participants
1	21.04.2013	Gulnagar High School, Kendrapada	PAP's and residents along project road.
2	21.04.2013	MaaTariniPeeth, Gopapur	
3	22.04.2013	Irrigation Inspection Bungalow, Gogua	
4	24.04.2013	Paga Bazaar Haat, Paga Bazaar	PAP's and residents along project road.
5	24.04.2013	MaaBasuleiPeeth, Padampur	
6	24.04.2013	Gokarneswar Shiv Temple, Kantapada	
7	25.04.2013	MaaSaheswari Temple Complex, Salepur	
8	25.04.2013	Sureswar Temple, Krushnapur	

6.7 Consultation Findings and Project Proponent Response

Overall people in general and other stakeholders are in favour of the proposed project. Likely project affected persons were also found in favour of the proposed project. However, these people have concerns about the land compensation, valuation of land to be acquired, and restoration of the means of livelihood. People have been able to make meaningful choices during consultations and expressed their opinion, concern and suggestions in a free and frank manner. The findings of Project Level Consultation have been documented in **Annexure 6.2** and the photographs are displayed at **Annexure 6.3**.

The Table 6.3 summarizes the issues that have been addressed under the project through design intervention.

Table 6.3: Consultation Findings and Response of Project Proponent

Sl.No	Public Comments during Consultation.	Project response
Gulnagar High School, Kendrapada		
1	The road passes through the main Kendrapada township by which the livelihood of around 200 small business persons is going to be lost. Though there	This is beyond the scope of project. However the project will place the demand before the RPDAC through the District Administration for the appropriate redressal of the

Sl.No	Public Comments during Consultation.	Project response
	is rehabilitation provision to compensate the issue is in progress, still there will be a major gap in line and length of present business flow because present business entirety will be lost.	issue/suggestions.
2	Due to road widening the four schools namely Duhuria High School, Duhuria Lower Primary School, Gulnagar High School and Jajang Upper Primary School will be fully affected.	The boundary wall of the school is affected due to proper road improvement and widening. The reconstruction of the boundary wall is included in the project as being taken up through the concerned EE (R&B) Division the approved design in the EMP are being followed.
3	After road widening the speed of the vehicles will increase which will cause problem to many pedestrian while crossing road and junctions.	The service road along with road delineator is provided along the urban habitation stretch in Kendrapara town. In the other habitation area (16mtr) guardrails and saucer drains are provided along with standard and safety signage.
4	Due to road widening and embankment height surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof.	Provided
5	In road widening many old giant trees are going to be removed. As a result of which the road user will be devoid of shade in scorching sun and also there will be increase in vehicular smoke causing air pollution.	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from July 2013 onwards along the public institutions and feeder roads to the project road.
6	As there will be huge requirement of soil and earth during road construction the contractor may use the soil /earth along the project road which is fertile and suitable for cultivation like jute and ground nut.	The borrow area are well marked for the contractor. The along side of project road will not be allowed for use .
MaaTariniPeeth, Gopapur		
1	In road widening many trees along road side are going to be removed. The local people were depending upon such trees for many uses. After removal of these trees in road widening there will be huge irreparable gap and imbalance in the local environment.	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from July 2013 onwards along the public institutions and feeder roads to the project road.
2	The existing water bodies like Nallahs, Streams, water harvesting structures, tanks which are useful in irrigating jute crops, may likely to be affected due to road	Traditional Nayanjoris which are going to be affected due to widening of the road will be restored in the additional areas acquired for the purpose. 1.5 meter width earthen drain

Sl.No	Public Comments during Consultation.	Project response
	widening.	is provided on either side of the road is including in the design. RCC retaining walls are provided to minimize damage to ponds and tanks. Balancing culverts are provided in the entire road package to minimize effect of water logging. CD works are provided at junctions wherever necessary to facilitate continue flow of water along the road side channels.
3	Due to road widening and embankment height, surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof. As a result three traditional drainage channels will be obstructed causing water stagnation and flash flood.	CD works are provided at junctions wherever necessary to facilitate continue flow of water along the road side channels.
4	The road passes through the main market and bywidening the livelihood of about 400 families living upon business in this commercial stretch will be severely affected.	This is beyond the scope of project. However the project will place the demand before the RPDAC through the District Administration for the appropriate redressal of the issue/suggestions.
5	Due to road widening and embankment height the land over the cremation ground may be acquired partly causing congestion and inconvenience.	As per the social survey carried out recently and verified by NNGO there is no cremation ground affected in the widening of the road.
Irrigation Inspection Bunglow, Gogua		
1	Villagers from both village GaguaGangapada and nearby villages are crossing the road for farming with their cattle. .Due to widening and strengthening of road accident may occur during crossing of road.	No pedestrian over bridge is provided in the project. However junction development, signage has been provided for smooth road crossing. The bus bays are provided from Ch 61.820 Km to 61.925 Km & 62.820 to 62.955 Km
2	Due to road widening old trees are removed causing environmental imbalance.	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from july 2013 onwards along the public institutions and feeder roads to the project road.
3	Due to road widening and embankment height, surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof. As a result three traditional drainage channels will be obstructed causing water stagnation and flash flood.	CD works are provided at junctions wherever necessary to facilitate continue flow of water along the road side channels.
4	As there will be huge requirement of soil and earth during road construction the	It has been taken care of in the BID document.

Sl.No	Public Comments during Consultation.	Project response
	contractor may use the soil /earth along the project road which is fertile and suitable for cultivation like jute and ground nut, potato.	
5	The existing water bodies like Nallahs, Streams, water harvesting structures, tanks which are useful in irrigating crops, may likely to be affected due to road widening.	Traditional Nayanjoris which are going to be affected due to widening of the road will be restored in the additional areas acquisitioned for the purpose. 1.5 meter width earthen drain is provided on either side of the road is including in the design. RCC retaining walls are provided to minimize damage to ponds and tanks. Balancing culverts are provided in the entire road package to minimize effect of water logging. CD works are provided at junctions wherever necessary to facilitate continue flow of water along the road side channels.
6	After road widening it will be difficult for the children to cross the road to reach Gogua School.	Proper junction development, signages have been provided for smooth road crossing.
7	The land owners of acquired lands of Gogua and Gangapada have not been paid the compensation yet.	LAO has been moved to be needful.
Paga Bazaar Haat, Paga Bazaar		
1	In road widening many old giant trees are going to be removed. As a result of which the local people who were depending upon such trees for firewood generally used in nearby temple and for cremation, will suffer a lot.	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from july 2013 onwards along the public institutions and feeder roads to the project road.
2	The road passes through the Paga Bazar which is a Haat complex, by which the livelihood of people living upon small business in Haat will be severely affected. Though there is rehabilitation provision to compensate the issue is in progress, still there will be a major gap in line and length of present business flow because present business entirety will be lost.	This is beyond the scope of project. However the project will place the demand before the RPDAC through the District Administration for the appropriate redressal of the issue/suggestions.
3	Due to road widening and embankment height surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof. As a result the traditional drainage channels will be obstructed causing water stagnation and flash flood.	CD works are provided at junctions wherever necessary to facilitate continue flow of water along the road side channels.

Sl.No	Public Comments during Consultation.	Project response
4	The statue of legendary odiya person Madhusudan Das, situated near the Paga Bazar may be affected by the road widening, which will hurt the sentiment of thousands of local people.	The statue will be relocated at nearby suitable place under non-religious CPR case.
5	The present members unanimously opined that the government should acquire the land as per requirement and not beyond that to protect lives and livelihoods of affected inhabitants.	This has been taken care in preparation of design.
MaaBasuleiPeeth, Padampur		
1	The ChandanPokhari(Tank) belongs to the Goddess and rituals are being performed every year. Acquisition of such tank will affect the performance of rituals etc. Also the Goddess temple area may be acquired.	Retaining wall has been provided to minimize the damage of the water body.
2	Due to road widening and embankment height surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof. As a result three traditional drainage channels will be obstructed causing water stagnation and flash flood.	Traditional Nayanjoris which are going to be affected due to widening of the road will be restored in the additional areas acquisitioned for the purpose. 1.5 meter width earthen drain is provided on either side of the road is including in the design. RCC retaining walls are provided to minimize damage to ponds and tanks. Balancing culverts are provided in the entire road package to minimize effect of water logging.
3	The road passes through the Padmpur main market and bywidening the livelihood of people living upon business in this commercial stretch will be severely affected.	This is beyond the scope of project. However the project will place the demand before the RPDAC through the District Administration for the appropriate redressalof the issue/suggestions.
4	Due to road widening and embankment height the land over the cremation ground in Bhayarpur and burial ground near Muslim colony, will be acquired causing congestion and inconvenience.	As per the social survey carried out recently and verified by NNGO there is no cremation ground affected in the widening of the road.
5	Due to road widening and geometry, the present bus stand near MaaBasulei Temple will be affected.	Provided
6	After road widening it will be difficult for the children to cross the road to reach Padmapur high school.	Proper junction development, signages have been provided for smooth road crossing.
Gokarneswar Shiv Temple, Kantapada		
1	There are twelve educational institution,	Bye-pass is beyond the scope of this project

Sl.No	Public Comments during Consultation.	Project response
	medical center, five banks, tehsil office, block office, police station, post office, veterinary center, paddy procurement center, revenue inspector office, are situated and daily about 10000 people trespass to these institutions. For this from Ganja Ghat to Ostia, there will be a lot of road accidents.	as it does not satisfy the economic feasibility of the project.
2	On Kantapada Bazar about one lakh people of nearby panchayats are depending for commercial purposes. Hence chances of road accidents are more.	As it is 2 lane road the provision of over bridge has not been made in the project. However proper junction development, signage, saucer drain guardrail have been provided for smooth road crossing.
3	In road widening many trees which are carrying the heritage value of RajKanika and Bhitarkanika are going to be removed..	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from July 2013 onwards along the public institutions and feeder roads to the project road.
4	Due to road widening and embankment height surface runoff and sewage may be stagnated in nearby low areas affecting the entire habitation thereof. As a result three traditional drainage channels will be obstructed causing water stagnation and flash flood.	Traditional Nayanjoris which are going to be affected due to widening of the road will be restored in the additional areas acquisitioned for the purpose. 1.5 meter width earthen drain is provided on either side of the road including in the design. RCC retaining walls are provided to minimize damage to ponds and tanks. Balancing culverts are provided in the entire road package to minimize effect of water logging.
MaaSahaswari Temple Complex, Salepur		
1	In road widening many old giant trees are going to be removed. The local people were depending upon such trees for many uses. After removal of these trees in road widening there will be huge irreparable gap and imbalance in the local environment.	. As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from July 2013 onwards along the public institutions and feeder roads to the project road.
2	In Balisahi Gram Panchayat three canals are irrigating the nearby cultivated fields and due to road widening these canals may be filled up affecting irrigation.	The width for water way in the canal will be protected by provided structural measure in the bank adjoining the road
3	The road passes through the Salepur main market which is business hub, by widening the livelihood of people living upon business in this commercial stretch will be severely affected. Though there is rehabilitation provision to compensate the issue, still there will be a major gap.	This is beyond the scope of project. However the project will place the demand before the RPDAC through the District Administration for the appropriate redressal of the issue/suggestions.

Sl.No	Public Comments during Consultation.	Project response
4	Due to road widening and embankment height surface runoff and sewage may be stagnated in Salepur Market areas affecting the entire habitation thereof.	Saucer drain with proper longitudinal slope has been provided.
5	In the stretch of road which passes through the Salepur township, many important institutions like Schools, Madicals, Colleges, Vetrinary office, Sub register office, and Treasury office are situated in both side of the road necessitating frequent road crossing by the people. By road widening there will be great hindrance and hamper the road safety.	As it is 2 lane road the provision of pedestrian over pass has not been made in the project. However proper junction development, signage, saucer drain guardrail have been provided for smooth road crossing.
Sureswar Temple, Krushnapur		
1	There may be improper connection from project road to villages like Krushnapur, Kakharudiha, Kuansar.	Junction development including smooth approach has been provided.
2	Due to road widening and embankment height surface runoff and flood water maynot be properly flushed away creating flood situation.	In these locality triple celled each 8 mtrs span box culvert, 5 nos. of single celled pipe culvert , 7 nos. double celled pipe culvert, 3 nos. single celled box culvert have been provided. In addition to that the existing major bridge will be rehabilitated.
3	In road widening many trees are going to be removed. The local people were depending upon such trees for many uses. After removal of these trees in road widening there will huge irreparable gap and imbalance in the local environment.	As per Govt. Odisha norm, to compensate 10 times of trees to be cut are going to be planted from july 2013 onwards along the public institutions and feeder roads to the project road.
4	CPRs like Anandashram, RadhaGovindaTemple and Shiv Temple at Kuansar are not relocated.	Affected CPRs will be relocated.
5	The lands which areacquired, has been undervalued and not done rightly.	A District Level Committee under the chairmanship of District Administration Authority has been constituted to decide such grievances.

CHAPTER 7

POTENTIAL IMPACTS AND MITIGATION MEASURES

The identification and prediction of impacts has been made by giving due consideration to the activities during construction and operation stages of the Project. Both beneficial and potential adverse impacts were assessed. The potential negative and positive impacts identified due to proposed project and the main findings are presented in this chapter.

7.1. Likely Positive Impacts

The anticipated benefits or positive impacts likely to arise on account of the proposed project are being briefly described below:

7.1.1 Likely Positive Impacts – Construction Stage

Employment and Income

One of the major direct beneficial impacts of the road during construction stage is the creation of employment opportunity to the local community. *The construction approach, which emphasizes using local people, tends to benefit directly to the people living in the roadside of the directly affected areas. This road widening/improvement will create unskilled and skilled labour opportunity. The impact is thus direct, high significance, local but short term in nature.*

Priority for employment will be given to local people. They will be given training to do the job. Proponent will implement skill training, awareness, and income generation programs encouraging them to utilize their money earned through wage.

Enterprise Development and Commercialization

Due to the road construction activity, different types of commercial activities will emerge in order to meet the demand of construction worker. For meeting these needs, enterprises like food and tea shops, groceries, lodges and restaurants will be developed for serving large numbers of people. It also exerts demand on the local production like pulses, vegetables, fruits etc. which may provide added impetus for local production and marketing. This will contribute to the local rural economy and may help reduce rural poverty. Such benefits may contribute to enterprise development which often continues to entrench beyond construction period. *This impact will be direct, medium significance, local and long term in nature.*

Skill Enhancement

The road construction activities need to employ large number of labour force during the construction period. One of the strategies of the road project is to give much emphasis for the employment of local people who are living along the road corridor and are supposed to be affected by the road project. These strategies not only provide employment opportunities to the local poor people but also supports in transfer of skills and technical know-how while working in construction works. It will enable them to get jobs in similar activities in other projects. These skills will benefit the locals in getting long-term employment opportunity in other road construction projects in future. *The impact is indirect, medium significance, local and long-term in nature.*

Development of Services

Increase in income will have direct input for the development of social service sector including health and education facilities. Local people will have the opportunity to develop their educational and health facilities and the road project may also indirectly contribute/support to uplift these facilities. *This will be direct, medium significance, local and long term impact.*

7.1.2 Likely Positive Impacts – Operation Stage**Improved Access**

The upgraded road will offer easy, comfortable and quick access to the people and commodities to be transported through NH 5 from other parts of the states as well as from Odisha to the states of Andhra Pradesh and Tamilnadu. New market areas and settlements will develop, urbanization and industrialization will be possible, and all this will lead to the regional development of the area. *This will be direct, medium significance, regional and long term impact.*

Improved Road

The proposed widening/improvement works will make the existing MDR at par with standard of State Highways. It will assist to create trade and transit corridor between other neighbouring states. This will immensely enhance the economic benefits for Odisha. *Such impacts are direct, of high significance, regional to trans-boundary extent and long term in nature.*

Rise of Land Values

Road widening/improvement often leads to rising land values along the road corridor. Increased land values also enhance farmers' capability for borrowing loans on collaterals. High value lands are easily acceptable to banks and micro-finance institutions to provide loans. *This impact will be an indirect, high significance, local and long term in nature.*

Women Empowerment

Road transportation will strengthen women in particular while providing better access to schools, health centres, and markets. Women will also have better access to women development training institutes, offices and various administrative line agencies located in the district headquarters. Frequencies of visit to such organizations will increase and women's knowledge, awareness and confidence level will intensify through these contacts. There will be more women development focused NGOs/ CBOs, operating in the Project Area, resulting eventually in a number of awareness programmes that will address problems like HIV/AIDS, safe sex, girl and boy trafficking – all of which are serious concerns in the region. *The impacts on women and gender issues associated with road development are seen as indirect, medium significance, local to regional and long-term.*

Decline in Soil Loss

The proposed road project will apply slope protection measures extensively mainly through civil engineering structures methods. This will contribute to stabilize the existing slope along the road and expose cut slope. *This will be indirect, medium significance, local and long term impact.*

Management of Biological Resources

During site clearance, about 7568 tree falling within Corridor of Impact will be removed. Compensatory tree plantation (75680 trees) will be done at community open space like schools, panchayat land, hospitals, avenue plantation etc. In addition, various plant species will be introduced for slope stabilization, thereby improving both road safety and the green cover. It will help to increase forest product, soil conservation. *This will be direct, medium significance, local and long term impact.*

Benefit augmentation measures

These beneficial impacts could be augmented by involving the local people during the construction and operation of this road project. These impacts should be augmented by:

- Dissemination of the information of the project about the possible beneficial and adverse impact.
- Providing employment opportunities to the affected and local people in order to avoid increased number of outside labour force whom requires the operation of labor camp which may adversely impact on socio-culture aspects and forest resources.
- Contributing a small portion of the project fund for community development, particularly for the development of education health facilities and re-forestations to provide additional opportunities for work force and their dependents.
- Providing training to unskilled or semi-skilled local and affected people for road construction and maintenance, Bio-diversity conservation.
- Selecting the locally available plants for road slope stabilization and introduction of indigenous plants for plantation, open spaces,
- Compensatory plantation with support of DFO/GOO which makes easier for project.
- Providing safety measures for the work force.
- Open space will be used for vehicle stop, public toilet, tree plantation, recreation.
- Involving local VDCs and social groups and ethnic leaders in mitigating project- people conflict, if any.
- Environmental unit (Environmental Specialist) will be establish to regular monitor of all positive and negative impacts

7.2 Potential Adverse Impacts

The project activities during construction and in the operation of the road may create a number of adverse impacts on the local environment. These are discussed briefly in the following Sub-sections.

7.2.1 Construction Stage

7.2.1.1 Physical Environment

Change in Land Use

Impacts: Construction of road may impact cultivated land, forest/scrub land and built up area along the road. A total of **235.565 Ha** land will be acquired for the proposed road up-gradation, widening and necessary geometric correction. The land to be acquired comprises of **45.082 Ha** private lands and **190.483 Ha** government lands. The impact will be permanent, irreversible, direct, medium, local and for long term.

Measures: Compensation will be given for affected private properties. Plantation of trees will be done on all available areas and roadside slopes to increase greenery in the area. This adverse impact cannot be mitigated fully.

Impacts due to Slope Instability

Impacts: Soil erosion will mainly occur during the construction period due to excavation, cutting and removal vegetation cover. There are erosion prone areas between km.69/800 to km.71/000 and km.75/200 to km.77/000 along the road alignment. Deep and steep slope excavation may cause instability of slope and cause landslide.

The road stretches prone to erosion is mainly due to flooding related problems along road alignment where natural drainage crosses the road. During construction period erosion will be active due to slope cutting/earthwork activities. *The impact due to this will be direct, of medium significance, local, and long-term in nature.*

Measures: The mitigation measures will minimize cut slope activities. River training works, gully protection works will be included in design. Bio-engineering techniques such as grass seeding, turfing, grass plantation, brush layering, tree/shrub plantation and erosion control blanket will be proposed. Erosion control blanket shall be provided at two identified erosion prone locations (Table 7.1) as per the design specification in EMP Drg No. OSRP/ENV-14. Additional civil engineering structures should be provided for slop protection, flood protection, drainage management.

Table 7.1: Erosion Control Blanket Locations

Sl.No	Chinage		Side(s)	Length (m)
	From	To		
1	69.800	71.000	Both	1200
2	75.200	77.000	Both	1800

Impacts due to Spoil Disposal

Impacts: Unmanaged disposal of spoil may cause blockage of natural drainage systems, loss of organic fertile top soil and farmlands, crops and forest, water logging. During site clearance, excavation in slope, foundation of structures will be generated huge debris. If this debris is not properly disposed significant negative impacts are anticipated on public health and safety and scenic beauty of the project area. *If not properly and timely addressed, the impacts from spoil disposal during the upgrading of the proposed road will be direct, of high significance, site-specific and long-term in nature.*

Possible locations for spoil disposal *Measures*: Spoil generated will be safely disposed and managed with minimum environmental damages. Wherever possible, surplus spoils will be used to fill eroded gullies, closing of quarries and borrow pits, depressed areas etc. 60% of the excavated material from carriage way and demolition wastes from bridges, culverts etc. shall be re-used exclusively on the embankments and the balance shall be used in filter media, back fill, earth fill, stone pitching, rubble stones, construction and pot hole repair of haulage road, diversions and its maintenance, raising of embankment of streams and spur road, on either side of the bridges and culverts, on back fills of guard walls, gabion walls, toe walls and development of sites on abandoned roads to take up plantation, besides providing scarce water sources for the wildlife and development of earthen mounds to act as flood shelters, site enhancement plantations, religious and socio culture gathering to raise medicinal plant for community use. Excavated materials will be used for reclaiming the degraded land in near vicinity in consultation with local communities. The Contractor will use environment friendly techniques for construction re-use of excavated materials (Boulder, Stone for structures, soil for filling). Disposal site shall be provided including proper drainage, vegetation and adequate protection as instructed by the Engineer.

Impacts on Water Resources by Inadequate Drainage

Impacts: River Crossing and natural drainage will get blocked due to construction of road. This may be happening especially during the construction of embankments, shoulders, reconstruction/repairing of culverts etc. The main impact of this is creation of temporary inundation areas closer to the above locations during rainy season. A total of 146 water sources like stand post, hand pump and wells require relocation. 44 water bodies are partially affected. *The impact due to this will be direct, of high significance, site specific, and long-term in nature.*

Measures: The water sources will be relocated in consultation with community and necessary protection walls will be provided for water bodies that are partially affected. In order to have minimum interference with natural drainage pattern of the area; channelize surface water discharge from side drains; do not block or divert water away from natural watercourse adequate number of cross drainage structures will be provided in addition to reconstruction of existing one.

Summary of additional cross drainage structures to mitigate the water induced adverse impacts are as given in Table 7.2. In addition, the project proposed for construction of RCC box covered drains at urban (Table 7.3) area and open trapezoidal drain on both sides of highway at rural sections to drain off the water to the nearest culvert locations or natural existing streams/nallas.

The 44 ponds on either side of the road coming under within 20mtrs proposed RoW, mitigation measures like erecting PCC (M-20) Toe walls as per design specification vide drawing No OSRP/CEG /SH /ENV/03 of Environment Management Plan) and provision of bathing ghat, sluice gate /spill way (Drawing No. OSRP/CEG/SH/ENV/10) for drainage of excess water from the area.

Table 7.2: Summary of Proposed Additional Cross Drainage Structures

Sl.No	Type of Structure	New Construction	Re construction/Replace	Retained	Widening	Total
1	Major Bridge	-	-	3	-	3
2	Minor Bridges	3	5	8	-	16
3	Culverts	190	126	-	16	332

Table: 7.3 Proposed Drain at Built-up Areas

Sl. No	Chainage		Side	Length (m)	Sl. No	Chainage		Side	Length (m)
	From	To				From	To		
1	0	1900	Both	1900	25	47950	48250	Right	300
2	2200	2400	Both	200	26	48250	48950	Both	700
3	2530	2800	Both	270	27	49100	49200	Both	100
4	3850	4300	Both	450	28	50000	52000	Both	2000
5	5800	7200	Both	1400	29	53200	54000	Both	800
6	7550	7950	Both	400	30	55100	55300	Right	200
7	9300	9660	Both	360	31	55300	55550	Both	250
8	10100	10480	Both	380	32	56600	56850	Both	250
9	10600	10700	Right	100	33	57200	57400	Both	200
10	10700	10850	Left	150	34	58050	58450	Both	400
11	13800	14000	Both	200	35	62950	63200	Both	250
12	16600	17100	Both	500	36	65400	65900	Both	500
13	17700	20800	Both	3100	37	69400	69650	Both	250
14	22150	22500	Both	350	38	72050	72450	Both	400
15	24000	24250	Both	250	39	84950	85550	Both	600
16	26600	26800	Both	200	40	94750	95000	Left	250
17	27250	28400	Both	1150	41	95000	95400	Both	400
18	32650	33200	Both	550	42	99800	100100	Left	300
19	35250	35900	Both	650	43	100100	101400	Both	1300
20	38600	39550	Both	950	44	101400	101750	Left	350
21	41400	41600	Both	200	45	101750	102000	Both	250
22	43300	43600	Both	300	46	102000	102200	Left	200
23	44300	44800	Both	500	47	104500	104700	Right	200
24	44800	45150	Left	350	48	104950	105100	Both	150

Impacts due to Quarrying Materials and Borrow Pit Operation

Impacts: Large amount of construction material such as the boulders, sand and aggregates material are required for pavement, retaining wall, breast wall, gabion wall and other structures. These materials are obtained from quarry site. The quarry site for these materials will be largely on local streams and hill slopes near the road alignment, which is adequate to meet the requirement. The extraction of materials from inappropriate places or in excessive amount can seriously damage the local environment. For example, quarrying from a high slope and fragile area can result slope instability, extraction of sand and gravel in excessive amount from river can cause riverbank cutting and erosion and changes in river regime. It may cause landslide, erosion or box cutting of agriculture land, impact on sensitive environmental areas etc. This will eventually affect the livelihood of local people. *Impacts from quarrying and borrowing will be of direct, medium significance, site-specific and long-term in nature.*

Measures: Quarry and borrow operation plan will be prepared and approved by Environmental Specialist; unstable sites, erosion prone area, forest area, settlements, fertile farm land will be avoided for quarry / borrow operation; no new quarry sites will be operated under the project. In case new quarry is operated under the project, it will be rehabilitated by providing appropriate civil engineering structures and bioengineering measures after the extraction is complete. Recommended quarry sites in the area are given below.

1. Baghua quarry for Aggregate
2. Nealpur quarry for GSB
3. Asuraswar for Sand
4. Danapur for Sand
5. Basipur for Sand
6. Brahmani for Sand
7. Singur for Sand

Impacts from Air, Noise and Water Pollution

The main construction activities that cause air pollution are earth works excavation, quarry operations, crushers, asphalt plants etc. These activities generate dust and noise, which directly affect the air quality. In addition vehicles and machinery emit smoke and fine particles. These substances will increase the local air pollution significantly during the construction stage. Air pollution will cause inconvenience to local people who reside closer to the proposed road or quarries etc. Burning of fossil fuel would result in far more environmental pollution due to emission of sulfur oxides (SO_x), nitrogen oxide (NO_x), Carbon dioxide (CO₂) and particulates. Asphalt plants would also create problems of ash disposal and thermal pollution. Combustion of fossil fuels is considered to be the largest contributing factor to the release of greenhouse gases into the atmosphere.

Noise impacts will be significant during construction periods due to increase of vehicular movements and machinery and crushing operations, material transport etc. Increased noise will affect the nearby communities and wild animals.

During construction, exposed soil, excavated soil and excess soil can be washed off into river. Emissions from machinery, equipments, vehicles, quarries, crushes and asphalt plants can be dispersed with the wind and deposited in nearby water bodies.

Contaminated top soil due to oil, liquid and other chemicals from construction vehicles /equipment, sewerage, garbage and waste water from worker camps will washed out to nearby water sources causing water pollution and consequently affecting aquatic fauna and flora, farmlands and creating health hazards.

The anticipated impacts on air, noise and water pollution will be direct, low significance, local and short term in nature.

Measures: Use of masks by the workers operating in the areas of high dust generation; avoid disposal of excavated materials in the water bodies; Use of ear muffs, helmet to lessen noise pollution during rock breaking and quarrying; cover dry material or make it wet during transportation. One's a day water sprinkling will do during construction period.

Camp Sites and Storage Depots

Impacts: Contractor will establish camp if he bring labors from outside the area. Siting of camp may cause encroachment of agriculture land and alteration of drainage, solid waste and

waste water problems. Impact will be direct, medium significance, site specific and short-term.

Measures: The mitigation measures will be use of local labors to avoid camp; rent local house instead of camp to keep labors; sitting camp away from productive lands areas; pay compensation for using private farm or lands for storage or camp. Appropriate camp sites and storage depots have to be planned by contractor for area where agriculture land is being used.

Construction Equipment and Vehicles

Impacts: The Machine Intensive Road Construction Approach will use machineries and tools (Rollers, tippers, spreader, asphalt plant, water tanker etc.). The related negative impacts are increase in air, noise pollution due to emission of smoke, increase in vibration due to vehicular movement. Impact will be direct, high significance, site specific and short-term.

Measures: The safety gadgets should be provided for the labour during construction work. The equipment/vehicles deployed for construction activities shall be regularly maintained. All the vehicles deployed for material movement shall be spill proof to the extent possible.

Crusher Plants

Impacts: The establishment and operation of and crusher can be source of air pollution, noise pollution and even water pollution if it is placed near built up area and near the water sources. *The impact is direct, low significance, local and short term in nature.*

Measures: Crusher plant should be far from settlement, forest area. Better to buy from existing markets, to avoid all impacts.

Asphalt Concrete Plant

As the proposed road is asphalt concrete road, the operation of asphalt concrete plant can produce emission of carbon into the atmosphere. *The impact is direct, medium significance, site specific and short term in nature.*

Measures: To mitigate these impacts, following mitigation measures are adopted.

- Asphalt plant metal crusher activities should be controlled. (eg. Asphalt hot-mix plants should be downwind of close sensitive receptors such as schools, religious places, forest area etc.)
- Sites should be selected for these plants at least 500m away from the sensitive receptors.
- Temperature of the asphalt concrete plant should be controlled at appropriate level in order to control exhaust gasses to comply relevant emission standards.

Impact on Community Infrastructure

Impacts and Measures: The community infrastructure that requires reconstruction/rehabilitation during construction works, and the mitigation measures are as presented in following Table 7.4. The details of CPR's affected are in **Annexure 7.1**.

Table 7.4: Impact on Community Infrastructure and Mitigation Measures

Infrastructure	Numbers	Mitigation Measures
Boundary Wall of Schools, Govt. Office etc (locations)	42	Noise cum dust suppression RCC boundary walls with/without grill gate.
Existing Resting Shed	4	Reconstruction
Religious Structure	66	Relocation of fully affected structures. Noise cum dust suppression RCC boundary wall with flower vase atop at fully/partially affected structures.
Gate	4	Reconstruction
Sitting Platform	2	Reconstruction

All religious structures, whose boundaries are affected and which are opening to the RoW directly become a potential spot for occurrence of accidents during morning and evening hours as well as on certain specific ceremonial occasions. To prevent this, on either side of the main gate of the temple, traffic calming measures as provided in the list of such signage's on the direct access point of the road where the access will diverted on both side of the interception wall and thereby the rush and in advertent collusion with moving traffic on the road shall be nullified.

Boundary walls for affected religious sites with embedded flower vases over the masonry/RCC boundary wall (EMP Drg No. OSRP/CEG/SH/ENV/04-A) having grooves cut on the outer wall plastered surface and approach road with or without gates are designed for construction together with aesthetic planting of scented ,religious and flowering shrubs, herbs and small to medium trees

For burial grounds subject to availability of space in addition to the noise cum dust suppression boundary wall facing the highway, there shall be new MS grill gate and renovation of the crematoriums or pall bearers rest sheds for mitigation.

All gram panchayat market places for farmers, all weekly market places and religious structures coming within 20mtr from the proposed center line on either side, but not within the ROW shall be provided with designer boundary walls (EMP Drg No. OSRP/CEG/SH/ENV/04-B) according to the necessity with sound and dust reduction arrangement and site enhancement plantations so that the esthetic quality and approach to such sites become user friendly preventing direct impact on the road as per the designs provided.

Aesthetic tree planting within and outside the campus where ever open space is available, shall be taken up with non-poisonous, aromatic, flowering and edible fruit bearing plants of medicinal and air purifying variety, subject to approval by the governing body of such schools or the administrative authority of the institutions. In case of units under the control and management of local gram panchayat /CD Blocks/community, the consent and approval of the activities proposed to be undertaken in each case has to be communicated and prior

written approval is obtained during pre-construction activity before the construction activity is taken up.

The plants are: -

- Creepers - Quisqualis indica, Bignonea spp., Hiptage, Tecoma, Ipomea haderecia, Argeriya nurvula, Morning glory (Ipomea nill) **cuttings of which can be rooted in the nursery and transplanted in the field.**
- Shrubs - Tabernamontana coronaria, Jasminum humile, Nictanthes arbortristis, Muraya exotica, Muraya koinegi, Karabira (Red, white and cream) **cuttings and seedlings can be raised in the nursery and planted in the field'**
- Trees - Amla, Bahada, Harida, Neem, Sal, Barun, Bakul, Nageswar, Delonix, wild & Grafted Mango, Litchi, Chandan, Rakta chandan, Putranjiba, Jack fruit, Karanj, Jayanti, Agasti, Bengal almond, Alstonea, Bara, Aswath, Udumbar, Jari etc. (No Bara, Aswath, Jari, Udumber. Wild mango will be planted within).

