

SOCIAL IMPACT ASSESSMENT STUDY

Acquisition of Private Land from two villages i.e. Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur Tahasil of Sambalpur District for “Construction of Sewerage System of Sambalpur Town” (ToR 3-00001).

Supported by



STATE SIA UNIT

Nabakrushna Choudhury Centre for Development Studies (NCDS)

(An ICSSR Institute in Collaboration with Govt. of Odisha, Bhubaneswar)



Draft Report

Social Impact Assessment Study

for Acquisition of Private Land from two villages i.e. Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur Tahasil of Sambalpur District for “Construction of Sewerage System of Sambalpur town (ToR 3-00001).

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Submitted by



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@ November, 2022

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Abbreviations

AMRUT	: Atal Mission for Rejuvenation and Urban Transformation
CPCB	: Central Pollution Control Board
CPR	: Common Property Resources
DC	: District Collector
DHH	: District Headquarter Hospital
DP	: Development Plan
DPR	: Detail Project Report
FGD	: Focus Group Discussions
GDP	: Gross Domestic Product
GOI	: Government of India
GP	: Gram Panchayat
HHs	: Households
IRR	: Impoverishment Risk & Reconstruction
ISPS	: Intermediate Sewage Pumping Stations
LAO	: Land Acquisition Officer
NAC	: Notified Area Councils
NCDS	: Nabakrushna Choudhury Centre for Development Studies
NPRR	: National Policy for Rehabilitation & Resettlement
OWSSB	: Odisha Water System and Sewerage Board
PAF	: Project Affected Family
PAP	: Project Affected Persons
PMU	: Project Management Unit
PRA	: Participatory Rural Appraisal
PSUs	: public sector undertakings
PWD	: Person with Disability
R & R	: Rehabilitation & Resettlement
R&DM	: Revenue & Disaster Management
RIDF	: Rural Infrastructure Development Fund
RoR	: Record of Right
RTFCTLARRA	: Right to Fair Compensation and Transparency in Land Acquisition, R and R Act
SC/ST	: Scheduled Caste & Scheduled Tribe
SHG	: Self Help Group.
SIA	: Social Impact Assessment
SIMP	: Social Impact Management Plan
ToR	: Terms of Reference
ULB	: Urban Local Bodies
UPHC	: Urban Public Health Centre

Executive Summary

The Project: *Social Impact Assessment Study for Acquisition of 0.073 acres of Private Land from two villages i.e. Thakurpara (Sambalpur Unit-15, Ainthapali) & Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur Tahasil of Sambalpur District for “Construction of Sewerage System of Sambalpur town”*

Public Purpose: The proposed project aims to provide a sewerage system for Sambalpur town to improve the quality of life of city residents, provide a healthy environment and reduce pollution on the river Mahanadi. After the sewerage system project is completed, a long-standing sewerage problem will be resolved in the city. Meanwhile, the sewerage project will reduce the health risks of the people by removing most of the contaminants from wastewater. Taking into account all the above advantages, there is no doubt that the people of Sambalpur City will enjoy a better quality of life and a better environment in the coming years. This indicates that the purpose of the project is for the well-being of the people and will greatly serve public purposes.

Location/Area of the Project: The Sewerage System of Sambalpur town will also acquire land in two areas: Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) in Sambalpur Town. For the construction of the project, a total of 0.073 acres of private land (0.037 acres from Unit-15, Ainthapali & 0.036 acres from Unit-5, Sakhigopinath) will be acquired through OWSSB Sambalpur.

Alternatives considered: The proposed areas have been finalized calculating the population density and average flow of drain water in the city. Again the peak flow is calculated considering the peak factor for various population contributions to each manhole. Verifying all the models several times, the technical team get an optimum design of the sewerage network which technically satisfies the design criteria. Hence, there is no need for exploration of other options concerning the design project site.

SIA Study & Findings

The present SIA study for "Construction of Sewerage System in Sambalpur Town" is carried out as per the guidelines (section 4.1) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013 keeping in consideration the Orissa RFCTLARR Rules 2016. The study follows a ‘census survey method’ for the directly affected households and a ‘sample survey method’ while touching upon the indirectly affected households by following a simple random sampling method. However, 5 directly affected families and 20 indirectly affected families were surveyed during the study process.

Assessment of Land:

As per the primary information, a total of 0.900 acres of land is available with 5 affected families with an average holding size of 0.18 acres per household. Out of a total of 0.900 acres of land, 0.400 acres (44.4%) are non-irrigated land and the rest are residential type of land. Further, it was revealed that the land to be acquired for the sewerage system project is lying vacant and people are not using it for any productive purposes.

Project Land: (Affected & acquired land): As per the 4(1) notifications, a total of 0.253 acres of land comprising two plots (741 & 1764/5979) would be affected for the construction of the sewerage

system project. Out of that, 0.073 acres of land would be acquired for the said project which is 28.8% of the total affected land. This includes Bahalpani and Gharabari kisam of land.

Structures & Trees to be affected: The SIA study revealed that no structures would be affected by the proposed land acquisition process. In addition, no major trees will be affected during the proposed acquisition of land for sewerage lines in two areas.

Project Impact:

The affected families currently own 0.900 acres of private land, with 0.073 acres (8.1% of the total land) facing acquisition. Originally earmarked for residential or business use, the land's utility for these purposes will be lost post-acquisition. It is imperative for the entity acquiring the land to recognize the substantial contribution of these affected families to the project's completion and ensure equitable compensation

All surveyed families belong to the Scheduled Tribe (ST) category, primarily relying on daily wage labor in the non-agricultural sector for their income. Engaging these families in project activities would allow them to derive benefits from the project, aligning with their livelihood structure.

The project's construction may impact existing public infrastructures such as electricity supply, telecommunication lines, water supply lines, and road networks. However, this impact is anticipated to be local, both in terms of extent and duration, with the project's positive aspect of upgrading existing roads mitigating the overall effect.

During sewer laying, traffic diversion becomes necessary as roads will be occupied for sewerage work. Temporary roads and traffic diversions are essential for local safety. Although the construction phase may yield negative and minor impacts, these are expected to be temporary, with the operation phase presenting a similarly short-lived challenge.

Sewer laying may result in water accumulation due to rain, leading to stagnant pools that could foster mosquito breeding, posing potential health risks such as malaria. While the impact on public health is a concern, it is deemed temporary and not of a serious nature.

Community Perception

All of the affected families stated that they were aware of the project and that their land was going to be acquired for the sewerage line project.

Benefits perceived by the affected families: Among the five surveyed families, four expressed a positive outlook regarding the project, anticipating social and economic benefits. Conversely, one family held the perception that the project might not be advantageous, citing concerns about a minor land loss.

In terms of social benefits, respondents highlighted the project's potential to address significant health issues associated with household sewage transmission. Additionally, they noted its role in curbing water pollution in rivers, streams, and ponds, thereby safeguarding fish and other aquatic species. Presently engaged in wage labor, the affected families maintain optimism that the project will generate temporary employment opportunities for them. This optimism underscores their positive expectations regarding the project's potential outcomes.

HH's expectation for compensation: As against the loss of land, all the (100%) affected families were expecting adequate cash compensation and there has been no demand for other assistance.

SIMP (Social Impact Management Plan)

A Social Impact Management Plan (SIMP) is an important component of the SIA study, which seeks to address the adverse impacts of a project through appropriate preventive and protective mechanisms. The SIMP exercise was done based on key impact parameters, perceived positive impacts of the project, perceived adverse impacts of the project; and a proposed mitigation action plan, which is analyzed in Chapter 6 of the detailed report.

Recommendations

Based on the findings, the following steps may be taken for the successful implementation of the project:

- *Awareness Programme for Sewerage lines & benefits of sanitation:* Awareness campaigns should be organized in collaboration with NGOs, to inform local residents about the use of sewerage lines, sanitation, and their benefits. Mass media campaigns should be organized to raise awareness about the environmental implications of unsanitary conditions.
- *Traffic Management:* The movement of traffic near the project site needs to be properly managed. Construction of temporary roads and diversion of traffic needs to be done to ensure the safety of the local people.
- *Renovation/ construction of the road network:* People claimed that the road being rebuilt after the completion of the sewerage line is not as plain as it was earlier, causing more accidents. Hence, the road should be properly repaired by the project authority after completion of the sewerage line work.
- *Inclusion of vulnerable groups in the social security network-* All the affected families are in the vulnerable category and would lose their land due to the sewerage line project. So they may be directly connected to the respective government departments for inclusion in the Social Security network
- *Proper utilization of compensation amount:* The Project authority should play an active role in motivating the affected families to utilize the compensation amount for productive purposes to avoid fraudulent chit-fund companies.

The project aims to enhance the environmental sanitation facilities and overall living standards of the people in the region. Once the sewerage system is constructed, the people of the town can look forward to a healthier environment.

1. Introduction & description of the Project

1.1 Introduction

Odisha, the eighth largest state of India that occupies less than 5% of the total landmass of the country, is one of the least urbanised states of India. As per the 2011 Census survey, only 16.88% of the state’s total of 42 million population were residing in urban areas. However, the urban growth rate is rapidly increasing and the decadal population growth in urban areas during the last decade has been 26.80%, which is almost double of the overall population growth rate in the same decade. This is also a much higher rate than the overall urban population growth rate in the last six decades. In fact, in the six-decade period between 1951 and 2011, while the total population increased by 2.87 times, the urban population increased by 11.65 times.

The Census 2011 reports that 35.2% of urban households do not have toilets. This is the second worst among all Indian states, with Chhattisgarh occupying the top position having 39.8% households who don’t have toilets. Of the 64.8 percent of the households in urban Odisha, who have latrine facilities within their premises; 58.8 percent have water closet, 4.2 percent pit latrines and 1.8 percent other types¹. As high as 33 percent of the urban households were defecating in open while two percent were using public or community toilets. Census data further suggests that only 12% of urban households had their toilets connected to a sewerage system. While the enormous challenge of safe faecal sludge management is evident from poor toilet access and coverage, the sewerage challenge in Odisha cities and towns is no small either. As per the estimates of Central Pollution Control Board (CPCB) Odisha was generating about two percent of total sewerage generated in India (CPCB Bulletin, July 2016). Looking into this the Urban Sanitation Policy was notified in Odisha on January 03, 2017. This aims at ensuring 100% ODF in 10 years as well as strengthening of sanitation chain, Faecal Sludge and Sewerage Management, Solid Waste Management infrastructure and service delivery in urban areas of the State².

The basic infrastructure services priority wise water supply, sewerage/ septage, development of parks with child friendly features, storm water drainage and public transport, capacity building and build amenities in cities which will improve the quality of life for all, is a national priority. Therefore the government of India in the year 2015 launched Atal Mission for Rejuvenation and Urban Transformation, (AMRUT) to ensure availability of basic amenities to the urbanites for improvement of quality of life. Sewerage system is one of the components of this scheme under which decentralised, networked underground sewerage systems, including augmentation of existing sewerage systems and sewage treatment plants are done. Rehabilitation of old sewerage system and treatment plants and recycling of water for beneficial purposes and reuse of wastewater etc are being done in different urban areas. However, the development of these infrastructures involves huge construction activities and requires the acquisition of public and/or private lands. Due to the acquisition of lands, the very socio-economic and political fabric of the people in the project area gets disrupted and they have to face severe consequences in the form of loss of house, loss of livelihood, etc.

¹ Urban Wastewater Management in Odisha; A city level sanitation study: National Institute of Urban Affairs

² Central Pollution Control Board; Bulletin, July 2016, Govt of India.

To minimize the land acquisition-linked people's misery and increase greater acceptance of such development initiatives, the Government of India has enacted the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARR) in the year 2013. This new act has replaced all the existing policies of different state governments, including the Odisha Resettlement & Rehabilitation (R&R) policy, 2006 enacted by the Government of Odisha.

1.2 Project Description

Location of the Project:

The proposed Sewerage system project will be constructed in Sambalpur city. For this project, land acquisition will be done from two areas i.e. Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur Tahasil of Sambalpur District of Odisha.

Project details:

The proposed sewerage system consists of 8 sewerage catchments. It includes sewer network of pipe of diameters varying from 200-1600 mm of total length of 253.0 Kilometers, eight Intermediate Sewage Pumping Stations, one Terminal Sewage Pumping Station and one Sewage Treatment Plant. In addition to the above proposed works, construction of sewers by Trenchless Technology has been proposed at nine locations to cross the Railway/National Highway and bigger nallah crossings.

About 96.5 % of total length of sewers are having depth range 1.5 m to 6.0 m which can be excavated with the mechanical excavator with the standard boom, 2.75 % of total length of sewers are having depth range 6.0 to 7.5 m which can be excavated with mechanical excavator with extended boom, and depth greater than 7.5 m, the 0.75 % of depth range is proposed to be constructed using Trench less Technology. This will avoid local lifting station and their O&M problems³.