Stockpiling of Construction Materials

Construction material storage site pose adverse impact during construction stage. Erosion from stockpiled material will cause water pollution, land value degradation, loss of agricultural productivity, and nuisance. *This impact is short term in duration, local in scale and short in magnitude.*

The land for storing the construction material should be far from the agriculture land, forest and water bodies. As a procedural respect, concerned contractor need to fill in standard pro-forma – developed for this issue – and submit it to and secure approval from the Resident Engineer/Environmental Specialist (including from the owner as and if required). Avoid leakage.

Decline in Aesthetic Value

Landscape degradation relates particularly to poorly designed or monitored activities resulting from quarrying operations and from indiscriminate dumping of spoil material. Road induced activities may lead to the generation and mismanagement of wastes in the roadsides and create scars on the landscape. The likely impact will be direct, low in magnitude, local nature and short term in duration.

The following mitigation measures will be adopted:

- Indiscriminate dumping of spoil material will be discouraged.
- After the extraction is completed, the quarry site will be rehabilitated to suit the local landscape.
- Plantation of local species along the roadside/ open space will be done.

7.2.1.2 Chemicals

Use of Bitumen

Impacts: Bitumen is required for black topping. Spillage of bitumen damage soil productivity and pollution. Accident will occur. Moreover, it also bring adverse impact to human health as it can causes skin burning if not properly handled, distributed during construction period etc. It also causes water pollution. *The impact will be indirect, high significance, local and short-term*

Measures: The following mitigation measures will be adopted

- Use kerosene for heating and strict prohibition to heat bitumen by using fuel wood.
- Appropriate storage of material.
- Use of appropriate safety gears to ensure safe health of workers such as masks, boot, gloves, hat.
- The bitumen storage must not be on fertile land and nearby water bodies.
- Bitumen related work should not be carried out during the rainy condition.

Impact due to Accidental leakage of Fossil Fuel, Lubricants, Oil, Acids and other Chemicals used in Vehicle, Crusher Plants, Equipment etc.

During construction period, large number of vehicles, crusher plants and several other equipments will be operating in the field. Due to significant number of vehicles, there is likely of accidental leakage of fossil fuel, lubricants, oil, acid and other chemical used in vehicles, crusher plants, and equipment if all these are not properly maintained and repaired from time to time. It could bring malefic effects to the environment. If it is exposed to the human being, aquatic animal, it even brings carcinogenic effects (Cancer induced effect) to the human being. *The impact will be indirect, high significance, local and short-term.*

7.2.1.3 Biological Environment

Impact on Vegetation and Forest Resources

Impacts: The proposed road does not pass through any forest areas, but will impact the roadside plantation along project road notified/declared as protected forest. The improvement of the road will slightly result in acerbating this effect due to widening of the formation width.

The proposed road improvement will require cutting of a total **7568** numbers of trees of various species that are growing along road side, which has been notified as protected forest. There is no diversion of forest land.

In addition, all felled trees are subject to compensatory plantation as specified by the Department of Forest in the ratio of 1:10. *The impact of this will be confined to the road alignment and thus will be local, direct, long-term and of medium significance.*

Measures: The loss of trees is largely not significant and has been minimised to the possible extent. However, even this small loss can be compensated by the plantation. Compensatory afforestation is one of the most important conditions stipulated by the Central Govt. while approving proposal for diversion of forestland for non-forest use. It is essential that a comprehensive scheme for compensatory afforestation is formulated and submitted to the Central Govt.

A total of 80000 numbers of trees will be planted as part of compensatory plantation and the cost will be provided to the concerned District Forest office by the project. Location and type of species for the plantation will be selected by the concerned DFO.

However, emphasis will be given to local, rare, endangered and protected species. For the plantation of 80000 trees, total estimated cost is INR 5,42,98,000/-. The details of compensatory plantation budget are provided in Environmental Budget chapter of Environmental Management Plan.

Impact on Wildlife Habitat and Movement

The project road passes nearest to Bhitarkanika National Park and Wildlife Sanctuary within 10 kms radius of zone of influence. Though no direct impact on the wildlife of above sanctuary and national park due to road expansion and construction activities is envisaged, but consider road is within the influence area a detail discussion was also held with concern with DFO, Mangrove Division, Rajnagar along with Ranger Officer to understand and capture the possible indirect impact due to the project. Base on the consultation, the possible impacts come to light are;

- i. Due to road widening and strengthening there will be change in drainage pattern in zone of influence and this may lead to induce change in pattern of animal movement resulting in rise in animal depredation.
- ii. The raising of road embankment will act as barrier to traditional water channels and there may be change in drainage pattern impacting the movement of crocodiles and rising chances of crocodile intrusions in to bathing ghats near human settlements. This may lead to human predation at vulnerable points along the river Baitarani, Kharsua and Brahmani within zone of influence of road corridor. The most vulnerable sites are Balichandrapur, Sahupada, Manikpatana, Rajpur, Santhapada, Nalitapatia along Brahmani River, Barundiha, Gangadharprasad dia along Kharashrota River and Mahurigam, Baradiha of Baitarani River.
- iii. The wild animals within the zone of influence likely to change their movement path due to raise in road embankment and may intrude into the human habitation and crop fields in the western and northern part of the National Park arising man-wild animal conflict resulting in depredation.
- iv. Due to road widening a lot of avenue trees harbouring the wild fauna and avian will be removed there by threatening the threshold level of existence of such animals.
- v. There are certain road patches which are very near to forest area of sanctuary and national park where crocodiles/snakes/turtles/monitor lizards and other reptiles may be required to cross the road for breeding and feeding purpose. These animals might get killed while crossing the road.

These impacts are long term, local in scale and medium significance. The mitigation measures that will be adopted for avoiding predation, preventing man-wild animal conflict and preserving habitat include;

- i. Providing reptile under pass (EMP Drg No. OSRP/ENV-14) at 26 locations (Table 7.5) for allowing reptiles crossing of road.
- ii. Locations of quarries for construction material are on non-forest land and at least 5 km away from the sanctuary and national park.
- iii. Shorten construction period in forest patches adjoining to Sanctuary and National Park to minimise disturbance to animals.

Table 7.5: Reptile Underpass

Sl. No.	Proposed Chainage	Sl. No.	Proposed Chainage
1	9/030	14	70/040
2	12/326	15	71/243
3	16/423	16	74/720
4	25/000	17	76/600
5	31/100	18	78/300
6	33/950	19	80/880
7	40/174	20	83/240
8	43/780	21	86/640
9	51/240	22	92/200
10	60/820	23	94/140
11	63/358	24	96/120
12	64/783	25	97/778
13	67/680	26	102/940

- iv. Providing speed breakers and rumble strips at forest stretches.
- v. Avoiding sand mining from river courses along road especially involving nesting ground of fresh water turtle and other reptiles
- vi. Providing of suitable wire mesh barrier to protect human predation by crocodile. The site vulnerability to be decided by concern Official.

Impact on forest resources due to Source of Energy/Fuel

Construction Crew/Contractor will use firewood within vicinity for cooking and heating purpose, and for construction. *This is an adverse impact of short-term duration, local in scale and medium significance.*

Following mitigation measures will be adopted for avoiding the use of forest wood for cooking and heating.

- For construction crews stationed at the camp, contractor will provide kerosene or gas for cooking and heating.
- Kerosene will be used for heating of bitumen/asphalt plant.
- Use of forest wood will be restricted for meeting the fuel needs.
- Respective provisions will be included in the contract agreement document with contractor.

Effect on Aquatic Life

The road alignment passes through Brahmani River, Kharashrota River and Baitarani Rivers supporting aquatic life. There are 44 ponds located along the roads that are partially affected. The road construction activities foundation excavation, slope cutting will likely increase sediment load in these rivers and ponds.

Measures: In design, the slope cutting has been minimized as far as possible. For widening the road special retaining structures has been proposed to reduce excess excavation materials falling in river/water bodies. Site casting will be strictly prohibited in critical locations.

Table 7.6: Toe Wall at Water Bodies Impacted

Sl No.	Items	Chainage (In Km)	Side	Sl No.	Items	Chainage (In Km)	Side
1	Pond	4/477	R	23	Pond	76/400	R
2	Pond	5/305	R	24	Pond	77/239	L
3	Pond	7/411	L	25	Pond	79/682	L
4	Pond	7/459	R	26	Pond	81/879	L
5	Pond	11/585	R	27	Pond	82/012	L
6	Pond	34/424	L	28	Pond	82/821	R
7	Pond	38/560	L	29	Pond	91/351	R
8	Pond	45/298	R	30	Pond	91/532	L
9	Pond	53/374	R	31	Pond	93/300	L
10	Pond	54/724	L	32	Pond	96/113	L
11	Pond	57/162	L	33	Pond	97/712	L
12	Pond	57/800	R	34	Pond	102/400	R
13	Pond	57/830	L	35	Pond	102/650	L
14	Pond	63/221	R	36	Pond	102/926	R
15	Pond	63/381	R	37	Pond	104/033	L
16	Pond	63/927	L	38	Pond	104/033	L
17	Pond	64/944	L	39	Pond	104/485	L
18	Pond	65/932	L	40	Pond	104/574	L
19	Pond	66/763	L	41	Pond	104/670	L
20	Pond	67/362	R	42	Pond	104/668	R
21	Pond	69/570	L	43	Pond	104/776	L
22	Pond	72/500	L	44	Pond	105/120	L

7.2.1.4 Socio- Economic Environment**Social Impact**

Due to the proposed project there will be some negative and positive impacts on the socio - economics of the project areas and region as a whole. The impacts can be classified as;

- Resettlement of People
- Relocation of Community Structures
- Acquisition of Land and Structures
- Influx of Construction Workers
- Economic Impacts

Table 7.7: Details of Social Impacts

Sl.No.	Particulars	Value	Type of Impact (partial/full)
1	Number of PAP's (Nos.)		
	Titleholders (Nos.)	996	Partial to fully
	Encroachers (Nos.)	315	Partial to fully
	Squatters (Nos.)	2793	Fully
2	Land to be Acquired (Ha)	235.565	
	Private Land (Ha)	64.082	Partial to fully

Sl.No.	Particulars	Value	Type of Impact (partial/full)
	Government Land (Ha)	171.483	Partial to fully
3	Structures Impacted		
	Private Structures (Nos.)	996	Partial to fully
	Government Structure (Nos.)	42	Partial to fully
4	CPR's Impacted		
	Religious (Nos.)	66	Fully
	Water sources (hand pump, stand post, wells etc) (Nos.)	146	Fully
	Sitting platform (Nos.)	2	Fully
	Resting Shed (Nos.)	4	Fully

The overall local and regional impacts on the socio-economics will be positive because of the policies of the project on the improvement of the roads. Such strengthened infrastructure is expected to contribute to the economic growth of the State and socioeconomic wellbeing of the people. Road improvements require relocation of people and structures that are within the Corridor of Impact. A separate Resettlement Action Plan (RAP) has been prepared for the project.

Impacts due to Traffic

During construction period, especially during the spreading the bitumen surface, no vehicles are allowed to come for some interval of time till it completely dry up. These could lead to traffic congestion. It will increase the travel time of local people.

Traffic congestions will occur during the construction period especially near townships and built-up areas due to increment in number of vehicles brought for construction activities. Generally traffic jam will be significant during morning and afternoon rush hours. *This kind of impact is direct, low significance and short term in nature.*

Impacts on Community Infrastructure

Few temporary structures (encroachment of the RoW used to build temporary boutiques retail centers, fences, & front walls etc.) of the road side may need to be shifted.

These houses will be compensated under R&R policy prepared for the project; other affected structures include a number of drinking water sources, chautaries and temples. Moreover, few water drinking pipe need to remove due to road widening activities.

Any damages during construction of road are subject to immediate repair under the responsibility of the Contractor. *The impacts (immediate loss of assets) will be direct, irreversible, medium significance on community level, site-specific and long-term in nature.*

Impact on health of workers and local people living along the road corridor. Occupational Health and Safety, STDs

As the construction activity requires works such as handling of hazardous material, machinery movement, bitumen work, the workers and general local people will be prone to risk of accidental damage at construction sites.

Other impact could be due to from poor labour camp condition. Unsafe water sources and unhygienic conditions (lack of latrines and washing facilities) bear the risk of additional and

often endemic diseases, such as dysentery, diarrhoea and cholera. Uncontrolled water logging and badly managed borrows pits bear the risks of spreading water-borne diseases like malaria and dengue fever. Sexually transmitted diseases and HIV/AIDs as a result of the possible influx of migrant labourers / construction workers is rather low due to the priority to be given to local hiring of labor and the still strong social control in the villages.

Other potential impacts to health are respiratory and eye disease due to exposure to dust and emissions. *In the absence of stringent health & safety regulations and regular training through the Contractor, the identified impacts will be, with exception of HIV/AIDS, direct, high significance, local and short-term in nature.*

Measures: The workers shall be provided and made mandatory the use of helmets, safety belts, masks, gloves and boot depending on nature of work; provide clean drinking water at sites and camp; pit toilets at sites and camp; first aid facilities at sites and camp with training to use them; provide group accidental insurance for workers. Awareness generation to local people and workers on HIV/AIDS and other communicable diseases

Pressure on Social Service Facilities

For road construction activity, there will be requirement of large numbers of construction labour force. For meeting the need of the construction worker, there is likely of having pressure on existing local social service facilities such as telephone, water supply, solid waste management, health and medicine, transportation and school (if they come with family) etc. *This impact will be indirect, low significance, short-term and local in nature.*

Conflicts due to Influx of Construction Workers

The amount of money that enters into the area during construction phase as wage payment may induce local inflation. Increased income of local labours and construction crews of contractor can lead to negative impacts such as spread of alcohol consumption, gambling and prostitutions. Influx of migrant workers also bears potential dangers of girl and boy trafficking, as well as HIV/AIDS as mentioned before. *These impacts leading possibly to social and cultural conflicts will be indirect, medium significance, local, and short-term in nature.*

Impact due to unawareness on camp sanitation issues by the laour

The labours in camp are source of production of huge solid mass. If it is not properly addressed then there is likely of spreading and emergence of disease among the labour in camp. *The impact from unawareness on camp sanitation by the labour will be direct, local and short term in nature.*

Impairment in existing environmental condition due to influx of labour

Because of huge dependency on the fossil fuel, vehicles, and other natural resources, the environment could be impaired. *The impact from unawareness on camp sanitation by the labour will be direct, local and short term in nature.*

7.2.2 Operation Stage

7.2.2.1 Physical Environment

Landslide and slope failure

The project road is located in flat/plain terrain and landslide is not envisage, though slope failure may happen at high embankment, approaches to bridges etc. along the road. This may cause damage to road. *The impacts will be direct, low significance, site-specific and long-term in nature.*

The following mitigation measures will be adopted:

- Maintenance of the slope protection measures and drainage works
- Minor landslide and mass wasting will be immediately cleared and slope restored with appropriate technology (bioengineering)

Impacts on Water Resources caused by Poor Drainage

The road project aims to improve the road drainage facilities by constructing proper drain and rehabilitating culverts to facilitate better flow especially during rainy season. It will be constructed as per design. But on operation phase, the drain and culvert may block due to sediments, improper disposal of debris or disposing garbage into side drain by the general public. It will create overflow of drains and alteration of surface runoff paths causing soil erosion and health hazards, sometimes, it also bring completely failure of drainage structure. It will also induce siltation in nearby stream which can bring flood as well as affects the flora and fauna living in nearby water bodies, if maintenance activity is not carried out from time to time.

In order to avoid such impacts, the following mitigation measures will be adopted:

- To minimize the impact it is proposed to close the side drains especially near towns and maintain regularly to avoid blockage of water.
- Maintenance of smooth discharge across culverts and cross drainages by cleaning and maintaining them regularly so that water logging on adjacent land due to road do not occur.
- Roadside drain water will not be discharged into farmland or environmentally sensitive locations.
- Regular cleaning of roadside channels to avoid any blockage of drainage.

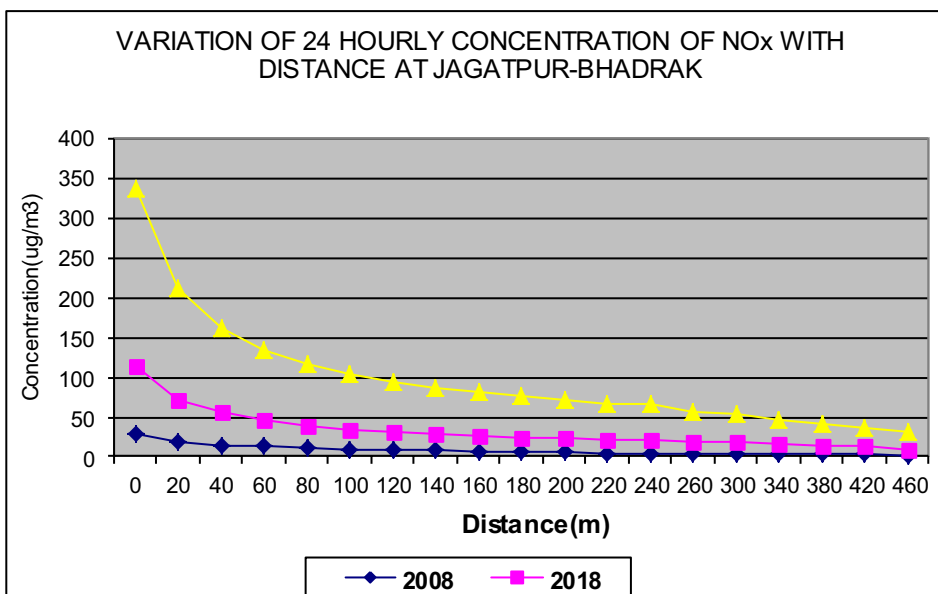
Impact Due to Air, Noise, Water and Soil Pollution

Impacts: As the road is Major District Road and the vehicular movement is expected to be very high, noise pollution will be high. However it may cause nuisance to local resident, educational institutions and hospitals located adjoining project roads.

The impact due to air and noise pollution will be *direct, low, local and long term.*

Increase in settlements, hotels and lodges will result in increased organic and inorganic solid and liquid wastes. The disposal of household wastes, washing of vehicles in water bodies will degrade the water quality. The impact will be direct, low, local and long term.

The CALINE 4 predictions of pollution level along each corridor on link basis has been checked to ascertain the level of impact during operation phase between 2008 to 2028 in the form of graphs showing the levels of NO_x as presented below at 10 year interval.



Measures: Measures to

be adopted will include plantation of trees on both sides of the road as far as possible; Speed limit of maximum 55 km/hr in settlement and built-up areas. Awareness program for drivers to drive below design speed to avoid road accident, minimal or no use of horn, erect signs at pedestrian crossing areas. To control vehicle speed, traffic calming measures will be provided at settlements/built-up areas, educational institutions and hospitals areas. Noise mitigation measures like noise barrier (EMP Drg No. OSRP/CEG/SH/ENV/04-B) either vegetative or structural type, will be provided (base on site condition) at identified environmental sensitive locations.

Table 7.7: Noise Barrier at Sensitive Areas

Sl No.	Items	Chainage (In Km)	Side	Sl No.	Items	Chainage (In Km)	Side
1	Madrasa	3/500	L	10	School	62/987	R
2	School	4/330	L	11	School	102/700	L
3	School	5/382	L	12	School	102/745	L
4	School	5/700	L	13	Hospital	26/695	L
5	School	10/275	R	14	Police Station	0/443	L
6	School	19/565	L	15	Electrical Substation	9/580	R
7	School	53/360	R	16	Sub Register Office	19/634	L
8	School	51/736	R	17	Inspection Bungalow	33/914	R
9	School	58/407	L	18	Government Building	100/500	R
				19	Office of Tehsildar	100/640	L

7.2.2.2 Biological Environment

Pollution of Water Sources

As the road is in operation, more vehicles will be moving on the upgraded road surface. So it is common to see the inappropriate driver practices connected with car/truck washing in streams and rivers which can cause local water pollution by leakage of fuel, lubricants and

hydrocarbons that may not only affect the aesthetic value of the water body, but also put hazards on people and animals using these as drinking sources. Continual water pollution will also affect the aquatic biota, with subsequent negative consequences for fisheries and the economic return of fisher folk depending on these natural resources.

Measures: The washing of cars in rivers and creeks should be strictly controlled and violators be penalized. In places where car washing habits have evolved, it is advised to erect signboards (illustrated and in local language) that explain the inherent risks for people utilizing the source for drinking and aquatic life, and also indicate penalties for violators. The vehicles are regularly checked whether it is in good condition or not by the government. It should be within government policy.

7.2.2.3 Social, Economic and Cultural Environment

Population Pressure and Impact due to New Settlement along the Road

After the construction, the RoW can be encroached at any time mainly for putting up small boutiques, vegetable and fruit sales stalls, or demarcating land boundaries. The encroachers will build permanent or temporary structures within the existing reservation causing damages to pavements, side drains or even for the soft shoulder of the RoW.

Ribbon settlement can cause significant and long-term adverse impacts if such activities cannot be avoided in time by enforcing strict legal action and social pressure.

Discouraging ribbon settlements along the road awareness raising programme through local organizations to plan proper settlements Enforce regulate settlement growth in RoW. Promote tree plantation program in Row which makes barrier.

Social Conflicts

Access facilities will bring social nuisance like increase in alcohol consumption, gambling, prostitution, and will increase girl trafficking. The impact will be indirect, medium, local and long term in nature.

Support awareness raising programs against such nuisances.

Road Accidents

The widening and improving of the surface conditions induces high vehicular speed. As a result, there will be a risk of increased of road accidents. The proposed road passes settlements, which are susceptible to accidents. Moreover there are many residents, shops and small boutiques located closer to the road. Therefore high speed vehicle movements will cause road accidents. *The anticipated impacts will be direct, medium significance, local and long term in nature.*

After the operation of road services, chances of accidents increase. In order to minimize such incidents following safety measures and restriction on speed will be adopted.

- Required delineators, safety signs etc. will be included in design appropriate along the road.
- Road safety awareness programs will be conducted
- It is also recommended to place illustrated sign boards at accident-prone spots and bus bays.

- Speed limit, No horn, warning signboard in forest, animal crossing area.

The potential impacts have been predicted in terms of their magnitude of significance (low, moderate and high), extent (site specific, local and regional) and duration (short term, medium term and long term) as well as their nature (reversible, irreversible).

Government of Orissa
Works Department

N O T I F I C A T I O N

Dated, Bhubaneswar, the 24-11-04

No.R.Misc-61/2004 20750 /W., Government in Works Deptt.
have been pleased to declassify the 15 roads as given
below from State Highways Category to Major District
Roads Category with effect from the date of issue of this
Notification.

- ✓ 1. Pipili-Gop-Konark Road - S.H.-13 ✓
2. Rairakhol-Kiakata Road - S.H.-24
3. Cuttack-Chandabali Road - S.H.-9A
4. Koraput-Laxmipur-Rayagada Road - S.H.-4
5. Jaleswar-Batagaon-Chandaneswar Road - S.H.-57
6. Chorada-Duburi Road - S.H.-20
7. Angul-Maidharpur Road - S.H.-23
8. Bhawanipatna-Kharian Road - S.H.-16
9. Sathipur-Jajpur-Kayangola Road - S.H.-56
- ✓ 10. Phulnakhara-Niali-Madhah-Gop-Konark-Puri Road - S.H.60 ✓
11. Narasinghpur-Hindol Road - S.H.-64
12. Bhanjanagar-Tilisingh Road - S.H.37.
13. Jeypore-Kota-Malkangiri-Motu road - S.H.125
14. Umerkote-Rayagada-Kerda-Likima Road - S.H.-14
15. Angul-Tikarpara Road - S.H.-23

By order of the Governor

R.K.Dash

E.I.C.-Cum-Secretary to Govt.

Memo No. 20751 /W., Dated.

Copy with copy of enclosure forwarded to the P.S. to
Chief Minister, Orissa for information of Hon'ble Chief Minister,
Orissa/P.S. to Minister works for kind information of Hon'ble
Minister works.

Memo No. 20752 /W., Dated.

Copy with copy of enclosure forwarded to the Chief
Engineer, D.P. L&Roads for information and necessary action with
reference to his letter No.40600 Dt.14.10.2004.

Deputy Secretary to Government
Contd...P/2.

K-2-1-

- 2 -

Memo No. 20753 /W., Dated.

24-11-04

Copy with copy of enclosure forwarded to all
Superintending Engineers of R&B Circles/All Executive
Engineers of R&B Division for information and necessary
action.

W. L. 23/11/04

Deputy Secretary to Government

Memo No. 20754 /W., Dated.

24-11-04

Copy with copy of enclosure forwarded to the
Director Printing, Stationary and Publication Orissa,
Cuttack for information and necessary action.

He is requested to publish, in the next issue of the
Gazettee and supply 50 (Fifty copies) to this Department.

W. L. 23/11

Deputy Secretary to Government

Memo No. 20755 /W., Dated.

24-11-04

Copy with copy of enclosure forwarded to Budget
Section/Plan Section/Guard file 20 copies for information
and necessary action.

W. L. 23/11/04

Deputy Secretary to Government

SSN.

W. L. 23/11

0674-2370757

ANNEXURES

Annexure 2.2

Existing Culverts Inventory along Project Road

Sl. No.	Location/ Chainage	Existing Span Arrangement	Type of Culvert	Recommendation
Jagatpur – Chandbali				
1	1/015	-	Choked	Reconstruction due to insufficient vent
2	1/460	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
3	1/850	1 x 0.45	Pipe	Reconstruction due to insufficient vent
4	2/010	2 x 1.0	Pipe	Reconstruction due to poor condition
5	5/145	1 x 1.2	Arch	Reconstruction due to poor condition
6	5/160	1 x 0.25	Pipe	NP-2 pipe, to be Reconstruction
7	5/980	1 x 0.3	Pipe	Reconstruction due to insufficient vent
8	6/290	1 x 0.45	Pipe	Reconstruction due to insufficient vent
9	6/400	1 x 1.0	Pipe	Reconstruction due to insufficient vent
10	6/435	1 x 0.3	Pipe	Reconstruction due to insufficient vent
11	7/975	1 x 0.6	Skew Pipe	Reconstruction due to insufficient vent
12	8/250	1 x 1.0	Pipe	To be widened
13	8/425	1 x 1.0	Pipe	To be widened
14	9/090	1 x 0.6	Pipe	Reconstruction due to insufficient vent
15	9/490	1 x 0.45	Pipe	Reconstruction due to insufficient vent
16	9/710	1 x 0.6	Pipe	Reconstruction due to insufficient vent
17	10/140	1 x 1.0	Pipe	To be widened
18	10/925	1 x 3.0	Skew Slab	To be widened
19	11/860	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
20	12/060	1 x 0.3	Pipe	Reconstruction due to insufficient vent
21	12/375	1 x 1.2	Pipe	To be widened
22	12/650	1 x 0.3	Pipe	Reconstruction due to insufficient vent
23	13/020	-	Pipe	Reconstruction due to insufficient vent
24	13/150	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
25	13/400	1 x 0.3	Pipe	Reconstruction due to insufficient vent
26	14/100	1 x 0.45	Pipe	Reconstruction due to insufficient vent
27	14/850	1 x 0.9	Slab	Reconstruction due to poor condition
28	15/400	1 x 0.9	Pipe	Reconstruction due to insufficient vent
29	16/200	1 x 0.6	Pipe	Nothing to do
30	16/400	1 x 0.45	Pipe	Reconstruction due to insufficient vent
31	16/450	1 x 0.45	Pipe	Reconstruction due to insufficient vent
32	16/640	1 x 1.5	Slab	Reconstruction due to poor condition
33	16/930	1 x 1.5	Arch	Reconstruction due to poor condition
34	17/550	1 x 1.5	Slab	To be widened
35	18/190	1 x 0.6	Pipe	Nothing to do
36	18/310	1 x 0.6	Pipe	Nothing to do
37	18/595	1 x 0.6	Pipe	Reconstruction due to poor condition
38	19/350	1 x 1.5	Slab	Reconstruction due to poor condition
39	19/550	1 x 0.45	Pipe	Reconstruction due to insufficient vent

Sl. No.	Location/ Chainage	Existing Span Arrangement	Type of Culvert	Recommendation
40	19/950	1 x 2.2	Slab	Reconstruction due to poor condition
41	20/400	2 x 1.0	Pipe	To be widened
42	21/350	1 x 1.5	Slab	Reconstruction due to poor condition
43	21/800	1 x 0.75	Pipe	NP-2 pipe, to be Reconstruction
44	22/350	1 x 8.0	Skew Arch	Reconstruction due to poor condition
45	22/600	1 x 1.2	Arch	Reconstruction due to poor condition
46	22/950	1 x 0.3	Pipe	Reconstruction due to poor condition
47	23/200	1 x 0.75	Pipe	To be widened
48	23/900	1 x 1.22	Arch	Reconstruction due to poor condition
49	24/150	1 x 1.38	Skew Slab	To be widened
50	24/450	2 x 0.9	Arch	Reconstruction due to poor condition
51	24/800	1 x 1.5	Skew Slab	Reconstruction due to poor condition
52	25/400	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
53	25/500	1 x 0.9	Slab	Reconstruction due to poor condition
54	25/995	1 x 1.2	Pipe	Nothing to do
55	26/150	1 x 2.0	Slab	To be widened
56	26/500	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
57	27/200	1 x 0.3	Pipe	To be widened
58	28/000	1 x 0.9	Pipe	Reconstruction due to poor condition
59	28/200	1 x 5.2	Slab	Reconstruction due to poor condition
60	28/400	-	Choked	Reconstruction due to insufficient vent
61	29/200	1 x 0.9	Arch	Reconstruction due to poor condition
62	29/350	1 x 0.8	Arch	Reconstruction due to poor condition
63	30/700	1 x 0.9	Pipe	To be widened
64	31/150	1 x 1.0	Pipe	To be widened
65	32/625	1 x 1.2	Pipe	To be widened
66	32/650	1 x 0.45	Pipe	To be widened
67	34/400	1 x 0.6	Slab	Reconstruction due to poor condition
68	35/100	1 x 1.5	Slab	Reconstruction due to poor condition
69	35/700	1 x 0.9	Skew Arch	Reconstruction due to poor condition
70	36/150	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
71	36/400	1 x 0.9	Slab	Reconstruction due to poor condition
72	36/900	1 x 4.5	Slab	Reconstruction due to poor condition
73	37/200	1 x 3.0	Slab	Reconstruction due to poor condition
74	37/700	1 x 0.9	Pipe	Reconstruction due to poor condition
75	37/980	1 x 0.6	Pipe	Reconstruction due to poor condition
76	38/350	1 x 0.9	Slab	Reconstruction due to poor condition
77	38/600	1 x 3.5	Slab	Reconstruction due to poor condition
78	38/950	1 x 1.9	Skew Slab	Reconstruction due to poor condition
79	40/175	1 x 1.0	Pipe	To be widened
80	41/250	1 x 1.5	Slab	Reconstruction due to poor condition
81	41/900	1 x 1.0	Slab	Reconstruction due to poor condition
82	42/400	1 x 1.5	Slab	To be widened
83	42/975	1 x 1.5	Slab	Reconstruction due to poor condition
84	43/230	1 x 1.5	Slab	Reconstruction due to poor condition
85	43/650	1 x 3.0	Skew Slab	Reconstruction due to poor condition
86	44/100	1 x 1.5	Slab	Reconstruction due to poor condition

Sl. No.	Location/ Chainage	Existing Span Arrangement	Type of Culvert	Recommendation
87	44/600	1 x 0.45	Pipe	NP-2 pipe, to be Reconstruction
88	45/550	1 x 1.5	Slab	Reconstruction due to poor condition
89	46/600	1 x 1.2	Slab	Reconstruction due to poor condition
90	46/900	1 x 1.2	Slab	Reconstruction due to poor condition
91	47/800	1 x 1.5	Slab	To be widened
92	50/200	5 x 1.0	Pipe	Nothing to do
93	52/300	1 x 0.25	Pipe	Reconstruction due to poor condition
94	52/500	-	Choked	Reconstruction due to insufficient vent
95	52/700	1 x 1.3	Slab	Reconstruction due to poor condition
96	52/900	1 x 0.45	Pipe	Reconstruction due to poor condition
97	53/500	1 x 0.3	Pipe	Reconstruction due to poor condition
98	53/800	1 x 0.9	Slab	Reconstruction due to poor condition
99	54/300	-	Choked	Reconstruction due to insufficient vent
100	54/500	2 x 0.6	Pipe	Reconstruction due to insufficient vent
101	55/100	-	Pipe	Reconstruction due to insufficient vent
102	55/300	1 x 0.6	Pipe	Reconstruction due to poor condition
103	57/300	1 x 4.7	Slab	Reconstruction due to poor condition
104	58/600	2 x 1.3	Arch	Reconstruction due to poor condition
105	59/300	1 x 0.6	Pipe	Reconstruction due to poor condition
106	61/100	1 x 4.6	Slab	Reconstruction due to poor condition
107	61/900	1 x 0.6	Pipe	To be widened
108	62/250	2 x 0.6	Skew Pipe	To be widened
109	62/950	2 x 1.0	Arch	Reconstruction due to poor condition
110	63/300	1 x 0.6	Pipe	To be widened
111	64/100	1 x 0.6	Pipe	To be widened
112	64/850	1 x 1.0	Skew Pipe	To be widened
113	65/925	1 x 1.5	Slab	To be widened
114	67/500	2 x 0.6	Pipe	Reconstruction due to poor condition
115	67/580	-	Slab	Reconstruction due to poor condition
116	68/005	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
117	68/040	1 x 4.0	Choked	Reconstruction due to insufficient vent
118	68/050	5 x 1.0	Pipe	To be widened
119	68/900	2 x 1.2	Slab	Reconstruction due to poor condition
120	69/300	2 x 1.3	Pipe	Reconstruction due to poor condition
121	69/310	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
122	70/900	1 x 1.4	Pipe	Reconstruction due to poor condition
123	71/600	1 x 0.6	Slab	Reconstruction due to poor condition
124	71/900	-	Slab	Reconstruction due to insufficient vent
125	72/850	-	Slab	Reconstruction due to insufficient vent
126	73/600	1 x 3.0	Slab	Reconstruction due to poor condition
127	76/100	1 x 4.0	Slab	To be widened
128	77/350	1 x 1.2	Arch	Reconstruction due to poor condition
129	79/750	1 x 3.0	Slab	To be widened
130	79/800	1 x 0.6	Pipe	Reconstruction due to poor condition
131	80/200	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
132	81/036	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
133	82/150	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction

Sl. No.	Location/ Chainage	Existing Span Arrangement	Type of Culvert	Recommendation
134	83/015	1 x 0.6	Pipe	NP-2 pipe, to be Reconstruction
135	84/500	1 x 1.0	Arch	Reconstruction due to poor condition
136	86/150	1 x 0.3	Pipe	NP-2 pipe, to be Reconstruction
137	86/300	1 x 4.5	Slab	To be widened
138	86/950	1 x 1.0	Arch	Reconstruction due to poor condition
139	93/400	4 x 1.0	Pipe	To be widened
140	93/600	1 x 1.6	Slab	Reconstruction due to poor condition
141	93/700	1 x 0.3	Stone Slab	Reconstruction due to poor condition
142	94/100	-	Choked	Reconstruction due to poor condition
143	94/800	1 x 0.45	Pipe	To be widened
144	95/100	1 x 4.9	Slab	Reconstruction due to poor condition
145	96/900	3 x 1.0	Skew Pipe	Nothing to do
Chandbali – Bhadrak				
1	45/200	1 x 1.5	Arch	Reconstruction due to poor condition
2	48/010	1 x 1.5	Slab	To be widened
3	48/500	-	Choked	Reconstruction due to insufficient vent
4	50/100	1 x 1.0	Arch	Reconstruction due to poor condition
5	50/440	1 x 6.0	Slab	To be widened
6	50/800	-	Choked	Reconstruction due to insufficient vent

Annexure 5.1**List of Existing Potable Water Source along Project Road**

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure
1	Right	3-4	Cuttack	Gujarpur	Tube Well
2	Right	3-4	Cuttack	Pirabazar	Tube Well
3	Right	3-4	Cuttack	Pirabazar	Well
4	Right	6-7	Cuttack	Mutarifa	Tube Well
5	Right	6-7	Cuttack	Mutarifa	Water Stand Post
6	Left	7-8	Cuttack	Mutarifa	Water Stand Post
7	Left	7-8	Cuttack	Mutarifa	Tube Well
8	Left	7-8	Cuttack	Mutarifa	Tube Well
9	Right	8-9	Cuttack	Purbakachha	Well
10	Right	8-9	Cuttack	Bahadulpatna	Tube Well
11	Left	10-11	Cuttack	Singhamapur	Tube well
12	Right	10-11	Cuttack	Bahugram	Well
13	Right	10-11	Cuttack	Bahugram	Well
14	Left	11-12	Cuttack	Bhatapada	Tube Well
15	Left	13-14	Cuttack	Bhatapada	Well
16	Right	15-16	Cuttack	Gangapur	Tube Well
17	Right	16-17	Cuttack	Bahabalpur	Tube Well
18	Left	17-18	Cuttack	Sapanpur	Tube Well
19	Left	19-20	Cuttack	Chandradeipur	Water Stand Post
20	Left	22-23	Cuttack	Kulia	Tube Well
21	Left	22-23	Cuttack	Kulia	Well
22	Left	22-23	Cuttack	Kulia	Well
23	Right	24-25	Cuttack	Patapur	Tube Well
24	Right	24-25	Cuttack	Patapur	Well
25	Right	24-25	Cuttack	Patapur	Tube Well
26	Left	25-26	Cuttack	Mahajanpur	Well
27	Left	26-27	Cuttack	Mahajanpur	Well
28	Left	26-27	Cuttack	Mahajanpur	Well
29	Right	26-27	Cuttack	Mahajanpur	Well
30	Right	27-28	Cuttack	Nischintakoili	Tube Well
31	Right	27-28	Cuttack	Nischintakoili	Well
32	Right	27-28	Cuttack	Nischintakoili	Tube Well
33	Right	28-29	Cuttack	Nischintakoili	Tube Well
34	Right	31-32	Cuttack	Katarapada	Tube Well
35	Left	33-34	Cuttack	Julikipara	Well
36	Left	33-34	Cuttack	Julikipara	Well
37	Right	33-34	Cuttack	Julikipara	Tube Well

SI No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure
38	Right	33-34	Cuttack	Julikipara	Tube Well
39	Right	35-36	Cuttack	Ramaranga	Tube Well
40	Right	35-36	Cuttack	Banamalipur	Tube Well
41	Right	35-36	Cuttack	Banamalipur	Well
42	Right	36-37	Cuttack	Katikata	Well
43	Right	37-38	Kendrapara	Bhanagaon	Tube Well
44	Left	37-38	Kendrapara	Bhanagaon	Tube Well
45	Left	37-38	Kendrapara	Bhanagaon	Water Stand Post
46	Left	37-38	Kendrapara	Bhanagaon	Tube Well
47	Left	37-38	Kendrapara	Bhanagaon	Water Stand Post
48	Right	38-39	Kendrapara	Chandol	Tube Well
49	Right	38-39	Kendrapara	Chandol	Tube Well
50	Right	38-39	Kendrapara	Chandol	Tube Well
51	Left	38-39	Kendrapara	Chandol	Tube Well
52	Left	38-39	Kendrapara	Chandol	Tube Well
53	Right	42-43	Kendrapara	Daliji	Tube Well
54	Left	42-43	Kendrapara	Daliji	Tube Well
55	Right	43-44	Kendrapara	Syamsundarpur	Well
56	Left	43-44	Kendrapara	Syamsundarpur	Tube Well
57	Right	44-45	Kendrapara	Bhagabatpur	Water Stand Post
58	Right	44-45	Kendrapara	Bhagabatpur	Tube Well
59	Right	44-45	Kendrapara	Bhagabatpur	Well
60	Right	44-45	Kendrapara	Bhagabatpur	Water Stand Post
61	Right	44-45	Kendrapara	Bhagabatpur	Well
62	Left	46-47	Kendrapara	Jantilo	Well
63	Left	47-48	Kendrapara	Jamadhara	Water Stand Post
64	Left	48-49	Kendrapara	Kasati	Water Stand Post
65	Right	58-59	Kendrapara	Baro	Tube Well
66	Left	66-67	Kendrapara	Badamulabasanta	Water Stand Post
67	Left	66-67	Kendrapara	Badamulabasanta	Tube Well
68	Left	74-75	Kendrapara	Gopalpur	Tube Well
69	Right	77-78	Kendrapara	Mahasahani	Tube Well
70	Right	78-79	Kendrapara	Mahasahani	Well
71	Right	79-80	Kendrapara	Chandigadi	Tube Well
72	Left	79-80	Kendrapara	Chandigadi	Well
73	Right	79-80	Kendrapara	Chandigadi	Tube Well
74	Right	79-80	Kendrapara	Chandigadi	Tube Well
75	Left	79-80	Kendrapara	Chandigadi	Tube Well
76	Left	80-81	Kendrapara	Chandigadi	Well

SI No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure
77	Right	82-83	Kendrapara	Sitaleswar	Well
78	Right	82-83	Kendrapara	Sitaleswar	Well
79	Left	82-83	Kendrapara	Sitaleswar	Well
80	Left	82-83	Kendrapara	Sitaleswar	Tube Well
81	Left	82-83	Kendrapara	Sitaleswar	Tube Well
82	Right	86-87	Kendrapara	Lokapada	Tube Well
83	Right	86-87	Kendrapara	Lokapada	Well
84	Left	87-88	Kendrapara	Nagapada	Tube Well
85	Left	87-88	Kendrapara	Nagapada	Tube Well
86	Right	89-90	Kendrapara	BarunaDhia	Tube Well
87	Right	91-92	Kendrapara	Achhutapur	Tube Well
88	Left	93-94	Kendrapara	Gokheneswar	Well
89	Left	93-94	Kendrapara	Gokheneswar	Tube Well
90	Left	93-94	Kendrapara	Gokheneswar	Well
91	Left	99-100	Bhadrak	Simulia	Tube Well
92	Left	100-101	Bhadrak	Chandabali	Water Stand Post
93	Left	100-101	Bhadrak	Chandabali	Water Stand Post
94	Left	100-101	Bhadrak	Chandabali	Tube Well
95	Left	100-101	Bhadrak	Chandabali	Water Stand Post
96	Left	101-102	Bhadrak	Chandabali	Water Stand Post
97	Right	101-102	Bhadrak	Chandabali	Water Stand Post
98	Right	101-102	Bhadrak	Chandabali	Water Stand Post
99	Right	101-102	Bhadrak	Chandabali	Water Stand Post
100	Left	55-56	Kendrapara	Jajanga	Tube Well
101	Right	55-56	Kendrapara	Jajanga	Tube Well
102	Right	55-56	Kendrapara	Jajanga	Tube Well
103	Left	56-57	Kendrapara	Khamarkespur	Tube Well
104	Right	57-58	Kendrapara	Trillochanpur	Well
105	Left	63-64	Kendrapara	Gangapada	Tube Well
106	Left	63-64	Kendrapara	Gogua	Tube Well
107	Left	63-64	Kendrapara	Gogua	Water Stand Post
108	Left	64-65	Kendrapara	Gogua	Tube Well
109	Left	64-65	Kendrapara	Gogua	Tube Well
110	Left	65-66	Kendrapara	Badamulabasanta	Tube Well
111	Left	65-66	Kendrapara	Badamulabasanta	Water Stand Post
112	Left	65-66	Kendrapara	Badamulabasanta	Water Stand Post
113	Right	65-66	Kendrapara	Badamulabasanta	Water Stand Post
114	Right	65-66	Kendrapara	Badamulabasanta	Water Stand Post
115	Right	65-66	Kendrapara	Badamulabasanta	Tube Well

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure
116	Right	65-66	Kendrapara	Badamulabasanta	Tube Well
117	Right	65-66	Kendrapara	Badamulabasanta	Water Stand Post
118	Right	50-51	Kendrapara	Guhalsingh	Tube Well
119	Right	50-51	Kendrapara	Guhalsingh	Tube Well
120	Right	50-51	Kendrapara	Guhalsingh	Tube Well
121	Left	51-52	Kendrapara	Gulnagar	Tube Well
122	Left	51-52	Kendrapara	Bhamaradiapatna	Water Stand Post
123	Right	53-54	Kendrapara	Garapur	Tube Well
124	Right	54-55	Kendrapara	Kapaleswar	Well
125	Right	68-69	Kendrapara	Belatala	Water Stand Post
126	Left	68-69	Kendrapara	Belatala	Tube Well
127	Right	68-69	Kendrapara	Belatala	Water Stand Post
128	Left	68-69	Kendrapara	Belatala	Tube Well
129	Right	69-70	Kendrapara	Belatala	Well with Platfrom
130	Right	69-70	Kendrapara	Belatala	Water Stand Post
131	Right	69-70	Kendrapara	Belatala	Water Stand Post
132	Right	71-72	Kendrapara	Balipada	Water Stand Post
133	Left	72-73	Kendrapara	Kasananta	Water Stand Post
134	Left	72-73	Kendrapara	Kasananta	Water Stand Post
135	Left	72-73	Kendrapara	Kasananta	Water Stand Post
136	Left	72-73	Kendrapara	Kasananta	Water Stand Post
137	Right	72-73	Kendrapara	Kasananta	Well
138	Right	72-73	Kendrapara	Kasananta	Well
139	Left	85-86	Kendrapara	Demala	Water Stand Post
140	Left	85-86	Kendrapara	Demala	Well
141	Left	85-86	Kendrapara	Demala	Well
142	Left	85-86	Kendrapara	Demala	Water Stand Post
143	Right	95-96	Kendrapara	Kantapada	Tube Well
144	Right	95-96	Kendrapara	Kantapada	Water Stand Post
145	Right	95-96	Kendrapara	Kantapada	Tube Well

Annexure 5.2**List of Existing Ponds along Project Road**

Sl No	Item	Chainage	Location Left/Right
1	Pond	4.477	Right
2	Pond	5.305	Right
3	Pond	7.411	Left
4	Pond	7.459	Right
5	Pond	11.585	Right
6	Pond	34.424	Left
7	Pond	38.560	Left
8	Pond	45.928	Left
9	Pond	53.374	Right
10	Pond	54.724	Left
11	Pond	57.162	Left
12	Pond	57.800	Right
13	Pond	57.830	Left
14	Pond	63.221	Right
15	Pond	63.381	Right
16	Pond	63.927	Right
17	Pond	64.944	Left
18	Pond	65.932	Left
19	Pond	66.763	Left
20	Pond	67.362	Right
21	Pond	69.570	Left
22	Pond	72.500	Left
23	Pond	76.305	Right
24	Pond	76.400	Right
25	Pond	77.239	Left
26	Pond	79.682	Left
27	Pond	81.879	Left
28	Pond	82.012	Right
29	Pond	82.821	Right
30	Pond	91.351	Left
31	Pond	91.532	Left
32	Pond	93.300	Left
33	Pond	96.113	Left
34	Pond	97.712	Right
35	Pond	102.400	Left
36	Pond	102.650	Right
37	Pond	102.926	Left
38	Pond	104.033	Left
39	Pond	104.485	Left
40	Pond	104.575	Left
41	Pond	104.670	Left
42	Pond	104.668	Right
43	Pond	104.776	Left
44	Pond	105.120	Left

Annexure 5.3

CPCB Surface Water Quality Standard

Designated-Best-Use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	<ul style="list-style-type: none"> Total Coliforms Organism MPN/100ml shall be 50 or less pH between 6.5 and 8.5 Dissolved Oxygen 6mg/l or more Biochemical Oxygen Demand 5 days 20°C 2mg/l or less
Outdoor bathing (Organised)	B	<ul style="list-style-type: none"> Total Coliforms Organism MPN/100ml shall be 500 or less pH between 6.5 and 8.5 Dissolved Oxygen 5mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Drinking water source after conventional treatment and disinfection	C	<ul style="list-style-type: none"> Total Coliforms Organism MPN/100ml shall be 5000 or less pH between 6 to 9 Dissolved Oxygen 4mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries	D	<ul style="list-style-type: none"> pH between 6.5 to 8.5 Dissolved Oxygen 4mg/l or more Free Ammonia (as N) 1.2 mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	<ul style="list-style-type: none"> pH between 6.0 to 8.5 Electrical Conductivity at 25°C micro mhos/cm Max.2250 Sodium absorption Ratio Max. 26 Boron Max. 2mg/l
	Below-E	Not Meeting A, B, C, D & E Criteria

INDIAN STANDARD SPECIFICATIONS FOR DRINKING WATER
IS: 10500

S.NO.	Parameter	Requirement desirable Limit	Remarks
1.	Colour	5	May be extended up to 50 if toxic substances are suspected
2.	Turbidity	10	May be relaxed up to 25 in the absence of alternate
3.	pH	6.5 to 8.5	May be relaxed up to 9.2 in the absence
4.	Total Hardness	300	May be extended up to 600
5.	Calcium as Ca	75	May be extended up to 200
6.	Magnesium as Mg	30	May be extended up to 100
7.	Copper as Cu	0.05	May be relaxed up to 1.5
8.	Iron	0.3	May be extended up to 1
9.	Manganese	0.1	May be extended up to 0.5
10.	Chlorides	250	May be extended up to 1000
11.	Sulphates	150	May be extended up to 400
12.	Nitrates	45	No relaxation
13.	Fluoride	0.6 to 1.2	If the limit is below 0.6 water should be rejected, Max. Limit is extended to 1.5
14.	Phenols	0.001	May be relaxed up to 0.002
15.	Mercury	0.001	No relaxation
16.	Cadmium	0.01	No relaxation
17.	Selenium	0.01	No relaxation
18.	Arsenic	0.05	No relaxation
19.	Cyanide	0.05	No relaxation
20.	Lead	0.1	No relaxation
21.	Zinc	5.0	May be extended up to 10.0
22.	Anionic detergents (MBAS)	0.2	May be relaxed up to 1
23.	Chromium as Cr ⁺⁶	0.05	No relaxation
24.	Poly nuclear aromatic Hydrocarbons	--	--
25.	Mineral Oil	0.01	May be relaxed up to 0.03
26.	Residual free Chlorine	0.2	Applicable only when water is chlorinated
27.	Pesticides	Absent	--
28.	Radio active	--	--

Annexure 5.5

Trees falling within COI

Chainages (In KM)	To be Removed			Trees to retained		
	Left	Right	Total	Left	Right	Total
0/000 to 1/000	18	10	28	3	10	13
1/000 to 2/000	30	13	43	2	2	4
2/000 to 3/000	12	10	22	4	14	18
3/000 to 4/000	35	14	49	11	18	29
4/000 to 5/000	22	30	52	5	21	26
5/000 to 6/000	26	20	46	7	21	28
6/000 to 7/000	18	32	50	13	34	47
7/000 to 8/000	19	16	35	2	7	9
8/000 to 9/000	11	17	28	0	3	3
9/000 to 10/000	21	20	41	5	1	6
10/000 to 11/000	12	13	25	2	18	20
11/000 to 12/000	8	11	19	0	3	3
12/000 to 13/000	11	15	26	0	0	0
13/000 to 14/000	10	16	26	0	1	1
14/000 to 15/000	8	15	23	1	5	6
15/000 to 16/000	14	16	30	1	6	7
16/000 to 17/000	14	12	26	0	7	7
17/000 to 18/000	9	15	24	2	9	11
18/000 to 19/000	1	8	9	0	4	4
19/000 to 20/000	5	12	17	4	2	6
20/000 to 21/000	0	21	21	0	12	12
21/000 to 22/000	10	8	18	0	3	3
22/000 to 23/000	16	16	32	0	5	5
23/000 to 24/000	29	18	47	0	4	4
24/000 to 25/000	23	2	25	0	2	2
25/000 to 26/000	8	11	19	11	3	14
26/000 to 27/000	17	24	41	0	4	4
27/000 to 28/000	18	24	42	22	3	25
28/000 to 29/000	14	34	48	43	4	47
29/000 to 30/000	45	129	174	43	4	47
30/000 to 31/000	8	6	14	8	2	10
31/000 to 32/000	2	31	33	16	3	19
32/000 to 33/000	45	8	53	30	0	30
33/000 to 34/000	0	2	2	6	8	14
34/000 to 35/000	18	44	62	1	0	1
35/000 to 36/000	12	38	50	0	0	0
36/000 to 37/000	18	24	42	2	2	4
37/000 to 38/000	23	19	42	0	0	0

38/000 to 39/000	7	17	24	0	0	0
39/000 to 40/000	15	12	27	0	0	0
40/000 to 41/000	38	18	56	0	0	0
41/000 to 42/000	23	26	49	0	0	0
42/000 to 43/000	23	13	36	0	0	0
43/000 to 44/000	26	21	47	0	0	0
44/000 to 45/000	7	8	15	2	0	2
45/000 to 46/000	16	21	37	0	0	0
46/000 to 47/000	6	8	14	0	4	4
47/000 to 48/000	32	47	79	0	0	0
48/000 to 49/000	21	23	44	0	0	0
49/000 to 50/000	18	32	50	0	0	0
50/000 to 51/000	27	48	75	0	0	0
51/000 to 52/000	12	34	46	2	0	2
52/000 to 53/000	68	40	108	0	3	3
53/000 to 54/000	35	30	65	1	0	1
54/000 to 55/000	24	46	70	1	0	1
55/000 to 56/000	78	52	130	0	0	0
56/000 to 57/000	48	49	97	0	0	0
57/000 to 58/000	59	43	102	0	0	0
58/000 to 59/000	56	46	102	0	0	0
59/000 to 60/000	118	92	210	1	0	1
60/000 to 61/000	163	192	355	0	0	0
61/000 to 62/000	155	76	231	1	0	1
62 /000to 63 /000	106	88	194	0	2	2
63/000 to 64 /000	38	87	125	0	0	0
64 /000 to 65 /000	52	73	125	1	0	1
65 /000 to 66 /000	53	29	82	0	0	0
66 /000 to 67 /000	96	190	286	2	1	3
67 /000 to 68 /000	92	210	302	0	0	0
68 /000 to 69 /000	58	232	290	1	0	1
69 /000 to 70 /000	24	11	35	1	1	2
70 /000 to 71 /000	0	0	0	0	0	0
71 /000 to 72 /000	8	6	14	1	2	3
72 /000 to 73 /000	34	30	64	1	1	2
73 /000 to 74 /000	20	10	30	0	0	0
74 /000 to 75 /000	25	14	39	0	2	2
75 /000 to 76 /000	16	5	21	0	0	0
76 /000 to 77 /000	89	68	157	0	0	0
77 /000 to 78 /000	84	33	117	1	1	2
78 /000 to 79/000	52	65	117	0	0	0
79 /000 to 80 /000	30	48	78	0	0	0
80 /000 to 81/000	45	53	98	0	0	0

81 /000 to 82 /000	66	109	175	0	0	0
82 /000 to 83 /000	42	136	178	0	0	0
83 /000 to 84 /000	0	0	0	0	0	0
84 /000 to 85/000	0	0	0	0	0	0
85 /000 to 86 /000	0	0	0	0	0	0
86 /000 to 87/000	108	94	202	7	9	16
87 /000 to 88 /000	16	6	22	1	0	1
88 /000 to 89 /000	0	0	0	0	0	0
89 /000 to 90 /000	0	0	0	0	0	0
90 /000 to 91 /000	0	0	0	0	0	0
91 /000 to 92 /000	12	10	22	0	0	0
92 /000 to 93 /000	48	20	68	0	0	0
93 /000 to 94 /000	58	79	137	0	0	0
94 /000to 95 /000	54	72	126	0	0	0
95 /000 to 96/000	104	75	179	1	2	3
96 /000 to 97 /000	148	132	280	53	92	145
97 /000 to 98 /000	18	22	40	0	0	0
98 /000 to 99 /000	8	8	16	29	23	52
99 /000100 /000	0	0	0	0	0	0
100 /000 to 101 /000	8	5	13	0	0	0
101 /000 102/000	68	27	95	0	1	1
102 /000 to 103 /000	79	24	103	1	2	3
103 /000 to 104 /000	97	19	116	2	0	2
104/000to 105 /000	58	44	102	0	2	2
105 /000 to 106 /000	37	30	67	3	4	7
Grand Total	3636	3932	7568	357	397	754

PROCEEDINGS OF DISTRICT LEVEL CONSULTATION MEETING

Date of District Level Meeting 08.12.2006

Venue

DRDA Conference Hall, Bhadrak

Road Section in the District

Chandbali-Bhadrak(SH-9) and Bhadrak-Basantia(SH-53)Road

District level consultation meeting regarding improvement of about 900 km of state road with the loan assistance of World Bank was held in the conference Hall, DRDA, Bhadrak for Chandbali-Bhadrak(SH-9) and Bhadrak-Basantia(SH-53)Road. These roads are being improved in priority year one road.

The meeting was chaired by District Magistrate and Collector, Bhadrak. Hon'ble Member of Parliament was also present in the meeting. List of participants are attached.

Sl. No	Issue Raised	Comments of the Consultation Committee	Consensus Arrived
	<p>Enquired about the status of the project</p> <p>-Whether finance ministry has cleared it?</p> <p>- Rate of interest of loan</p> <p>-Whether Humps would be proposed in the new road,</p> <p>-Date of commencement of construction</p> <p>-Enquired about Railway Over bridge and proposed alignment at Randia.</p>	<p>-Status and agreement between World Bank and Govt. of India of the project was discussed.</p> <p>-It is a soft loan to the Government which will be paid back over a longer period.</p> <p>-Humps shall not be provided in this project road. There will be some other alternatives like signals and road markings.</p> <p>-The construction activities would be starting around October 2007.</p> <p>-Our proposed alignment matches with the RoB under construction.</p>	--
	<p>-Before the loan sanction, how LA could be initiated.</p>	<p>-Land acquisition has to be done prior to the loan sanction. Encumbrance free land has to be shown to the World Bank</p>	--

	-Whether money has been sanctioned for this project	for sanction of loan. -World Bank has already sanctioned the project preparation fund to the tune of \$3m.	
	How many committees would be formed for disbursement of compensation.	This is not finalized but Gram sabha (Panchayat level committee) would be consulted in scheduled areas.	It was agreed that Village level committee should be formed to address issues associated with compensation and land acquisition
	Local representatives should be selected for the places where LA is proposed.	The issue would be discussed in implementation arrangement.	
	After tree plantation, how they shall be maintained ?	Generally; Plantation is done by forest department and maintained by the forest department. However, this time it has been thought of handing over of such assets to the Community.	
	Whether maintenance of road after construction is part of project cost.	No. Maintenance would be done by the Works Department. However, the proposed road would not require major maintenance for a long time .	
	Drainage system should be along the road side as most of the road section is raised.	It was assured that drainage system in the project corridor would be given due attention. All cross drainage and longitudinal drainage have been designed to cater the need of the water flow. Pucca drains in the built up areas and earthen drains/lined drains in other areas are being provided.	
	Ponds along the project road are overflowing in rainy season but dries out in dry period. These ponds are useful for irrigation purposes. Road development should not damage existing resources	Enhancement measures would be taken up to improve ponds in the vicinity of roads.	

DISTRICT

SH-09 & SH-64

Sl. No	Issue Raised	Comments of the Consultation Committee	Consensus Arrived
	<p>-Sufficient CD works should be provided as a lot of fertile land would be acquired in the district.</p> <p>-The road is also passing through town portions. So common property resources, electrical lines and water supply lines should be replaced. Trees are to be cut.</p>	<p>-All such locations where CD works are to be provided are being identified and proper care is being taken to avoid submergence, inundation, overtopping and stagnation.</p> <p>-All CPRs coming on the way shall be certainly relocated and we shall bear the cost of it. All utility services shall be too relocated properly.</p>	
	<p>Rehabilitation works should be started prior to construction. Additional land should be acquired to resettle shopkeepers of Salepur Bazar</p>	<p>Yes. All R&R activities shall be prior to execution of works. Proposal of accommodating shopkeepers shall be examined, in lieu of monetary compensation.</p>	
	<p>LA should be done as per LA act.</p>	<p>Yes. Additional provisions can also be mutually decided (consent award).</p>	
	<p>-Sufficient space should be provided for electrical cables and poles</p>	<p>Utility space is being provided on both sides.</p>	

	<p>-Urban roads should be developed before rural road development take place. Roads inside Cuttack should be developed first.</p> <p>-Settlement of encroachers should be done prior to project implementation.</p> <p>-Missing links should be developed in the first phase.</p> <p>-Drainage provision should be sufficient to dispose off water.</p> <p>-Road cutting should be done with highly sophisticated machine.</p>	<p>-Proposal is very good. But at present we are concentrating on the issues related to a particular corridor.</p> <p>-It will be done.</p> <p>-The first phase roads have already been selected on the basis of traffic studies. All such points have been considered.</p> <p>-Adequate drainage is being designed and shall be provided.</p> <p>-Utilities shall be permitted to cross the road at specified locations. All departments in connection with utilities should mention their requirements for future and accordingly should intimate us.</p>	
	<p>-Sufficient provision should be made to rehabilitate PAPs of Padampur-bazar to Narsinghpur Bazar in Jagatpur- Chandbali road.</p> <p>-Sufficient land should be acquired for future expansion of road and for water supply, electricity and telephone cables.</p> <p>- Road crossing should be designed to avoid accident</p>	<p>-All such rehabilitation work shall be taken up.</p> <p>-Whatever provision is made now, shall cater traffic for 20 years time. Space for utilities are being provided.</p> <p>- Junctions shall be developed keeping in view the suggestions of people in the locality and as per geometrics requirement.</p>	

PROCEEDINGS OF DISTRICT LEVEL CONSULTATION MEETING

Date of District Level Meeting

26.12.2006

Venue

DRDA Conference Hall, Kendrapara

District level consultation meeting regarding improvement of about 900 km of state road with the loan assistance of World Bank was held in the Collector DRDA Hall Kendarpara About 55 km of road is being improved under phase-I in the District. The meeting was chaired by DM and Collector, Kendarpara.

Sl. No	Issue Raised	Comments of the Consultation Committee	Consensus Arrived
	<p>Action should be taken to minimize land acquisition Wherever necessary bypass may be provided</p> <p>Minimum 10 meter carriageway instead of 7 meter as in built up areas space for parking of two wheelers to avoid traffic congestion</p> <p>Raising of submergence area near Kasant, Patrapur, Pattamundai and Gadgadi Ghat-Ganja</p> <p>Resettlement of displaced families of Timmohini Chowk as it is wetland</p> <p>A market complex may be constructed</p> <p>During plantation minimum 50 % fruit bearing trees like black berry, Mango etc.</p> <p>Underpasses should be provided if required</p> <p>Near Kendrapara town, Public toilet system and park should be developed for the people (as done by NHAI in Chandikhole) should be developed</p>	<p>The project envisages barest minimum land acquisition. Generally; RoW of 26 meter in open areas and 16 meter in built-up areas is proposed. However in stretches of submergence RoW width of RoW would be more.</p> <p>Bypasses are studied in details and wherever requirement of bypasses are we are proposing. In the present corridor only Pattamundai town is having realignments</p> <p>Submergence areas are being raised.</p> <p>In this project there is no provision of development of parks.</p>	<p>Proposal of 10 meter carriageway would be analysed.</p>
	<p>Do we need land acquisition for the project?</p> <p>How the legal titleholder can be found out?</p> <p>Requested to start Jagatpur-Chandbali stretch in year one road</p>	<p>Collector clarified that minimum 16 meters landwidth would be considered in built-up areas. 4(1) notification would detail about titleholders.</p>	
	<p>Bypassing Aul town from Helipad-vetnary hospital will be economical as lot of Govt land is available to avoid private land acquisition of built-up areas.</p>	<p>At present bypass at Aul is not required.</p>	

	There may be some shops to be relocated at Chandola Bazar ,Balia Bazar and near Gagua Bazar, Revenue department should spare some land for resettlement	These shops would be compensated as per LA act, 1894. Assistance would be provided to vulnerable persons.	
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Annexure 6.3

PHOTOGRAPHS OF DISTRICT LEVEL CONSULTATION HELD DURING DECEMBER 2006



DISTRICT LEVEL CONSULTATION IN BHADRAK DISTRICT



DISTRICT LEVEL CONSULTATION IN BHADRAK, BHADRAK DISTRICT



DISTRICT LEVEL CONSULTATION IN CUTTACK, CUTTACK DISTRICT



DISTRIC LEVEL CONSULTATION IN CUTTACK, CUTTACK DISTRICT



DISTRIC LEVEL CONSULTATION IN KENDRAPADA, KENDRAPADA DISTRICT



DISTRIC LEVEL CONSULTATION IN KENDRAPADA, KENDRAPADA DISTRICT



DISTRIC LEVEL CONSULTATION IN KEONJHAR, KEONJHAR DISTRICT



DISTRIC LEVEL CONSULTATION IN NUAPADA, NUAPADA DISTRICT

PHOTOGRAPHS OF VILLAGE LEVEL CONSULTATION HELD DURING APRIL 2013



Gopapur Dt.21.4.2013



Gulnagar 21.4.2013



Padmapur Dt.24.4.2013



Village- Hata bazaar ,Paga -Salepur
Dt.24.4.2013



Kantapada, Rajkanika Dt.24.4.2013



Gagua-Pattamundai Dt.22.4.2013



Krushnapur (Chandbali) 25.4.2013



Gokarneswar 24.4.2013

Details of Community Property Resources Affected**1. Religious Structures**

S.No	Item	Chainage	Side	Affected Fully/Partially	Affected Length in mts	Mitigation Proposed
1	Temple	4.344	Right	Fully		To be relocated
2	Temple with Boundry wall	4.552	Left	Fully		To be relocated
3	Temple	5.449	Right	Fully		To be relocated
4	Temple	6.120	Left	Not Affected		Pedestrial barricade to be provided over 15mtrs with planting of 10 numbers of flower bearing plants
5	Temple	6.970	Right	Fully		To be relocated
6	Temple	7.190	Left	Fully		To be relocated
7	Temple	9.552	Right	Not Affected		Barricade over 3mtrs to be provided.
8	Temple	9.650	Right	Fully		To be relocated
9	Temple	10.209	Right	Fully		To be relocated
10	Temple	10.828	Left	Partially	31mtrs	New boundry wall with gate with planting of 10 number of flower bearing plants
11	Temple	15.623	Left	Fully		To be relocated
12	Temple	18.810	Right	Fully		To be relocated
13	Temple	18.972	Right	Fully		To be relocated
14	Temple	24.912	Left	Fully		To be relocated
15	Temple	27.464	Right	Fully		To be relocated
16	Temple	27.700	Left	Fully		To be relocated
17	Temple	28.100	Left	Fully		To be relocated
18	Temple	28.190	Left	Fully		To be relocated
19	Temple with fence	29.632	Left	Fully		To be relocated
20	Temple	30.824	Left	Fully		To be relocated
21	Temple	33.670	Right	Fully		To be relocated
22	Temple	34.383	Right	Fully		To be relocated
23	Temple	35.327	Right	Fully		To be relocated
24	Temple	36.713	Left	Fully		To be relocated
25	Temple	37.152	Right	Fully		To be relocated
26	Temple	39.432	Right	Fully		To be relocated
27	Temple	42.178	Left	Fully		To be relocated
28	Temple	43.570	Right	Fully		To be relocated
29	Temple	47.200	Right	Fully		To be relocated
30	Temple	50.977	Right	Fully		To be relocated

31	Temple	51.965	Left	Fully		To be relocated
32	Temple	52.072	Left	Fully		To be relocated
33	Temple	53.600	Right	Fully		To be relocated
34	Temple	55.548	Right	Fully		To be relocated
35	Temple	56.076	Left	Not Affected		Pedestrial barricade over 9mtrs to be provided to restrict the devotees to enter directly on the road and planting of 10 numbers of flower bearing trees.
36	Temple	58.274	Left	Fully		To be relocated
37	Temple	63.272	Right	Fully		To be relocated
38	Temple	63.669	Right	Fully		To be relocated
39	Temple	64.032	Right	Fully		To be relocated
40	Temple	64.293	Left	Fully		To be relocated
41	Temple	64.776	Right	Fully		To be relocated
42	Temple	64.942	Left	Fully		To be relocated
43	Temple	65.512	Left	Fully		To be relocated
44	Temple	71.974	Right	Fully		To be relocated
45	Temple	72.790	Right	Fully		To be relocated
46	Temple	74.874	Right	Fully		To be relocated
47	Temple	77.308	Right	Fully		To be relocated
48	Temple	77.705	Left	Fully		To be relocated
49	Temple	79.551	Right	Fully		To be relocated
50	Temple	79.877	Right	Fully		To be relocated
51	Temple	79.895	Left	Fully		To be relocated
52	Temple	81.725	Right	Fully		To be relocated
53	Temple	84.093	Left	Fully		To be relocated
54	Temple	86.424	Left	Fully		To be relocated
55	Temple	96.000	Left	Fully		To be relocated
56	Temple	100.117	Right	Fully		To be relocated
57	Temple	100.520	Left	Fully		To be relocated
58	Temple	100.529	Left	Fully		To be relocated
59	Temple	100.845	Left	Fully		To be relocated
60	Temple	101.083	Left	Fully		To be relocated
61	Temple	101.340	Left	Fully		To be relocated
62	Temple	102.745	Right	Fully		To be relocated
63	Temple	103.010	Right	Fully		To be relocated
64	Temple	104.061	Right	Not Affected		Pedestial barricade to be provided over 5mtr for restriction of direct entry of devotees on the road.
65	Temple	104.329	Left	Fully		To be relocated
66	Cemetery	55.707	Left	Fully		Compensation to be given.