Additional manholes have been proposed at 15m intervals to receive house connections directly into the manhole and this will act as a connection chamber. Sand filling the trenches has been considered for major roads and PWD roads where pipes laid could be refilled immediately to open for traffic.

Sewage Pumping Stations

Seven numbers of Intermediate Sewage Pumping Stations (ISPS) are proposed in Sambalpur as part of the Sewerage System. These pumping stations collect sewage from different catchment areas and pump to the nearby ridge manholes such that these flows reach the Sewage Treatment Plant through proposed sewer network. The pumping station layout will have wet well, Screen and Valve chambers, MCC room and Access Roads. Diesel Generator Set of required capacity is also provided as stand by unit during power failures. Before the wet well, a screen chamber fitted with one mechanical screen as working and one manual bar screens of 20 mm spacing is provided.

Implementation of the project

The construction of all project activities will be completed within 3 years after award of works. Construction of Sewerage system within Sambalpur Municipality is scheduled in Phase-1 and outside Municipality is scheduled in Phase-2.

Phasing of Construction

Sambalpur Town is divided into two major portions; one is developed core area and the other is yet to be developed. The proposed sewerage system facilities are developed for core area, with in the

³ Detail Project Report (DPR), Volume-1, Odisha Water Supply& Sewerage Board, Bhubaneswar, 2016

Municipality limits, are to be taken up immediately under Phase-1 and the remaining area, Master plan area is to be taken up under Phase-2 when the development takes place.

Operation and Maintenance of Sewerage Network

Steps to be taken for operation and maintenance of the sewerage network detailed in this section are aimed at:

- Regular maintenance of the system for proper functioning
- Preventing any breakdown of the system
- Emergency operations to deal with clogged sewer lines or overflowing manholes
- Preventing backflow of sewage into residences, and
- Preventing structural failure of the system.

Cost Estimates

The Cost Estimates have been worked out based on Detailed Rate Analysis, using the PWD Schedule of Rates and market rates have been considered for the items not included in the PWD Schedule of Rates. The total cost of providing Sewerage system within Sambalpur town municipality is Rs. 405.16.

Land Requirement for the Sewerage system (SIA based)

The Sewerage System project is going on in the Sambalpur city and as a part of the project 0.073 acres of private land from Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur tahasil of Sambalpur District will be required for the construction of Sewerage system for which the SIA study is undertaken. The village wise total land, affected and land and the area to be acquired are given in Table-1

Table 1: Area wise affected and acquired land.

Sl.	Name of the Village	Name of the Town	Name of the Tahasil	Total area (in Acre)	Area to be acquired (in Acre)
1	Thakurpara (Unit-15, Ainthapali)	Sambalpur	Sambalpur	0.180	0.037
2	Kuretula (Unit-5, Sakhigopinath)	Sambalpur	Sambalpur	0.073	0.036
		Total		0.253	0.073

Source: Notification vide No- RDM-LAC-SBP-0007-2023/ 36871/RDM dated 17th October 2023

Benefits of the Project

There is no sewerage system in the Municipality area of Sambalpur Town at present. Most of the households discharge the sewage into natural drains and waterways causing serious public health and environmental hazards to the people. The untreated sewage in streams and waterways can be a potential source of sewage borne diseases as the sewage contains pathogens, or disease-causing organisms such as bacteria, viruses, and protozoa. Some of the common diseases that can be transmitted by sewage include bacterial diseases. To eradicate such type of problems the OSSWB department has planned to construct a sewerage system in the city, keeping in view the passage of drain water which will benefit the residents of Sambalpur city.

1.3 Public purpose

The proposed sewerage system project is designed for the city area and meant to provide a sewerage system for Sambalpur town in order to improve the quality of life, the sustainability of the environment, the health and safety of residents and reduce pollution in the river Mahanadi. After the

sewerage system project is completed, a long-standing sewerage problem will be resolved in the city. Meanwhile, the sewerage project will reduce the health risks of the people by removing most of the contaminants from wastewater. Taking into account all the above advantages, there is no doubt that the people of Sambalput city will enjoy a better quality of life and a better environment in the coming years. This indicates that the purpose of the project is for the well-being of the people and will greatly serve public purposes

1.4 Examination of Alternatives

Any sort of land acquisition affects the people directly or indirectly whereas land is the basic capital for the establishment of any development project. Hence, the criteria and basic considerations for selecting the construction types/ sites for the project and undertaking land acquisition should have been the following:

- ❖ Geography of the proposed land (terrain, number of rivers, nallahs, roads etc.);
- ❖ Accessibility for transport of construction and other accessories and materials;
- ❖ Environmental consideration;
- ❖ Forest cover and number of trees to be removed;
- ❖ Rehabilitation and Resettlement issues;
- ❖ Social and economic benefits vis-à-vis costs.

Before considering the proposed land acquisition, other options with respect to design and project site were explored with the premise that land should be acquired for the construction sewerage system to bare minimum, no displacement and minimum interference in residential areas. In the present context, the areas have been finalized calculating the population density and average flow of drain water in the city. Again the peak flow is calculated considering the peak factor for various population contributions to each manhole. Verifying all the models several times the technical team get an optimum design of the sewerage network which technically satisfies the design criteria. Hence, there is no need for exploration of other options with respect to the design project site.

1.5 Ancillary infrastructural facilities and Workforce requirement

According to the plan, different types of ancillary infrastructure will be constructed for this sewerage system project. Construction of temporary roads and diversion of traffic is most important for the sewerage construction, which is planned to be constructed for easy traffic management. Four stretches along the Ring Road (the road leads to Hirakud) are to be developed for River front development activities viz Bathing, changing room, platforms with steps, washrooms etc. The four such locations have been identified along the River Mahanadi based on the existing locations of Temples, proximity of usage by the local people, etc. Provision of clean drinking water, sanitation, proper drainage at new locations needs to be provided in the construction area.

The proposed sewerage system project is a labor-intensive activity and a significant amount of the budget will go to on-site workers. Hence, in accordance to the govt. norm successful contractor in the bidding process will engage the required workforce on a temporary basis whereas the monitoring and supervision, as well as technical support, will be provided by the OWSSB Govt. of Odisha.

1.6 Social Impact Assessment (SIA)

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 came into force on 1st January 2014. The provisions of this Act shall apply, when the appropriate Government acquires land for its use, hold and control, including for public sector undertakings (PSUs) and public purposes relating to land acquisition, compensation, rehabilitation and resettlement. Provided that no land shall be transferred by way of acquisition in the Scheduled Areas in contravention of any law relating to land transfer prevailing in such Scheduled Areas. Section 4 (1) of this act states that whenever the Government intends to acquire land for a public purpose, it shall consult the concerned Gram Panchayat (GP), Municipality or Municipal Corporation, as the case may be, at the village level or ward level in the affected area and carry out a Social Impact Assessment study in consultation with them. The Social Impact Assessment study includes:

- (a) assessment as to whether the proposed acquisition serves public purpose;
- (b) estimation of affected families and the number of families among them likely to be displaced extent of lands, public and private, houses, settlements and other common properties likely to be affected by the proposed acquisition;
- (c) whether the extent of land proposed for acquisition is the absolute bare minimum extent needed for the project

While undertaking a Social Impact Assessment study, the Government shall take into account the impact that the project is likely to have on various components i.e., livelihood of affected families, public and community properties, assets and infrastructure particularly roads, public transport, drainage, sanitation, sources of drinking water, sources of water for cattle, community ponds, grazing land, plantations, public utilities such as post offices, fair price shops, food storage godowns, electricity supply, health care facilities, schools and educational or training facilities, Anganwadi, places of worship, land for traditional tribal institutions and burial and cremation grounds.

In exercise of the powers conferred by sub-section (1) of Section 109 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 Government of Odisha has framed "The Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016". The State Government has established NCDS, an independent organization as the State SIA Unit which is responsible for ensuring that the SIA study is conducted as per the provisions of the Act. The SIA Unit has to engage an agency or individual to conduct the study. For this purpose, NCDS has engaged KARTABYA, Bhubaneswar to conduct the SIA. These rules provide details about the SIA process and associated matters.

1.7 Objectives of the study

The major objectives of this social impact study are:

- a) To assess whether the proposed land acquisition from two villages i.e. Thakurpara (Sambalpur Unit-15, Ainthapali) and Kuretula (Sambalpur Unit-5, Sakhigopinath) under Sambalpur Tahasil of Sambalpur District serves a public purpose;
- b) To estimate number of affected families, magnitude of loss, land assets based on the actual holdings of the families and the number of families likely to be displaced physically or occupationally due to acquisition of land;

- c) To assess the extent of lands- public and private, houses settlements and other common properties likely to be affected by the proposed acquisition;
- d) To examine whether the extent of land proposed for acquisition is the bare minimum necessity for commissioning the proposed project;
- e) To find out whether an alternative site has been considered for the purpose where there is least displacement problem, but the site itself is not suitable for the project.
- f) To study the social impacts (socio-economic, cultural and environmental) of the project by covering both direct land loser households as well as the indirectly affected households due to loss of common property resources (CPRs), socio-economic infrastructure etc. and the impact of these costs on the overall costs of the project vis-a-vis the benefits of the project;
- g) To suggest remedial intervention measures by designing appropriate policies and Programme through designing a social impact management plan or mitigation plan.

1.8 Applicable Legislation & Policies

Different types of acts/policies are applicable to the proposed project. It is imperative to analyze the Acts to understand the legal procedures in implementing project and identifying the gaps and areas where there is a need for strengthening to comply with policy on resettlement and rehabilitation of project affected persons and indigenous population development plan. The following subsections summarized the legislative framework in which the projects will be implemented with respect to the social issues as well as RTFCLARR Act 2013 on resettlement and rehabilitation of affected population. The preparation of a separate resettlement and rehabilitation policy is supplemented by the existing laws in addressing various social and resettlement issues arising out of project implementation. The Project Authority will ensure that project activities implemented are consistent with the national, state, local and legal framework.

1.1.1 Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, (RTFCLARR Act) came into force on 1st January 2014 replacing the Land Acquisition Act, 1894. The new RTFCLARR Act is an attempt to revamp and make the land acquisition process more effective by addressing the major lacunae in the old Land Acquisition Act. The Act has been hailed as beneficial and necessary to protect the interest of land holders and other affected persons.

Table 2: A snapshot of the RFCTLARR Act 2013 as applicable

Section	Thematic Directive
Section 4(1) - SIA notification	<ul style="list-style-type: none"> • Social Impact Assessment Study
Section 5	<ul style="list-style-type: none"> • Public Hearing for SIA final report
Section 6 (1)	<ul style="list-style-type: none"> • Publication of SIA Report including SIMP
Section 7(1) - SIA Report for evaluation by expert group	<ul style="list-style-type: none"> • SIA by Expert Group with 2 non official social scientists, 2 representatives of Panchayat, Gram Sabha, 2 experts on rehabilitation and 1 technical expert in subject area • Publication of recommendation

Section 8	<ul style="list-style-type: none"> • Examination of proposals for land acquisition and SIA report by appropriate Government
Section 11 (1) - Notice to acquire land	<ul style="list-style-type: none"> • Publication of preliminary notification for land acquisition
Section 11 (5) – Land record updation	<ul style="list-style-type: none"> • Updating land records duration 2 months
Section 14 – Action to be taken on SIA lapse period	<ul style="list-style-type: none"> • If section 11 (1) not published within 12 months (18 months from the date of 4 (1) notification) after the submission of SIA report under section 7, such report will lapse. Then fresh SIA to be done before acquisition under section 11. • Appropriate government shall have the power to extend the period of 12 months.
Section 15(1) – Hearing of objections.	<ul style="list-style-type: none"> • Within 60 days from the date of 11(1) notification.
Section 16(1) – Preparation of R&R Scheme.	<ul style="list-style-type: none"> • After the publication of 11(1) notification by collector, Administrator for R&R shall conduct census survey of affected families. • Administrator (appointed by Government of Odisha) will be not below rank of Deputy Collector or equivalent official of Revenue Department.
Section 16(5)	<ul style="list-style-type: none"> • Public hearing of R&R Scheme.
Section 16(6)	<ul style="list-style-type: none"> • Submission of draft R&R scheme to Collector
Section 17(1)	<ul style="list-style-type: none"> • Review of R&R scheme by Collector with R&R committee.
Section 18 – Approval of R&R scheme by Commissioner	<ul style="list-style-type: none"> • Officer of the rank of Commissioner or Secretary to the Government of Odisha.
Section 19(1) – Publication of declaration and summary of R&R	<ul style="list-style-type: none"> • To be published within a period of 12 months from the notification under sec. 11(1) excluding stay or court order.
Section 19(7) – Lapse of notification under section 11(1)	<ul style="list-style-type: none"> • If no declaration is made within 12 months from the notification under section 11(1) excluding stay or court order.
Section 23	<ul style="list-style-type: none"> • Land Acquisition Award by Collector.
Section 25 - Lapse of entire proceeding for acquisition.	<ul style="list-style-type: none"> • Award to be made within 12 months from the date of declaration under section 19. Government of Odisha shall have the power to extend the period with justification.
Section 26	<ul style="list-style-type: none"> • Determination of the market value land by Collector.
Section 27	<ul style="list-style-type: none"> • Collector will determine the work of compensation to the land owner.
Section 29	<ul style="list-style-type: none"> • Determination of value of things attached to land
Section 31(1)	<ul style="list-style-type: none"> • R&R award by Collector. • Collector shall take possession after ensuring 100% compensation payment and R&R entitlement or • Tendered within a period of 3 months for Compensation and 6 months for R&R entitlements.