2. Boundary Walls (schools, govt. office etc.)

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure	Nature of Structure
1	L	3-4	Cuttack	Gujarpur	Madrasa School	Education Institute
2	R	6-7	Cuttack	Mutarifa	Cooprative Society Padampur	Govt. Structures
3	R	6-7	Cuttack	Mutarifa	Boundary Wall	Boundary Wall
4	L	11-12	Cuttack	Bhatapada	School	Education Institute
5	R	16-17	Cuttack	Bahabalpur	Boundary Wall	Boundary Wall
6	L	18-19	Cuttack	Balisahi	Boundary Wall	Boundary Wall
7	L	19-20	Cuttack	Chandradeipur	Boundary Wall	Boundary Wall
8	L	22-23	Cuttack	Kulia	Boundary Wall	Boundary Wall
9	R	33-34	Cuttack	Julikipara	Sukarapara IB Boundary Wall	Boundary Wall
10	L	36-37	Kendrapara	Bhanagaon	Lalbahadur High school Room (1 No.)	Education Institute
11	R	38-39	Kendrapara	Chandol	R.I Office Chandal	Govt. Structures
12	R	44-45	Kendrapara	Bhagabatpur	Panchayat Office	Govt. Structures
13	L	44-45	Kendrapara	Bhagabatpur	Balia Primary School	Education Institute
14	L	48-49	Kendrapara	Kasati	Ratnakar U.P School	Education Institute
15	L	58-59	Kendrapara	Baro	Baruo Primary School	Education Institute
16	L	59-60	Kendrapara	Baro	Navodaya School	Education Institute
17	R	62-63	Kendrapara	Gangapada	Gangapada Nimna Madhayamika School	Education Institute
18	L	66-67	Kendrapara	Badamulabasanta	UCO Bank	Govt. Structures
19	R	75-76	Kendrapara	Bilikan	Bilikana U:P School	Education Institute
20	L	79-80	Kendrapara	Chandigadi	Malapatana Unnita U.P School	Education Institute
21	R	82-83	Kendrapara	Sitaleswar	Sitaleswar Practionary School	Education Institute
22	R	82-83	Kendrapara	Sitaleswar	Sitaleswar Practionary School	Education Institute
23	L	86-87	Kendrapara	Lokapada	Vetanary Office	Govt. Structures
24	L	91-92	Kendrapara	Achhutapur	Andhar Gharni Nodal U.P School	Education Institute
25	L	100-101	Bhadrak	Chandabali	R.I Office	Govt. Structures
26	L	100-101	Bhadrak	Chandabali	Aranya Nivas	Boundary Wall

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure	Nature of Structure
					Boundary Wall	
27	L	100-101	Bhadrak	Chandabali	Tahsil Office	Govt. Structures
28	L	100-101	Bhadrak	Chandabali	Dehka High School Chandabali Boundary Wall	Education Institute
29	L	100-101	Bhadrak	Chandabali	R.I Office	Govt. Structures
30	L	100-101	Bhadrak	Chandabali	Tahsil Office Boundary Wall	Boundary Wall
31	L	101-102	Bhadrak	Panchapada	Boundary Wall	Boundary Wall
32	R	55-56	Kendrapara	Jajanga	School Latine	Education Institute
33	R	55-56	Kendrapara	Jajanga	School Compound Wall	Boundary Wall
34	L	57-58	Kendrapara	Bhramardiapatna	Trilochan U.P School Boundary Wall	Boundary Wall
35	L	64-65	Kendrapara	Gogua	School	Education Institute
36	R	65-66	Kendrapara	Badamulabasanta	Odissa State Brigade School	Education Institute
37	L	50-51	Kendrapara	Guhalsingh	Kendrapara Evening College	Education Institute
38	R	68-69	Kendrapara	Belatala	Stand Post Boundary Wall	Boundary Wall
39	R	69-70	Kendrapara	Belatala	School Gill	Education Institute
40	R	72-73	Kendrapara	Kasananta	Kasananta U.G.P School	Education Institute
41	R	95-96	Kendrapara	Kantapada	Keshabananda Modal U.P school, Kantapara	Education Institute
42	R	95-96	Kendrapara	Kantapada	Kantapara Panchayat Office Kantapara	Govt. Structures

3. Resting Sheds

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure	Nature of Structure
1	R	27-28	Cuttack	Nischintakoili	Rest Shed	Resting Place
2	L	100-101	Bhadrak	Chandabali	Rest Shed	Resting Place
3	L	100-101	Bhadrak	Chandabali	Rest Shed	Resting Place
4	L	72-73	Kendrapara	Kasananta	Rest Shed	Resting Place

4. Sitting Platform

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure	Nature of Structure
1	L	57-58	Kendrapara	Torando	Sitting Platform	Sitting Platform

2	R	84-85	Kendrapara	Aul	Sitting Platfom	Sitting Platform
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5. Gates

Sl No.	Side (L/R)	Chainage	District	Revenue Village	Type of Structure	Nature of Structure
1	R	3-4	Cuttack	Imam Nagar	Sales Tax Cheek Gate	Gate
2	L	36-37	Kendrapara	Ganeshpur	RMC Check gate	Gate
3	L	47-48	Kendrapara	Kasati	RMC Gate	Gate
4	L	81-82	Kendrapara	Sitaleswar	Water Supplay Gate	Gate

BY FAX

OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA
NIRMAN SOUDHA, KESHARI NAGAR, UNIT - V, BHUBANESWAR - 751 001
 Letter No. PIU (WB)/ 15/2006 Dt. 11/12/2006

From

Er. J.M.Nayak,
 Chief Engineer, World Bank Projects, Orissa,
 Head, Project Implementation Unit,
 Orissa State Road Project,
 e-mail : osrp@sify.com, piuosrp@gmail.com, Fax: 0674-2396783

To

The Collector & District Magistrate,
 Nayagarh/Angul/Dhenkanal/Cuttack/Kendrapara/Mayurbhanj/ Keonjhar

Sub: Orissa State Road Project (OSRP) Phase-I (World Bank Assisted)
-District Level Meeting for Public Consultation.

Sir,

With reference to the subject cited above it is to intimate you that Works Department, Government of Orissa (OWD) has identified **900 kms of State Highways** to upgrade and strengthen / widen under World Bank assistance, in Phase-I. The assignment also includes addressing social and environment issues in the light of World Bank guidelines and Govt of Orissa Resettlement and Rehabilitation Policy '2006.

Social assessment is a major component of the present road improvement. To estimate magnitude of displacement and losses a baseline socio-economic survey and census survey have been carried out in the project areas. The consultant has been preparing a Resettlement Action Plan based on the Orissa Resettlement and Rehabilitation Policy '2006 and World Bank guidelines. The Resettlement Action Plan would be implemented with the assistance of NGOs.

As per requirement of **The Orissa Resettlement and Rehabilitation policy 2006 {enacted through Gazette Notification (15th day of May 2006)}**, public consultation is an integral part of project planning, which has to be chaired by the concerned DM and Collector. Thus, a District level meeting involving stakeholders is solicited. **A list of Participants is enclosed who are to be invited for the meeting.**

Therefore, you are requested to propose two suitable dates within 25th December, 2006 for holding the above said meeting. After obtaining proposals from all the Collectors the final date will be intimated to you.

An early action may be taken for finalization of Resettlement Action plan.


Enclosure: - As above

Yours faithfully,



Chief Engineer,
World Bank Projects,
Orissa, Bhubaneshwar.

51599 (2) 11.12.06
Memo No. Dt.

Copy submitted to the **Engineer-in-Chief-cum-Secretary**, Works Department / **Special Secretary**, PPP, P&C Department, Government of Orissa for favour of kind information.

51600 (4) 11.12.06
Memo No. Dt.  **Chief Engineer,**
World Bank Projects, Orissa

Copy forwarded to the **Superintending Engineer**, Central / Cuttack / Eastern / Keonjhar, (R&B) Circle for information and necessary action.

51601 (8) 11.12.06
Memo No. Dt.  **Chief Engineer,**
World Bank Projects, Orissa

Copy forwarded to the **Executive Engineer**, (R&B) Division, Khurda/Angul/Cuttack/Charbatia/Kendrapara/ Dhenkanal/ Mayurbhanj/ Keonjhar for information and immediate necessary follow up action.

 **Chief Engineer,**
World Bank Projects, Orissa

1. List of Participants.

1. Local Central Minister / M.P.
2. Local Minister / M.L.A.
3. President, Zilla Parishad
4. Chairman, Panchayat Samiti, Municipality/NAC
5. Officers of different Line Departments namely
 - Executive Engineer(R&B)
 - Executive Engineer, P.H.D.
 - Executive Engineer, R.W.S.S
 - Executive Engineer, Electrical
 - D.F.O.
 - Land Acquisition Officer of the District/BDOs/ Tahasildars on the Project Route.
 - Executive Officer, Municipality/ NAC
6. The persons who have brought names and fames for the District if any.
7. Local renowned NGOs in the opinion of the Collector.

OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA
NIRMAN SOUDHA, KESHARI NAGAR, UNIT - V, BHUBANESWAR - 751 001
Letter No. PIU (WB)/ 15/ 44714 Dt. 20/10/2006

From

Er. J.M.Nayak,
Chief Engineer, World Bank Projects, Orissa,
Head, Project Implementation Unit,
Orissa State Road Project,
e-mail : osrp@sify.com, piuosrp@gmail.com

To

The Collector & District Magistrate, Nuapada
At/PO/District: Nuapada.

**Sub: Orissa State Road Project (OSRP) Phase-I (World Bank Assisted)
-District Level Meeting for Public Consultation.**

Sir,

With reference to the subject cited above it is to intimate you that Works Department, Government of Orissa (OWD) has identified **825 km of State Highways** to upgrade and strengthen / widen under World Bank assistance, in Phase-I. The assignment also includes addressing social and environment issues in the light of World Bank guidelines and Govt of Orissa Resettlement and Rehabilitation Policy '2006.

Social assessment is a major component of the present road improvement. To estimate magnitude of displacement and losses a baseline socio-economic survey and census survey have been carried out in the project areas. The consultant has been preparing a Resettlement Action Plan based on the Orissa Resettlement and Rehabilitation Policy '2006 and World Bank guidelines. The Resettlement Action Plan would be implemented with the assistance of NGOs.

As per requirement of **The Orissa Resettlement and Rehabilitation policy 2006 {enacted through Gazette Notification (15th day of May 2006)}**, public consultation is an integral part of project planning, which has to be chaired by the concerned DM and Collector. Thus, a District level meeting involving stakeholders is solicited. A list of Participants is enclosed who are to be invited for the meeting.

As per tentative programme the meeting for **Nuapada** district has been fixed on dated **1st December' 2006 F.N.** for your confirmation. If you want to alter the date, the same may be proposed after 5th December'2006.

An early action may be taken for finalization of Resettlement Action plan.

Enclosure: - As above

Amind one copy
[Signature]
21/10/06

Yours faithfully,

[Signature]
Chief Engineer,
World Bank Projects,
Orissa, Bhubaneshwar.

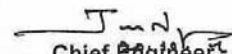
44715-2
Memo No. Dt. 30-10-06

Copy submitted to the **Engineer-in-Chief-cum-Secretary**, Works Department / **Special Secretary, PPP**, P&C Department, Government of Orissa for favour of kind information.


Chief Engineer,
World Bank Projects, Orissa

44716
Memo No. Dt. 30-10-06

Copy forwarded to the **Superintending Engineer**, Jeypore (R&B) Circle, Jeypore for information and necessary action.


Chief Engineer,
World Bank Projects, Orissa

44717-2
Memo No. Dt. 30-10-06

Copy forwarded to the **Executive Engineer**, Bhawanipatna (R&B) Division, / Kahriar (R&B) Division, Kahriar for information and immediate necessary follow up action.


Chief Engineer,
World Bank Projects, Orissa

OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA
NIRMAN SOUDHA, KESHARI NAGAR, UNIT - V, BHUBANESWAR - 751 001
Letter No. PIU (WB)/ 15/ 44706 Dt. 30/10/2006

From

Er. J.M.Nayak,
Chief Engineer, World Bank Projects, Orissa,
Head, Project Implementation Unit,
Orissa State Road Project,
e-mail : osrp@sify.com, piuosrp@gmail.com

To

The Collector & District Magistrate, Kalahandi
At/PO/District: Bhawanipatna.

**Sub: Orissa State Road Project (OSRP) Phase-I (World Bank Assisted)
-District Level Meeting for Public Consultation.**

Sir,

With reference to the subject cited above it is to intimate you that Works Department, Government of Orissa (OWD) has identified **825 km of State Highways** to upgrade and strengthen / widen under World Bank assistance, in Phase-I. The assignment also includes addressing social and environment issues in the light of World Bank guidelines and Govt of Orissa Resettlement and Rehabilitation Policy '2006.

Social assessment is a major component of the present road improvement. To estimate magnitude of displacement and losses a baseline socio-economic survey and census survey have been carried out in the project areas. The consultant has been preparing a Resettlement Action Plan based on the Orissa Resettlement and Rehabilitation Policy '2006 and World Bank guidelines. The Resettlement Action Plan would be implemented with the assistance of NGOs.

As per requirement of **The Orissa Resettlement and Rehabilitation policy 2006 {enacted through Gazette Notification (15th day of May 2006)}**, public consultation is an integral part of project planning, which has to be chaired by the concerned DM and Collector. Thus, a District level meeting involving stakeholders is solicited. A list of Participants is enclosed who are to be invited for the meeting.

As per tentative programme the meeting for **Kalahandi** district has been fixed on dated **30th November' 2006 F.N.** for your confirmation. If you want to alter the date, the same may be proposed after **5th December' 2006**.

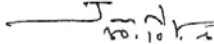
An early action may be taken for finalization of Resettlement Action plan.

Enclosure: - As above

Received copy
Sd/-
1-11-06
Re.



Yours faithfully,


Chief Engineer,
World Bank Projects,
Orissa, Bhubaneswar.

Memo No. 44707 Dt. 30-10-06

Copy submitted to the **Engineer-in-Chief-cum-Secretary**, Works Department / **Special Secretary**, PPP, P&C Department, Government of Orissa for favour of kind information.


Chief Engineer,
World Bank Projects, Orissa

Memo No. 44708 Dt. 30-10-06

Copy forwarded to the **Superintending Engineer**, Jeypore (R&B) Circle, Jeypore for information and necessary action.


Chief Engineer,
World Bank Projects, Orissa

Memo No. 44709 Dt. 30-10-06

Copy forwarded to the **Executive Engineer**, Bhawanipatna (R&B) Division, / Kahriar (R&B) Division, Khariar for information and immediate necessary follow up action.


Chief Engineer,
World Bank Projects, Orissa

By Fax

**OFFICE OF THE ENGINEER-IN-CIVIL, ORISSA,
NIRMAN SOUDHA, KESHARI NAGAR, UNIT-V, BHUBANESWAR-751001**

From **PIU – WB - 15/ Letter No 51386(2) dt 8.12.06**

Er Jayamangal Nayak,
Chief Engineer,
World Bank Projects,
Orissa, Bhubaneswar.

To **The Collector and District Magistrate,**
Gajapati/ Ganjam

Sub: Holding of District Level Consultation Committee Meeting for the Orissa State Road Project on Brahmapur- J.K.Pur& Kerada-Rayagada- Bhawanipatna road .

Sir,

With reference to the subject cited above it is to intimate that in the mean time the District level Consultation Committee Meeting has already been conducted in the Bolangir District. The Collector, Kalahandi, Nuapada and Rayagada have fixed the date for District Level Consultation Committee Meeting on 12th, 13th and 14th December respectively for their District corridors. Hence, we offer 15th and 16th December 2006 for holding the above meetings in the afternoon hour in the District of Gajapati and Ganjam respectively .The following members may kindly be requested to attend the District level Consultation Meeting as per guideline norms of World Bank.

These are the members

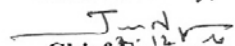
1. Local M.P
2. Local Minister/ MLA
3. President , Zilla Parishad
4. Chairman, Panchayat samiti/Municipality/ NAC.
5. Officers of different line Departments namely
 - i- Executive Engineer (R&B)
 - ii-Executive Engineer, PHD
 - iii-Executive Engineer, RWSS
 - iv-Executive Engineer, Electrical
 - v-D.F.O
 - vi- Land Acquisition officer of the District/ BDOs/ Tahasildars on the Project route.
 - vii- Executive Officer, Municipality/ NAC
6. The persons who have brought names and fames for the District (If any)
7. Local renowned NGOs in the opinion of the Collector (if any)

The Collectors of the concerned District will preside over the meeting while presentation will be made by the World Bank (OSRP) Team.

Hence it is to intimate you that either confirm the above proposal of the conducting the District Level Meeting or to propose two dates in the next week(i.e. from 18.12.2006 to 23.12.2006) may please be intimated to the undersigned by Fax (0674-2396783) for further action at this end.

Thanking you.

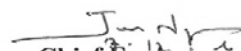
Yours faithfully,


Chief Engineer

or World Bank Projects

51387
8/12/06

Copy to Collector, Rayagada, for information and necessary action. The World Bank(OSRP) Team will reach the Collectorate in the afternoon (4PM) of 14th December for presentation in the meeting called by the Collector.


Chief Engineer
World Bank Projects

or

OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA
NIRMAN SOUDHA, KESHARI NAGAR, UNIT – V, BHUBANESWAR – 751 001

Letter No. PIU (WB)/ 15/

44700

Dt. 30/10/2006

From

Er. J.M.Nayak,
Chief Engineer, World Bank Projects, Orissa,
Head, Project Implementation Unit,
Orissa State Road Project,
e-mail : osrp@sify.com, piuosrp@gmail.com

To

The Collector & District Magistrate, Bolangir
At/PO/District: Bolangir.

Sub: Orissa State Road Project (OSRP) Phase-I (World Bank Assisted)
–District Level Meeting for Public Consultation.

Sir,

With reference to the subject cited above it is to intimate you that Works Department, Government of Orissa (OWD) has identified **825 km** of **State Highways** to upgrade and strengthen / widen under World Bank assistance, in Phase-I. The assignment also includes addressing social and environment issues in the light of World Bank guidelines and Govt of Orissa Resettlement and Rehabilitation Policy '2006.

Social assessment is a major component of the present road improvement. To estimate magnitude of displacement and losses a baseline socio-economic survey and census survey have been carried out in the project areas. The consultant has been preparing a Resettlement Action Plan based on the Orissa Resettlement and Rehabilitation Policy '2006 and World Bank guidelines. The Resettlement Action Plan would be implemented with the assistance of NGOs.

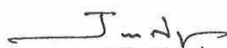
As per requirement of **The Orissa Resettlement and Rehabilitation policy 2006 {enacted through Gazette Notification (15th day of May 2006)}**, public consultation is an integral part of project planning, which has to be chaired by the concerned DM and Collector. Thus, a District level meeting involving stakeholders is solicited. A list of Participants is enclosed who are to be invited for the meeting.

As per tentative programme the meeting for **Balangir** district has been fixed on dated **2nd December' 2006** F.N. for your confirmation. If you want to alter the date, the same may be proposed after **5th December' 2006**.

An early action may be taken for finalization of Resettlement Action plan.

Enclosure: - As above

Yours faithfully,


Chief Engineer,
World Bank Projects,
Orissa, Bhubaneshwar.

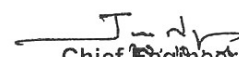
44711 (2)
Memo No. Dt. 30-10-06

Copy submitted to the **Engineer-in-Chief-cum-Secretary**, Works Department / **Special Secretary**, PPP, P&C Department, Government of Orissa for favour of kind information.


Chief Engineer,
World Bank Projects, Orissa

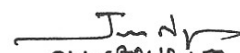
44712
Memo No. Dt. 30-10-06

Copy forwarded to the **Superintending Engineer**, Jeypore (R&B) Circle, Jeypore for information and necessary action.


Chief Engineer,
World Bank Projects, Orissa

44713
Memo No. Dt. 30-10-06

Copy forwarded to the **Executive Engineer**, Bhawanipatna (R&B) Division, / Kahriar (R&B) Division, Khariar for information and immediate necessary follow up action.


Chief Engineer,
World Bank Projects, Orissa

**OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA,
NIRMAN SOUDHA, KESHARI NAGAR, UNIT – V, BHUBANESWAR – 751 001**

File No. PIU – WB – 15/2006

49068 / 25-11-06

Dt.

From

Er. J.M.Nayak
Chief Engineer, World Bank Projects, Orissa,
Bhubaneswar.

To

The Deputy Director-cum-Deputy Secretary (Advt.),
I & P R Department, Bhubaneswar.

Sub: Publication of notice regarding District Consultation Committee meeting to be held in the conference Hall of the Collector of Bhadrak .

Sir,

Enclosed please find herewith the copy of the notice for holding of District Level Consultation Committee meeting Bhadrak of Orissa State Road Project under World Bank Assistance, in Oriya and English. The same may be published in two leading Oriya dailies & one English daily well before 3.12.06 for awareness of the people of Bhadrak at an early date. Complimentary copy of the News Papers publishing the above may be sent to this office for reference and record.

This is for your kind information & necessary action.

Yours faithfully,


Chief Engineer,

World Bank Projects, Orissa

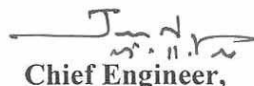
Memo No

Dtd.

Encl: As above- (1)- Hard Copy- 1 Set
(2)- Soft Copy- 1 CD.

49069 Dt. 25-11-06

Copy submitted to the Engineer-in-Chief -Cum-Secretary to the Govt., Works Department, Orissa, Bhubaneswar for favour of kind information.


Chief Engineer,

World Bank Projects, Orissa

49070

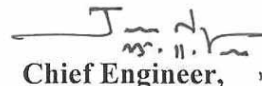
25-11-06

Memo No

Dtd.

Copy forwarded to the Head, State Portal Group, IT Centre, Department of IT, At: North Annexe of the State Secretariat (Ground Floor), Bhubaneswar – 751 001 with a request for display in the Web site of Government of Orissa. The CD containing the Notices in Oriya and English is enclosed herewith for the purpose.

Encl: As above- (1)- Hard Copy- 1 Set
(2)- Soft Copy- 1 in CD.


Chief Engineer,

World Bank Projects, Orissa


Memo No

Dtd.

49071

25-11-06

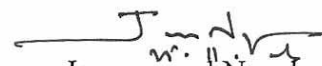
Copy submitted to Mahammed Hassan , Senior Social Development Specialist, World Bank , New Delhi office , 70 Lodi Estate , New Delhi –110003 for information and necessary action.


Chief Engineer,

World Bank Projects, Orissa

ORISSA STATE ROAD PROJECT WORLD BANK FUND ASSITANCE**District Level Consultation Committee Meeting**
Notification

A District Level Consultation Committee comprising all the District level members dully recognized by the Bhadrak District Authorities will be held in the Conference Hall of Bhadrak Collectorate on 3.12.06 at 4 PM for a detail discussion on the proposed widening and improvement of 95 Kms of Chandbali- Bhadrak – Anadapur road . All the members are requested to attend the meeting and give their valuable suggestions on the Social , Environmental and Technical aspect of this proposed road project financed by World Bank . Collector and District Magistrate of Bhadrak will preside the meeting.



Jayamangal Nayak
Chief Engineer
World Bank

ଭଦ୍ରଖ ଜିଲ୍ଲା ଜନସାଧାରଣଙ୍କ ନିମନ୍ତେ ସୂଚନା
ଓଡ଼ିଶା ରାଜ୍ୟ ସଡ଼କ ପ୍ରକଳ୍ପ

ବିଶ୍ୱ ବ୍ୟାଙ୍କ ରଣ ସହାୟତାରେ ପ୍ରସାବିତ ଆନନ୍ଦପୁର-ଭଦ୍ରଖ-ଚାନ୍ଦବାଲି ଦ୍ୱିପାର୍ଶ୍ୱୀୟ (ଟୁଲେନ୍) ରାସ୍ତା ନିର୍ମାଣ ସକାଶେ ଭଦ୍ରଖ ଜିଲ୍ଲାସରାୟ ପରାମର୍ଶ କମିଟିର ଏକ ସଭା ଅଧିବେଶନ ତା ୩.୧୨.୨୦୦୬ ରିଖ (ରବିବାର) ଅପରାହ୍ନ-୪ଟା ସମୟରେ ଭଦ୍ରଖ ଜିଲ୍ଲାପାଳଙ୍କ ପୌରୋ-ହିତ୍ୟରେ ଜିଲ୍ଲାପାଳଙ୍କ ସମ୍ମିଳନୀ କକ୍ଷରେ ଅନୁଷ୍ଠିତ ହେବ । ଏହି ପ୍ରସାବିତ ସଡ଼କ ପାଇଁ ଜିଲ୍ଲା ପ୍ରଶାସନ ଦ୍ୱାରା ସାକୃତି ପ୍ରାପ୍ତ ସମସ୍ତ ସରକାରୀ ତଥା ବେସରକାରୀ ପ୍ରତିନିଧି ମାନଙ୍କୁ ଅନୁରୋଧ କରାଯାଉଅଛି ଯେ ସେମାନେ ଏହି ସଭାରେ ଉପସ୍ଥିତ ରହି ୯୫ କି.ମି ଦୀର୍ଘ ଆନନ୍ଦପୁର -ଭଦ୍ରଖ-ଚାନ୍ଦବାଲି ପ୍ରସାବିତ ସଡ଼କ ପ୍ରକଳ୍ପର ବିଭିନ୍ନ ବୈଷୟିକ, ସାମାଜିକ ତଥା ପରିବେଶୀୟ ଦିଗକୁ ଦୃଷ୍ଟିରେ ରଖି ନିଜର ସୁଚିନ୍ତିତ ପରାମର୍ଶ ପ୍ରଦାନ ପୂର୍ବକ ଏହି ମହାନ ପ୍ରକଳ୍ପର ସଫଳ ରୂପାୟନରେ ସହଯୋଗ କରିବେ ।

ଦୟାନୀଧର ନାୟକ
ମୁଖ୍ୟଯନ୍ତ୍ରୀ ବିଶ୍ୱବ୍ୟାଙ୍କ ପ୍ରକଳ୍ପ, ଓଡ଼ିଶା
ଭୁବନେଶ୍ୱର

OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ORISSA,
NIRMAN SOUDHA, KESHARI NAGAR, UNIT – V, BHUBANESWAR – 751 001

File No. PIU – WB – 15/2006. 49719

Dt. 29.11.06

From

Er. J.M.Nayak
Chief Engineer, World Bank Projects, Orissa,
Bhubaneswar.

To

The Deputy Director-cum-Deputy Secretary (Advt.),
I & P R Department, Bhubaneswar.

Sub: Publication of notice regarding District Consultation Committee meeting to be held in the conference Hall of the Collector of Balangir .

Sir,

Enclosed please find herewith the copy of the notice for holding of District Level Consultation Committee meeting Balangir of Orissa State Road Project under World Bank Assistance, in Oriya and English. The same may be published in two leading Oriya dailies & one English daily well before 3.12.06 for awareness of the people of Balangir at an early date. Complimentary copy of the News Papers publishing the above may be sent to this office for reference and record.

This is for your kind information & necessary action.

Yours faithfully,

Encl: As above- (1)- Hard Copy- 1 Set
(2)- Soft Copy- 1 CD.


Chief Engineer,
World Bank Projects, Orissa

Memo No 49720 Dtd.

29.11.06

Copy submitted to the Engineer-in-Chief -Cum-Secretary to the Govt., Works Department, Orissa, Bhubaneswar for favour of kind information.


Chief Engineer,
World Bank Projects, Orissa

Memo No 49721 Dtd.

29.11.06

Copy forwarded to the Collector and District Magistrate, Balangir for information and necessary action.


Chief Engineer,
World Bank Projects, Orissa

Memo No 49722 Dtd.

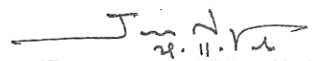
29.11.06

Copy forwarded to Mahammed Hassan , Senior Social Development Specialist, World Bank , New Delhi office , 70 Lodi Estate , New Delhi –110003 for information and necessary action.


Chief Engineer,
World Bank Projects, Orissa

ORISSA STATE ROAD PROJECT (WORLD BANK FUND ASSITANCE)
DISTRICT LEVEL CONSULTATION COMMITTEE MEETING
NOTIFICATION

A District level Consultation Committee meeting comprising all the District level members dully recognized by the Balangir District Aurhorities will be held in the conference Hall of Balangir District Collectorate on dtd 2.12.06 at 3PM for a detail discussion on the proposed widening and improvement of 2/0 km to 70/0 km of Bhawanipatna-Khariar road . All the members are requested to attend the meeting and give their valuable suggestion on the Social, Environmental and Technical aspect of this proposed Road project financed by the World Bank . Collector and District Magistrate of Balangir will preside the meeting .


(Jayamangal Nayak)
Chief Engineer
World Bank Projects

ବଲାଙ୍ଗୀର ଜିଲ୍ଲା ଜନସାଧାରଣଙ୍କ ନିମନ୍ତେ ସୂଚନା ଓଡ଼ିଶା ରାଜ୍ୟ ସଡ଼କ ପ୍ରକଳ୍ପ

ବିଶ୍ୱ ବ୍ୟାଙ୍କ ରଣ ସହାୟତାରେ ପ୍ରସ୍ତାବିତ ଭବାନିପାଟଣା-ଖରିଆର ଦ୍ୱିପାର୍ଶ୍ୱୀୟ (ଟୁଲେନ୍) ରାସ୍ତା ନିର୍ମାଣ ସକାଶେ ବଲାଙ୍ଗୀର ଜିଲ୍ଲାସରାୟ ପରାମର୍ଶ କମିଟିର ଏକ ସଭା ଅଧିବେଶନ ତା ୨.୧୨.୨୦୦୬ ରିଖ (ଶନିବାର) ଅପରାହ୍ନ-୩ଟା ସମୟରେ ବଲାଙ୍ଗୀର ଜିଲ୍ଲାପାଳଙ୍କ ପୌରୋହିତ୍ୟରେ ଜିଲ୍ଲାପାଳଙ୍କ ସମ୍ମିଳନୀ କକ୍ଷରେ ଅନୁଷ୍ଠିତ ହେବ । ଏହି ପ୍ରସ୍ତାବିତ ସଡ଼କ ପାଇଁ ଜିଲ୍ଲା ପ୍ରଶାସନ ଦ୍ୱାରା ସ୍ୱୀକୃତି ପ୍ରାପ୍ତ ସମସ୍ତ ସରକାରୀ ତଥା ବେସରକାରୀ ପ୍ରତିନିଧି ମାନଙ୍କୁ ଅନୁରୋଧ କରାଯାଉଅଛି ଯେ ସେମାନେ ଏହି ସଭାରେ ଉପସ୍ଥିତ ରହି ୬୮ କି.ମି ଦୀର୍ଘ ଭବାନିପାଟଣା-ଖରିଆର ପ୍ରସ୍ତାବିତ ସଡ଼କ ପ୍ରକଳ୍ପର ବିଭିନ୍ନ ବୈଷୟିକ, ସାମାଜିକ ତଥା ପରିବେଶୀୟ ଦିଗକୁ ଦୃଷ୍ଟିରେ ରଖି ନିଜର ସୁଚିନ୍ତିତ ପରାମର୍ଶ ପ୍ରଦାନ ପୂର୍ବକ ଏହି ମହାନ ପ୍ରକଳ୍ପର ସଫଳ ରୂପାୟନରେ ସହଯୋଗ କରିବାହେବେ ।

ମୁଖ୍ୟଯନ୍ତ୍ରୀ ବିଶ୍ୱବ୍ୟାଙ୍କ ପ୍ରକଳ୍ପ,ଓଡ଼ିଶା
ଭୁବନେଶ୍ୱର

16-12-06 12:30

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MISHRA COMMUNICATION

001

**OFFICE OF THE EXECUTIVE ENGINEER
P.W.D (R&B) DIVISION, KEONJHAR**

No..... Dt.....