Section 38(1)	<ul style="list-style-type: none"> Power to take possession of land to be acquired by Collector.
Section 38(2)	<ul style="list-style-type: none"> R&R process to be completed in all respect before displacing the PAFs.
Section 41	<ul style="list-style-type: none"> Special Provisions for SCs and STs

Further the provision of entitlement under the act mentioned below in the table below:-

Table 3: Entitlement matrix under RFCTLA R&R Act, 2013

Nature of Loss	Entitlement unit	Provisions in the Act
Loss of multi-cropped land	Title holders of the land	<ul style="list-style-type: none"> A multi-cropped land cannot be acquired except under exceptional circumstances. In the event of acquisition, an equivalent area of wasteland shall be developed or equivalent amount shall be deposited with state government for enhancing food security. This provision is not applicable in case of acquisitions which are linear in nature like railways, electric lines, canals etc.
Loss of agricultural land	Title holders of the land	<p>a) The market value specified in the Indian Stamp Act, 1899 for the registration of sale deeds or agreements to sell in the area where the land is situated or The average sale price for similar types of land situated in the nearest vicinity area, ascertained from the highest 50% of sale deeds of the proceeding 3 years. Plus Solatium amount which is equivalent to 100% of market value Multiplier factor as decided by appropriate government Plus an interest of 12% per annum on market value for the period commencing on and from the date of the publication of notification of the SIA study till date of the award of the Collector or the date of taking possession of the land, whichever is earlier</p> <p>b) Where jobs are created through the project, after providing suitable training and skills development in the required field, make provision of employment at a rate not lower than minimum wages; Or Onetime payment of Rs.5, 00,000/- per affected household Or annuity policy that shall pay Rs.2000/- per month for 20 years with appropriate indexation to consumer price index for agricultural labourers</p>
Loss of dwelling in case of displacement	Owner of the house	<ul style="list-style-type: none"> If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awa Yojana specifications. Each affected family which is displaced from the land acquired shall be given a monthly subsistence allowance equivalent to 3000/- per month for a period of one year from the date of award.

		<ul style="list-style-type: none"> • Each affected family which is displaced shall get a one-time financial assistance of 50, 000/- as transportation cost • Each affected family shall be given a one-time Resettlement Allowance of 50, 000/- only • The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the requiring body
Loss of dwelling of tenants in case of displacement	Tenant	The benefit of housing shall be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area
Loss of cattle shed and other farm assets	Owner of the structure	Each affected family who are losing their cattle sheds shall get one-time financial assistance a minimum of 25,000/- or as specified by Government Value of standing crops, farm assets will be estimated by competent authority and shall be paid along with compensation

1.1.2 Odisha Right to Fair Compensation and Transparency in land Acquisition, Rehabilitation and Resettlement Rules, 2016

In exercise of the powers conferred by sub-section (1) of section 109 of the RTFCLARR Act, 2013, the Government of Odisha has framed “The Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016”. This rule has been followed during the SIA study of *acquisition of private land for construction of Sewerage System in Sambalpur town* as applicable.

As per **Rule 6**, Government of Odisha has selected NCDS as an independent organization for State SIA Unit to conduct the social impact assessment study in Odisha and to facilitate the SIA unit the secretary R & R will be act as the State Level Nodal Officer. The State SIA Unit shall undertake the task like, selection of SIA resource partner, preparation of project-specific ToR, training & capacity building of SIA team, strengthen and evaluate the quality of SIA, etc.

As per the **Rule 8**, the Government of Odisha shall issue notification within 30 days from the date of the SIA study. In this light, notification has been issued by Revenue & Disaster Management Department, Government of Odisha, vide letter No. **RDM-LAC-SBP- 0007-2023/ 36871/RDM dated 17th October 2023** for conducting the SIA study for land acquisition in two villages under Sambalpur tahasil of Sambalpur district.

Rule 9, says the SIA study shall be conducted in consultation with concerned panchayat/ municipality and the study report will be submitted in the specific format along with the SIMP. In this connection the SIA team of KARTABYA, Bhubaneswar has visited the survey areas and consulted villagers/ panchayat members prior to the SIA study. Further, the SIA report has been prepared as per the Form-D along with the SIMP in Form-E.

Rule 11 reflects the process of conducting the social Impact Assessment which has been followed by the SIA team of KARTABYA, Bhubaneswar during the process of study work. In the case of acquisition

of homestead land and displacement of families, the SIA team has visited the displaced family’s option for alternative site and observed the socio-economic situation.

As per the **Rule 12**, the SIMP shall provide the detail Rehabilitation & Resettlement Entitlement Matrix of each enumerated and displaced family that have been prepared by the SIA team and annex in the report.

Rule 14, indicates that the public hearing shall be held in the affected areas seeking feedback on the findings of SIA and shall seek additional information/left out information for incorporation in the final report. As per the rule public hearings is required to be conducted after submission of the draft report.

1.1.3 Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995

The Act is guided by the philosophy of empowering persons with disabilities. The Act endeavors to introduce an instrument for promoting equality and participation of persons with disability on the one hand, and eliminating discriminations of all kinds, on the other. This act has been followed during the SIA study in case of PWD affected families.

1.1.4 Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006:

This act enables recognizing and vesting the forest rights and occupation in the forest land of forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded. The act addresses the long-standing insecurity of tenurial and access rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers including those who were forced to relocate their dwelling due to State development interventions.

This act has relevance in any SIA study of this nature as definition of land owner in RFLAR&R Act, 2013 (U/s 3 (r) (ii)) include among others, any person who is granted forest rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or under any other law for the time being in force.

2. The Study: Team Composition, Approach & Methodology

2.1 Background of the SIA Study

As per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 of Government of India (section 4 (1) a Social Impact Assessment (SIA) Study is mandatory before starting the process of land acquisition for construction of any type of project. In this connection, the Revenue and Disaster Management Department, Govt. of Odisha has established the State Social Impact Assessment (SIA) Unit at the Nabakrushna Choudhury Center for Development Studies (NCDS), Bhubaneswar, to work as independent organization for commissioning SIA studies for different projects in Odisha. Subsequently, the NCDS has empanelled a number of agencies as their consultants to conduct SIA studies. For the present study, NCDS selected and engaged the agency; KARTABYA, Bhubaneswar as the consultant to carry out the SIA study for acquisition of private land in two affected areas under Sambalpur Tahasil of Sambalpur district for Construction of sewerage system in Sambalpur town.

In accordance with the RTFCLARR Act 2013, the public notification for SIA was issued by the Revenue & Disaster Management Department, Government of Odisha vide No- **RDM-LAC-SBP-0007-2023/36871/RDM dated 17th October 2023**, prior to the acquisition of land for the construction of sewerage system in Sambalpur town. According to the Collector and District Magistrate of Sambalpur a total of 0.073 acres of private land are to be acquired from two areas of Sambalpur town of Sambalpur district for the proposed project.

2.2 Study Team

The SIA study was undertaken by experienced and competent professionals. To carry out the whole study three member’s research team was formed with specific responsibilities assigned by KARTABYA. Different types of work were planned at different stages which were assigned to team members. The study team looked into the subjects such as preparation of structured interview schedules, stakeholder consultation, survey of the affected households in census mode, facilitation of FGD, preparation of social and resource mapping, collection of secondary information from concern line departments, scrutiny of household schedules etc. A brief profile of each of them has been arranged briefly as follows.

1. Mr Prafulla Kumar Behera, Team Leader

Having a post-graduate degree in Social Science as well as LLB from Utkal University, he possesses 18 years of experience on multiple thematic areas including Sustainable livelihood, Rehabilitation and Resettlement, Women Empowerment and livelihood sectors along with an understanding of physical inspections of different government schemes as well. He has already worked in different types of projects like; Socio-economic Baseline studies, Impact evaluations, Social Impact Assessment Studies for land acquisition for government and different companies. Also have experience in undertaking SIA studies for land acquisition of different projects.

2. Mr. Niranjan Sahoo, Field Investigator

He has completed Master degree in Rural Development and possesses 10 years of research experience in Govt., NGO and Corporate sectors. He has been working on number of development research studies in different sectors. Also gained experience in working SIA studies for different projects of government as well as companies. His work mainly includes supervision and monitoring of the field work, undertaking primary and secondary data collection through different techniques, undertake social mapping, resource mapping and interaction with different stakeholders as per the requirement of the project etc.

3. K. Santosh, Computer Operator

He has possessed Bachelor degree with PGDCA and working as a computer operator-cum-Data Analyst on different social research projects for 8 years. He has also worked as a Computer operator in number of SIA studies. His work mainly includes, data entry, cleaning, analysis and generation of tables for study report etc.

Apart from the above team members, we also involve some local representatives in each affected area through them we have collected information of each affected household as well as village. We will also involve them to receive their help and cooperation while organizing the public hearing meeting in each location.

2.3 Study Approach

Social impact assessment involves knowledge about the present status as well as changes to be brought about by the proposed policy initiative / project implementation. As per the law of the land, concurrence is given to the project only when it helps improve the standard of life of the persons affected. Since implementation of a project involves land acquisition and displacement of people, a Resettlement Action Plan is in order.

For establishing the social baseline and undertaking the social impact assessment, a participatory approach was adopted. An attempt was made to integrate local community perspectives into the impact assessment process and identification of the mitigation measures. The participative approach allowed for:

- Triangulation of the information available from secondary sources along with the qualitative information made available by the community residing at the project site and landowners of two areas of Sambalpur town;
- Formulation of the socio-economic baseline based on a combination of primary qualitative and quantitative data;
- An understanding of the local community’s perceptions of the project and its activities, and the impacts likely to be caused by the construction of the project, and the desirable mitigation measures.

2.4 Scope of the work

The scope of the study includes the assessment of impacts caused by the proposed land acquisition for construction of sewerage system in Sambalpur town. According to the terms of reference of State SIA Unit and the RFCTLARR Act 2013 the present SIA study undertaken by KARTABYA, Bhubaneswar has broadly covered the following aspects:

- i. Description of the proposed project and estimation of affected families using both qualitative and quantitative method.
- ii. Public consultation through interviews, administration of questionnaires and focus group discussion etc. and administration of a structured interview schedule both at the household and the community level.
- iii. Baseline study of socio-economic and cultural profile of the affected area.
- iv. Thorough analysis of all relevant land records and field data, field verification, review and comparison with similar projects.
- v. Identification and assessment of the nature, extent and intensity of the positive and negative social impacts of the project based upon data collected from the field and in consultation with the stakeholders due to proposed land acquisition for construction of sewerage system.
- vi. Preparation of a SIMP (*as per Form-E*) (*as per provision of Section-41 of RFCTLARR Act 2013*) to mitigate the adverse impacts of land acquisition on project affected families.
- vii. Organization of public hearings with the help of the local administration to disseminate the main findings of the SIA in the affected areas and to seek feedback on findings and additional information for incorporating in the final report

2.5 Methods of the Study

The methodology for the present SIA study was designed based on the objectives and scope of the study enlisted above. The study follows a ‘census survey method’ while covering the directly-affected households and a ‘sample survey method’ while touching upon the indirectly-affected households by following simple random sampling method. The study also involves PRA tools and processes like social mapping, resource mapping and focus group discussions with the people in the affected field areas. The detailed methods of the study are as follows;

2.1.1 Review of Secondary Literature

A comprehensive desk based research was carried out to understand the background information of the SIA. Accordingly a wide range of secondary literatures, study reports, relevant government Acts/policies, research publications were reviewed to understand the process of social impact assessment, management plan, public hearing, etc. In addition, several other information and data sources were referred to throughout the SIA process wherever relevant. Specifically, the Social Impact Assessment study for industrial projects and other similar project reports were reviewed prior to conducting the present study. Thus the ground for making further inroads into a more structured and deeper analysis of the study was set.