To

Hon'ble M.P., Keonjhar
Hon'ble M.L.A., Anandapur
President Zilla Parishad, Keonjhar
Chairman - Panchayat Samiti, Anandapur
Chairman - Municipality, Anandapur
Executive Engineer, P.H.D, Keonjhar
Executive Engineer, R.W.S.S, Keonjhar
Executive Engineer, Electrical, (NESCO), Keonjhar/ Anandapur
D.F.O, Anandapur
Land Acquisition Officer, Keonjhar
Sub-Collector, Anandapur
B.D.O - Anandapur / Hatadihl
Tahasildar, Anandapur

Sub: - Orissa State Road Project (OSRP) Phase - I (World Bank Assisted) - District Level Meeting for Public Consultation.

Sir,

The District level consultation meeting on World Bank Project, Phase-I of Orissa State Road Project (OSRP) Scheduled to be held on 18.12.2006 at 11.30 AM in Durbar Hall, Keonjhar Collectorate, Keonjhar under the Chairmanship of Collector & District Magistrate, Keonjhar

You are requested to spare time to attend the said meeting.

Yours Faithfully

[Signature] 15/12/06

Executive Engineer
Keonjhar (R&B) Division

Memo.No. 7067 Dt. 15-12-06

Copy submitted to the Chief Engineer, World Bank Projects, Orissa Bhubaneswar with a request to kindly depute the resource persons of PIU, Orissa & World Bank Projects for the meeting scheduled to be held as per above programme.

By fax
0674-2396783

[Signature] 15/12/06

Executive Engineer
Keonjhar (R&B) Division

Memo.No..... Dt.....

Copy submitted to Private Secretary, Collector & District Magistrate, Keonjhar for information. He is requested to communicate to all members to attend the meeting on 18.12.2006 at 11.30 AM in Durbar Hall, Collectorate, Keonjhar.

[Signature] 15/12/06

Executive Engineer
Keonjhar (R&B) Division

Memo.No..... Dt.....

Copy submitted to the Superintending Engineer, Keonjhar (R&B) Circle, Keonjhar for information and necessary action.

[Signature] 15/12/06

Executive Engineer
Keonjhar (R&B) Division

DISTRICT OFFICE, BALANGIR
(Land Acquisition Section)

No. 31 /L.A.dated. 15.1.07.

To,

The Chief Engineer, World Bank Project, Orissa
Head, Project Implementation Unit,
Orissa State Road Project, Bhubaneswar

24/3
24.1.07
29/1

Sub:- Forwarding of proceeding of the District Level Consultation Meeting.

Sir,

I am to forward herewith the proceeding of the District Level Consultation Meeting which was held on dt.02.12.06 at DRDA Conference Hall, Balangir under the chairmanship of Collector & District Magistrate, Balangir

Enclo:- Proceeding =4 sheets

Sri G. S. Singh, E.E.
For immediate action
15.1.07
Sri P. K. Singh, E.E.
pl. file.
2/2

Yours faithfully

15/1/07
Land Acquisition Officer,
Balangir

List of Participants of Bhadrak District

Orissa State Road Projects (World Bank Funded)
Orissa Works Department (BHADRAK)

Sl. No.	Name	Designation	Signature
1-	Haramohan Jena.	DI & PRO, Bhadrak	H. 8.12.06.
2-	Sanir Kumar Sam.	P.O. Bhadrak	S. 8/12/06.
3	B.P. Senapati	1st Lt. Udaipur	B.P. 8/12/06
4-	Mahabirata Bhoi	Chairman TIHDI Block	M. Bhoi 8/12/06
5-	Sitakanta Das.	President, SOPORTE, Bhadrak	S. Das 8/12/06
6.	Mukund Raj	BDO, Tihedi	M. 8/12/06
7	Radha Nath Swain	Secretary, B.S.S	R. 8/12/06
8	Ashok Kumar Panda	President SIFRD	A. 8/12/06
9	Bhagaban Roul	President By N.C.O. B.S.S.	B. 8/12/06
10)	Santosh Pati	JE Municipality	S. 8/12/06
11)	Satish Kumar Panda	—	S. 8/12/06
12	Bharata Bhuyan	—	B. 8/12/06
13	Chitta Raju Rout	Sarpanch	C. 8/12/06
14.	Banshi Kumar Bhatia	Sarpanch	B. 8/12/06
15	Rabi Kumar Sarapate	Treasurer Sarpanch	R. 8/12/06

List of Participants of Cuttack District
Orissa State Road Projects (World Bank Funded)
Orissa Works Department

Sl. No.	Name	Designation	Signature
1	Sameer Dey	Member H.E.	23/12/06
2	D.K. Singh	Collector CTC	23/12/06
3	P.C. Nayak	Charania (Charania)	23/12/06
4	M. K. JAIN	Consultant	23/12/06
5	Jaladhar Pradhan	EE (C/B) Cuttack	23/12/06
6	Rajkishore Panda	AGM, SED Salipur CESU	23/12/06
7	Bimal Kumar Mohanty	Tahasiladar, Salipur	23/12/06
8	Fakir Charan Das	BDO Salipur	23/12/06
9	Sampurnananda	Asst Tahasiladar	23/12/06
10	B. K. Das	ABE, C.B.D.T.	23/12/06
11	Er. P.K. Das	CESE, RANAHAT Estimator C.M.U. CESU	23/12/06
12	Er. S.K. Samal	S.D.O w/ Sub-div. Cuttack	23/12/06
13	B.R. Dash	Asst. P/O DFO Cuttack Forward	23/12/06
14	Bidhu Bhushan Manojk.	D.I. & R.O., CTC	23/12/06
15	Alekha Ch. Jena	JE/Salipur (R+B)	23/12/06
16	Pradeep K. Jena	A.E. Mahanga	23/12/06
17	Kanaklata Behera	Chairman, Mahanga Block	23/12/06
18	Shrikanta Nayak	Supervisor Social Wing	23/12/06
19	Banshidhar Rout	Executive Officer Chowwar Municipality	23/12/06
20	Bhramar Bar Ojha	LDO, Nischintakali	23/12/06
21	Bikanta Kishore Mohanty	O.S.D to Minister Higher Education, P.S.D.M.	23/12/06
22	S.K. ROUTRAY	EE, Charbatiya (R+B) Divisional Engineer	23/12/06
23	P.C. Parayal	JE Athayash	23/12/06
24	PK Bisoi	AE, Athayash	23/12/06

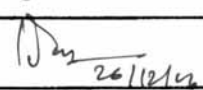

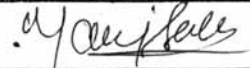
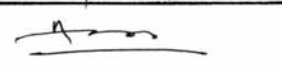
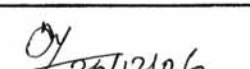
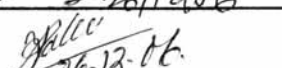
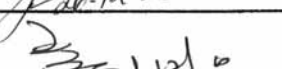
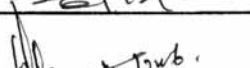
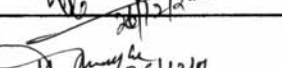
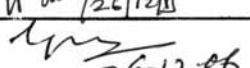
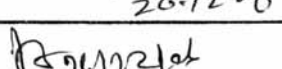
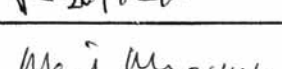
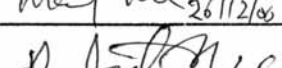
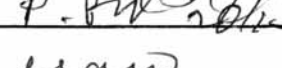
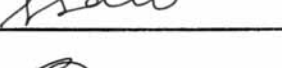
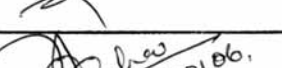
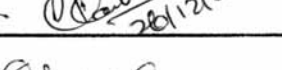
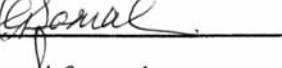
List of Participants of Kendrapada District

Orissa State Road Projects (World Bank Funded)
Orissa Works Department

Sl. No.	Name	Designation	Signature
1	Kolli Baba Kondapuri	Collector KDP	[Signature]
2	Satoughna Dasida	Supdt. of Police	[Signature]
3	Sailendra Prasad Sutar	Ex. Engineer, RRB	[Signature]
4	Haridra Belam	President Zilla Parishad	[Signature]
5	P. K. Hota	Sub-Collector KDP	[Signature]
6	Kantash Chandra Nayak	Tahasildar Pattana	[Signature]
7	Nityananda Bante	Tahasildar, Kanika	[Signature]
8	Dharen Sahu	J-E Pattanmudi	[Signature]
9	Biswajit Nath Bauri	A.B.D.O. Pattanmudi	[Signature]
10	Jaganath Das	Charity Dept.	[Signature]
11	Naren Ch. Suer	J E PH	[Signature]
12	Bhagabat Jena	AE PH-KDP	[Signature]
13	Khydzam Parnanili	Tdr. Aul.	[Signature]
14	Bipin Behar Das	Co-ordinator By. Pass Committee Aul	[Signature]
15	Dikshya Ramdas Kale	Adocate & Secretary By. Pass Committee Aul	[Signature]
16	Basantakumar Rath	Adocate & By. Pass Com. Aul	[Signature]
17	Basander Belam	President	[Signature]
18	[Signature]	Nabazur	Aul.
19	Allem Klen	Nabazur	Aul.
20	P. K. Swain	S.D.O. (H&H), CESU Pattanmudi	[Signature]
21	Naba Kumar Mishra	S.D.O. (Elec.) Kendrapada CESU	[Signature]
22	B. K. Dash	E.O. Pattanmudi N.A.O.	[Signature]
27	A. Nayak	Chairman Pattanmudi N.A.	[Signature]
28	M. R. Patanall	Asst. Engrg. R.W. Kendrapada	[Signature]

List of Participants of Kendrapara District

Orissa State Road Projects (World Bank Funded)
Orissa Works Department

Sl. No.	Name	Designation	Signature
1	Parasmita Das	ENH. Division Kendrapara	 26/12/12
2	Rabindra K. Das.	Dist. Correspondent The Samaya, Kendrapara	 26/12/12
3	Harey Sall	on behalf of Chair Person, Kendrapara Municipality	 26/12/12
4	Amulya K. Mohapatra	A.E (R&D) Model Officer	 26/12/12
5	Bishnu Charan Rout	Asst. Collector and Land Acquisition Officer	 26/12/12
6	M.F. Rahimani	Asst. Collector Development.	 26-12-12
7	Nimesh Ch. Sahu	Tdr, Kendrapara	 26/12/12
8	Ramesh Chandra Karan	Asst. Engineer Highway	 26/12/12
9	Pranab Kumar Nayak	Asst. Engg. Kendrapara Div	 26/12/12
10	G.C. Behera	DIPRO, Kendrapara	 26-12-12
11	B.K. Borki (E.C.R. & B)	Kendrapara	 26/12/12
12	Manoj Kar	Journalist The Statesman	 26/12/12
13	Rajesh Chaitan	Journalist The Statesman	 26/12/12
14	Sumesh Sahu	Journalist The SAMBAD	 26/12/12
15	Ashis Sengupta	The Times of India	 26/12/12
16	Chittaranjan Sahoo	Journalist The Andaman	 26/12/12
17	Ganesh Chandra Samal	Journalist Sambad/Kalika	 26/12/12
18	Pravat Kumar Parida	Journalist KTV/NDTV	 26-12-12

ବିଜ୍ଞାପନ

୦୧୪/୪/୨୦୧୩

ପଞ୍ଚମୀ ସର୍ବସାଧାରଣଙ୍କର ଆମର ନିମ୍ନ ଲିଖିତ ନିୟମାବଳୀ
କି, ବିଶ୍ୱାସୀୟ ସହାୟତାରେ ବିଜ୍ଞାପନ ହେବା ପାଇଁ ପ୍ରାଥମିକ
କର୍ମକ୍ରମ - ସୁଯୋଗ ହେବା ପରେ ସର୍ବସାଧାରଣଙ୍କର ପ୍ରତିକ୍ରିୟା
କାର୍ଯ୍ୟ କାର୍ଯ୍ୟକାରୀ ।

ଏହି ନିୟମାବଳୀରେ ପ୍ରାଥମିକ ନିୟମ ହେବା ପରେ ସହାୟ
କାର୍ଯ୍ୟକାରୀ ହେବା ପରେ ଆମର ନିୟମାବଳୀ ଆମର ୦.୨୨.୪.୧୩
ଦ୍ୱାରା ନିମ୍ନ ଲିଖିତ ନିୟମାବଳୀରେ ସୁଯୋଗ ହେବା ପରେ
୦/୧୨ ହେବା ପରେ ପ୍ରାଥମିକ ପଦାବଳୀରେ ସହାୟକ
କି ପ୍ରକାର ସହାୟକ ଆମର ନିୟମାବଳୀରେ ବିଜ୍ଞାପନ
କାର୍ଯ୍ୟକାରୀ ।

ଏହି ଆମର ନିୟମାବଳୀରେ ସହାୟକ ନିୟମାବଳୀରେ ସହାୟକ
ନିୟମାବଳୀରେ ଆମର ନିୟମାବଳୀରେ ସହାୟକ ନିୟମାବଳୀରେ

ଆମର ନିୟମାବଳୀରେ

ଆମର ନିୟମାବଳୀରେ

R.K. Rath

SMU, PMU.

ସୁଯୋଗ ହେବା ପରେ (ସହାୟକ ନିୟମାବଳୀରେ)

Shrendra Patra

Secretary (Gen)

Am. Tripat

Srikanta Nayak

(F.C)

ବିଜ୍ଞାପନ ନିୟମାବଳୀରେ

Gabinda Das. (11)

Pratap Sahu

* Sri Kanta Raut

ନିୟମାବଳୀରେ

* Nisha Kanta Patra

Nekal Ch Patra

Kartik Chandra Singh

C.C (PMU)

Pratap kumar Bal

C.C (PMU)

Hrushi Kanta Bal

S. 1/12/2012

ନିମ୍ନ ଲିଖିତ ନିୟମାବଳୀରେ

Akshaya Kumar Parida
ଅକ୍ଷୟ କୁମାର ପରିଡ଼ା
ଆଖ୍ୟାୟୀ ଲେଖକ

ପ୍ରମୁଖ ସମ୍ପାଦକ-ସମିତି

ପ୍ରମୁଖ ସମ୍ପାଦକ
Gangadhar Tripathy

ସମ୍ପାଦକ ସମିତି
ସମ୍ପାଦକ ସମିତି
ସମ୍ପାଦକ ସମିତି

Nirjala Parida
ନିରଜା ପରିଡ଼ା

Rajendra Kumar Samal
ରାଜେନ୍ଦ୍ର କୁମାର ସାମଲ

ସମ୍ପାଦକ
Padmanabha

Krishna Kumar Singh
କୃଷ୍ଣ କୁମାର ସିଂହ

Pratap Kumar Singh
ପ୍ରତାପ କୁମାର ସିଂହ

ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଦ୍ରାଘା ଦେବୀଙ୍କୁ ପୂଜା
ସାମାଜିକ ତଥା ଚିକିତ୍ସାଗତ ସମସ୍ୟା କାର୍ଯ୍ୟକ୍ରମର ଗଠନ ସହ

ସ୍ଥାନ:- ଭୁବନେଶ୍ୱର ନିହାରିକା ମହାବିଦ୍ୟାଳୟ, ବାଲୁଆ

ସମୟ:- ଅଗଷ୍ଟ ୨୦୧୮ ମସିହା ୨୫ ତାରିଖ ରବିବାର । ତା:- ୨୨/୦୮/୨୦୧୮
(ବିଶାଳପାଠ)

ଆୟୋଜକ:- ଡାକ୍ତରୀ ସାମାଜିକ ସ୍ୱାସ୍ଥ୍ୟ (OSRP) ଓ ଡାକ୍ତରୀ ଶିକ୍ଷାଗ୍ରାମୀ (PMA)

ସେକ୍ସ ୨ ଓ ୩ ଆୟୋଜିତ ହେଉଛି ଡାକ୍ତରୀ (CARA), ଭୁବନେଶ୍ୱର

କାର୍ଯ୍ୟକ୍ରମ:-

- (୧) ନାମ ଲେଖି କରଣ । ଡାକ୍ତରୀ ଚିକିତ୍ସା କରୁନା ।
- (୨) ସ୍ୱାସ୍ଥ୍ୟ ଓ ସୁସ୍ଥତା ପ୍ରଦାନ ।
- (୩) ସ୍ୱାସ୍ଥ୍ୟ ଆସିନ
- (୪) ଆଜ୍ଞା ଗ୍ରହଣ କରି ଡାକ୍ତରୀ ଆମର ସମାଜ ।
- (୫) ସେକ୍ସ ୨ ଓ ୩ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ।
- (୬) ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଦ୍ରାଘା ଦେବୀଙ୍କୁ ପୂଜା ସାମାଜିକ ତଥା ଚିକିତ୍ସାଗତ ସମସ୍ୟା
କାର୍ଯ୍ୟକ୍ରମ ଓ ସୁସ୍ଥତା ଡାକ୍ତରୀ ସମାଜ ଓ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ।
- (୭) ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ (ମିଳିତ) ।
- (୮) ଆୟୋଜକ ଡାକ୍ତରୀ ଓ ସ୍ୱାସ୍ଥ୍ୟ ।

କ୍ରମ. ଭୁବନେଶ୍ୱର ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ
ଡାକ୍ତରୀ ସହ ଡାକ୍ତରୀ

(୧) ✓ Ratanwar Sutar.

(୨) ✓ Anweswar Parida

(୩) ✓ M. Mohan Parida

(୪) ✓ ଅଶୋକ ପାଣିଗ୍ରାହୀ

(୫) ✓ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଦ୍ରାଘା ଦେବୀ

(୬) ✓ ଡାକ୍ତରୀ ଡାକ୍ତରୀ

(୭) ✓ Guruswamy Parida

- (1) ✓ ବ୍ୟବହାରିକ
- (2) ✓ ଭଗବାନ ଚକ୍ରମାଳା
- (3) ✓ ବିନୟୋଦ୍ୟାତ୍ରୀ
- (4) ✓ ଜନ କିରାଣୀମାଳା
- (5) ✓ Surendra Pathan
- (6) ✓ ଡି.ବି.ଏ. ଏ.ପି.ଏ.
- (7) ✓ Dhruvach Pathan
- (8) ✓ ମାନ୍ୟ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ
- (9) ✓ Nisha Kanta Pathan
- (10) ✓ ଶ୍ରୀ-ପ୍ର. ଏ.ପି.ଏ.
- (11) ✓ Padmanav Pathan
- (12) ✓ Srikanta Pathan
- (13) ✓ Anand Pathan
- (14) ✓ ପ୍ରଭାତୀନେତ୍ରୀ
- (15) ✓ ଶ୍ରୀମତୀ ମାଳା
- (16) ✓ Bhaba grahi Pathan
- (17) ✓ Narendra Pathan
- (18) ✓ Pathan Sam
- (19) ✓ ଶ୍ରୀମତୀ ମାଳା

- (93) ✓ Nanjimalaiah
- (94) ✓ श्री. अनन्त साहू
- (95) ✓ श्री. राजेश
- (96) ✓ Laxmi Sahoo
- (97) ✓ श्री. राजेश
- (98) ✓ SUSANTA PATRA.
- (99) ✓ Kishor Beek.
- (100) ✓ Prabhat Kumar Sahoo
- (101) ✓ श्री. राजेश
- (102) ✓ SKABEDIN
- (103) ✓ Fakira Chandra Sahoo
- (104) ✓ Mhamad Nazim
- (105) ✓ श्री. राजेश
- (106) ✓ श्री. राजेश
- (107) ✓ श्री. राजेश
- (108) ✓ MOTI
- (109) ✓ Sarat Kumar Sahoo
- (110) ✓ Narayan Sahoo

ପ୍ରସ୍ତାବନା ୧:- ଶୁଣି ଜଣାଇ ଦେଖାଇବା ପାଇଁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ
କୋମଳ କାଗଜ (E.H) ହାସଲ କରିବା ପାଇଁ ଯଦି
ଏହି କଳାକାର କାଗଜରୁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କୃତ୍ୟ ପ୍ରତି
ସାମାଜିକ କର୍ମ ପ୍ରତି ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭାବେ ଗ୍ରହଣ
କରିବା ପାଇଁ ପ୍ରସ୍ତାବ ଦିଆଯାଉଛି ।

ପ୍ରସ୍ତାବନା ୨:- ଯଦି ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କୃତ୍ୟ ପାଇଁ
କୃତ୍ୟର ସମସ୍ତ କାର୍ଯ୍ୟକାରୀ ପଦକ୍ଷେପ
ଗ୍ରହଣ କରିବା ପାଇଁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭାବେ
ଗ୍ରହଣ କରିବା ପାଇଁ ପ୍ରସ୍ତାବ ଦିଆଯାଉଛି ।

ପ୍ରସ୍ତାବନା ୩:- ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ, ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ, ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ
କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ (କର୍ମକାରୀ) ୧୫
ହୁ ପାଇଁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କର୍ମକାରୀ କର୍ମକାରୀ ୧୫
କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ ।

ପ୍ରସ୍ତାବନା ୪:- ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କର୍ମକାରୀ କର୍ମକାରୀ
କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ
କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ ।

ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କର୍ମକାରୀ କର୍ମକାରୀ
କର୍ମକାରୀ କର୍ମକାରୀ କର୍ମକାରୀ

Padmavati
(President)
(9777048434)

ବିଜ୍ଞାପନ

୦୮/୧୫/୧୨/୨୦୧୩

ଅବସ୍ଥାରେ ସର୍ବସାଧାରଣଙ୍କର ଆଗରତ ବିଷୟକୁ ଗୁରୁତ୍ବ ଦିଆଯାଉଛି ଯି.
 ବିପ୍ଳବପାତ୍ର ସମ୍ବାଦକାରୀଙ୍କର ଶ୍ରେଣୀ ହାସ୍ତା ପ୍ରକଳ୍ପ ଯାହା ପ୍ରକାଶିତ
 ଜନତାପୁର-ଭୁବନେଶ୍ୱର ହାସ୍ତାତ ସମ୍ବାଦକାରୀ ତଥା ଦୂରଦୃଷ୍ଟି କାର୍ଯ୍ୟ କରାଯିବ।

ଏହି ପରିସ୍ଥିତିରେ ପ୍ରକଳ୍ପ ଯାହା ଗୁରୁତ୍ବପୂର୍ଣ୍ଣ ହେବ। ସମସ୍ତଙ୍କୁ
 ଶ୍ରୀମତୀ ଉପସ୍ଥିତିରେ ସମସ୍ତଙ୍କୁ ଶ୍ରଦ୍ଧାଂଜଳି ଦେବାକୁ କହାଯାଉଛି ଯାହାକି ୦୮.୧୫.୧୨.୨୦୧୩
 ଦିନ ୩. ୧୨. ୦୦ ସମୟରେ ସ୍ଥାନୀୟ ସ୍ଥାନୀୟ ସ୍ଥାନୀୟ ଶ୍ରମ ଗାତ୍ର ଉପସ୍ଥିତିରେ ଯାହା
 ସାମାଜିକ ତଥା ପରିବେଶୀ ସମ୍ବାଦକାରୀ ଯି ପ୍ରକାର ସମ୍ବାଦକାରୀ ଅନୁଭବ
 କରୁଛନ୍ତି ତାହା ବିଚାରରେ ବିଚାର କରାଯିବ।

ଏହି ଆପଣାମାନଙ୍କ ଦୃଷ୍ଟିରେ ନିମ୍ନଲିଖିତ ସ୍ଥାନରେ ଯାହା
 ସମ୍ବାଦକାରୀ ଦୃଷ୍ଟିରେ ଏହି ଆପଣାମାନଙ୍କର ହାତରେ ଯାହା ଦେଖାଯାଏ
 କରାଯାଉଛି।

ଆପଣାମାନଙ୍କ ପ୍ରକଳ୍ପ

ଆପଣାମାନଙ୍କ ପ୍ରକଳ୍ପ

Jannakum Sahu
 Gulnagar

Ganesh Ku Sahu
 Kumaresw Sahu

Surya-mane Ponda (M.D.)
 CAPT. O.S.R.P.

Pratap Kumar Baid
 CC(PMU)

← Gourya Pali
 Rajendra Lohan (Cash)
 N.N. Saha
 B. Nayak

ନିର୍ଦ୍ଦେଶକ
 Rajwadekarash Sana

ସାମାଜିକ
 ଉପସ୍ଥିତି ସାଧୁ
 ଉପସ୍ଥିତି ସାଧୁ

ଉପସ୍ଥିତି ସାଧୁ

ସୁବର୍ଣ୍ଣ ପତ୍ରାକାର

ବାବୁଲୁ ବାସ

ବିଜ୍ଞାପନ

ଆପଣାମାନଙ୍କ

ଦେଖିବା ସାଧୁ

Pratulla Ku. Prusry

ସୁଦର୍ଶନ ସିଂହ

Lalafandu Duh.

Baranake Rana

Somunath Sanyal

Jitendra Ku Sash

Pramoda Kumar Sahoo

Sukanta Sahoo

Mahin Sahoo

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

Gopal. Barik.

ସେନା ସିଂହ

Prakash Badik

Said. Khan.

ପ୍ରମୋଦଚନ୍ଦ୍ର

ନିର୍ମଳା କନ୍ତ ସିଂହ

madhusudan pande

ସକାନ୍ତ-ଚାନ୍ଦ

ନୀଳାଦ୍ରୀ ସାବିତ୍ରୀ

Manas Ranjan Rout

ପ୍ରମୋଦ କାନ୍ତା ମହାନ୍ତି

LTI

K. Nabin Rao.

Gagan Pradhan

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

କାନ୍ତକୃଷ୍ଣଚନ୍ଦ୍ର

ହାସ୍ତା ପ୍ରକଳ୍ପ ଦ୍ଵାରା ହେବାକୁ ପୁରା
 ସାମାଜିକ ତଥା ଲବ୍ଧିକରୀ ଗତି ସମସ୍ୟା କାର୍ତ୍ତବ୍ୟ ସଂଚଳନ ସହ

ସ୍ଥାନ :- ଗୁରୁନଗର ଉତ୍ତରୀସାଲ୍, ଚେନ୍ନାଇ

୩.୨.୧୮.୮.୨୦୧୩ (୨୩/୮/୧୮)

ଆବଦ୍ଧାବଳୀ :- ଡିଜିଟାଲ ଶିକ୍ଷା ସାଧକ ପ୍ରକଳ୍ପ, ପ୍ରକଳ୍ପ ପରିଚାଳନା କର୍ମାଳୟ (OERF) PMU

କ୍ଷେତ୍ରର ଗୁରୁ ଆଶ୍ରମ ଦ୍ଵାରା ଶ୍ରେଣୀ ଡିଜିଟାଲ (OERF), ଗୁରୁନଗର

କାର୍ତ୍ତବ୍ୟସୂଚୀ :-

- ୧) ନାମ ଲେଖିକୃତ।
- ୨) ସ୍ଥାନ ଓ ସୂଚନା ସାମଗ୍ରୀ
- ୩) ପ୍ରକଳ୍ପର ସମ୍ପର୍କିତ ଉପାଦାନ ଓ ସହାୟକ ଆବଳୀ ।
- ୪) ଅନ୍ୟ ଗୁରୁତ୍ଵପୂର୍ଣ୍ଣ ଲିପି ଓ ଆବଳୀ ସାମଗ୍ରୀ ।
- ୫) ଡିଜିଟାଲ ଶିକ୍ଷା ସଂଚଳନା ସାମଗ୍ରୀ ।
- ୬) ହାସ୍ତା ପ୍ରକଳ୍ପ ଦ୍ଵାରା ହେବାକୁ ପୁରା ସାମାଜିକ ତଥା ଲବ୍ଧିକରୀ ଗତି ସମସ୍ୟା ଉପରେ ଗବେଷଣା ଆବଳୀ ଓ ଡିଜିଟାଲ ସାମଗ୍ରୀ ।
- ୭) ଉପାଦାନ କାର୍ତ୍ତବ୍ୟ ଗ୍ରନ୍ଥ ନିର୍ଦ୍ଧାରଣ ।
- ୮) ପ୍ରକଳ୍ପର ଉପାଦାନ, ସହାୟକ ।

କ୍ର.ନଂ ଉପାଦାନ କାର୍ତ୍ତବ୍ୟ ନାମ ଓ ଗୁରୁନଗର ଉପାଦାନ

ସ୍ଥାନ

- | | |
|------|-------------------------|
| (୧) | ✓ ମୁଖ୍ୟ ଗୁରୁ ଶାସ୍ତ୍ରୀ |
| (୨) | ✓ ଶ୍ରୀମତୀ ଗୁରୁମୁଖା ସାହୁ |
| (୩) | ✓ Kanchan Sahu. |
| (୪) | ✓ Animesh K Sahu |
| (୫) | Uma Kanchan Sahu |
| (୬) | ✓ Ritendra Kumar Sahu |
| (୭) | ✓ Anand Kumar Sahoo . |
| (୮) | ✓ ସୁଜାତା କୁମାର ସାହୁ |
| (୯) | ସେନା ସାହୁ |
| (୧୦) | ✓ ଶ୍ରୀମତୀ ସୁଜାତା |
| (୧୧) | ✓ Kanchan Sahu |
| (୧୨) | ଗୋରାମାଳିନୀ ଗୁରୁ |

(101)

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(128)

(129)

(130)

X

X

X

Kartik Ch Singh
(PMU) CC

X. Pratap Kumar Bal.
PMU(C.C)

X ବିନୟ କୁମାର

X Bal Sena

X ଅନୁଜାତୀ କୁମାର

Y S.V. Singh

Y ପ୍ରଦୀପ କୁମାର ଚାନ୍ଦି

Pratima Kumar Sahoo

Bahamali Rana

Sukanta Sahoo

Sudip Nayak

Netyananda Suman.

ଭାସ୍କର ପେଟ୍ଟି

M. S. Pandey

Sarat Kare ,

ଅନୁଜାତୀ କୁମାର

ଭାସ୍କର ପେଟ୍ଟି

Prasan Kumar Behema.

Sukanta Soodapathy

ଭାସ୍କର ପେଟ୍ଟି

ଗୋବିନ୍ଦ କୁମାର

ଭାସ୍କର ପେଟ୍ଟି

ଭାସ୍କର ପେଟ୍ଟି

Haibhar Patra

Pravila Mohapatra P.C.M

21.4.2013

Sorayamani Panda

USRP (CARD) (A.P.C)

Prasant Kumar Singh (FC) (A.M)

ଆମ ୬/୨୧। ୪। ୨୦୧୯ ଟିକା ଉଦ୍ଧାର ଦିନ ୧୨ ଡାକ୍ତରୀ ବସନ୍ତରେ
କେନ୍ଦ୍ରାପଡ଼ା ସ୍ଥଳ ଉଦ୍ଧାର ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ
ସାମାଜିକ ଓ ଉପକରଣ ଫଳ ସମସ୍ୟା ଦେଖି ଉପକରଣକୁ ଉପକରଣକୁ
ଆକରଣକୁ କରା ଉପକରଣକୁ । ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ
(୧୫) ଓ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ
ମାତ୍ର ଆକରଣକୁ କରା ଉପକରଣକୁ । ଉପକରଣକୁ ଉପକରଣକୁ
ଉପକରଣକୁ କେନ୍ଦ୍ରାପଡ଼ା ସହର ଉପକରଣକୁ ଉପକରଣକୁ
ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ
ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ
ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ ଉପକରଣକୁ

ଆଧିକାରୀଙ୍କ ସହଯୋଗରେ ଆବଶ୍ୟକୀୟ ସ୍ୱାସ୍ଥ୍ୟ ସେବା
 ଯିଏ ସ୍ୱାସ୍ଥ୍ୟ ସେବା ପାଇଁ ଆବଶ୍ୟକୀୟ ସ୍ୱାସ୍ଥ୍ୟ ସେବା
 ସହ ଉପଯୁକ୍ତ ସାମଗ୍ରୀ ପ୍ରଦାନ କରୁଥିଲେ । ଏହାଦ୍ୱାରା
 (OICRP) N.N.G.O, CART ଓ ବିଭିନ୍ନ ସ୍ୱାସ୍ଥ୍ୟ ସେବା
 ଉପକରଣ ଉପକରଣ ଉପକରଣ ଉପକରଣ ସହାୟକ
 ସହାୟକ ଉପକରଣ ଉପକରଣ ଉପକରଣ ଉପକରଣ
 ସହାୟକ ଉପକରଣ ଉପକରଣ ଉପକରଣ ଉପକରଣ
 ସହାୟକ ଉପକରଣ ଉପକରଣ ଉପକରଣ ଉପକରଣ

[illegible]

ପ୍ରସ୍ତାବନା ୨:- ଧରି ଜଗନ୍ନାଥ, ଶୁଭକାନ୍ତିକାନ୍ତ। ପ୍ରକାଶ ଦ୍ଵାରା
କୋଣାର୍କର ବହୁତ ଗାଳ୍ପ ଓ ଗୋଟିଏ ଜନମାନଙ୍କର ବ୍ୟବସ୍ଥା
ଅନୁସୂଚି ଚକ୍ରବର୍ତ୍ତୀ କାଳ ପ୍ରସ୍ତାବ ଦ୍ଵାରା ଗଠିତ।

ବିଦ୍ୟାଳୟ ପୁସ୍ତିକ ଶୁଦ୍ଧା ! -

- (୧) ପୁସ୍ତିକର ଉଚ୍ଚବିକାଳୀୟତା
- (୨) ପୁସ୍ତିକର ପ୍ରାସଙ୍ଗିକ ବିଦ୍ୟାଳୟ
- (୩) ପୁସ୍ତିକର ଉଚ୍ଚବିଦ୍ୟାଳୟ
- (୪) କଳାକାର ଉ.ପ୍ରା. ବିଦ୍ୟାଳୟ

ପ୍ରସ୍ତାବ ନଂ ୩ ! - ସର୍ବ ସାମାଜିକ ଓ ନ୍ୟାୟିକ ନିମନ୍ତେ
ସୁଲଭତା ସହ ଧନ ନିର୍ମିତ ହୋଇ ଲୋକମାନଙ୍କ
ଦୃଷ୍ଟିରେ ରହି ଉପଯୁକ୍ତ ବ୍ୟକ୍ତିମାନଙ୍କ ସଫଳତାକୁ ନିଶ୍ଚିତ

ପ୍ରସ୍ତାବ ନଂ ୪ ! - ସହରର ଗର୍ବାଙ୍ଗ ଓ ପୁରୀର ଉଚ୍ଚବିଦ୍ୟାଳୟ
ଦ୍ୱାରା ପ୍ରସ୍ତାବନାରେ ଧନ ଉପରେ ଆକର୍ଷଣ ଥିବୁ
କେନ୍ଦ୍ର ପ୍ରସ୍ତାବ ଉପାଦାନ ।

ପ୍ରସ୍ତାବ ନଂ ୫ ! - ପ୍ରାଚୀନ ଯୁଗ ଶୁଦ୍ଧତା ସାମାଜିକ ଲିଙ୍ଗଶୁଦ୍ଧତା
ପରେ ଉପକ୍ରମ ସାମାଜିକ ଶୁଦ୍ଧତାରେ ଉପାଦାନ ଓ
କୃତ୍ରିମ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କୃତ୍ରିମ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କୃତ୍ରିମ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ

ପ୍ରସ୍ତାବ ନଂ ୬ ! - କେନ୍ଦ୍ରୀୟ ଅର୍ଥିକ କୃଷି ଉପରେ ପ୍ରତିକା କୃଷି
ଉପରେ ପ୍ରତିକା । ଧନ କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ ଧନ

କେନ୍ଦ୍ରୀୟ ସହର ସହର ଧନ ଧନ ଧନ ଧନ ଧନ
କେନ୍ଦ୍ରୀୟ ସହର ସହର ଧନ ଧନ ଧନ ଧନ ଧନ

କେନ୍ଦ୍ରୀୟ ସହର ସହର
(ସୁଦୃଶ୍ୟ)

M.N-9438133797.

ନେଟିସ୍

୦୧୫/୦୧/୨୦୧୩

ଉପରୋକ୍ତ ସର୍ବସାଧାରଣଙ୍କ ଅବଗତ ନିମନ୍ତେ ଜଣାଇ ଦିଆ ଯାଉଛି କି, ବିଶ୍ୱବ୍ୟାପୀ
ସମାବେଶରେ ଭବିଷ୍ୟତ ହାସ୍ତାନ୍ତରକୁ ଦ୍ୱାରା ପ୍ରସ୍ତୁତ ହେଉଥିବା ସମ୍ବନ୍ଧରେ
ହାସ୍ତାନ୍ତର ସମ୍ପର୍କରେ ତଥା ପ୍ରତିକାରଣ ଜାରି କରାଯାଏ ।

ଓଡ଼ିଶା ପରିଷଦଙ୍କର ପ୍ରକଳ୍ପ ଦ୍ୱାରା ଗ୍ରହଣ ହେଉଥିବା
ସମ୍ବନ୍ଧରେ ଗ୍ରହଣ ପ୍ରକଳ୍ପକୁ ଅନୁସରଣ କରି (ପ୍ରକଳ୍ପର ନିୟମାବଳୀ) ପ୍ରକଳ୍ପର ନିୟମାବଳୀ
ସମ୍ବନ୍ଧରେ କରାଯାଉଛି କି, ଆବେଦନ ୨୫/୦୧/୨୦୧୩ ରୁ ଶୁରୁ ହେଉଥିବା ଦିନ ୩ ମାସ
ସମୟରେ କ୍ରମେ ଶୁରୁ ହେଉଥିବା ସମ୍ବନ୍ଧରେ ପ୍ରକଳ୍ପର ନିୟମାବଳୀ ପ୍ରକଳ୍ପ ଦ୍ୱାରା
ସାମାଜିକ ତଥା ପ୍ରତିକାରଣ ସମ୍ବନ୍ଧରେ କି ପ୍ରକାର ସମ୍ବନ୍ଧରେ ଅନୁସରଣ ହେଉ
ବେଳେ ସମ୍ବନ୍ଧରେ ସମ୍ବନ୍ଧରେ କରାଯାଏ ।

ଓଡ଼ିଆ ଆପଣଙ୍କ ନିର୍ଦ୍ଦିଷ୍ଟ ଦିନ ନିମ୍ନ
ସମ୍ବନ୍ଧରେ, ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ
ପ୍ରଦାନ କରାଯାଏ ସମ୍ବନ୍ଧରେ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ

ପ୍ରକଳ୍ପର ସମ୍ବନ୍ଧରେ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ ଆପଣଙ୍କ ନିମ୍ନ

ସମ୍ବନ୍ଧରେ ସମ୍ବନ୍ଧରେ (ସମ୍ବନ୍ଧରେ ପ୍ରକଳ୍ପର ନିୟମାବଳୀ)
ଭବିଷ୍ୟତ ହାସ୍ତାନ୍ତରକୁ ପ୍ରକଳ୍ପର ନିୟମାବଳୀ

ନିମ୍ନଲିଖିତ (Krushnapur)

Ramkrishna Barik

ପ୍ରକଳ୍ପର ନିୟମାବଳୀ

ଶ୍ରୀମତୀ ସତ୍ୟାନ୍ତର

ସତ୍ୟାନ୍ତର

Satyantara Barik

ସତ୍ୟାନ୍ତର

ନିମ୍ନଲିଖିତ

LTI Kali Barik.

sachida Nanda Pareida

କଟକସ୍ଥିତ ପାଣି
Bojary Ku. Nayak.

Prasanta Barik

ସଞ୍ଜ ପାଣିପୁରୀ (ମିଳାମୁଳି)

ଫିଲ୍ମ ପାଠକ

ମାରିକପାଠକ

ସାବୁନାପାଠକ

ମୁକ୍ତବସତିପାଠକ

Chaitani Nath

ପିତାବିହାରୀ

ନାଥପାଠକ

ଦ୍ରବ୍ୟପାଠକ

Brahmananda Sethi

ଅକ୍ଷୟାକ୍ଷରୀ

ମାରିକପାଠକ

Aushaya Acharya

ଗଙ୍ଗାବିହାରୀ

(ମିଳାମୁଳି)

Narayan Nayak

ନାଥପାଠକ

Bichitra Kumar Patra

✓ Sri Rajesh Kumar Barik

ବୁଝାଇବା

୩୧.୧୨.୧୮/୧୦.୧୯୩୩

ପଠ୍ୟପୁସ୍ତକ ପ୍ରକାଶନାଳୟର ଆବଶ୍ୟକ ନିମନ୍ତେ ଜଣାଉଥିବା
ଭାବପୂର୍ବକ, ବିଶ୍ୱାସୀୟ ସହଯୋଗରେ ଉତ୍ତିଷ୍ଠା ହେବା ପ୍ରକାରକୁ ଦ୍ୱାରା
ପ୍ରାୟଶଃ ଜଗତରୁ ଏହି ସୁଯୋଗୀ ହେବାକୁ ସମ୍ଭାବ୍ୟତା ଥାଏ
ଯୁକ୍ତିଯୁକ୍ତ କାର୍ଯ୍ୟ କରାଯିବ ।

ଏହି ଉଦ୍ଦେଶ୍ୟରେ ପ୍ରକାର ଦ୍ୱାରା ଲିଖିତ ଗ୍ରନ୍ଥ ସମସ୍ତ
ପ୍ରାୟଶଃ କାର୍ଯ୍ୟକାରୀ ହେବ । ଅନୁରୋଧ କରାଯାଉଛି ଯେ ମାତ୍ର
୧୯୩୩.୧୦.୧୮/୧୦.୧୯୩୩ ତାରିଖ ଦିନ ୩.୧୦.୩୩ ମି ସମୟରେ ସ୍ଥାନୀୟ
ଫୋକଲୋକାଳୟ ନିର୍ଦ୍ଦେଶ, ୧୯୩୩.୧୦.୧୮/୧୦.୧୯୩୩ ତାରିଖ ଦିନ ପ୍ରକାର ଦ୍ୱାରା ଆବଶ୍ୟକ ଥାଏ
ଉଦ୍ଦେଶ୍ୟ ସମ୍ପର୍କରେ କି ପ୍ରକାର ସମ୍ଭାବ୍ୟ ଅନୁରୋଧ ଥାଏ
ସେ ବିବରଣୀରେ ବିବରଣୀ ଦିଆଯିବ ।

ଏହି ଆବଶ୍ୟକୀୟତା ଉପରେ ନିର୍ଦ୍ଦେଶ ଦିଆଯିବ
ପ୍ରାୟଶଃ ସମସ୍ତଙ୍କର ଉପସ୍ଥିତି ଏହି ଆବଶ୍ୟକୀୟତାରେ ଉପସ୍ଥାପନ
ଆବଶ୍ୟକୀୟତା ମତାମତ ଉପସ୍ଥାପନା ଅନୁରୋଧ ।

ପ୍ରାୟଶଃ ଆବଶ୍ୟକୀୟତା ଉପସ୍ଥିତି କାର୍ଯ୍ୟ-
କାରୀ ହେବ । ଆବଶ୍ୟକୀୟତା ପ୍ରକାର ।

ସ୍ୱାଧୀନତା ପ୍ରାୟଶଃ (ସ୍ୱାଧୀନତା ପ୍ରକାର)
ଉଦ୍ଦେଶ୍ୟ ଉପସ୍ଥାପନା ପ୍ରକାର (୧୯୩୩)

- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ ପ୍ରାୟଶଃ
- ✓ Swathi Kumar Mishra
- ✓ Kanakar Mishra
- ✓ Prabhat Kumar Swain

Gaganbihari Selhi
Mangli Gum
Ashwini Rani
Umakanta pia

गङ्गा (गङ्गा)
Sangam K. Dahi

Subodha Kungul Deleboya (Syo-y)

Narayan Mallick

ସାମ୍ବା ପକ୍ଷକୁ ଦ୍ଵାର ଦେଖାକୁପକ୍ଷା ସାମାଜିକ ତଥା ଲିଙ୍ଗିକ ଗତ
ସମସ୍ୟା ଗିର୍ବିଜ ସମ୍ବନ୍ଧରେ ସହ

ସ୍ଥାନ:- ଗୋବିନ୍ଦପୁର ଶିବ ମନ୍ଦିର, ଜଗତପୁର, ହାତକଟିକା (ଆନି R୧୮ ସେକ୍ଟର)

ତାରିଖ:- ୨୪/୦୪/୨୦୧୩

ଆୟୋଜକ:- ଡିଜିଟାଲ ଶାସ୍ତ୍ରୀ ସଭା ଲୋକ (୧୯୮୫) ଓ ଲିଙ୍ଗିକ ଗତ ଗୋଷ୍ଠୀ

ସେକ୍ଟର ୦୨ ଆନ୍ଧ୍ର ଦିଗର ଆନ୍ଧ୍ର ହିନ୍ଦି, ଦୁର୍ଗାପୁର

"କାର୍ଯ୍ୟ ସୂଚୀ"

- (୧) ନାମ ଗଣ୍ଠିକାହଣୀ (ଅନୁସନ୍ଧାନାଦି କର)
- (୨) ସ୍ଥାନରେ ସୁରକ୍ଷା ସମୀକ୍ଷା ।
- (୩) ସହାୟକ ବ୍ୟକ୍ତି ଓ ସହାୟକ ଆୟୋଜକ ।
- (୪) ଆନୁଷ୍ଠାନିକାଦିଙ୍କ ଲିଷ୍ଟ ଆନୁଷ୍ଠାନ ସମୀକ୍ଷା ।
- (୫) ଲେଖକ ଓ ଲେଖିକାଙ୍କ ଲେଖନୀ ।
- (୬) ସାମ୍ବା ପକ୍ଷକୁ ଦ୍ଵାର ଦେଖାକୁପକ୍ଷା ଲିଙ୍ଗିକ ଗତ ତଥା ସାମାଜିକ
ସମସ୍ୟା ଓ ଲିଙ୍ଗିକ ଗତ ଓ ୧୨୫ ମିଶ୍ରାକାହଣୀ ଲାଭ ପ୍ରାପ୍ତି
ସହାୟକ । (୭) ସହାୟକ କମିଟି ସହାୟକ
- (୮) ଆୟୋଜନ ଅଗ୍ରଣୀ ସହାୟକ ।

ବିନିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ
ଗମ୍ଭୀର ଲିଷ୍ଟ ଲିଷ୍ଟ

ବିନିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ ଲିଷ୍ଟ
ଗମ୍ଭୀର ଲିଷ୍ଟ ଲିଷ୍ଟ

✓ ପ୍ରାମାଣ୍ୟ ଲିଷ୍ଟ ଲିଷ୍ଟ - ଗୋବିନ୍ଦପୁର

✓ ଲେଖକ ଲିଷ୍ଟ ଲିଷ୍ଟ

ବିନିଷ୍ଟ ଲିଷ୍ଟ

✓ ଗୁରୁ ଲିଷ୍ଟ ଲିଷ୍ଟ

✓ Sreehara Kceman Bishwal

✓ Shama Kceman Bishwal

✓ Gaganbithari Sethi

✓ ଲେଖକ ଲିଷ୍ଟ

✓ Ashok Kumar Seta

✓ Prabhat Kumar Seta

Suryamani Panda (APC)
OSRP CANT

* Prasant Kumar Dash (FC)

* Sampat K. Dash
9437311154 / 9737124304

ଶ୍ରୀକାନ୍ତ (ଅମ୍ଳବୀ)

Umakanta Jia

✓ Subodha Kumar Delusopina
Smo - Team 4

✓ Gyana ranjan Behera
(Balakati)

✓ Nirman Mallik

✓ Mihir Das (OSRP)

✓ N. Behera

✓ Susanta Rout

✓ Sri Chasana Prasad

✓ Babaricharan Swain

✓

✓

✓

✓

ଅନ୍ୟତା ୨୪।୦୪।୨୦୧୫ ରିମ୍ ଦିଆ ୧୦ ଲକ୍ଷିଆ ସମ୍ବନ୍ଧରେ ଉଚ୍ଚତମୁତ୍-ସୁନ୍ଦରୀ ହାତ୍ୟା
 ହାତ୍ୟା କଟକେ ସୁଧା ହାତକନିକା ସୁଧା ଅନୁଷ୍ଠାନ ଚୁଦିଆକୁ ବୋଲୁ ଠାକୁ ଶବ୍ଦେ
 ବୋଲୁ ଅଧିକ ସୁଧିଲୁ ଉପକ୍ରମ ସ୍ଥାପନକାରୀ ଅଧିକାରୀଙ୍କ ରୂପରେ
 ଗୋଟିଏ ହାତ୍ୟା ଶବ୍ଦେ ପ୍ରକ୍ଷେପେ ସ୍ଥାନୀୟ ସାମାଜିକ ତ ପ୍ରତିଷ୍ଠାଗତ
 ସମସ୍ୟା ଚିହ୍ନିତ ହାତ୍ୟା ଶବ୍ଦେ ଅନ୍ୟାନ୍ୟ କିମ୍ବା ଅନ୍ୟାନ୍ୟ ।
 ତେଣୁ ଚିହ୍ନିତ ହାତ୍ୟା କାଳକ୍ରମେ ଲୁଚିତ (OSRP) ତଥ୍ୟ ଶ୍ରୀ ସୁବୋଧ
 କ୍ରମେ ପଦକ୍ଷେପ (SMO), ଶ୍ରୀ ସୁଧାପ୍ରାପ୍ତି ପଣ୍ଡା (APC), ଶ୍ରୀ ପ୍ରଶାନ୍ତ କ୍ରମେ
 ଦାଣ୍ଡ (FC) ଉପକ୍ରମ ଚିହ୍ନିତ ହାତ୍ୟା ସମାପ୍ତରେ ଚିହ୍ନିତ ହାତ୍ୟା ଉଚ୍ଚତମୁତ୍-
 ସୁନ୍ଦରୀ ହାତ୍ୟା ପ୍ରତିଷ୍ଠା ତ ପ୍ରକ୍ଷେପେ ହାତ୍ୟା ସମାପ୍ତ ହାତ୍ୟା
 ଲୋକସାମାଜିକ ପ୍ରତିଷ୍ଠା ତ ସାମାଜିକ ସମସ୍ୟା ଚିହ୍ନିତ ହାତ୍ୟା ପ୍ରକ୍ଷେପ
 ଆଲୋଚନା କରୁଥିବୁ ।

ଚିହ୍ନିତ ହାତ୍ୟା ଅଧିକାରୀ ଚିହ୍ନିତ ନାମକ ଶ୍ରୀମତୀ ନନ୍ଦିନୀ ପାଣି
 ସହାୟତାରେ ସହାୟକୀ ପ୍ରତିଷ୍ଠା କରାଯାଇ ସ୍ଥାନୀୟ ସମସ୍ୟାକୁ
 ଦୂରରେ ରଖି ନିମ୍ନ ପ୍ରକାରର ପ୍ରକାର କରାଯାଇ ।

ପ୍ରସ୍ତାବ ନଂ-୧:- ଲକ୍ଷ୍ୟପତ୍ର ଏହା ସମସ୍ତ ଡକ୍ଟରୀ ହାତ୍ୟା ଉପରେ ପାର୍ଶ୍ୱରେ ଫିଟି ଶିକା-
 ଅନୁଷ୍ଠାନ, ମୁଖ୍ୟ ସ୍ୱାସ୍ଥ୍ୟକେନ୍ଦ୍ର, ଛାତ୍ର ଡାକ୍ତରୀ, ଡକ୍ଟରୀ ଅଫିସ୍, ଡକ୍ଟର ଅଫିସ୍,
 ଥାନା, ପୋଲିସ୍ ଅଫିସ୍, ପ୍ରାୟ ଡକ୍ଟରୀ କେନ୍ଦ୍ର, ଡାକ୍ତରୀ (ସହକାରୀ), ଶ୍ରୀମତୀ ସୁଧା
 ଅଫିସ୍, ଚିହ୍ନିତ ହାତ୍ୟା ଅଫିସ୍ ଅଫିସ୍ । ପ୍ରକ୍ଷେପ ୧୦ ଲକ୍ଷିଆ ହାତ୍ୟା
 ଲୋକ ଡକ୍ଟରୀ ଡାକ୍ତରୀ କରୁଥିବୁ ।
 ଚିହ୍ନିତ ହାତ୍ୟା ଚିହ୍ନିତ ପ୍ରକାର ପ୍ରକାର ହାତ୍ୟା ଅନୁଷ୍ଠାନ ଲକ୍ଷ୍ୟପତ୍ର
 କରୁଥିବୁ । ଚିହ୍ନିତ ହାତ୍ୟା ପ୍ରକାର ହାତ୍ୟା ଡକ୍ଟରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ
 ହାତ୍ୟା ଲକ୍ଷ୍ୟପତ୍ର ପୋଲିସ୍ ଡାକ୍ତରୀ ପ୍ରକାର ହାତ୍ୟା ଲକ୍ଷ୍ୟପତ୍ର
 ପୋଲିସ୍ ଡାକ୍ତରୀ କରୁଥିବୁ ଡକ୍ଟରୀ ହାତ୍ୟା କରୁଥିବୁ ଅନୁଷ୍ଠାନ
 ଡାକ୍ତରୀ କରୁଥିବୁ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ହାତ୍ୟା ପ୍ରକାର ହାତ୍ୟା ପ୍ରକାର
 ସମସ୍ତ ଡାକ୍ତରୀ କରୁଥିବୁ ।

ପ୍ରସ୍ତାବ ନଂ-୨ - ହାତକନିକା ଡାକ୍ତରୀ ସମସ୍ତ ଅଧିକାରୀଙ୍କ କେନ୍ଦ୍ର କଲ୍ୟାଣ ଏହା
 ଉପରେ ୩୦ଟି ପ୍ରକାର ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ
 ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ
 ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ ଡାକ୍ତରୀ

ପ୍ରସ୍ତାବ ନଂ-୩:- ଡାକ୍ତରୀକା ପ୍ରଭାତର ପାଠ୍ୟ ୩୦୦ ଟୁ ଡର୍ଡି ଏକକ ସ୍ଥାନୀୟ ମାନଙ୍କ ପାଇଁ
 ଶୁଦ୍ଧ ସମ୍ପାଦନା କରି ଏକକରେ ପ୍ରଭାତର ପଞ୍ଜିକାରେ ଶୁଦ୍ଧ ୨୦୦ ପୃଷ୍ଠା
 ଚଢ଼ାଇ ସରକାରୀ ଭାବରେ ଏକକରେ ଶାଂକ୍ତି କର୍ମେଶ୍ୱରୀ କାର୍ଯ୍ୟାଳୟ
 ମନ୍ତ୍ରରେ ଧର୍ମସାଧନ ସମ୍ପଦ ସରକାରୀ ଶିକ୍ଷା ସଂସ୍ଥାରେ କରିବା ଲାଗିବ ।

ପ୍ରଶ୍ନାବଳୀ-୪ - ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ି କନିକାର ଆକାଶ ଆକାଶକୁ ଆକାଶ
 ଭିତରୁ କନିକା (ଦିଶୁ ପରିବର୍ତ୍ତନ) ଆକାଶ ଭିତରୁ ନିକଟକୁ ଆକାଶ
 ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ ପୁଣି ପୁଣି ପୁଣି ପୁଣି ପୁଣି ପୁଣି ପୁଣି
 ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ ଆକାଶ ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ
 ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ ଦିଶୁ ପରିବର୍ତ୍ତନ ପଡ଼ିବୁ

(କ) ଡାକ୍ତର ଶୁଭଦ୍ରାପାଲଙ୍କୁ ପାରମ୍ପରିକ ଓ ଦାର୍ଯ୍ୟତା ଦୃଷ୍ଟିରୁ କାହାଙ୍କୁ ।

୩) ତୁମ୍ଭା ଲୋକନାୟକ ହୋଇଥିବେ ନିର୍ଜୀବ ସ୍ଥାନରୁ ସ୍ବପ୍ନ ଦର୍ଶନ କୁଷ୍ଠପ୍ରାପଣ କରାଯାଏ । ଲୁପ୍ତା:- ନଡ଼ିଆ, ଥାମ୍ବ, ପଶିମ ଥିନିଆନି ଫଳଦ୍ରବ୍ୟ, ନିମ୍ବ, ଘରୁ ଘରୁ, କରୁଣି, ଘରୁ, ଅଗ୍ନିକ, ବହୁକ୍ରମ, ବଦାପଦାର୍ଥ, ଚୁକ୍ରୁ, ଶାଳିଶିଳା ନାଗବନ୍ଧୁ ଆଦି କୁଷ୍ଠମାନ ରୋଗପ୍ରାପ୍ତି କରାଯାଏ ।

ପ୍ରଶ୍ନ ୪ :- କଳିକାତ୍ର ଶ୍ରୀମତୀ ଉପାଧିତ ନିର୍ଦ୍ଦେଶ ଦାଢ଼ି ଦାଢ଼ି ନଢ଼ିଆ ଗଢ଼ି ।
ଉଷା ଆମର ନିକଟ ପ୍ରାୟ ।

(କ) ଧାରି ଧାରି ନଈର ବହୁ ସ୍ଥଳରୁ ପଶ୍ଚିମ ପାଖ ଯୁଗ ଜୋନାଲ୍ ହିସାବ
ଭିତ୍ତି ଓ କା.ସ. ୧ ଦୂରକୁ ହାସଲ ନିର୍ମାଣ ହେଉ । ଚିତ୍ର ଜୋନାଲ୍
ନୂତନ ବିକାଶ ସମ୍ପୂର୍ଣ୍ଣ ହୋଇଛି ।

(୧) ଉଦ୍ୟୋଗିତ୍ୱ ଆଦି ଉତ୍ତମ ଗର୍ବ ଶାସ୍ତ୍ରାଦି ନିନ୍ଦ୍ୟା ଗହ୍ୱ ଶୁଦ୍ଧି ଗ୍ରହଣ
ପାଦ୍ୟ ସୁଦୃଢ଼ା ନିନ୍ଦ୍ୟା ଗର୍ବାତ ପାଦ୍ୟ ଗର୍ବେଷ୍ଟ ଏହାଦି କାରଣାଦି ।

(୭) ଭିନ୍ନ ଶାସ୍ତ୍ରାଳୟ ସମ୍ବନ୍ଧରେ ଉପସ୍ଥାପିତ ସ୍ଥାନର ମାର୍ଗ ଛୋଟାପଟା କଥା-ବାତ ।

14) ଚନ୍ଦ୍ରନାମା ଶୁକ୍ର ଉପନୟନ ଯାତ୍ରା ସାଂସଦ ପର୍ବ ଶାସ୍ତ୍ର
ପୁରାଣ ଶିକ୍ଷା ଶୁଦ୍ଧ ଶିକ୍ଷା କରାଯାଉ । କାର୍ଯ୍ୟ ନିୟମ
ସାମାଜିକ ଶିକ୍ଷା କରାଯାଉ ଓ ଶିକ୍ଷା ଦେବାକୁ ନିୟମ ଲାଗୁ ।

(୫) ଅତିରାସ୍ତ୍ର ୧୦୦୦ ଚନ୍ଦ୍ରପାଷାଣର ଗୋପଣ ବ୍ୟବସ୍ଥା କରାଯାଉ ।
ଶିଳ୍ପକଳାକାର ପଦ୍ମାବତୀ ସରକାରୀ ଭବନ, ଅନୁଷ୍ଠାନର ବ୍ୟାପକ ମନ୍ତ୍ରଣା କମିଟି ଗଠନ କରାଯାଉ ।

ତି ଭାବନା ବହୁ ହୋଇଛି ଜଣାଯାଏ ।

ପ୍ରଶ୍ନ ୧୦-୨ :- ହାସ୍ତାକ୍ତ ଓକି ପରିପାଳକ ଓକି ନିଷ୍ପାନ୍ନ ପାଇଁ Ordnance ର
ବ୍ୟବସ୍ଥା କରାଯାଉ ।

ଶେଷରୁ ସ୍ୱାଧୀନ ସମ୍ପର୍କ ପାଇଁ ସ୍ୱାଧୀନ ଓକି ଥାଉଥିବା ବ୍ୟକ୍ତିମାନଙ୍କୁ
ପେନସନାଦ ଓକିର ସ୍ୱାଧୀନ କରାଯାଉ ।

କାର୍ଯ୍ୟାଳୟ
୧୮ ଜାନୁଆରୀ

ନିର୍ଦ୍ଦେଶକ
୧୨ ୩୫୦ ୨୦୦୪
୧୨୩୭୦୨୦୦୦୪
(ସହାୟ) ସ୍ୱାଧୀନ

ସାମ୍ବା ଲକ୍ଷ୍ମୀ ଦାସ ଚେରାକୁସୁରୀ ସାମାଜିକ ସେବା ଲିମିଟେଡ୍
ସମସ୍ୟା ଜିନିଷ ସଫଳତା ସହ

ସ୍ଥାନ:- କୁର୍ବୁଲୁର (କୂଳଦାହି) ଉପଜିଲ୍ଲା
ତାରିଖ:- ୨୫/୦୫/୨୦୧୩
ଆୟୋଜକ:- ଡି.ଜି.ଆ. ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଲକ୍ଷ୍ମୀ (OSRP) PMU

(CART) ରେଭିନ୍ୟୁ ଏବଂ ଆର୍ଥିକ ଦିକ୍ଷା ପ୍ରତିଷ୍ଠାନ, କୁର୍ବୁଲୁର
ଜୋଗିନ୍ଦ୍ର (Agenda)

- (1) ନାମ ଲେଖିକୃତ
- (2) ସ୍ୱାଗତ ଓ ସ୍ୱାଗତ ସମାପନ
- (3) ପ୍ରାରମ୍ଭିକ ପରିଚ୍ଛେଦ ସମ୍ବନ୍ଧରେ ସମୀକ୍ଷା
- (4) ସମାପନ ଆବେଦନ
- (5) ବିବରଣୀ ସମ୍ବନ୍ଧରେ ସମୀକ୍ଷା
- (6) ସ୍ୱାଗତ ସମାପନ (ସାମ୍ବା) ସମ୍ବନ୍ଧରେ ସମୀକ୍ଷା କରାଯିବ
- ଚେରାକୁସୁରୀ ସାମାଜିକ ସେବା ଲିମିଟେଡ୍ ସହ ସମସ୍ୟା
ଜିନିଷ ସଫଳତା ସହ ନିଆଯିବ ନାହିଁ
- ସ୍ଥାନୀୟ ଲିମିଟେଡ୍ କମ୍ପାନୀ ସମାପନ ପ୍ରଦାନ
- (7) ଉପସାହାୟକ ସମାପନ ପ୍ରଦାନ
- (8) ସମାପନ ଆବେଦନ ଉପସାହାୟକ ପ୍ରଦାନ
- (9) ଅନ୍ୟାନ୍ୟ ଲକ୍ଷ୍ମୀ ଓ ସମାପନ

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ସମ୍ପାଦକଙ୍କ ଦ୍ୱାରା ଲିମିଟେଡ୍ କମ୍ପାନୀ
ଓ ସ୍ଥାନୀୟ ଲିମିଟେଡ୍ କମ୍ପାନୀ

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✓ ନି ନ ନ ନ ନ ନ ନ ନ

୩

✓ Sri Rajesh Kumar Barik

୪

✓ ଶ୍ରୀମତୀ

୫

✓ Bijay KU. Nayak

୬

✓ ଶ୍ରୀମତୀ

୭

✓ ପ୍ରହଲ୍ଲାଦ ନାୟକ

୮

✓ ନି. ନି. ନି. ନି. ନି. ନି. ନି. ନି.