2.1.2 Site Visit, Consultation & Information Dissemination

Before initiation of field work the research team of KARTABYA made a number of visits to the study area to understand the present scenario of the localities. During the visit the team discussed with important stakeholders like the Land Acquisition Officer, Project Engineer OWSSB, Revenue Inspector of LAO and some knowledgeable and influential persons, etc. The survey team began by holding community level meetings in the study areas that are affected. Information about the project and the survey procedure was shared with the community. Information about the date and time of survey in the village was given well in advance.

2.1.3 Census Survey and Exploration of Extended Families

Before the actual household level socio-economic survey, entire lists of RoR holders (affected by the proposed project) were collected from the State SIA Unit, Bhubaneswar. Then the SIA team of KARTABYA visited the area and not only identified the affected households as per the provided RoR lists but also reviewed the same in terms of the names of the title holders, the addresses, the possession of legal documents, and tenure statuses. However, the KARTABYA team sticking to the SIA policy surveyed all the legal shareholders of the affected land. Accordingly, the team explored all the households having a legal right to the affected land. In this process the actual number of households was 5 during the process of data collection.

2.1.4 Data sources used

The study envisaged collection of both secondary and primary data about the socio-economic conditions of the persons affected by the project.

a) Secondary Data:

The sources of secondary data were reports about the project and the area affected by it. Information also was generated through internet and web-pages. The other sources of information were Census Reports, relevant records of Odisha government and Sewerage Board. The documents required for collection of secondary data included (i) land schedule, (ii) demography of the project affected villages (iii) map of the project area and project details, (iii) relevant Acts and policy guidelines, (iv) District Statistical Handbook, and (v) other study reports. The information collected in such processes includes details such as the benchmark price of land, the classification and the use of land, the irrigation coverage, the cropping pattern, the common property resources and the socio-economic and cultural fabric of the communities.

b) Primary Data:

The sources of primary data include field visits, household survey, Focus Group Discussions (FGDs), PRAs and interviews with key informants / stakeholders. Primary data were collected through door to door census survey of both project affected and sampled non-affected households using structured questionnaires to elicit information about their livelihood status, socio-economic profile, general infrastructure and socio-economic status of the villages in the area. Besides, Focus Group Discussions (FGDs) were organized to capture the response of the PAFs/PAPs and non-affected families about the possible impact of the project, losses of assets and infrastructure including compensation package, etc. Key informants, field level government functionaries of line departments also were contacted to elicit the information related to the study.

2.1.5 Data Analysis and Preparation of Report

A range of primary and secondary data sources were used to prepare the SIA report. The SIA relied on both qualitative and quantitative information collected from the various sources. At the first stage secondary sources of information were analyzed and used as essential references throughout the SIA process. The subsequent processes of scrutiny, coding, data entry, cleaning as well as processing of quantitative data were done by a trained data management team. Descriptive statistical methods were used to analyze the primary data which have been presented using tables and graphs. However, the SIA report has been developed based on a combined understanding of issues and using a triangulation of information from various sources. Finally, the draft report is submitted to the NCDS for sharing its findings in the public hearing and to get feedback from the project-affected people to prepare the final SIA report.

2.1.6 Preparation of Social Impact Management Plan (SIMP)

As per the *Section 4 (6)* of the RTFCTLARR Act 2013, the SIA process includes the preparation of a Social Impact Management Plan (SIMP), which will present the ameliorative measures to be undertaken to address the social impacts identified in the course of the assessment. Thus, the SIA team of KARTABYA prepared an SIMP, based on the impact identified in the assessment that includes the viability of impact mitigation and management strategies with clear indication of costs, timelines and capacities. The SIMP has also been prepared in Odia language to be circulated in affected areas.

2.1.7 Public Hearing

As per *Section-5* of the RTFCTLARR Act 2013, public hearing will be organized in the affected areas after giving adequate publicity about date, time and venue of public hearing to ascertain the views of the affected families relating to land acquisition. The concerned LAO and the SIA team members of KARTABYA would facilitate the meetings and present the SIA report in the presence of concerned officials of the district and land requiring body. After conclusion of the public hearings, the SIA team would analyze the entire feedback received and information gathered in the public meetings and incorporate the gist along with their analysis, in the final SIA report to be submitted to the State SIA Unit.

2.6 Description of Methodology

As mentioned earlier, the methodology for conducting the study was based on the objective and scope of the study finalized by SIA Coordinating Agency as per specifications of RFTLAR&R Act 2013 and RFTLAR&R Rules 2016. The description of the same is as follows;

Table 4: Methods used based on objective of the study

Objective and Scope	Methodology used
Rationale of the project, analysis of alternate sites and minimizing land acquisition	Discussion with project officials, Revenue officials & Review of secondary literature
Estimation of affected families (land losers)	Census survey using land schedule and genealogy methodology
Socio-economic profile of land losers, livelihood losers	Door to door household survey using structured questionnaire
Socio-economic profile and general infrastructure and resource mapping of affected area	Village survey using structured questionnaire
Identification of livelihood loser families (landless agricultural labourers/ tenants/ sharecroppers etc.)	Interview of land owners, livelihood losers
Assessment of land, magnitude of loss of land of the affected families	Household survey with the structured questionnaire
Assessment of social, economic, cultural environmental and other impacts	Household survey of land losers, livelihood losers, indirectly affected in periphery villages. In addition FGD and PR exercises

2.7 Tools Used

Four separate sets of questionnaires / schedules were used for collection of information;

- Household questionnaires
- General Information schedule
- Social and cultural information schedule
- Format for Focus Group Discussions

The questionnaires were prepared in consultation with the State SIA Unit and in compliance with RFTLARR Act 2013 and Odisha RFTLARR Rules 2016.

2.8 Limitations of the Study

During the SIA study process the team faced some limitations.

- ☞ Initially, data collection was done from the households that were available in the village. But it was found that Sanjukta Acharya, one of the ROR holders (*Khata No:559/1258, Plot No:1764/5979*), is living in other districts (Jharsuguda) while owning land in the affected area (*Unit-15, Ainthapalli*). So, the RoR holder was not interviewed during the process of data collection. However, a total of 5 families were surveyed for the construction of the sewerage system, even though we were assigned to survey only 2 families.

2.9 Contour of the Study Report

The study report is divided into seven chapters. The first chapter is introductory in nature and contains the project description, land acquisition and legal policies and frameworks applicable for the study. The second chapter describes the study approach, team composition, tools and the methodology. In the third chapter, the socio-economic profiles of the study area and affected families have been deliberated upon. An assessment of land in the project area is presented in Chapter four. Chapter five analyses the project's impact, perception and R & R options of the affected families. Chapter six represent the SIMP which is vital for the SIA. Chapter Seven analyses the social cost benefits of the project and recommendations of the SIA study for necessary actions.

3. Socio-economic profile of the study area and affected families

The social and economic structure constitutes the framework for social life of a person which is vital to understand before land acquisition. However, the present Social Impact Assessment study has been carried out in two areas under Sambalpur town of Sambalpur district in the state of Odisha. The state is the 11th largest state in terms of population and 9th largest state by area in the country. Odisha has an area of 1,55,707 sq km is bounded by the West Bengal on the North-East, Jharkhand on the North, Chhattisgarh on the West, Andhra Pradesh on the South and Bay of Bengal on the Eastern side. As per the 2011 Census, the population of the state is 41,947,358 and the density of population per sq km is 270. Administratively, it is comprised of 30



Figure 1: Map of Odisha indicating project district

districts, 314 blocks, 6,234 Gram Panchayats and 51,048 villages. In the literacy front, its achievement has been noticeable in the state as the literacy rate has increased from 63.08 % in 2001 Census to 73.45% in 2011 Census. In terms of urbanization, Orissa is one of the least urbanized States in the country. The proportion of population living in urban areas in the State stood at 16.68 % compared to 31.16 percent for the country. However, there has been a steady increase in the States’s urban population over the decades. It has increased from 14.99 % in 2001 to 16.69 % in 2011.

According to Census 2011, there are 223 urban centres in Odisha comprised of 112 Urban Local Bodies (ULBs), 5 Municipal Corporations, 45 Municipalities and 62 Notified Area Councils (NACs). Out of the total urban households of Odisha, 64.8% have access to individual household latrines. Of the rests, only two percent have access to community toilets and the rest resort to open defecation. In fact, Odisha is second in the list of five most critical states with very high open defecation in urban areas⁴. The sewerage system is absent in an overwhelming majority of urban areas. In recent years Government of Odisha has implemented different projects to provide basic services to the urban people. The Sewerage System project is one of them for which the present SIA study has been carried out.

3.1 Study District: Sambalpur

The district Sambalpur is situated in the western part of Odisha and spreads over 6,624 sq. km (4.28% of state area) in terms of geographical area. It is surrounded by Debagarh district in the east, Bargarh and Jharsuguda districts in the west, Sundergarh district in the north and Anugul & Saharanpur districts in the South. The total cultivable land of the district is 1.92 lakh hectares and the area used for non-agriculture activity is 0.33 lakh hectares. The economy of Sambalpur District is basically dependent on agriculture and secondly on forests. Forests play an important role in the economy in terms of

⁴ Government of Odisha, Housing & Urban Development Department, Odisha Urban Sanitation Policy 2017 (H&UDD 2017)

contribution to revenue, Domestic Product as well as the dependence of people for livelihood. The famous Hirakud dam is located in the district that provides irrigation facilities as well as electricity generation for the state. Apart from agriculture, handloom, forest product and industry sector serve as a major source of employment for the people.

Demography

The district is divided into three Sub-divisions namely, Sambalpur, Kuchinda and Redhakhol. At present, there are 9 Tehsils an equal number of Community Development (CD) Blocks and five ULBs covering 148 Gram Panchayats (GP) and 1,313 revenue villages. The population of the district is 10.41 lakhs with 11.89% decadal growth rate as per the 2011 Census which constitutes 2.48% of the total population of the state. The Scheduled Tribe communities form more than one-third of the district population. Second, the district has a higher urban population than the state average. The population density of the district is, however; lower than the State population density as per the 2011 census.

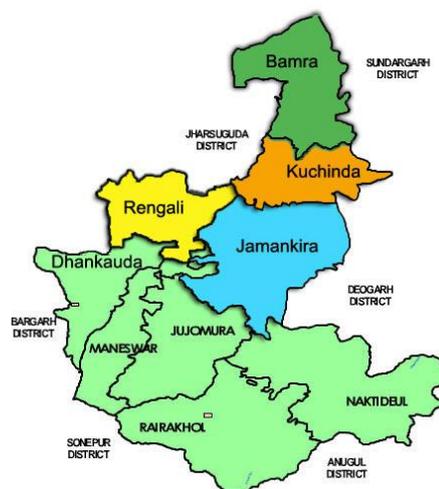


Figure 2: Map of project district Sambalpur

Table 5: Demographic information of the Sambalpur

No. of Tahasils	09	Schedule tribe:	34.12%
No. of GPs	148	Schedule Caste:	18.43%
No. of R. Villages	1,313	Decadal growth rate:	11.89%
Total Population	10,41,099	Sex ratio:	976
Male:	50.61%	Population Density:	157
Female:	49.39%	literacy rate:	76.22%
Rural:	70.41%	Male literacy rate:	84.35%
Urban:	29.59%	Female Literacy rate:	67.93%

Source: DCHB, Sambalpur, Census 2011, Odisha

The sex ratio of the district is 976 females per 1000 males which is slightly lower than the state ratio. There has been an improvement in the literacy rate of the district from 67.29 percent in 2001 to 76.22 percent in 2011 census which is slightly higher than the state average of 72.87 percent. If things are looked at gender wise, male and female literacy were 84.35 and 67.93 percent respectively. There is a significant gap in the literacy rate of males and females in the district.

Occupational composition:

As per the 2011 Census, main and marginal workers together are 5,05,840 persons which are 48.59 per cent of the population. Among the main workers, the percentage of males & females are 61.90 and 38.09 respectively. Apart from this, there are 1,68,986 marginal workers, who constitute 16.23 percent of the total population of the district. Of them, 41.68 percent are male and 58.31 percent are female. When we look into both main and marginal workers, 86,800 (17.16 per cent) are cultivators, 1,60,798 (31.79 per cent) are agricultural labourers, 59,288 (11.72 per cent) are workers in household industries and 1,98,954 (39.33 per cent) are other workers.

3.2 Project Location: Sambalpur Town

The study area comes under Sambalpur town, which is governed by the Sambalpur Municipal Corporation. The municipality covers 34 Sq. Kms area having 29 nos of wards. As per the census of 2011, the population of the town is 1,844,000, consisting of 94,722 males and 89278 females. The average literacy rate of the city is 85.53 percent, with male and female literacy rates of 90.51 and 80.27 percent, respectively. The sex ratio of the town is 943 per 1000 males. The economy of Sambalpur is basically dependent on trade. Most of the residents are either salaried or self-employed. Forest products play an important role in the economy in terms of their contribution to revenue and domestic product. The Municipal Corporation is in charge of providing civic services to the residents of the town. It also extends basic facilities to the area and its people, which include cleaning and sanitation work, street lights and their maintenance, supply of water, construction and maintenance of roads, drains, etc.

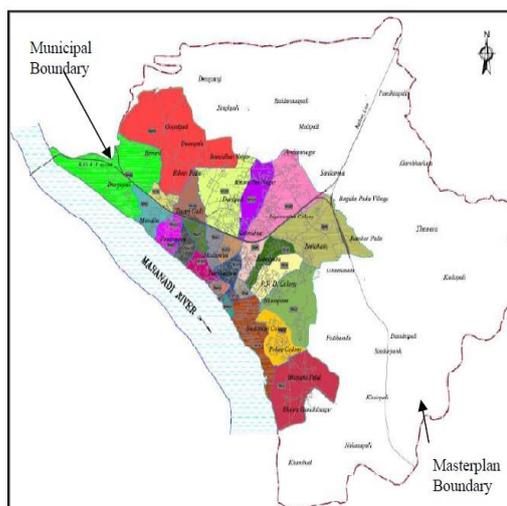


Figure 3: Map of Sambalpur Municipality boundary

Sewerage and Sanitation System

In absence of the organized sewerage system in majority areas of Sambalpur towns, pollution of river Mahanadi threatens the community health and hygiene. The “Dhobijore Nalla” passing through the heart of Sambalpur carries most of the sewage water and dumps the same into river Mahanadi and thus polluting the river water / bed and subsoil water strata. Absence of underground network of sewerage pipelines for collection of sewage from most of the households, sewage pumping stations, sewage treatment and disposal facilities is a major drawback to maintain the sustainable environment in the city complex. The untreated waste water flows into the natural existing streams where inhabitants’ bath and wash clothes and utensils. The farmers use this water in the agricultural fields. This is causing health hazard to the residents of the complex. Therefore, sewerage and drainage systems are being constructed in the town to resolve these problems.

Water supply status

Surface water is the main source of water supply to Sambalpur town. River Mahanadi Supplies 29.3 MLD by two major reservoirs namely Hirakud Reservoir (27.3 MLD) and Mahanadi at Ayodhya Sarovar (2 MLD). Out of total present population of the town 95% of the population is covered under Piped water supply system. Since the groundwater table is very deep, the town fully depends on the surface water source, River Mahanadi. There are two water treatment plants, eleven pumping stations with 40 pumps, 9447 service connections, 950 stand posts, and 5300 hand pumps available in the city. The piped water supply covered 19 wards and 10 wards partially.

3.3 Enumeration of affected families

As per Rule 30 of the Odisha Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Rules 2016, enumeration of the affected families would be done based on whose land and immovable properties would be acquired. In this context, SIA team has enumerated the affected families during fieldwork and grouped them into the following two categories:

- i. Families whose land or other immovable properties have been acquired,
- ii. Families who have been residing on any land in the urban area for three years or more prior to the acquisition of land.

However, the project authorities originally enumerated 2 families based on their RoR, but the SIA team surveyed 5 families who would be directly affected by the project. The variation between the initial enumeration and the field survey happened owing to extended families.

As per the enumeration, the families whose land and other immovable properties have been acquired are found in all the affected areas. The second category of families enumerated in the affected villages is families that have been residing in the urban area for the previous three years prior to the land acquisition. In this category, affected families from all the areas are included since the affected areas come under Sambalpur town.

3.4 General Infrastructure & Socio-cultural profile of affected villages

The Village Infrastructure Survey was conducted in the project locations with pre designed format for gathering comprehensive data on basic infrastructure and services available to identify reintegration assistance around basic services and livelihood, land & shelter, drinking water, sanitation, education, and health. The following findings are summarized from the detailed analysis.

a) Road network, drinking water and Electricity

The road network of all two locations is better since these locations fall under urban areas. The project areas have access to electricity facilities and have various types of drinking water sources. Tube wells and Municipality Pipe water (Stand posts & household connections) are major sources of drinking water available in all two areas. Further, it was noticed that there are 19 tube wells and all the households are having municipality water taps that provide safe drinking water to the people.

b) Education & Health Infrastructure in Affected Villages

Information on education infrastructure reveals that there are primary schools, M.E schools and High schools available in all the affected areas. Looking into the health service infrastructure, it was observed that an ANM center is available in two locations. Apart from that, there are six Anganwadi Centers available to provide/facilitate primary health services to the people. One PHC and two dispensaries are also available in the area to provide basic health services. Other health facilities like District Headquarter Hospital (DHH), Municipality Hospital, Homeopathy dispensaries, private hospitals, and Nursing Homes, etc. are also available in the town near the affected area.

Table 6: Education & Health facilities in the affected villages

Sl	Facilities	Kuretula (Unit-5, Sakhigopinath)	Thakurpara (Unit-15, Ainthapali)	Total
1	Anganwadi Center	4	2	4
2	Primary School	2	1	4
3	M.E School	1	1	4
4	High School	1	1	4
5	College	1	0	1
5	ANM Center	1	1	2
6	UPHC	1	0	1

Source: Primary Survey 2022

Apart from the infrastructure mentioned above, the community in the project areas has access to and uses the post office, library, veterinary center, community hall, cremation ground, youth club, technical college, milk co-operative, and other amenities in their proximity. However, it is revealed that all the basic facilities and infrastructure are available in the area because of the urban region.

c) Service Providers at Village level

During field assessment, different types of local-level service facilities were observed. There are cycle repair shops, motor cycle repair shops, grocery shops, chemists, fair price shops, hotels, and other different types of shops available in the affected areas. Apart from that, individual service providers like masons, painters, tailors, electricians, cobblers, and washermen are providing services to the people of affected area. Banks like SBI, PNB, and IDBI are available in close proximity of the project area to provide banking service facilities. All the areas are well connected with the express highway and they are availing the public transport within a nearer distance. Also, the Sambalpur railway station is located 2-3 k.m from the affected villages. So there is no communication problem among the people of the affected areas. However, it is observed that all types of facilities like markets, restaurants, educational institutions, and ATMs are available near the village.

d) Socio-cultural Infrastructure

The people of Sambalpur are socially and culturally very rich. The impact of Maa Samaleswari culture is quite visible in the socio-cultural life of the people of the area. With regard to socio-cultural infrastructure, it is observed that there are festival locations, temples, church, Mission Charity Committee and youth clubs are available in the affected area. Besides, there are 23 SHGs developed in the project area and the majority are actively working. However, the details of socio-cultural infrastructures are depicted in the **table-7**

Table 7: Socio-Cultural Infrastructures of the affected area

Sl	Infrastructures	Kuretula (Unit-5, Sakhigopinath)	Thakurpara (Unit-15, Ainthapali)	Total
1	Festival location	1	2	3
3	Youth Club	2	1	3
4	SHGs	15	8	23
5	Dharmasala	0	1	1
5	Temple	8	2	10
6	Masjid	0	1	1
8	Church	1	0	1
9	Munda Samaj Smanan	1	0	1

Source: Primary Survey 2022

e) Status of Common Property Resources (CPR)

During the survey work, it was found that no common property resources will be affected due to the acquisition of land for the sewerage project in two areas. So the acquisition of the land will have no impact on the affected people in terms of common property resources.

3.5 Socio-economic profile of affected families

Land acquisition for any type of project has a direct impact on the social and economic life of the inhabitants of that area. Hence, there is a need to analyze the socio-economic and political sphere of the inhabitants before undertaking such projects. Keeping this in view, the present social impact assessment study has been carried out and 5 directly affected families were surveyed in Unit-15 and Unit-5 areas. The following section presents basic socio-economic, demographic characteristics of the affected households which include gender, age, caste, education, marital status, occupation and livelihood, income and expenditure, poverty status, household’s basic amenities and housing conditions, etc as per *FORM-D* of the Odisha RFCTLAR & R Rule.

3.5.1 Demographic profile: Gender, population & age distribution

The gender ratio in society plays a vital role in the differential approach in the development process. It is seen from respondents’ distribution pattern that out of 5 respondents 4 are male, whereas only one respondent is female. Further, it is found that there are 32 people residing in 4 families; of them, 18 (56.25%) are males and 14 (43.75%) are females. The percentage distribution of male & female ratio shows that the males are more than the females.

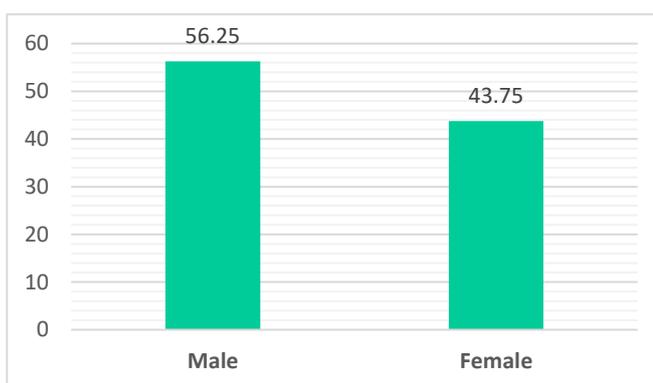


Figure 4: Gender distribution of population

The details of gender wide distribution of affected population are shown in Table-8. Furthermore, we noticed that no affected families were residing in the Unit-15 area, and our further enquiry revealed that one RoR holder Sanjukta Acharya and her family were residing outside the district.

Table 8: Gender- wise Distribution of Affected Households and population

Village	Total Surveyed PAFs	Total PAPs	Gender based population			
			Male		Female	
			N	%	N	%
Thakurpara (Unit-15, Ainthapali)	0*	0	0	0	0	0
Kuretula (Unit-5, Sakhigopinath)	5	32	18	56.25	14	43.75
Total	5	33	18	56.25	14	43.75

Source: Household Survey 2020.

Classification of Affected Population by Age

The classification of the population according to age groups in the demographic data gives a brief idea of the productive group in relation to the dependency model of the society affecting the socio-economic situation. The group of people belonging to 18 to 45 years age group is considered as highly potential for the society, family as well as environment. The distribution of age in the surveyed villages shows that there are 32 people residing in the affected families; of them, 20 are in the age group of 18-45 years and are considered a productive age group. This apart, about 5 people are in the age group of 45-60 yrs who are also considered as an economically active group. Hence, it indicates that more

than 75% people of in the surveyed areas, are the potential and contribute to lifting the economic condition of their families. Further, the age group of 0-6 years and 6-18 years population are 1 and 3 respectively. Apart from that, 3 people are in the age group of more than 60 years and are dependent on the earning members of their families.

3.5.2 Social Profile:

This section deals with the analysis of social institutions like Family type, caste composition, religion, marital status, literacy status, etc. to gather an idea about the prevailing practices, power relationships, and educational status of the people in the affected villages.

a) Family type

Now-a-days decline of joint families is a common trend in Odisha. As a result of modernization and industrialization, joint family system is disintegrating and opting for nuclear families is on a rise. But in the surveyed villages, it is noticed that out of the five surveyed families two are nuclear and the rest 3 families are joint type by nature. However, the average family sizes of the affected villages are 5.4 as revealed from the primary survey.

b) Caste & Religion

The caste composition of the affected families depicts that, only one category people reside in 5 surveyed families and all are belong to the scheduled tribe communities . Further, it has been noticed this Scheduled tribe category includes *Khadia* who is residing in Unit-5, Sakhigopinath area. These Scheduled tribe families are required to be paid one-third of the compensation amount initially as first instalment in advance and the rest shall be paid after taking over the possession of the land (Section-41 (6) of RFCTLAR R Act 2013). However, there are no general castes, scheduled castes or Other Backward Castes families included in the study process. However, the entire project affected families arising out of the Sewerage system project are Hindus by religion.

c) Marital Status

The information collected on the marital status of the surveyed population reveals that, majority i.e. 16 of them are married (50%) while 13 (40.6%) are unmarried. Further, it is also found that there are 3 (9.4%) widows/widowers. The cases of divorce or separated persons are not found during the collection of information.

d) Affected vulnerable families

During the study, the vulnerability status of the households was also determined based on social stratification such as SC/ST households, women-headed households, households having PWD dependents. The study finding shows that all the surveyed families (n=5) are vulnerable families in the affected areas and coming under the category of Scheduled Tribe (*Khadia*) category. It consists of a women-headed household (Etwari *Khadia*), 3 widows, and one person with disabilities (*Saraswati Khadia*). Other categories of vulnerable families were not found in the affected area during the survey. Further, the women-headed households are taken on the basis of single women with their minor children, only female earning members of the families and single families i.e. widow, destitute, divorcees etc. But it has not included the aged women in the family. However, these families need special attention during the compensation for the protection of their livelihood.

e) Literacy & Educational status

Education is essential for the comprehensive development of human beings which is one of the key social development indicators. In the study context it is found that, out of the total population, all are literate which is higher than the state average (73.5%) as per the census 2011. Table-9 depicts the genderwise educational status of the affected population.