୯

✓ prahallad Sahoo

(8)

ନିତ୍ୟନାଥଚନ୍ଦ୍ର

(9)

(10)

Pradyumn Choudhary

Niharomolu Mohanty

(11)

(12)

(13)

(14)

(15)

(16)

Kellip Kumar Mohanty

ଜୟଦେବୀ

Jaya prakash Mohanty

ନବୀନ ନାୟକ

Navayan Nayak

ନାରାୟଣ

(17)

(18)

(19)

ରମେଶ ମହାନ୍ତି

Ramesh Mohanty

ରାଜକିଶୋର ଦାଶ

Laxmi Prasad Sachoo

(20)

(21)

Sachin Nanda parida

ସୁକୁମାର ମହାନ୍ତି

Sukumar das Nath

(22)

(23)

(24)

(25)

ସୁକୁମାର ମହାନ୍ତି

(26)

(27)

ସୁକୁମାର ମହାନ୍ତି

ସୁକୁମାର ମହାନ୍ତି

(28)

(29)

(30)

(31)

(32)

(33)

ରଞ୍ଜିତ କୁମାର

Prasanna Nath

ରଞ୍ଜିତ କୁମାର

ରଞ୍ଜିତ କୁମାର

ରଞ୍ଜିତ କୁମାର

ଆକାଶଚାରୀ କିମ୍ବା ପ୍ରସ୍ତାବ ମାନ ନିଆଯାଏ ।

ପ୍ରସ୍ତାବନା ୧:- କୃତ୍ରିମ, କମ୍ପ୍ୟୁଟର, କୃତ୍ରିମ ଚାନ୍ଦ ଯନ୍ତ୍ର ।
ପୃଥିବୀ ପାଖରେ ଘାଟୁଆ ହୋଇ ଘୂରୁଥିବା ଚାନ୍ଦ
ନିଜର ଆଲୋକ ଦୃଶ୍ୟରୁ ଦୂରରେ ରଖିବା ପାଇଁ ।

ପ୍ରସ୍ତାବନା ୨:- କୃତ୍ରିମ ଚାନ୍ଦର ବ୍ୟବହାର / ବ୍ୟବହାର ନିଶ୍ଚିତ
ପାଖରେ ମୁଖ୍ୟ ଯାନ୍ତ୍ରଣା ଏକ ପ୍ରକାର ହେବ ।
ଏ ଗୋଟି ଗୋଟି ଭାବରେ ପାଖରେ କାର୍ଯ୍ୟକାରୀ
ହେଉଥିବା ବ୍ୟବହାର ପାରିବ । ଏହା ଆମ ମନରେ
ଯାଏ ଯାଏ ପ୍ରକାର ଦେଖିବା ।

ପ୍ରସ୍ତାବନା ୩:- ଦାମ୍ଭାବଣ ସମ୍ବଳ ହେବିବା ପାଇଁ ପ୍ରକୃତ
କୃତ୍ରିମ ପ୍ରକାର ବୃକ୍ଷ ଯଦିଓ ନିର୍ଦ୍ଦିଷ୍ଟ କିମ୍ବା ସ୍ଥାନଗୁଡ଼ିକରେ
ବ୍ୟବହାର କରାଯାଉ ।

- ସ୍ଥାନଗୁଡ଼ିକ ହେବ:-
- (i) କୃତ୍ରିମ ଚାନ୍ଦର ବ୍ୟବହାର ।
 - (ii) କମ୍ପ୍ୟୁଟର ପ୍ରକାର ପ୍ରାଥମିକ ବିଦ୍ୟାଳୟ ପିଲା ।
 - (iii) କୃତ୍ରିମ ବୃକ୍ଷଗୁଡ଼ିକ ଏକ ପ୍ରକାର ନିର୍ମାଣ ।
 - (iv) କୃତ୍ରିମ ଚାନ୍ଦର ବ୍ୟବହାର କୃତ୍ରିମ ।
 - (v) କମ୍ପ୍ୟୁଟର ଦେଖିବା ପାଇଁ ପାଖରେ ବୃକ୍ଷ
ହେଉଥିବେ ।

ପ୍ରସ୍ତାବନା ୪:- (CPR) ଯୋଗାଯୋଗ ସମ୍ବଳ ହେବିବା ପାଇଁ
ହେଉଥିବା, କୃତ୍ରିମ ଚାନ୍ଦର ପ୍ରାଥମିକ ଶିକ୍ଷା
କୃତ୍ରିମ ଚାନ୍ଦର ବ୍ୟବହାର, କୃତ୍ରିମ ଚାନ୍ଦର ବ୍ୟବହାର
ନିର୍ମାଣ ।

ପ୍ରସ୍ତାବନା ୫:- ଆମେ କିଛି ନିର୍ମାଣ ପ୍ରକାର ଦେଖିବା
ହେଉଥିବା । ଏହା ଗୋଟି ନିର୍ମାଣ ପ୍ରକାର
କିଛି ଦାମ୍ଭାବଣ ସମ୍ବଳ ହେବିବା ପାଇଁ
ହେଉଥିବା । ଏହା ଗୋଟି ନିର୍ମାଣ ପ୍ରକାର
କିଛି ଦାମ୍ଭାବଣ ସମ୍ବଳ ହେବିବା ପାଇଁ ।

ପ୍ରସ୍ତାବ ନଂ ୧: - କୁଳୁକୁଳୁ ଜୀବନରେ ୨ ଜଣିଆ ପ୍ରକୃତ ଭାବେ
ବନ୍ଧୁର ବାହି ଶେଷାବସ୍ଥା ୨ ନାମକୁ ନାମାହ।

ସହାୟ ସମ୍ପର୍କୀ ପାଞ୍ଚ ଆବଶ୍ୟକକରି
ସହାୟତା ଦେଖାଇ ଦେଖାଇ ଶୁଦ୍ଧ ସହାୟତା ଦେଖାଇ

✓ ହିନ୍ଦୀ ନାମ,
ସହାୟତା ନାମ
ଅଧ୍ୟାୟକ

- 20 - Bisikesan Sethy
- 21 - Pramal Kumar Sahoo
- 22 - K. Sahu
- 23 - ବିଜୟ କୁମାର
- 24 - Pramod Kumar Sahoo
- 25 - ଶ୍ରୀନୀଳ କୁମାର
- 26 - ଅନନ୍ତ କୁମାର
- 27 - ବିଜୟ କୁମାର
- 28 - K. Sahoo
- 29 - ଅନନ୍ତ କୁମାର
- 30 - Bijay Kumar Nayak
- 31 - Bala Krishna Sahoo
- 32 - Narayan Behara
- 33 - Gopal Krishna Behara
- 34 - Narayan Sahoo
- 35 - ଅନନ୍ତ କୁମାର
- 36 - ଅନନ୍ତ କୁମାର
- 37 - K. Sahoo
- 38 - Gurucharan Nayak
- 39 - Bijaya K. Sahoo
- 40 - Su. Hakim Sahoo
- 41 - Ramesh Ch. Dena
- 42 - Anil Kumar Sahoo
- 43 - ଅନନ୍ତ କୁମାର
- 44 - Rajendra Barick
- 45 - Uday Ch. Dena
- 46 - Pradipta Kumar Sahoo
- 47 -

ପ୍ରସ୍ତାବ-୪ - ଶାସ୍ତ୍ରୀଙ୍କ ସମାବେଶ ଉଦ୍ଦିଷ୍ଟ ପ୍ରକାରର ଏକ ସ୍ୱାଗତ କରାଯିବ
ଯାହାଦ୍ୱାରା ପ୍ରାୟତଃ ଉଦ୍ଦିଷ୍ଟମାନଙ୍କୁ ଯଥାସମ୍ଭବ ଗୋପନୀୟତା କୁ ସୁରକ୍ଷା ଦିଆ
ଯିବାର ସମ୍ଭାବନା ରହିବ । ଯଦି ଉପରୋକ୍ତ ବିଷୟ ଯାଚିବାର କାରଣ ହୁଏ ।

Signature of PAPs

- 1- Rishabrajani Prardham.
- 2- मन्मथ चन्द्र
- 3- अ. Kabiruddin
- 4- श्री हरिप्रसाद
- 5- श्री विष्णु चन्द्र
- 6- श्री प्रतापदीन
- 7- श्री विष्णु चन्द्र
- 8- श्री विष्णु चन्द्र
- 9- श्री विष्णु चन्द्र
- 10- श्री विष्णु चन्द्र
- 11- श्री विष्णु चन्द्र
- 12- Prasad Kumar Swasth
- 13- Raj Kishore Patel
- 14- श्री विष्णु चन्द्र
- 15- Rakesh Bapik
- 16- Sehor K. Singh
- 17- Pradipta Kumar Swasth
- 18- Rakesh Ch. Singh
- 19- Bijay Kumar Mahapatra.

- 20 - Narayan Bohara
- 21 - Babaji Palei
- 22 - Debendra Sathua
- 23 - Bijay Kumar Narak
- 24 - Raghunath Selhi, TL, NNGO.
- 25 - Pradyumna Baeli
- 26 - Adhar Chandra 7090
- 27 - Shibashishu Pradhan (C.C.)
- 28 - P.K. Ghadei (C.C.)
- 29 - Pramila Mohapatra - (P.C.) NNGO,
- 30 - Suddhansu Mohanta Nayak (S.M.O.)
- 31 - Fazel Rabbani (R.C.)
- 32 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 33 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 34 - x Pramod Kumar Rout
- 35 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 36 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 37 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 38 - Subash Ch Jena
- 39 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 40 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 41 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 42 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 43 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 44 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ
- 45 - ଅଧ୍ୟକ୍ଷ ଶ୍ରୀ

ପଢ଼ାଦ୍ୱାରା ସର୍ବସାଧାରଣର ଅବଗତ ନିମନ୍ତେ
ରଜାବଦିଆମାଉଛି, ବିଶୁଦ୍ଧ୍ୟାଙ୍କି ମହାମନ୍ତ୍ରଣ
ତଳିଆ ଶାସ୍ତ୍ରୀ ପ୍ରଫୁଲ୍ଲଦାସ ପ୍ରଭୃତି ନଗରପୁର-ସୁନ୍ଦରୀ
ଶାସ୍ତ୍ରୀଙ୍କ ସମ୍ପ୍ରଦାୟ ଯୋଗୁଁ ଦୁର୍ଦ୍ଦଶାବଳୀ କରାଯାଇଛି ।

ପଢ଼ି ପଢ଼ି ଯୋଗ୍ୟତା ପ୍ରଫୁଲ୍ଲଦାସ ଲକ୍ଷ୍ମୀବ୍ରହ୍ମ
ଶାସ୍ତ୍ରୀ ସହର ଗ୍ରାମର କମଳା ବିଶ୍ୱାସୀଙ୍କୁ ଅନୁରୋଧ
କରାଯାଉଛି ଯେ ଆସନ୍ତା ତା ୨୫-୦୪-୨୦୧୩ରୁ ଉଦ୍ଦିଷ୍ଟ
ଦିନ ଉଦ୍ଦିଷ୍ଟ ସମୟରେ ସ୍ଥାନୀୟ ପାଠାଳୟ ଠାରେ
ଉକ୍ତ ପ୍ରଫୁଲ୍ଲଦାସ ସାମାଜିକ ଯୋଗଦେଇ ମୁଖ୍ୟମନ୍ତ୍ର
କିଛି ସମ୍ମାନ ଅନୁଦିଆ ଗୁଡ଼ିକ ସ୍ୱୀକାର କରିବା
ପାଇଁ କରାଯିବ ।

ପଞ୍ଜ ଆପଣମାନଙ୍କ ଉକ୍ତ ଦିନ ଉପସ୍ଥିତ ପଢ଼ି
ଆପଣମାନଙ୍କ ଉପସ୍ଥିତିରେ ଅନୁରୋଧ କରାଯାଉଛି ।

Fareeh Rabbani

୧- ପ୍ରତିଷ୍ଠାପତି ପ୍ରଧାନ

୨- Apurajita Panigrahy

୩- ଶ୍ରୀମତୀ ଶ୍ରୀ

୪- Shama Shyam Behara

୫- Prasanta K. Das 15/4/13

୬- ଶ୍ରୀମତୀ ପ୍ରମିଳା 15/4/13

୭- Rakesh Sahoo

୮- ଶ୍ରୀମତୀ ମହାଦେବୀ

୯- Prata Bhatta Dash

୧୦- Prabulla K. Dash

୧୧- Samatana Mania

୧୨- Chittaranjan Singh

୧୩- ମାଧବ ଦାସ

୧୪- Chandan K. Sahoo

୧୫- Mahananda Sahoo

୧୬- Jagannath Mania

୧୭- Bhushan Lal

୧୮- R. K. Sahoo

୧୯- Nabakishore Patra

୨୦- Anil K. Sahoo

- 21- Sh Jallaluddin
- 22- Bijoy Kumar Mahapatra.
- 23- Babaji Palei

ସମସ୍ୟା ଦେଖା ଦେବ । କେନ୍ଦ୍ରୀୟ ଚାହୁଁ " ସୁଦୃଢ଼ ଡ୍ରୋଗେନ୍ସ
 ବ୍ୟବସ୍ଥା ନିର୍ମାଣ କରିବା ପାଇଁ" ଯଦିପ୍ରସ୍ତୁତ ଲୋକମାନେ ସହାୟତା
 ଉପାୟାପନା କରନ୍ତି ।

ପ୍ରସ୍ତାବ - ୪ - ପାଗା ବଜାର କୁ ଲାଗିଯିବା ମଧୁବାସ୍ତୁ କିମ୍ବଦନ୍ତୀ ପ୍ରତିଷ୍ଠା
 ଯଦିପ୍ରସ୍ତୁତ ଚାହୁଁ ଲୋକମାନେ ଫିକାରୁ ବଢ଼ିଛି ଏବଂ ଏହା
 ବଜାର କାଶିକୀ ମନ ମଧ୍ୟରେ ଏବଂ ଗାନ୍ଧୀର ପ୍ରଭାବ ପାଜାଏବ ।
 କେନ୍ଦ୍ରୀୟ ମଧୁବାସ୍ତୁ କିମ୍ବଦନ୍ତୀ ପ୍ରତିଷ୍ଠା ଏକ ଉପାୟାପନା ସ୍ଥାନରେ
 ପ୍ରତିଷ୍ଠା କରିବା ପାଇଁ ସମସ୍ତଙ୍କ ଏକ ସହଯୋଗୀ ମଣ୍ଡଳ ସ୍ଥାପନ କରନ୍ତୁ ।

ପ୍ରସ୍ତାବ - ୫ - ପ୍ରାମାଣିକ ମାନେ ଉପାୟାପନା ବଜାର କାଶିକୀ ମାନେ ଲୋକମାନଙ୍କ
 ଗାନ୍ଧୀର ମନରେ ମଣ୍ଡଳ ସ୍ଥାପନ କରନ୍ତୁ ନେ ଲୋକମାନେ ଲୋକମାନଙ୍କ
 ଲୋକମାନଙ୍କ ଜାଗା ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ
 ଲୋକମାନଙ୍କ ଜୀବନ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ

ସହାୟତାରେ ସହାୟତାରେ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ
 ସହାୟତାରେ କରାଗଲା ।

Signature of PARS.

- ① X SAKAM
- 2- Treballa Sagar
- 3- Pritabnata DASH
- 4- ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ
- 5- Sonafon Mania
- 6- ସୁଦୃଢ଼ ୨୫୨୭୩ ୨୫୩୩୩
- 7- Laxmidhara Sahoo
- 8- କାଶିକୀ ଲୋକମାନଙ୍କ
- 9- Lihana (Lihana) Sahoo
- 10- ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ
- 11- Sk Abdul Razak
- 12- Rajoy Kumar Parida
- 13- ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ
- 14- ଲୋକମାନଙ୍କ ଲୋକମାନଙ୍କ

- 15- ୨୨୭୪୭ ଶ୍ରୀ
- 16- Pradyumna Bala
- 17- Shibashishu Pradhan
- 18- Fazal Habbani
- 19- Gopabandhu Behera
- 20- Manoj Kumar Behera
- 21- Sreedhankar Mohanti Nayak
- 22- Adhar Chandra Jena
- 23- Bhabani Samanta (SMO)
- 24- Laxmidevi Kumar Behera

ନୋଟିସ

ତା: ୧୭/୦୪/୧୩

୦୫ ପ୍ରାୟ ଶ୍ରଦ୍ଧାପତ୍ରାଙ୍କର ଅବଗତି ନିମନ୍ତେ
ଜଣାଉଅଛୁ ଯେଉଁଙ୍କି, ବିଶ୍ୱାସୀଙ୍କ ସମାଧିରେ ଲିଙ୍ଗାଭାଷା
ପ୍ରକଳ୍ପଦ୍ୱାରା ପ୍ରସ୍ତୁତି କରାଯିବ - ଶୁଭକାଳି ଭାଷ୍ଟ୍ରର ସଂପ୍ରସାରଣ
କରି ଦିଆ ପୁଣ୍ୟକରଣ କାର୍ଯ୍ୟ କରିଥାନ୍ତି ।

ଏହି ଗଣିତପ୍ରତିରେ ପ୍ରକଳ୍ପଦ୍ୱାରା ଲିଙ୍ଗାଭାଷା
ଭାଷା ଶୁଭକାଳି ଭାଷ୍ଟ୍ରର ସଂପ୍ରସାରଣ ନିମନ୍ତେ ଅନୁରୋଧ
କରାଯାଉଛି ଯେ ଆପଣ ୦୫-୦୪-୧୩ ତାରିଖ ବିକି ଶ୍ରଦ୍ଧାପତ୍ର
ଦିନ ସକାଳ ୧୧ ଘଣ୍ଟାରେ ଶ୍ରୀମନ୍ତ୍ରୀ ମହାଶୟର ୩୦ ଚାନ୍ଦ୍ର ଭାଷ୍ଟ୍ର
ପ୍ରକଳ୍ପ ଦ୍ୱାରା ଶ୍ରୀମନ୍ତ୍ରୀ ମହାଶୟର ୩୦ ଚାନ୍ଦ୍ର ଭାଷ୍ଟ୍ର
ସାମାନ୍ୟ ଅନୁଷ୍ଠାନରେ ଶ୍ରଦ୍ଧାପତ୍ର ଦିଆଯିବ ।

ଏହି ଶ୍ରଦ୍ଧାପତ୍ରାଙ୍କର ଅବଗତି ନିମନ୍ତେ
ଏହି ଶ୍ରଦ୍ଧାପତ୍ରାଙ୍କର ଅବଗତି ନିମନ୍ତେ ଅନୁରୋଧ କରାଯାଉଛି ।

- ୧) Bharat Ch. Sahoo.
- ୨) Umesh Ch. Tinkathiy.
- ୩) Bijay Kumar Sahoo

- ୪) ଜଗନ୍ନାଥ ନାଥନାଥ
- ୫) Brahmamanda Sahoo
- ୬) Premamanda Sahoo
- ୭) Gagan Kumar Sahoo
- ୮) Mahamamanda Mahanty
- ୯) ମାଧବନାଥ

- ୧୦) ଗୁଣ୍ଡିଚା କୁମାର ଯାଦୁ ଦିବାକର
- ୧୧) ରାମଚନ୍ଦ୍ର
- ୧୨) Ramachandra Sahoo
- ୧୩) ପ୍ରମୋଦ ଚନ୍ଦ୍ର
- ୧୪) ପ୍ରମୋଦ ଚନ୍ଦ୍ର
- ୧୫) SK Heelam Sahoo
- ୧୬) ଶ୍ରୀମନ୍ତ୍ରୀ ମହାଶୟ
- ୧୭) SK Kagan Sahoo
- ୧୮) ଶ୍ରୀମନ୍ତ୍ରୀ ମହାଶୟ
- ୧୯) Upendra Nathi Sahoo

(28) ପ୍ରସନ୍ନ ଚନ୍ଦ୍ର

(29) SK. Mujib Bux.

(30) ଅନୁଗ୍ରହ

(31) ଅନୁଗ୍ରହ କରୁଥିଲେ

(32) Anjan K.

(33) Gagan Ku Mohan A.

(34) ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ

(35) ବିଶ୍ଵନାଥ - ରାମ

(36) Maheswar Sahoo

(37) ଅନୁଗ୍ରହ କରୁଥିଲେ

(38) Narendra Behara

(39) Hanekahma Sahoo

(40) ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ

(41) 1858

(42) Sn. Galam Russell.

(43) SK. Abdul Sattar

ପ୍ରସ୍ତାବ - ୧ :- ଗ୍ରାମର କାର୍ଯ୍ୟକାରୀ ଚାକିରୀରେ ନିଯୁକ୍ତ
 ଥିବା କର୍ମଚାରୀଙ୍କୁ ଯାହା ପ୍ରାଥମିକରେ ଶାସନାଳୟରେ
 ରହେ । ତେଣୁ ଗ୍ରାମର ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା
 ଚାକିରୀର ଚଳ କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ

ପ୍ରସ୍ତାବ - ୨ :- ଯାହା ପ୍ରାଥମିକରେ ଶାସନାଳୟରେ
 ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ
 ରହେ । ତେଣୁ ଗ୍ରାମର ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା
 ଚାକିରୀର ଚଳ କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ

ପ୍ରସ୍ତାବ - ୩ :- ଯାହା ପ୍ରାଥମିକରେ ଶାସନାଳୟରେ
 ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ
 ରହେ । ତେଣୁ ଗ୍ରାମର ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା
 ଚାକିରୀର ଚଳ କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ

ପ୍ରସ୍ତାବ - ୪ :- ଯାହା ପ୍ରାଥମିକରେ ଶାସନାଳୟରେ
 ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ
 ରହେ । ତେଣୁ ଗ୍ରାମର ଚାକିରୀରେ ନିଯୁକ୍ତ ଥିବା
 ଚାକିରୀର ଚଳ କର୍ମଚାରୀଙ୍କୁ ଯାହା ଶାସନାଳୟରେ

ସମସ୍ତଙ୍କର ସହଯୋଗ ଥାଉ ।

୧ - Srikant Sahu
 ୨ - Ramesh Chandra Sahu

୩ - ଶ୍ରୀକାନ୍ତ କୁମାର ସାହୁ

୪ - Santosh Kumar Sahu
 ୫ - Madhusudan Sahu

୬ - Ganesh Sahu

୭ - ବିନୟ କୁମାର

୮ - Netrananda Sahu

୯ - Upendra Nath Sahu

୧୦ - ଶ୍ରୀକାନ୍ତ କୁମାର

୧୧ - Ganesh Sahu

୧୨ - Sangram Keshari Sahu

୧୩ - ଶ୍ରୀକାନ୍ତ କୁମାର

୧୪ - Umash Ch. Tripathy

୧୫ - Srikant Sahu

28 - Sh. Hakim Boro

29 - Baburamna K. Boro,

30 - Fazell Rabbani

31 - Manoj Kumar Behera

32 - Sathanku Mohan Nayak

33 - Sunil Kumar Behera

34 - Subashish Pradhan

35 - Gopabandhu Behera

36 - Bhabu Kumar Pal

37 - Ashok Chandra 70%

38 -

ଧର୍ମସ୍ୱାମୀ ସର୍ବସାଧାରଣଙ୍କର ଅବଗତ ନିମନ୍ତେ ଜଣାଉଅଛୁ ଯେ, ବିଶ୍ୱାସୀଙ୍କ ସହାୟତାରେ ଭବିଷ୍ୟତ ସ୍ୱାମୀ ପ୍ରଜନସ୍ୱାମୀ ପ୍ରସ୍ତୁତି କରାଯିବ - ଉପକାରି ସ୍ୱାମୀ ସଂପ୍ରଦାୟର ଉପାୟମୟ କାର୍ଯ୍ୟ କରାଯିବ ।

ଏହି ଗତିରେ ପ୍ରଜନସ୍ୱାମୀ ସହିତ ସ୍ୱାମୀ ସଂପ୍ରଦାୟ ପ୍ରାୟ ୧୫ କିଲୋଗ୍ରାମର ସ୍ୱାମୀଙ୍କୁ କାର୍ଯ୍ୟରେ ନିଯୋଜିତ କରି ଦାୟିତ୍ୱ ତା ୨୪-୦୪-୨୦୧୩ ରିଖ ଦିନ ସ୍ୱାମୀଙ୍କୁ ଦିନ ସମୟ ୪ ଘଟିକା ସମୟରେ ସ୍ୱାମୀଙ୍କୁ "ସାମ୍ବୋରୀ ମନ୍ଦିର" ନାମରେ ଉକ୍ତ ପ୍ରଜନସ୍ୱାମୀ ସାମାଜିକ ଉପାୟରେ ସ୍ୱାମୀଙ୍କୁ ନିଜ ସାମ୍ବୋରୀ ସମ୍ପ୍ରଦାୟରେ ଭବିଷ୍ୟତରେ ବିଶେଷ ଭାବେ କରାଯିବ ।

ଏହି ଉପାୟମୟରେ ଉକ୍ତ ଦିନ ଉପକାରି ସ୍ୱାମୀଙ୍କୁ କାର୍ଯ୍ୟରେ ନିଯୋଜିତ କରି ଦାୟିତ୍ୱ ତା ୨୪-୦୪-୨୦୧୩ ରିଖ ଦିନ ସ୍ୱାମୀଙ୍କୁ ଦିନ ସମୟ ୪ ଘଟିକା ସମୟରେ ସ୍ୱାମୀଙ୍କୁ "ସାମ୍ବୋରୀ ମନ୍ଦିର" ନାମରେ ଉକ୍ତ ପ୍ରଜନସ୍ୱାମୀ ସାମାଜିକ ଉପାୟରେ ସ୍ୱାମୀଙ୍କୁ ନିଜ ସାମ୍ବୋରୀ ସମ୍ପ୍ରଦାୟରେ ଭବିଷ୍ୟତରେ ବିଶେଷ ଭାବେ କରାଯିବ ।

୧. ସଂପ୍ରଦାୟର ଉପକାରି
୨. ସଂପ୍ରଦାୟର ଉପକାରି
୩. ପ୍ରଜନସ୍ୱାମୀଙ୍କୁ
୪. ମନ୍ଦିରର ସ୍ୱାମୀ
୫. ସଂପ୍ରଦାୟର ଉପକାରି
୬. ସଂପ୍ରଦାୟର ଉପକାରି
୭. ସଂପ୍ରଦାୟର ଉପକାରି
୮. ସଂପ୍ରଦାୟର ଉପକାରି
୯. ସଂପ୍ରଦାୟର ଉପକାରି
୧୦. ସଂପ୍ରଦାୟର ଉପକାରି
୧୧. ସଂପ୍ରଦାୟର ଉପକାରି
୧୨. ସଂପ୍ରଦାୟର ଉପକାରି

୧୩. ସଂପ୍ରଦାୟର ଉପକାରି
୧୪. ସଂପ୍ରଦାୟର ଉପକାରି
୧୫. ସଂପ୍ରଦାୟର ଉପକାରି
୧୬. ସଂପ୍ରଦାୟର ଉପକାରି
୧୭. ସଂପ୍ରଦାୟର ଉପକାରି
୧୮. ସଂପ୍ରଦାୟର ଉପକାରି
୧୯. ସଂପ୍ରଦାୟର ଉପକାରି
୨୦. ସଂପ୍ରଦାୟର ଉପକାରି

୨୧ - Niranjana Sathy

୨୨ - Manoj Sain

୨୩ - Praveen Sahoo

୨୪ - Anilkumar Prusty

୨୫ - Sudipta Sahoo

୨୬ - ପ୍ରଦୀପ

୨୭ - Trilokan Sahoo

୨୮ - ବିନୟ ସିଂହ

୨୯ - ପ୍ରଦୀପ କୁମାର

୩୦ - ଅନୁଷ୍ଠାନ ସାହିତ୍ୟ

୩୧ - Salim Ahmed Khan

୩୨ - Astor Sahu

୩୩ - Mahendra Bhatnagar

୩୪ - ଅନୁଷ୍ଠାନ

୩୫ - EPRHEM

୩୬ - Sadrat Chandra

୩୭ - Jugal Kishore Saini

୩୮ - SK. Mansoor Ali

୩୯ - Sheikh Jalaluddin

୪୦ - Narayan Prasad

୪୧ - Radhika Jena

୪୨ - Animesh Pradhan

୪୩ - Sushil Kumar Halder

୫୧ - ଅନୁଷ୍ଠାନ

ଉତ୍ତର ଗୋଷ୍ଠୀକୁ ପୁରୁ କହିବା ଗାନ୍ଧୀଙ୍କ ଚେଷ୍ଟା ଉଦ୍ଦୀନା ଏ ବିକଳ ବ୍ୟବସ୍ଥା
କହିବା ନିଷିଦ୍ଧ ସଞ୍ଚାରର ଉପସ୍ଥିତି ଯିବା ଉପବାସୀଙ୍କେ ଡାକଣ ପ୍ରଦାନ
କରନ୍ତୁ ।

[illegible]

→ ପ୍ରକାଶ-ଟ- ପଦ୍ଧତିର ବ୍ୟାପକ କର୍ମକଳା ନିୟାମନ ବାହା କ୍ଷୁଦ୍ର ଚକ୍ରବର୍ତ୍ତୀ ବ୍ୟବସ୍ଥା କରିବା ନିମନ୍ତେ ପଦ୍ଧତିର ଆବଶ୍ୟକୀୟ କାର୍ଯ୍ୟକାରୀ ।

୨ ପ୍ରସ୍ତାବ-୫ - ଚାନ୍ଦପୁର ବଜାରକୁ ଭାଙ୍ଗି ଚନ୍ଦ୍ରବିଜି ନିଗ୍ରମନିରୁ, ହାତ ଚୁରା, ଚକଟିକାକୁ, ଝୁଲି, ଚୁଇଚିଟି, ଗାଈ, ଡାକ, Panchayat office, Midwifery college, ITI college, veterinary office, Sub registration office, Treasury office, Agriculture office, PHC ର ସମସ୍ତା ସାମାନ ସଂଗ୍ରହ । ଏହି କନ ପଡ଼ିଲି ପ୍ରାୟ ସାତରୁ ଚଳୁଥିବା ସ୍ବତନ୍ତ୍ର ନରୀମା ମାଝା କୁଳପ୍ରାୟ ଡାକିବା କାବଲା ଏକ ତତ୍ତ୍ବର ଡ୍ରାଫ୍ଟ କରାଯିବା ମାଝା ଚଳାଉ ପରିଷଦମାନେ ମଧ୍ୟ ଏମାନ କରୁ ଏବଂ ଉକ୍ତ କର୍ମଚାରୀଙ୍କୁ ପୁଣି ଗୋଟିଏ ଲାଭିବା ମାଝା ଦେଇଛାନ୍ତି କରୁ ।

→ ପ୍ରଶ୍ନ-୨ - ମାର୍ଜନେ ନିକଟରେ ଛାଡ଼ି ଦେଇ ସାମାନ୍ୟତା ଦେବା ଉଚିତ୍ ।
କାରଣ ନିକଟରେ ଥିବା ଗୋଟିଏ କିମ୍ବା ଦୁଇ ମାର୍ଜନେ କାର୍ଯ୍ୟ କରିବା
ପାଇଁ ସଜାତ ସାଧନା କରାଯାଏ ।

ବିଜ୍ଞାପକର ବହାଗିନିଷ୍ଠି ଦେଖିବା ନିମ୍ନ ସତ୍ୟତା କରାଗଲା ।

- १ - श्री श्री गुरुदेव
- २ - Dhanir Dhanir Dhanir
- ३ - श्री गुरुदेव
- ४ - Bharat Charan Maharaj
- ५ - Samir Samal
- ६ - Prakash Benapati
- ७ - Salim Ahmed Khan

୮- Sharieb Jalal vohd

୯- ମନୁ ୦୨୫୫୩

୧୦- Jugal kishore

୧୧- Hrushikesh Sahoo

୧୨- ନିମିଷ ମାଲି

୧୩- ବିଜିତା

୧୪- ଜ୍ଞାନ କାନ୍ତ

୧୫- ଅନନ୍ତ କୁମାର

୧୬- ପ୍ରମିଳା ମାତୁରି

୧୭- manoj karan mandant

୧୮- Nishakanta Kan

୧୯- Sadiptha Sahoo

୨୦- ପ୍ରମୋଦ କୁମାର

୨୧- ମାଳବିକା

୨୨- Kshirod Malia

୨୩- ବିନୟ କୁମାର

୨୪- କୁମାର ମନ କୁମାର

୨୫- Babu Narayan Sahoo

୨୬- Gopabandhu Belena

୨୭- Fazal Rabbani

୨୮- ବିନୟ

୨୯- Bhabu Sanku Pal

୩୦- Adhar chandra zene

୩୧- Pradyumna Bal

ଉଦ୍ଦିଷ୍ଟ ଯୋଗାଣରେ ଉତ୍ପାଦିତ ଉତ୍ପାଦ
ପାଲ୍ଲୀରେ ଶାଳାବଳୀରାୟ ଉଦ୍ଦେଶ୍ୟ କରୁଛନ୍ତି ।

- (90) Upendo Nath p. 9/18

(88) ପ୍ରମିଳା ଦାସ

(89) ସି. K. Majib Bux.

(90) ମହାପାତ୍ର

(91) ପ୍ରମିଳା ଦାସ

(92) Anjan Kumar

(93) Gajam K. Mohan

(94) ପ୍ରମିଳା ଦାସ

(95) ବିପିନ କୁମାର

(96) Maheswar Sahoo

(97) ପ୍ରମିଳା ଦାସ

(98) Narendra Behara

(99) Maheswar Sahoo

(100) ପ୍ରମିଳା ଦାସ

(101) 125th

(102) Sh. Gajam Roshni

(103) SK Maheswar Sahoo

ପ୍ରସ୍ତାବ - ୫ - : ଶ୍ରୀମତୀ ଜାମୁନେଶ୍ୱରୀ ଚାନ୍ଦୁରୀଙ୍କ ଶିକ୍ଷଣର
 ଥିବା କାର୍ଯ୍ୟକୁ ଆହୁରି ପ୍ରସ୍ତୁତ କରିବା ପାଇଁ ନିମ୍ନ
 ଲେଖା : ଶେଷ ଶେଷ ଚାନ୍ଦୁରୀଙ୍କ ଶିକ୍ଷଣର ଶୁଭାଶୀର୍ଷ
 ଚାନ୍ଦୁରୀଙ୍କ ଶିକ୍ଷଣର ଶୁଭାଶୀର୍ଷ ଶ୍ରୀମତୀ ଚାନ୍ଦୁରୀଙ୍କ ଶିକ୍ଷଣର

ପ୍ରସ୍ତାବ - ୬ - : ଶ୍ରୀମତୀ ପ୍ରମିଳା କୁମାରୀଙ୍କ ଶିକ୍ଷଣର
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 ଶ୍ରୀମତୀ ପ୍ରମିଳା କୁମାରୀଙ୍କ ଶିକ୍ଷଣର ଶୁଭାଶୀର୍ଷ ଶ୍ରୀମତୀ ପ୍ରମିଳା କୁମାରୀଙ୍କ ଶିକ୍ଷଣର
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ପ୍ରସ୍ତାବ - ୭ - : ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ
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ପ୍ରସ୍ତାବ - ୮ - : ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ
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୧. / Srikanth S. Saha
 ୨. Ramesh Chandra Saha

୩. ଶ୍ରୀମତୀ ଜାମୁନେଶ୍ୱରୀ ଚାନ୍ଦୁରୀ

୪. Santosh Kumar Saha

୫. Madhusudan Mahapatra

୬. Gun W. Saha

୭. ବିପ୍ଳବୀ ଶ୍ରୀମତୀ

୮. Netra nanda Saha

୯. Upendra Nath Saha

୧୦. ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ

୧୧. Parma Chandra Saha

୧୨. Sangram Keshari Saha

୧୩. ଶ୍ରୀମତୀ ଜାମୁନେଶ୍ୱରୀ ଚାନ୍ଦୁରୀ

୧୪. Umesh Ch. Tripathy

୧୫. Bijay Kumar Saha

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- ୧୭- SK HEKIM BUST
- ୧୮- Baburanna Ku Bae,
- ୧୯- Fazeih Rabbani
- ୨୦- Manat Kumar Behera
- ୨୧- Sathanta Mohanti Nayak
- ୨୨- Sunil Kumar Behera
- ୨୩- Subashish Pradhan
- ୨୪- Gopabandhu Behera
- ୨୫- Bhaban Kumar Behera
- ୨୬- Ashok Chandra 700
- ୨୭-

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~ Dr. Kameswar Bhusan
~ Rajabhat Kurnar Bhusan
~ Sachin Kumar Bhusan

~ ୧୯୭୯ ମସିହା
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~ ୧୯୮୧ ମସିହା
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~ ୧୯୮୪ ମସିହା
~ ୧୯୮୫ ମସିହା

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- ୧୯୮୭ ମସିହା ଉପର ଉପର ଉପର

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sachi Gogonbihari Selhi
मन्त्रि मन्त्र
अश्वमेध रत्न
Boja Umakanta n'a
Pore गंगा (गंगा)
संज्ञा संज्ञा

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Subodha Kanga Delubopara (Syo-4)

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Nerajan Malik

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B:

✓ Henry K. - 1 leaf

~ Gogambikari Sadhu

✓ See John Keman Bristol.

১৫/১১/১৩

2024.11.10 - 2024.11.11 2024.11.12

~*~*~
 ॐ नमो भगवते वासुदेवाय

1. ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩)
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୨) 1. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 2. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 3. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 4. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 5. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 6. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 7. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 8. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 9. ଶବ୍ଦ
 ଶବ୍ଦଟି କେଉଁ ଶ୍ରେଣୀର ଅଟେ (୩) 10. ଶବ୍ଦ

[illegible]

1. ଅଧିକାଂଶ 'ସମାଜ' ଗ୍ରନ୍ଥ ବାହାରେ ଶେଷରେ - : ୧୫୫

ତାହା ଲାଗୁଥିବା ସ୍ଥାନର ନାମ
ପ୍ରାୟ ୧୫୦୦ ମସିହା ପୂର୍ବରୁ ତାହା ଗଢାଯାଇଥିଲା

Suryamani Panda (APC)
OLRP CARF

+ Prasant Kumar Dash (FC)

* Sanjay Kumar Dash
9437311154 / 9937124304

ଶ୍ରୀକାନ୍ତ (ଶ୍ରୀକାନ୍ତ)

Umakanta Jia

✓ Subodha Kumar Deshpande
Sno - 75094

✓ Gyana Ranjan Behera
(Balakati)

✓ Niranjan Mallik

✓ Mihir Das (OSHIA)

✓ N. Behera

୧. ଶ୍ରୀମଦ୍ଭଗବତ୍ ଗୀତାରେ ଉଲ୍ଲେଖ କରାଯାଇଥିବା ଧର୍ମ ଓ ଅଧର୍ମର ବିବରଣ୍ୟ ଓ ତାହାର ଫଳ
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 ୪. ଧର୍ମ ଓ ଅଧର୍ମର ସାମାଜିକ ବିବରଣ୍ୟ ଓ ତାହାର ଫଳ
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১৯৫৫ খ্রিঃ

ପ୍ରଶ୍ନାବଳୀ-୪ - (ବିଶ୍ୱ ପରିଷଦ ପ୍ରତି ଜନିତାତ୍ମକ ଆଦେଶ ଦେବାକୁ ଆବେଦନ କରିବା) (ବିଶ୍ୱ ଉପାଧିକାରୀ) ଆମେ ଏହିପରି ନିମ୍ନଲିଖିତ କାର୍ଯ୍ୟକ୍ରମ ପ୍ରସ୍ତୁତ କରୁଛୁ: ପ୍ରଜାତନ୍ତ୍ର ଓ ନିର୍ବାଚନ ପ୍ରଣାଳୀ, ବିଧାନ ସଭା ଓ ଆମେ ଏକାଧାରରେ ପାଠ୍ୟ ପୁସ୍ତକ ପ୍ରସ୍ତୁତ କରୁଛୁ ଏବଂ ଏହାକୁ ନିମ୍ନଲିଖିତ କାର୍ଯ୍ୟକ୍ରମରେ ପଢ଼ାଯିବ।

୩) ତୁମ୍ଭା ଗୋବିନ୍ଦାୟକ୍ତି ହାସଲେ ନିର୍ଜ୍ୟା ସ୍ଥାନର ସମସ୍ତ ବ୍ୟବସାୟ
କାର୍ଯ୍ୟାଚାର । ଅର୍ଥା:- ନଈଆ, ଆଳୁ, ପଣସ ଏନାମୀ ମୂଲ୍ୟକୁ, ନିମ୍ବ,
ଅଶ୍ରୁ, କହଁଡ଼ି, ବଉଳ, ଅଗୋକ, ବୁଟୁକୁସ, ବେପଦାର, ଚୁକ୍କା, ଶ
ନାଗେନ୍ଦ୍ର ଆଦି ଦ୍ରବ୍ୟମାନ ରୂପରେ କାର୍ଯ୍ୟାଚାର ।

(କ) ଯାହି ଯାହି ନିଠିଆ ବହୁ କରୁଣ, ପଶ୍ଚିମ ପାଞ୍ଚ ମୁତ ଜେନାକୁ ହସେ
 ଭଜି ୫ ଜା.ମ. ୨ ପ୍ରଜାପୁ ହାସ୍ତ ନିମାଣ ମେଠି । ଚନ୍ଦ୍ର ଜେନାକୁ ୨
 ଦିନ ଭଜନ୍ତୁ କରୁଛୁ ମୋହୁ ।

(୭) ଓଡ଼ିଶା ସ୍ୱାଧୀନତା ସଂଗ୍ରାମୀୟ ଇତିହାସ ଉପରେ ଆଧାର କରି ଲେଖାଯାଇଛି ।

(୨) ଚନ୍ଦ୍ରନାମା ଶ୍ରୀ ଚନ୍ଦ୍ର ଉପାସନା ଯାତ୍ରା ଯାତ୍ରା ସମ୍ପର୍କିତ ଶାସ୍ତ୍ରୀ
ପୁରୀ ପାଞ୍ଚାଙ୍ଗ ନିର୍ଦ୍ଦେଶ ଗ୍ରନ୍ଥ ଶ୍ରୀ ଚନ୍ଦ୍ର ଶାସ୍ତ୍ରୀ । ଯାତ୍ରା ନିର୍ଦ୍ଦେଶ
ସାମାଜିକାଦି କିମ୍ବଦନ୍ତୀ ଚନ୍ଦ୍ର ଶାସ୍ତ୍ରୀ ନିର୍ଦ୍ଦେଶ ଗ୍ରନ୍ଥ ଶ୍ରୀ ଚନ୍ଦ୍ର ଶାସ୍ତ୍ରୀ ।

(୫) ଅତିରାଶି ୪୦୦୦ ଟଙ୍କା ପ୍ରତି ବ୍ୟୟ କରାଯାଇ ଏହାକୁ ଲାଭାବୀ କରିବା ପାଇଁ ଶୁଦ୍ଧିକରଣ କରାଯାଇଛି। ଏହାକୁ ଲାଭାବୀ କରିବା ପାଇଁ ଶୁଦ୍ଧିକରଣ କରାଯାଇଛି।

ନେଟିସ୍ ଆଲୋଚନା କମିଟି

ତା: ୧୭/୦୪/୨୦୧୩

ଧନ୍ୟବାଦ ସର୍ବ ସାଧାରଣଙ୍କୁ ଅବଗତ କରାଉଅଛୁ ଯେ, ବିଶ୍ୱବ୍ୟାପୀ ସ୍ତ୍ରୀମୁଖରେ ଚିକିତ୍ସା ସ୍ୱାସ୍ଥ୍ୟ ପ୍ରକଳ୍ପଦ୍ୱାରା ପ୍ରସ୍ତୁତି କରାଯିବ - ଶୁଦ୍ଧତା ରକ୍ଷା ସଂପ୍ରସାରଣ ଓ ପୁରୀକରଣ କାର୍ଯ୍ୟ କରିବ ।

ଏହି ପରିସ୍ଥିତିରେ ପ୍ରକଳ୍ପଦ୍ୱାରା ଅତିପ୍ରସ୍ତୁତ ସ୍ୱାସ୍ଥ୍ୟ ସଂରକ୍ଷଣ ପ୍ରକଳ୍ପ ବ୍ୟକ୍ତି ବିଶେଷ ମାନଙ୍କୁ ଅନୁରୋଧ କରାଯାଉଛି ଯେ ଯାହା ତା ୨୪-୦୪-୨୦୧୩ ରୁ ଦୁଇବାର ଦିନ ସମୟ ୪ ଘଟିକା ସମୟରେ ସ୍ଥାନୀୟ ସାମ୍ବେଦନୀ ମନ୍ଦିର ମିଳରେ ଉକ୍ତ ପ୍ରକଳ୍ପଦ୍ୱାରା ସାମାଜିକ ଉପାଦାନ ସମ୍ବେଦନୀ ସମୟରେ କି କି ସାମାଜିକ ଅସୁବିଧା ରହିବ ତାହା ବିଷୟରେ ବିବରଣୀ କରାଯିବ ।

ଏହି ଆବେଦନାରେ ଆଗବନବା ମାଧ୍ୟମରେ ଅନୁରୋଧ କରାଯାଉଛି ।

୧. ଅନୁରୋଧ କରାଯାଉଛି

୨. ଅନୁରୋଧ କରାଯାଉଛି

୩. ଅନୁରୋଧ କରାଯାଉଛି

୪. ଅନୁରୋଧ କରାଯାଉଛି

୫. ଅନୁରୋଧ କରାଯାଉଛି

୬. ଅନୁରୋଧ କରାଯାଉଛି

୭. ଅନୁରୋଧ କରାଯାଉଛି

୮. ଅନୁରୋଧ କରାଯାଉଛି

୯. ଅନୁରୋଧ କରାଯାଉଛି

୧୦. ଅନୁରୋଧ କରାଯାଉଛି

୧୧. ଅନୁରୋଧ କରାଯାଉଛି

୧୨. ଅନୁରୋଧ କରାଯାଉଛି

୧୩. ଅନୁରୋଧ କରାଯାଉଛି

୧୪. ଅନୁରୋଧ କରାଯାଉଛି

୧୫. ଅନୁରୋଧ କରାଯାଉଛି

୧୬. ଅନୁରୋଧ କରାଯାଉଛି

୧୭. ଅନୁରୋଧ କରାଯାଉଛି

୧୮. ଅନୁରୋଧ କରାଯାଉଛି

୧୯. ଅନୁରୋଧ କରାଯାଉଛି

୨୦. ଅନୁରୋଧ କରାଯାଉଛି

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୧ ପ୍ରଶ୍ନ)	କି. ପଦ୍ମାବତୀ ପୁରୁଷୋତ୍ତମ ନାଥଙ୍କ ଶ୍ରେଣୀ ଅନ୍ତର୍ଗତ କିଛି ସମସ୍ୟା
ଉତ୍ତର	କିଛି ନିମ୍ନ ଶ୍ରେଣୀର ଉପସ୍ଥିତ ଥିବା ସମସ୍ୟାଗଣ କାର୍ଯ୍ୟ ପ୍ରମାଣ
ଅନ୍ତରା	କରନ୍ତି ।

[illegible]

ଆଲୋଚନା	→ ପ୍ରକାଶ-୪- ପଢ଼ାବୁଦ୍ଧ ଶିକ୍ଷାରେ ବର୍ତ୍ତମାନ ବିଦ୍ୟାପନ ମାଧ୍ୟମ ସ୍ୱରୂପ ଡିଜିଟାଲ ସମ୍ବଳଣ କ୍ଷମିତା ବିଶେଷ ପଢ଼ାରେ ଆବେଦନ କରାଯିବ ।
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ପରୀକ୍ଷା	୨ ପ୍ରଶ୍ନାବ-୧ - ପାଠ୍ୟପୁସ୍ତକ କୋଡ଼ରୁ ଭାବି ପଢ଼ନ୍ତୁ ଲିଖୁ ମିଳିବ, ଗ୍ରାମ ପୁରାଣ, ଗଡ଼ଜାତ, ସୁନା, ଭାବନା, ପାନୀ, ଡାକ, Panchayat Office, Pharmacy College, ITI College, Veterinary Office, Sub registration Office, Treasury Office, Agriculture Office, PNC ର ସମସ୍ତା
ଆକାଶବାନୀ	ସ୍ଥାନ ରହିଛି । ତେଣୁ କେବଳ ପଢ଼ିବା ପାଇଁ ପାଠ୍ୟପୁସ୍ତକ କୋଡ଼ରୁ ଭାବି ନିଆଯାଉ ।
ମିଳି	କାଗଜରୁ ଡାକିବା କାମ ସମାପ୍ତ ହେବା ପରେ କେବଳ ପଢ଼ିବା ପାଇଁ ପାଠ୍ୟପୁସ୍ତକ କୋଡ଼ରୁ ଭାବି ନିଆଯାଉ ।
କା ପଢ଼ିବ	ପିତୃତାମହ ମତ୍ତ ସମାନ କରୁଥିବା ଭାବନାକୁ ମିଳି-ପା-କରଣ
ମୁଖ	କରିବା ପାଇଁ ନିର୍ଦ୍ଦେଶ ଦିଆଯାଉ ।
ସମାପନ	

ପ୍ରା. ୧୫	୨	ପ୍ରଶ୍ନ-୨ - ମାର୍ବର ନିକଟରେ ଛାଡ଼ି ଦିଆଯାଇଥିବା ବାମାବର ହାତୀ ଉପରେ କମଳାବତୀ ନିକଟରେ ହାତୀ ଉପରେ କିଛି କିଛି କିଛି ମାର୍ବର କିଛି କିଛି ପାଖରେ ପଡ଼ିଯାଇଛି । କିଛି କିଛି ।
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ସହାୟକ ସ୍ୱାମୀଙ୍କୁ ଦେବାଦାନ କରିବା ସହାୟକ କରିବା ।

[illegible]

8 - Bharat Charan Mungy

8-	Samin Samal
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				D- Prakash Benapati
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9 - Sakim Ahmed Khan

[illegible]

୮ - Sharieb Jalal waleh
 ୯ - ମୁମ୍ତାଜ୍ ଶାହି
 ୧୦ - Jugal kumar waleh
 ୧୧ - Humish Shah
 ୧୨ - ନମସ୍କାର ମାଲିକ
 ୧୩ - ବିଜିତା
 ୧୪ - ଭୀମେଶ୍ୱରୀ
 ୧୫ - ଅଗସ୍ତ୍ୟ ଶାହି
 ୧୬ - ଶ୍ରୀମତୀ ମାଲିକ
 ୧୭ - Manoj Kumar Malhotra
 ୧୮ - Nishant Singh
 ୧୯ - Sushant Singh
 ୨୦ - ସୁଶାନ୍ତ ସିଂହ
 ୨୧ - ମହମ୍ମଦ୍ ଶାହି
 ୨୨ - Ishirad Malla
 ୨୩ - ବିନୟ ଶାହି
 ୨୪ - ଦୁର୍ଗାଧର ଶାହି
 ୨୫ - Babu Narayan Sahu
 ୨୬ - Gopabandhu Behera
 ୨୭ - Fazal Rabbani
 ୨୮ - ବିନୟ
 ୨୯ - Bhawan Prasad
 ୩୦ - Adhar Chandra Zeng
 ୩୧ - Pradyumna Bal

ଅମଳା ପାଣି ୧୫୦ ମିଲି ଲିଟର ପାଣି ୧୫୦ ମିଲି ଲିଟର

ଅମଳା ପାଣି ସହି ଆମର ଦୃଷ୍ଟି ଆମର ଦୃଷ୍ଟି

ଅମଳା ପାଣି (ଅମଳା ପାଣି) ଏକ ଶୁଦ୍ଧ ପାନୀୟ ପଦାର୍ଥ

ଅମଳା ପାଣି (Kushmapur)

Radhakrishna Bank

ଅମଳା ପାଣି

ଅମଳା ପାଣି

ଅମଳା ପାଣି

Satyam Bank

ଅମଳା ପାଣି

ଅମଳା ପାଣି

LTI Kali Bank

Sachida Nanda Parida

କଟକର ଶ୍ରୀ
Bojary Kunjaram.

Presanta Barik
ଫୁଲ ପ୍ରସାଦେଇ

ମିତ୍ରମଣ୍ଡଳ

ରାଜ୍ୟ ମାଳ
ପାଣିପାଣି
ସାଗରୀ

ମୁକ୍ତ ବସନ୍ତେଇ

Deivan Natti

ମୁକ୍ତ ବସନ୍ତେଇ

ଫୁଲ ମାଳ

ପ୍ରାଣେଇ

Brohmaraka Sethi

ଫୁଲ ମାଳ

ମୁକ୍ତ ବସନ୍ତେଇ

Hisshad Rehena

ମୁକ୍ତ ବସନ୍ତେଇ

[ମୁକ୍ତ ବସନ୍ତେଇ]

[illegible]

23. 12. 2019 (Kruschke)

(১৪৪০০) প্রায় ১০০০ হাট ১৬০০
 (১৪৪০০০ প্রায় ১০০০ হাট ১৬০০)

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sachin Nanda parida

ଅନନ୍ତ କୁମାର

Bejoy K. Nayan

Prasanta Behera

ଅନନ୍ତ କୁମାର (ନିଆଁସିଆ)

ରବିନାଥ

ମାରିଶସ୍

ସାବିତ୍ରୀ

ମୁକ୍ତେଶ୍ୱର

Saikat Naiti

ନିର୍ମଳା

ଅନନ୍ତ କୁମାର

ବ୍ରହ୍ମାନ୍ଦ

Brahmananda Sethi

ଅନନ୍ତ କୁମାର

ଅନନ୍ତ କୁମାର

Mushant Behera

ନିର୍ମଳା

(ନିଆଁସିଆ)

Narayan Nayak

ଅନନ୍ତ କୁମାର

Behera Kumar Rakta

✓ Smt Rajesh Kumar Behera

1789

গণকায়

25/10/2019

✓ Bijay Kumar Nayak,

25/11/2023

✓ Sing Rajesh Kumawat Bawark

157-18 5 6 7 8 9 ✓

১৫/০৫/২০২০
 ১৫/০৫/২০২০

1. ~~2017/18~~ 2. ~~2018/19~~ 3. ~~2019/20~~ 4. ~~2020/21~~ 5. ~~2021/22~~ 6. ~~2022/23~~ 7. ~~2023/24~~ 8. ~~2024/25~~ 9. ~~2025/26~~ 10. ~~2026/27~~ 11. ~~2027/28~~ 12. ~~2028/29~~ 13. ~~2029/30~~ 14. ~~2030/31~~ 15. ~~2031/32~~ 16. ~~2032/33~~ 17. ~~2033/34~~ 18. ~~2034/35~~ 19. ~~2035/36~~ 20. ~~2036/37~~ 21. ~~2037/38~~ 22. ~~2038/39~~ 23. ~~2039/40~~ 24. ~~2040/41~~ 25. ~~2041/42~~ 26. ~~2042/43~~ 27. ~~2043/44~~ 28. ~~2044/45~~ 29. ~~2045/46~~ 30. ~~2046/47~~ 31. ~~2047/48~~ 32. ~~2048/49~~ 33. ~~2049/50~~ 34. ~~2050/51~~ 35. ~~2051/52~~ 36. ~~2052/53~~ 37. ~~2053/54~~ 38. ~~2054/55~~ 39. ~~2055/56~~ 40. ~~2056/57~~ 41. ~~2057/58~~ 42. ~~2058/59~~ 43. ~~2059/60~~ 44. ~~2060/61~~ 45. ~~2061/62~~ 46. ~~2062/63~~ 47. ~~2063/64~~ 48. ~~2064/65~~ 49. ~~2065/66~~ 50. ~~2066/67~~ 51. ~~2067/68~~ 52. ~~2068/69~~ 53. ~~2069/70~~ 54. ~~2070/71~~ 55. ~~2071/72~~ 56. ~~2072/73~~ 57. ~~2073/74~~ 58. ~~2074/75~~ 59. ~~2075/76~~ 60. ~~2076/77~~ 61. ~~2077/78~~ 62. ~~2078/79~~ 63. ~~2079/80~~ 64. ~~2080/81~~ 65. ~~2081/82~~ 66. ~~2082/83~~ 67. ~~2083/84~~ 68. ~~2084/85~~ 69. ~~2085/86~~ 70. ~~2086/87~~ 71. ~~2087/88~~ 72. ~~2088/89~~ 73. ~~2089/90~~ 74. ~~2090/91~~ 75. ~~2091/92~~ 76. ~~2092/93~~ 77. ~~2093/94~~ 78. ~~2094/95~~ 79. ~~2095/96~~ 80. ~~2096/97~~ 81. ~~2097/98~~ 82. ~~2098/99~~ 83. ~~2099/00~~ 84. ~~2100/01~~ 85. ~~2101/02~~ 86. ~~2102/03~~ 87. ~~2103/04~~ 88. ~~2104/05~~ 89. ~~2105/06~~ 90. ~~2106/07~~ 91. ~~2107/08~~ 92. ~~2108/09~~ 93. ~~2109/10~~ 94. ~~2110/11~~ 95. ~~2111/12~~ 96. ~~2112/13~~ 97. ~~2113/14~~ 98. ~~2114/15~~ 99. ~~2115/16~~ 100. ~~2116/17~~ 101. ~~2117/18~~ 102. ~~2118/19~~ 103. ~~2119/20~~ 104. ~~2120/21~~ 105. ~~2121/22~~ 106. ~~2122/23~~ 107. ~~2123/24~~ 108. ~~2124/25~~ 109. ~~2125/26~~ 110. ~~2126/27~~ 111. ~~2127/28~~ 112. ~~2128/29~~ 113. ~~2129/30~~ 114. ~~2130/31~~ 115. ~~2131/32~~ 116. ~~2132/33~~ 117. ~~2133/34~~ 118. ~~2134/35~~ 119. ~~2135/36~~ 120. ~~2136/37~~ 121. ~~2137/38~~ 122. ~~2138/39~~ 123. ~~2139/40~~ 124. ~~2140/41~~ 125. ~~2141/42~~ 126. ~~2142/43~~ 127. ~~2143/44~~ 128. ~~2144/45~~ 129. ~~2145/46~~ 130. ~~2146/47~~ 131. ~~2147/48~~ 132. ~~2148/49~~ 133. ~~2149/50~~ 134. ~~2150/51~~ 135. ~~2151/52~~ 136. ~~2152/53~~ 137. ~~2153/54~~ 138. ~~2154/55~~ 139. ~~2155/56~~ 140. ~~2156/57~~ 141. ~~2157/58~~ 142. ~~2158/59~~ 143. ~~2159/60~~ 144. ~~2160/61~~ 145. ~~2161/62~~ 146. ~~2162/63~~ 147. ~~2163/64~~ 148. ~~2164/65~~ 149. ~~2165/66~~ 150. ~~2166/67~~ 151. ~~2167/68~~ 152. ~~2168/69~~ 153. ~~2169/70~~ 154. ~~2170/71~~ 155. ~~2171/72~~ 156. ~~2172/73~~ 157. ~~2173/74~~ 158. ~~2174/75~~ 159. ~~2175/76~~ 160. ~~2176/77~~ 161. ~~2177/78~~ 162. ~~2178/79~~ 163. ~~2179/80~~ 164. ~~2180/81~~ 165. ~~2181/82~~ 166. ~~2182/83~~ 167. ~~2183/84~~ 168. ~~2184/85~~ 169. ~~2185/86~~ 170. ~~2186/87~~ 171. ~~2187/88~~ 172. ~~2188/89~~ 173. ~~2189/90~~ 174. ~~2190/91~~ 175. ~~2191/92~~ 176. ~~2192/93~~ 177. ~~2193/94~~ 178. ~~2194/95~~ 179. ~~2195/96~~ 180. ~~2196/97~~ 181. ~~2197/98~~ 182. ~~2198/99~~ 183. ~~2199/00~~ 184. ~~2200/01~~ 185. ~~2201/02~~ 186. ~~2202/03~~ 187. ~~2203/04~~ 188. ~~2204/05~~ 189. ~~2205/06~~ 190. ~~2206/07~~ 191. ~~2207/08~~ 192. ~~2208/09~~ 193. ~~2209/10~~ 194. ~~2210/11~~ 195. ~~2211/12~~ 196. ~~2212/13~~ 197. ~~2213/14~~ 198. ~~2214/15~~ 199. ~~2215/16~~ 200. ~~2216/17~~ 201. ~~2217/18~~ 202. ~~2218/19~~ 203. ~~2219/20~~ 204. ~~2220/21~~ 205. ~~2221/22~~ 206. ~~2222/23~~ 207. ~~2223/24~~ 208. ~~2224/25~~ 209. ~~2225/26~~ 210. ~~2226/27~~ 211. ~~2227/28~~ 212. ~~2228/29~~ 213. ~~2229/30~~ 214. ~~2230/31~~ 215. ~~2231/32~~ 216. ~~2232/33~~ 217. ~~2233/34~~ 218. ~~2234/35~~ 219. ~~2235/36~~ 220. ~~2236/37~~ 221. ~~2237/38~~ 222. ~~2238/39~~ 223. ~~2239/40~~ 224. ~~2240/41~~ 225. ~~2241/42~~ 226. ~~2242/43~~ 227. ~~2243/44~~ 228. ~~2244/45~~ 229. ~~2245/46~~ 230. ~~2246/47~~ 231. ~~2247/48~~ 232. ~~2248/49~~ 233. ~~2249/50~~ 234. ~~2~~

1. ଅନୁପ୍ରାସ (Anuprasa) - ଶବ୍ଦର ସମ୍ବନ୍ଧରେ ଉପଯୋଗିତା

(1) $1 \leq i \leq n$ $1 \leq j \leq n$

1. ତାହା ଯେଉଁ ଯାହା ଯାହା ଯାହା ଯାହା ଯାହା

ନିମ୍ନ ଲେଖାଯାଇଥିବା ନିର୍ଦ୍ଦେଶାବଳୀକୁ ପଢ଼ି ଏକ ଲେଖା ଲେଖନ୍ତୁ ।

15) 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390 2400 2410 2420 2430 2440 2450 2460 2470 2480 2490 2500 2510 2520 2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730 2740 2750 2760 2770 2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070 3080 3090 3100 3110 3120 3130 3140 3150 3160 3170 3180 3190 3200 3210 3220 3230 3240 3250 3260 3270 3280 3290 3300 3310 3320 3330 3340 3350 3360 3370 3380 3390 3400 3410 3420 3430 3440 3450 3460 3470 3480 3490 3500 3510 3520 3530 3540 3550 3560 3570 3580 3590 3600 3610 3620 3630 3640 3650 3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760 3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870 3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980 3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420 4430 4440 4450 4460 4470 4480 4490 4500 4510 4520 4530 4540 4550 4560 4570 4580 4590 4600 4610 4620 4630 4640 4650 4660 4670 4680 4690 4700 4710 4720 4730 4740 4750 4760 4770 4780 4790 4800 4810 4820 4830 4840 4850 4860 4870 4880 4890 4900 4910 4920 4930 4940 4950 4960 4970 4980 4990 5000 5010 5020 5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160 5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510 5520 5530 5540 5550 5560 5570 5580 5590 5600 5610 5620 5630 5640 5650 5660 5670 5680 5690 5700 5710 5720 5730 5740 5750 5760 5770 5780 5790 5800 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940 5950 5960 5970 5980 5990 6000 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100 8110 8120 8130 8140 8150 8160 8170 8180 8190 8200 8210 8220 8230 8240 8250 8260 8270 8280 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400 8410 8420 8430 8440 8450

1. ନିମ୍ନ ଲେଖିଥିବା ପ୍ରତ୍ୟେକ ଶବ୍ଦର (ସଂସ୍କୃତ) ସଂସ୍କୃତ ଶବ୍ଦ (c)

1. Ullas hatao hatao choro (2)

1. 55×120 gk102 (a)

1. Ultraviolet rays ~~are~~ not reflected (10)

୧. ଗୁଣାତ୍ମକ ପଦାର୍ଥ ୨. ପ୍ରାକୃତିକ ସମ୍ପଦ ୩. ସମ୍ପଦ ୪. ସମ୍ପଦ

10. 5/3/10 15th (1)

சென்னை, 15.05.2023

ନିର୍ଦ୍ଦେଶ (ପ୍ରାପ୍ତ) ଉପର ଉପର ଉପର ଉପର ଉପର ଉପର ଉପର ଉପର ଉପର ଉପର
 ୨୦୦୬/୧୦/୧୬ - ୧୬/୧୦/୧୬ ଶିଳ୍ପ ଉପର (ଉପର) ଉପର - ୧୬

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১৩/১১/১৯৬৯ ১২০ ১১/১১/১৯৬৯ ১২০ ১১/১১/১৯৬৯ ১২০ ১১/১১/১৯৬৯ ১২০

(୧)

ନିରାକରକୃଷ୍ଣ

(୧୭)

Prasanna Choudhary

(୧୮)

Niharomolu Mohanty

(୧୯)

Kellip Kumar Mohanty

(୨୦)

ଅନୁପମ ମହାନ୍ତି

(୨୧)

Sujya prakash Mohanty

(୨୨)

ନବଜ୍ୟୋତୀ ନାୟକ

(୨୩)

Navajyoti Nayak

(୨୪)

ଅନୁପମ ମହାନ୍ତି

(୨୫)

Rameta Mohanty

(୨୬)

ସୁକଳ ସେନାପତି

(୨୭)

Laxmi Prasad Sahoo

(୨୮)

Sachin Nanda prasad

(୨୯)

ସୁକୁମାର ମହାନ୍ତି

(୩୦)

Satya dev Nath

(୩୧)

ସୁକୁମାର ମହାନ୍ତି

(୩୨)

ସୁକୁମାର ମହାନ୍ତି

(୩୩)

ସୁକୁମାର ମହାନ୍ତି

(୩୪)

ସୁକୁମାର ମହାନ୍ତି

(୩୫)

Prasanna Nath

(୩୬)

ସୁକୁମାର ମହାନ୍ତି

(୩୭)

ସୁକୁମାର ମହାନ୍ତି

(୩୮)

ସୁକୁମାର ମହାନ୍ତି

(୩୯)

ସୁକୁମାର ମହାନ୍ତି

(୪୦)

Leichte neuer Bude
Smo - Team 4

9692387810 (M)
 Someneta Mohanlal
 Pottokanta Mohanlal
 Asutosh Behara
 9692387810
 Someneta Mohanlal
 Pottokanta Mohanlal
 Asutosh Behara
 9692387810 (M)

[illegible]

জগদীশ্বর চন্দ্র বসু

५७४५ ५७४५

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(c)

(ELE)

(266)

ଆଲୋଚନା ପରେ କିମ୍ବଦନ୍ତୀ ମାନ ନିଆଯାଉ ।

ପ୍ରସ୍ତାବ ନଂ ୧:- କୃଷ୍ଣପୁର, କନ୍ୟାପୁର, କୁଆଁସର ଠାକୁ ଯୁକ୍ତା
ଅଫିଶିଆଳ ପାଠ୍ୟ ପୋଷ୍ଟାଫିସ୍ ହୋଇ ଯୁକ୍ତା ନଂ ୩୩୨
ନଂ ୧୦୦ ଆଲୋଚନା କୁ ଯାଆନ୍ତୁ ଯୋଗ ଦେବା ।

ପ୍ରସ୍ତାବ ନଂ ୨:- କୁଆଁସର ଠାକୁ କନ୍ୟାପୁର / କନ୍ୟାପୁର ନିକ୍ଷେପ
ପାଠ୍ୟ ପୁସ୍ତକ ଯାଆନ୍ତୁ ଠିକ୍ ପ୍ରଦାନ କରାଯାଉ ।
ଏ ଶୋଷିତ ଶାଳି କୁଳକୁ ପାଠ୍ୟ ପୁସ୍ତକ ଦେବାକୁ ଦିଅନ୍ତୁ ।
କେଉଁଠି କେଉଁଠି ଦେବାକୁ ଦିଆଯାଉ । ଏହା ଆମ ସମସ୍ତଙ୍କ
ଆଗ୍ରହର ସମ୍ମୁଖୀନ ହେଉ ।

ପ୍ରସ୍ତାବ ନଂ ୩:- ଗାନ୍ଧୀବରଣୀ ସମ୍ମୁଖୀନ ହେଉ । ପାଠ୍ୟ ପୁସ୍ତକ
କେଉଁଠି ପ୍ରଦାନ କରା ଯାଉଛି ତାହା ନିଶ୍ଚୟ କରନ୍ତୁ କିମ୍ବଦନ୍ତୀ
କେଉଁଠି ପ୍ରଦାନ କରା ଯାଉଛି ତାହା ନିଶ୍ଚୟ କରନ୍ତୁ ।
ସମ୍ମୁଖୀନ ହେଉ ।

(୧) କୃଷ୍ଣପୁର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।

(୨) କନ୍ୟାପୁର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।

(୩) କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।

(୪) କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।

(୫) କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।

ପ୍ରସ୍ତାବ ନଂ ୪:- (CPR) ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ।
କୃଷ୍ଣପୁର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍, କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
କେଉଁଠି ।

ପ୍ରସ୍ତାବ ନଂ ୫:- କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
କେଉଁଠି । କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
କେଉଁଠି । କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
କେଉଁଠି । କୁଆଁସର ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍ ଯୁକ୍ତା ପୋଷ୍ଟାଫିସ୍
କେଉଁଠି ।

କାହାଣୀଟି
କାହାଣୀଟି
ପ୍ରତି ଲେଖକ

କାହାଣୀଟି କାହାଣୀଟି କାହାଣୀଟି କାହାଣୀଟି
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କାହାଣୀଟି କାହାଣୀଟି କାହାଣୀଟି କାହାଣୀଟି

**OFFICE OF THE ENGINEER-IN-CHIEF (CIVIL), ODISHA
NIRMAN SOUDHA, KESHARI NAGAR, UNIT-V, BHUBANESWAR-751001**

File No: PMU (WB)-72/2010 (Vol. II) ²⁷⁸⁴⁰ **Date:** 1.7.13

From

Er. Nalinikanta Pradhan,
Chief Engineer, World Bank Projects,
Tel: 0674-2390000, Fax: 0674-2391467.
Email: pmuosrp@gmail.com

To

Mr. Rajesh Rohatgi,
Senior Transport Specialist,
Sustainable Development (South Asia Region),
The World Bank,
18-20, Kasturba Gandhi Marg,
New Delhi – 110001

Sub: Submission of Environment Impact Assessment Report.

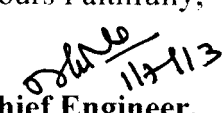
Sir,

The updated Environment Impact Assessment Report of Jagatpur-Chandbali Road is attached herewith for further necessary action at your end.

With regards

Encl: as above

Yours Faithfully,


Chief Engineer,
(World Bank Projects, Odisha)

Memo No. 27841 **Dt.** 1.7.13

Copy submitted to Engineer-in Chief-cum-Secretary to Government, Works Department for favour of information and necessary action.


Chief Engineer,
(World Bank Projects, Odisha)