Table 9: Education wise Distribution of Affected Persons

Sex		Just Literate	Elementary	High School	Matric	+2	Graduate	PG	Tech./ prof. Degree	Total
Male	N	4	7	2	3	3	0	0	0	19
	%	21.1	36.8	10.5	15.8	15.8	0.0	0.0	0.0	100.0
Female	N	2	7	2	1	1	0	0	0	13
	%	15.4	53.8	15.4	7.7	7.7	0.0	0.0	0.0	100.0
Total	N	6	14	4	4	4	0	0	0	32
	%	18.8	43.8	12.5	12.5	12.5	0.0	0.0	0.0	100.0

Source: Household Survey 2023

As regards the educational attainment of the affected persons, it is observed that out of total 32 literate people, 14 (43.8%) have received education up to elementary level which is the highest percentage among the literates. The second highest percent (18.8%) of PAPs are just literate and can only manage to read and write. It also reveals that 12.5% of people have received

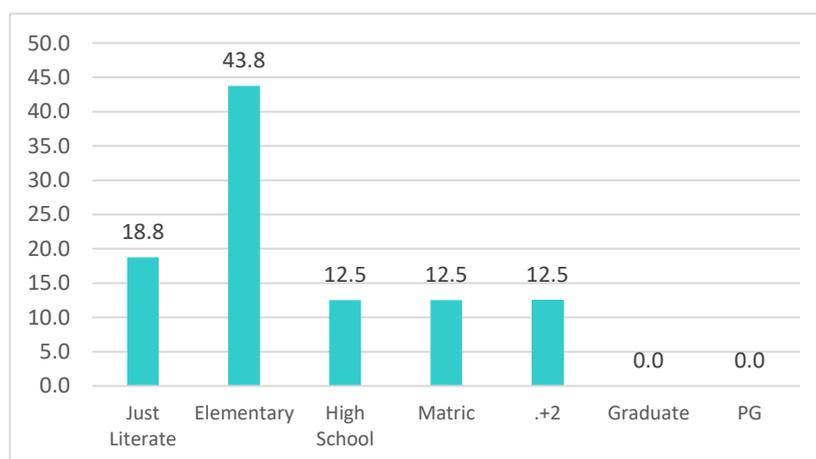


Figure 5: Percentage distribution of the educational attainment

education up to high school level and similar percentage have completed matriculation. As far as the technical and professional qualification is concerned, it is observed that no PAPs have acquired any technical skills. Besides, PAPs having other qualifications are rarely found in the affected villages. From the above analysis, it is revealed that more than 70% of the people in the affected village have access to education up to matric level since the villages are urban base where different educational facilities are available. (Table-9 and Fig-5)

3.5.3 Local Economic Activities & livelihood

Occupation patterns determine the employment status, nature of employment as well as economic positions and standard of living of persons concerned. Considering the above few facts, the information regarding the main occupations of the PAPs has been collected so that project-related implications could be assessed. Based on the impact assessment, the income generation methods and rehabilitation plans need to be prepared accordingly. It is revealed that out of a total 32 population, 13 (40.6%) are engaged in different types of economic activities like; private service and Daily Wage

Earners. The study findings reveal that, out of the total working population (n=13), 9 are Daily Wage Earners and only 2 persons are salaried employees engaged in the private sector. Besides 2 persons are getting pension from Social Security Schemes. Fig-6 depict the occupation of the surveyed villages.

From the analysis, it was revealed that nobody from the working population (13) was involved in agricultural activities. The lands that will be affected are only a small portion of their area, which are not used for any purposes. The acquisition may not have a significant impact on their present income source as most of the families engaged in daily wage activities in different places. However, logical compensation should be given as per the RTFCLAAR Act

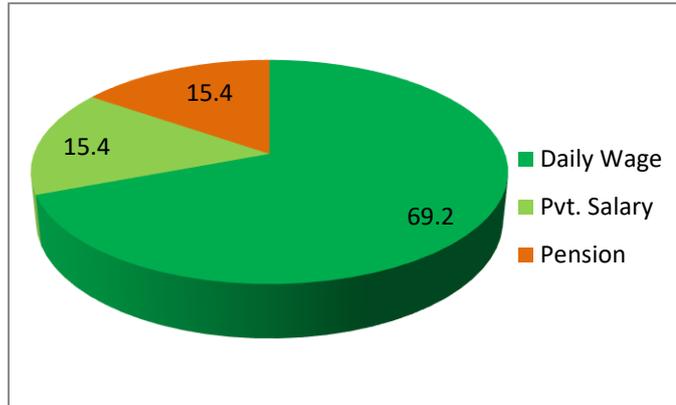


Figure 6: Occupation of affected families

2013. Further, among the affected populations about 60 percent are non-working groups who depend on the working group people.

3.5.4 Income, Expenditure & Poverty level

a) Household’s Income

Analysis of the level of income of the affected population give an idea regarding extent of poverty as well the quality of their life. The Wellness status of these people is based on source of income, expenditure pattern, access to banking services, possession of assets, etc. Keeping this in view, in the present SIA study, data were collected on annual family income of all the 5 land loser families and the analysed data is presented below.

The income range of the surveyed 5 HHs indicates that, 3 families have an income Rs. 250000 to Rs. 350000 per annum and two families earn Rs.150000/- to Rs.200000/- per annum. Though income varies widely among the households and based on adopted occupation, around no affected households earn less than Rs.85,000/- per annum whom we can consider as poor family. Referring to the poverty estimate of Rangarajan Committee in 2014, a family having annual expenditure below the threshold limit of Rs. 84,420 may be considered as BPL in the urban area. Taking into account the average annual household expenditure of Rs.84,420 and equating with the income level, with the assumption that a family has an average annual income of the threshold expenditure limit (Rs. 84,420), attempt is made to categorise the households into BPL and non-BPL categories. Accordingly, it is observed that no affected families are placed under the BPL category with an average annual income of less than Rs.84, 420. From the above discussion of income status, it is evident that the economic situation of all the affected families is average to good.

b) Household Expenditure

The previous year's monthly consumption pattern of the surveyed households on food & non-food items was analysed to establish the correlation between income and expenditure. The information collected from the surveyed households indicates that the average monthly expenditure on food items indicates that 3 families have spent Rs. 4000/- to Rs. 6000/- and 2 families have spent more than Rs. 6000/- per month. Here it can be assumed that about no families in the affected village are under the poverty line. (Considering Rangarajan committee report)

The information collected on non-food items shows that the majority of 4 families are spending below Rs. 6000/- and one family is spending Rs. 10000 per month. It was also revealed that among the non-food items people have spent more money on social functions and the education of their children.

c) Indebtedness Status

Information regarding indebtedness conditions of the households reveals that one family has incurred loans to meet his emergency needs. The loan is taken by head of the family in an individual capacity. Regarding the sources of loan, it reveals that the borrower's household have taken loan from bank with interest. However, from the income and expenditure pattern, one can notice that though the household is not in the category of consumption deficit household, yet he is indebted.

d) Poverty status

C. Rangarajan Committee had estimated monthly per capita consumption expenditure of Rs 972 in rural areas and Rs 1,407 in urban areas as the poverty line at the all-India level. In the present study, same monthly per capita expenditure has been converted to annual family expenditure taking average family size of 5.4 in the affected families and finally Rs. 84,420/- per annum has been considered as cut off to study level of poverty. Adopting the above method it was revealed that no land losing families are in poverty and need special attention during rehabilitation operation of the project. It is to mention here that this poverty estimate has been prepared only for the present research study purpose, hence, is not applicable to make anyone eligible to receive any benefit entitled to BPL families

3.5.5 Quality of Living environment: (Housing conditions, basic amenities& Assets)

Housing is an important component of the growth and development of human beings. A pucca house is one of the basic needs for human survival. It symbolizes identity, dignity and social status for families in rural as well as urban areas. The Government of Odisha assigns high priority to the improvement of rural & urban infrastructure and commits to providing pucca houses to all rural families. However, the housing structure of the affected households, its use, aspects of housing conditions and availability of basic amenities, etc. have been observed and verified by the Field Investigators at the time of the survey.

a) Housing Conditions

The data shows that out of total affected (n=5) households; all the dwellers are residing in their own houses. As far as the type of house is concerned, the information indicates that out of 5 families, only one family has concrete roof houses with cement-plastered walls and floors. The remaining 4 families have tile-type houses (Khapar) with cement-plastered walls and floors. It indicates that the housing conditions of the affected families are not well structured even though the area is within urban locations.

b) Basic Amenities

The basic amenities of the household reveal that out of 5 affected households, no families are having a separate place for domestic animals since animals are hardly domesticated by the affected families in the urban area. All the households (100%) have bathrooms within the house and are having toilets within /adjacent to their houses. Washing places within the house are available in all the affected households

However, the most important facility i.e. electricity connection is well available to all the households in each affected village. The above analysis shows that the housing conditions of the surveyed households are good. It can be assumed that due to the impact of urbanization, people have constructed their houses where all the civic facilities are available.

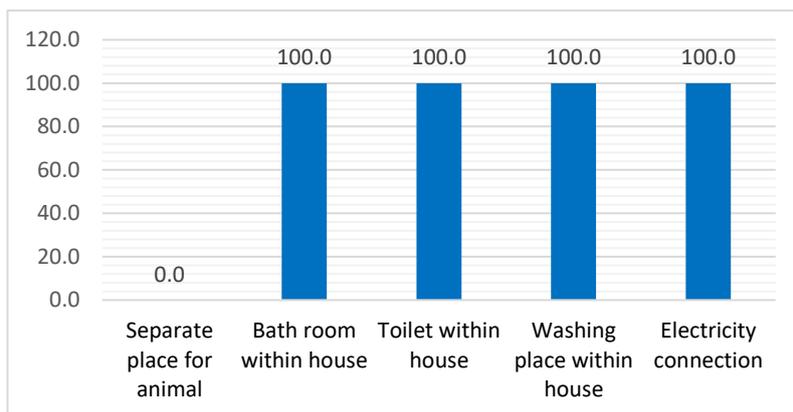


Figure 7: Basic facilities available in the affected households

Fig -7 depicts the civic facilities available in the affected households.

c) Drinking Water Facilities

Safe drinking water is a basic necessity of human beings. Thus, the priority, as well as commitment of the State Government, is to supply safe drinking water to all. The Government has given priority to provisions of safe drinking water to the people in terms of being potable, adequacy, convenience, affordability and equity on a sustainable basis adopting a decentralized approach and involving PRIs and community organizations.

Information was also collected on sources of drinking water for the surveyed villages and it was noticed that dual sources of drinking water facilities meet the water need of the affected families, but people are using a single source of drinking water. The data reveals that all the affected families use pipe water for drinking purposes supplied by the municipality throughout the year. Apart from this, there are no other sources of drinking water facilities available in the affected areas.

d) Assets Owned by the Households

During the study, household assets were also taken into account as they determined the well-being ranking of people and their socioeconomic status. It has been observed that most of the households are having different types of assets. **Table 10** presents the assets owned by the households in the affected village.

Table 10: Households Asset position

Total HHs	TV	Radio	Refrigerator	Air Condition	Fan	Telephone
5	5	0	2	0	5	5
	100.00	0.00	100.00	100.00	100.00	100.00

Source: Field Survey 2023

It may be seen from **Table-10** that out of 5 families, all have owned televisions which perform dual purposes of entertainment of people as well as informing/ educating them on various aspects of life. Similarly, telecommunication facilities and fans are available in all households. Further, 2 families own refrigerators and are considered well to do families.

Table 11: Households Asset position (B)

Total HHs	Cycle	Two Wheeler	Three Wheeler	Four-Wheeler	Pump set	Cooking Gas	Utensils	Ornament
5	5	1	0	0	0	5	5	5
	100.00	20.00	0.00	0.00	0.00	100.00	100.00	100.00

Source: Field Survey 2023

Among other assets, all five families own bicycle which is used by the people for their local mobility purpose. Cooking gas, utensils and ornaments are also owned by all the households and only one family own two-wheeler. However, it has been observed that mobile phones; fans, television, cooking gas and utensils are the most common goods which are visibly owned by most of the affected families.

3.5.6 Health seeking behaviour

Health-seeking behaviors like; the availability of nearest medical facilities, type of facilities, amounts spent on treatment of common diseases during the last year were assessed among affected families. The survey information states that out of 5 households, people in 3 households were affected with various health-related problems during the past 12 months prior to the date of the survey.

The families who suffered from illness were attended by allopathic doctors. Out of 3 families, 2 were treated in Govt. hospitals (DHH Sambalpur) while one of them opted for private medical centres. But, no instances of Ayurvedic or any faith healers were observed during the survey process. It is widely accepted that private hospitals provide better treatment and are easier to access in towns, but people prefer government hospitals due to their free treatment.

Regarding chronic diseases, the information reveals that one family has opined that they require periodical treatments for chronic diseases of their family members. The information revealed that diseases like Blood pressure and Diabetics problems are the major chronic diseases prevalent in the affected family members.

3.5.7 Access to public service facilities

Far and wise location of public institutions has a direct impact on access by people. The information collected on access to various service facilities. It indicates that the primary school and high schools are well accessible to the children of all the affected families since it is located in close proximity i.e. within 0.5 km as responded by all the families. Other facilities like secondary schools, colleges, regular market, hospitals are accessible to the people of all the affected families within a distance of 0-2 kms.

3.5.8 Decision making & participation of Women

A sustainable future for women empowerment depends on ending all discrimination against women and girls, as part of SDG 5. However, the gender-based decision making and participation, in and outside of household as well as community level activities have been assessed to focus on the level of women empowerment in the affected villages. It reveals that in major cases, household’s decisions are jointly taken by both male & female members and in few cases like; financial matters and land & property, male members play a vital role in the household. But, when it comes to the day to day household activities and health care of children, women are the decision makers. This shows that women play equal role in decision making of domestic matters. **Table-12** depicts the information on the gender based decision making at household level

Table 12: Decision making at Household Level

Decision	Male		Female		Both		Total	
	N	%	N	%	N	%	N	%
Financial Matter	4	80.0	1	20.0	0	0.0	5	100
Education of Child	1	20.0	1	20.0	3	60.0	5	100
Health care of Child	1	20.0	3	60.0	1	20.0	5	100
Purchase of Assets	0	0.0	0	0.0	5	100.0	5	100
Day to day HH Activity	0	0.0	5	100.0	0	0.0	5	100
Social function & Marriages	1	20.0	1	20.0	3	60.0	5	100
Women to earn for Family	1	20.0	0	0.0	4	80.0	5	100
Land and Property	3	60.0	1	20.0	1	20.0	5	100
Others	2	40.0	1	20.0	2	40.0	5	100

Source: Primary Survey 2022

The importance of women empowerment and equal economic and social inclusion are being given more attention today. The women's participation at community level may be considered their participation in community level decision making process, involvement in PRI as members, women as Anganwadi workers/ANMs, Women in Self Help Groups and making direct economic contributions to the family.

From the information, it is revealed that female members of the affected families neither take an active role in the decision-making process nor are associated with any institutions or groups. Further, data reveals that in 2 households, female members are contributing to the household economy. This shows that in the affected families, women do not have any significant role in institutional matters and they are well within the control of patriarchal patterns.

3.5.9 Profile of indirectly affected families

Land acquisition for developmental projects has both direct and indirect impacts on the inhabitants of the people. To assess the social impact of the Sewerage System project, it is essential to take into account the opinions of both directly and indirectly affected families. Hence, during the SIA study of the affected villages, data was also collected from 20 indirectly affected households by adopting a random sampling method. The following table summarizes the profile of these households

Table 13: Socio-economic profile of indirectly affected families

No. of indirectly affected families surveyed	20 (10 families in each area)
Total Population	74 (Male-40 & Female 34)
Social Category (No. of Families)	SC-02, ST-04, OBC- 09, GEN-05
Literacy status	More than 90% are literates
Poverty status	More than 70% have Ration Card
Working Population	38% of the total population
Economic activities	Daily wage earner-13 Salaried-6 Business-4 Self employed-5
Average Annual Income	Rs. 2,48,450

Housing Conditions	Pucca house - 60%, Tile (Khappar)- 40%
Major Source of drinking water	Municipality Tap

It is found from the study, that in the 20 indirectly affected families, there are 74 members; out of them, 54% are males and 46% are females. The social categorization of these indirectly affected families found that, there are 9 OBC, 4 Scheduled tribes, 5 general castes and rest 2 families are scheduled castes families and all the families belong to Hinduism. The marital status shows that out of a total of 74 members, 53% are married, 40% are unmarried and the rest 7 are widows. The data on the educational status of the people reveals that 90% of the total population is literate and among them, the majority are educated up to matric levels as revealed from the survey. From the data, it can be inferred that, the access to the educational system in the area is quite good as a result; most of the people in the area are literate.

The information on the occupation of the indirectly affected families shows that there are 28 (38%) people engaged in economic activities and among them highest 13 are daily wage earners, 6 people are engaged in salaried jobs, 4 people are doing different types of business and 5 people are self-employed other than business. Besides, no other occupation was found among the indirectly affected families. The data interpretation on annual income of the studied families shows that 5 families have annual income in the range of Rs. 80000/- to Rs 150000/- and 8 families earn Rs.150000/- to Rs. 250000 per annum. Apart from this, 7 families earn more than 2.5 lakhs per annum. Housing conditions for the 20 studied families reveal that 12 of them (60%) live in pucca houses, and the rest live in Khappar type houses. Electricity is available in all the households and the municipality tap is the main source of drinking water as revealed from the survey.

However, the socio-economic condition of both directly and indirectly affected households reveals that majority of them are in good condition. All of them may lose a small part of their land for the sewerage line project. The detailed picture about magnitude of land loss, livelihood loss, socio-cultural loss, etc. of the affected people are discussed and analyzed further in the subsequent chapters of the study.

4. Land Assessment

Land provides a major livelihood opportunity, especially in the rural areas, and in the urban areas, it fetches an exuberantly high price in the present-day scenario. Land ownership is viewed as a symbol of social status in many societies. However, in the context of the construction Sewerage System project, only Bahal pani & Gharabari types of land would be acquired, and prior to the acquisition of land, the present social impact assessment study has been done as per the guidelines of the "Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013". A total of 0.073 acres of private land would be affected in three areas of Sambalpur town for the current project. But during the survey, the SIA team covered total land by collecting information from five households. The accumulated information regarding project locations, land holdings, land to be affected in the acquisition, land type and its use, and ownership of land to be affected for the purpose of the proposed project has been analyzed in this chapter.

4.1 Maps showing the area of project

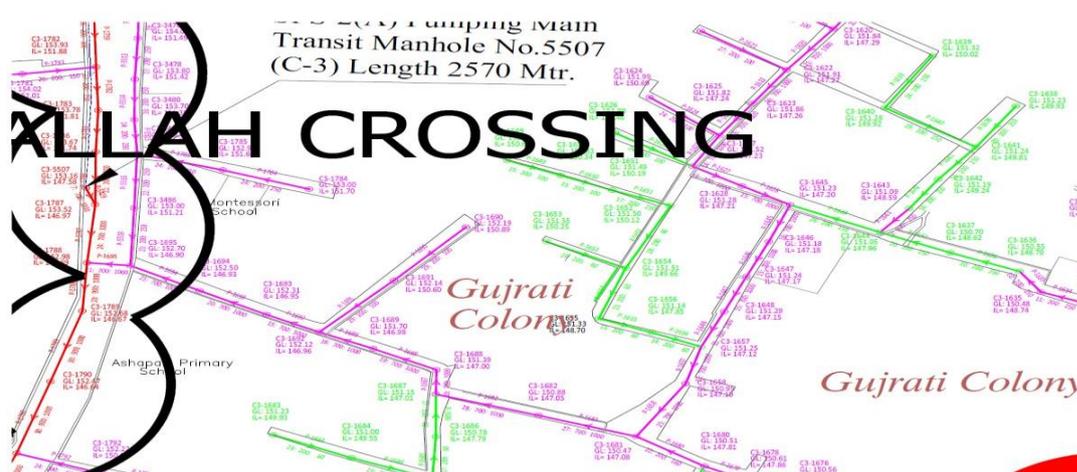


Figure 8: Map of Sewerage System, Sambalpur town

4.2 Extent of land for Sewerage System project

As per the 4(1) notifications of R&DM Department, a total of 0.073 acres of private land are to be acquired for the construction Sewerage System project in Sambalpur town. The area-wise details of the affected land for the proposed project and its kizami are given in the **Table-14**.

Table 14: Extent of private land for acquisition (Affected area & area to be acquired)

Sl	Name of the Village	Name of Tahasils	Total HHs Surveyed	Total Area affected (In Acre)	Area to be acquired (In Acre)	Kisam
1.	Unit-5 (Sakhigopinath)	Sambalpur	5	0.073	0.036	Bahal Pani
2.	Unit-15 (Ainthapali)	Sambalpur	0	0.180	0.037	Gharabari
Total Affected Households			5	0.253	0.073	

Source: Notification vide No- RDM-LAC-SBP- 0007-2023/ 36871/RDM dated 17th October 2023

As per the provided RoR, the land proposed to be acquired is categorized as Bahal pani & Gharabari kism in the general land classification. There is no other land involved in the whole acquisition process. From the table, it is seen that total 0.253 acres of land will be affected during the acquisition process and 0.073 acres will be acquired for the proposed construction of Sewerage System project in Sambalpur town. However, for the acquisition of private land, the SIA team has interacted with five land loser families for collection of information regarding the benefits & impact of the project.

4.3 Land holdings of affected families

As per the primary information, there is a total of 0.900 acres of land under the possession of the affected families, which are coming under the private ownership category by the individual households. Besides, no other types of land are in use by the affected families. **Table-15** depicts the type of land holding pattern of the affected village.

Table 15: Land holding of affected families

	Private Land	Govt. Land	Religious Land	Community Land	Total quantity of land owned
Acres	0.900	0	0	0	0.900
%	100.0	0.0	0.0	0.0	100.0

Source: Primary Survey 2023

4.4 Type & Usages of land by the affected families

It is evident from the survey that, total 0.900 acres of land is available with 5 affected families with an average holding size of 0.18 acres per household. As per primary information, it is found that out of a total of 0.900 acres of land, 0.400 acres (44.4%) are non-irrigated land and the rests are residential type of land. Further, it is revealed that some portions of affected land are left unused by the people there for any purposes.

Regarding use of land, the information revealed that out of total 0.900 acres of land owned by the affected families, 0.400 acres (44.4%) of land is being used for cultivation in other places outside the city area. Only 0.500 acres (55.6%) of land is used for residential purposes and people are living there now. Apart from that, affected families are not using their land for any other purposes since they own a very small amount of land. The land being acquired for the sewerage system project is also lying vacant and not being used for any productive purposes.

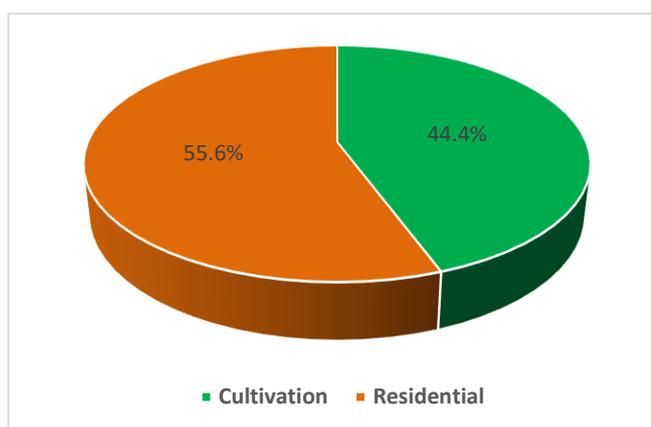


Figure 9: Use of land by the affected families

4.5 Project Land

As per the notification of the R & DM department, Govt. of Odisha, a total of 0.253 acres of private land will be affected and out of the affected land, 0.073 acres of land will be acquired for the Sewerage system project which is 28.8% of the total land to be affected . During the time of data collection, it was revealed that most of the landholders are of the intention to use their land for other purposes

like residential or commercial activities. So, they are needed to be properly compensated by the project authority as per the RFCTLARR Act 2013. However, it is observed from the land record that, Gharabari and Bahalpani kism of land are to be acquired during the process of land acquisition.

4.6 Summary of Land acquisition

A total of 0.253 acres of land comprising two plots (741 & 1764/5979) would be affected by the Sewerage System project at Sambalpur town. Out of the total affected land, 0.073 acres of land would be acquired for the said project which is 28.8% of the total affected land. However, for 0.073 acres of private land, the SIA team has collected information from 5 families and it is revealed that the average land to be acquired per family is 0.0146 acres. Table- 16 shows the number of plots and percentage of land to be acquired from the affected land in two villages.

Table 16: Summary of land acquisition

Villages	Total Plots to be affected	Total land to be affected (in acres)	Total land to be acquired (in acres)	% of land to be acquired from the affected land
Thakurpara (Unit-15, Ainthapali)	01	0.073	0.036	49.3
Kuretula (Unit-5, Sakhigopinath)	01	0.180	0.037	20.5
Total	02	0.253	0.073	28.8

Source: Primary Survey 2023

4.7 Ownership & Claimant on the affected land

Regarding the ownership of the affected land, it was observed that almost all the lands i.e. 100.0 percent came under private ownership by the affected households without any encroachment. It is seen that sometimes the claimant of the paternal land creates complicated scenarios in the land distribution or sharing of compensation in case of land acquisition for any type of project. However, in the present study it was found that out of the total 5 affected households, the majority 100.0 percent households did not have any claimants other than family members.

4.8 Loss of Structures/ Assets in the project land

Though the land requirements for the Sewerage system project have been confined to the barest minimum and worked out on an area basis, still this acquisition of land will have some adverse impact on the project affected people and their livelihood. People will tend to lose their private land; in turn, they will receive appropriate compensation from the project authority as per the RFCTLARR Act 2013. The present SIA study has revealed that no structures are to be affected by the proposed land acquisition process.

4.9 Loss of Trees

Trees also have emerged as an important source to supplement not only income but also a nutritional requirement of the affected households. Thus, an effort was made to ascertain the availability of trees in the affected land and their types. The survey revealed that no major trees will be affected in two villages during the proposed land acquisition.

4.10 Sale Transaction of affected Land & Recent Changes in Ownership

During interaction with the land loser families (as per the land record), the study team revealed that, no sale transaction has been done recently in the affected land.

4.11 Land price in the project area

Acquisition of land is the primary requirement for development projects and cash compensation as the price of land constitutes an important part of the project implementation. The cash compensation would be settled based on the guidelines of the RFCTLARR Act 2013. However, it may be mentioned here, that the benchmark price, which is considered the typical sale price of land or the registered sale price of the land in these localities does not often reflect the actual market price/value of the land. The actual market price may vary keeping in view the critical factors like productivity, location and type of land. Apart from this, the roadside land, land adjacent to community or habitat, homestead land and urban lands also bear high prices in comparison to single cropping non-irrigated, patita or bagayat, etc. types of land.

In this context, the actual local market price of the affected land has been sourced through a public enquiry. It was noticed that the asking rate of land in the project area of Sambalpur or market area is around 6.5 lakhs per decimal. This seems to be too high in comparison to the deducted price of land as transacted in the recent years was about 3 lakhs per decimal. However, no evidence was collected for the aforesaid market valuation for the said area. In most cases, the affected families have demanded prices at least four times higher than the market value. Nevertheless, the benchmark price earmarked by the revenue department would be a major factor when deciding land value for the finalization of the compensation amount.

4.12 Alternate Sites for the Project and their Feasibility

The proposed Sewerage System project is acquiring 0.073 acres of land in two areas in Sambalpur town of Sambalpur district. The study finding reveals that no displacement will take place due to this project. During the field visit, the SIA team has also examined the options for alteration of location site or design in the proposed land having a consultation with different stakeholders as well as affected people of the surveyed village. But no such opinion is formed in this context in the entire study, rather than the affected people demanded appropriate compensation from the project authority for loss of their land. Otherwise, it can be summarized that there is no such requirement for alteration of the proposed project.

5. Social Impact & Household’s Perception

5.1 Framework & approach to identify Impact

Identifying the project impact on the affected population is one of the major components of the social impact assessment study. In this connection, the impacts of land acquisition for the proposed Sewerage system project have been identified. Different methods like, household interview, Focus Group discussions, techniques of PRA were used to collect responses from the affected households and the collected information was analyzed to find out the project impact. Individual stakeholders were also contacted and the village level information was collected during fieldwork to identify the project impact. Apart from this, 5-point scaling technique was applied in the household surveys to understand the likely social impacts perceived by the families that the Sewerage system project may have on them. Besides, a few non-land loser households of each village were also interviewed to find out the impact of the project. The chapter analyzes different types of project impact and households' perceptions about the project.



Figure 10: Approach to identify project impact

Individual stakeholders were also contacted and the village level information was collected during fieldwork to identify the project impact. Apart from this, 5-point scaling technique was applied in the household surveys to understand the likely social impacts perceived by the families that the Sewerage system project may have on them. Besides, a few non-land loser households of each village were also interviewed to find out the impact of the project. The chapter analyzes different types of project impact and households' perceptions about the project.

5.2 Social Impact

5.2.1 Impact on land & land-based livelihood

As per the analysis, the affected families currently own 0.900 acres of private land, with 0.073 acres (8.1% of the total land) facing acquisition. However, it has been assessed by the SIA study team that, this small portion of the land loss would not affect the livelihood of the land loser families in the project area, whose income is drawn basically from non-farm activities. But the affected families had planned to utilize their land for residential or business purposes in future which would be non-productive for them due to the acquisition of land. Hence, it is imperative for the entity acquiring the land to recognize the substantial contribution of these affected families to the project's completion and ensure equitable compensation. Thus, proper compensation amounts for the affected families should be paid for the loss of their land based on the provision made in the Act under *section 26 to 30*.

5.2.2 Impact on Employment & Economy

All surveyed families belong to the Scheduled Tribe (ST) category, primarily relying on daily wage labor in the non-agricultural sector for their income. They are doing job in private sector and daily wage labour work in the non-agricultural sector and their family income is mainly drawn from the daily wage and related activities. During FGDs conducted, people expressed that they got wage opportunities, but it was not as expected. In many cases, contractors engaged machines, hence it was

less. However, it has been assessed that the proposed Sewerage system project would not have any major impact on employment and economy of the affected people. Engaging these families in project activities would allow them to derive benefits from the project, aligning with their livelihood structure.

5.2.3 Impact on Loss of Residential Structures

From the findings of the SIA study, it is evident that the construction of the Sewerage System will not affect residential structures in the affected areas.

5.2.4 Impact on other physical resources, public services & utilities

During the field visit, it was observed that the project's construction may impact existing public infrastructures such as electricity supply, telecommunication lines, water supply lines, and road networks. However, during the construction phase, an increase in population in the local area (due to employment opportunities and in-migration) is likely to put additional pressure on existing infrastructures and services. This may result in the capacity of existing infrastructures and services to meet the needs of the local people. However, this impact is anticipated to be local, both in terms of extent and duration, with the project's positive aspect of upgrading existing roads mitigating the overall effect. In addition, the project is expected to upgrade some existing roads, which will add to counteract the impact. For these reasons, the impact is assessed to be negative and minor in nature.

5.2.5 Impact on Traffic & safety

During sewer laying, traffic diversion becomes necessary as roads will be occupied for sewerage work. Temporary roads and traffic diversions are essential for local safety. During the implementation phase of the project, the movement of vehicles to the workplace will increase significantly. The increased traffic may be a source of potential safety threat to other road users. Therefore, the movement of traffic near the project site needs to be properly managed without creating problems for the existing traffic and road users. Construction of temporary roads and diversion of traffic need to be done for the safety of the local people. Although the construction phase may yield negative and minor impacts, these are expected to be temporary, with the operation phase presenting a similarly short-lived challenge.

5.2.6 Impact on Local Culture

There will not be any impact on cultural assets during the construction phase of the sewerage system, because no construction activities are carried out near such historical or cultural heritage and in all cases the duration of this activity is very short. On the other hand, due to this project, there may not be any such changes in the socio-cultural and demographic structures of the affected families as there is no occurrence of displacement insight.

5.2.7 Impact on Health

Sewer laying may result in water accumulation due to rain, leading to stagnant pools that could foster mosquito breeding, posing potential health risks such as malaria. The dust generated in the atmosphere may cause discomfort in respiration systems to the labourers and the nearby residents, especially those with respiratory disorders. While the impact on public health is a concern, it is deemed temporary and not of a serious nature

5.2.8 Assessment of Impoverishment Risk

All such developmental projects spurring displacement of the human population bear and generate impoverishment risks for the affected population and possible risks tend to be landlessness, joblessness, homelessness, marginalization, food insecurity, morbidity, loss of access to common property resources and community disarticulations. These risks can bring poverty and misery to the displaced persons if proper rehabilitation and resettlement measures are not being taken into consideration and steps to restore at least their pre-displaced state of living (Cernea 2000a). In the present context, an attempt was made to study the IRR model of Prof. Michael M. Cernea, to identify major Impoverishment Risks associated with land acquisition for the proposed project and the detailed discussion is presented below.

Landlessness: There will not be displacement of people from habitation in this proposed land acquisition. Only a small portion of land will be expropriated for the proposed project and the extent of expropriation is 0.073 acres from 5 families. Hence, there is no issue of landlessness risks in the proposed project.

Joblessness: This type of risk may not occur in the proposed land acquisition as the extent of land loss is much less.

Homelessness: The proposed Sewerage system project is a linear project and people are partially affected by losing a negligible quantity of land. So there is no risk of homelessness or displacement of people from their habitation.

Marginalization: As there is no displacement of people from habitation, social marginalization may not be there due to the proposed project.

Food Insecurity: In line with impact of proposed project on the above risks, it is assessed that food insecurity may not be an impoverishment risk in the present case. Nutritional insecurity may occur due to reduced food production, but will be of lesser degree and can be compensated through additional interventions.

Loss of Access to Common Property and Services: No Common Property or Community Service facilities will be acquired in the proposed land acquisition for Sewerage system project. But the construction of the project work may damage the existing public infrastructures like; electricity supply, telecommunication line, water supply line, road etc. which may occur over a short period of time.

Social Disarticulation: As there is no displacement of people from habitation, the existing social fabric, patterns of social organization, interpersonal ties, kinship groups and life-sustaining informal networks of reciprocal help are assessed to remain undisturbed.

However, the project is a linear project and people would marginally be affected. Thus, there is no such greater degree of impoverishment risks for local people.

5.3 Household Attitudes & Perceptions toward the Project

Prior to the acquisition of land for the Sewerage System project in the affected area, it is necessary to assess the perception of affected people on the project and its consequences. Therefore, perceptions of the affected families were recorded for reference. The perceptions of people about the project are discussed in this section.

5.3.1 Awareness about the project

All the affected families responded that they had prior knowledge about the construction of the sewerage system in Sambalpur city and their land was intended to be acquired. Though they were having information about the project, confusion was high based on the demarcation of the land which was going to be acquired for the sewerage line. Thus, it is required to raise the consciousness of the people about the land to be acquired for the aforesaid project.

5.3.2 Project benefits: social & economic

The project benefits on the affected population were also assessed during the social impact assessment study. It was observed that among the five surveyed families, four expressed a positive outlook regarding the project, anticipating social and economic benefits. Conversely, one family held the perception that the project might not be advantageous, citing concerns about a minor land loss.

In terms of social benefits, respondents highlighted the project's potential to address significant health issues associated with household sewage transmission. . Additionally, they noted its role in curbing water pollution in rivers, streams, and ponds, thereby safeguarding fish and other aquatic species. Similarly, regarding economic benefits; households agreed to the proposition that the project would provide better compensation to them. Presently engaged in wage labor, the affected families maintain optimism that the project will generate temporary employment opportunities for them. This optimism underscores their positive expectations regarding the project's potential outcomes.

5.3.3 Expectations & preference of affected HH's for compensation

Identifying and assessing the expectations and preferences of the affected families regarding their various entitlements outlined in the Act is key outcome of the survey. Accordingly, an attempt was made to know the preferences or choices of all the affected families about their compensation & other benefits. Every affected family was contacted to give their preferences for the same.

a) Options for Loss of land

The study findings reveal that instead of the loss of land, the affected people were expecting cash compensation by the project authority, to ensure their family livelihood. As per the information, almost all the (100%) affected families were expecting adequate and suitable compensation for the loss of their land. Overall, it seems cash compensation against the loss of land is the key expectation of the affected families.

b) Options for project assistance

Regarding the project assistance the information revealed that all the affected families have opted for cash for the loss of their land. The project assistance options are meagre since only one family opted for the benefits from the government schemes. During FGD, it was found that most of the affected families were opting for cash compensation, which could be decided as per the rules of RTFCLARR Act, 2013.

c) Income restoration assistance

The most preferred option for all the affected households is income restoration assistance which can ensure their family livelihood. But, in the case of the Sewerage line project, it is expected that no

families are going to lose their present source of income owing to the present pattern of land acquisition. So, there has been no demand for income restoration assistance.

5.3.4 Legal Provisions of Entitlement Benefits to the Affected Family

i) **Market value of land** – This is to be determined as per the process described U/s 26 of RFCTLAR&R Act, 2013. The market value of land as per registration of sale deeds under Indian Stamp Act – 1899, in the area where the land is situated or market value of land as per approved Bench Mark Valuation (BMV) whichever is higher. Secondly, the average highest sale price of 50% of sale deeds for similar types of land in the vicinity immediately preceding 3 years. (In the above alternative rates whichever is higher will be taken into account). The date of determination of market value shall be the date on which the notification has been issued u/s 11.

ii) **Factors by which the market value is to be multiplied** - In the case of urban area it is 1 (one) and for rural area it is 1.00 (one) to 2.00 (two) based on the distance of the project from an urban location. The multiplier factors will gradually rise from 1 to 2 as we move away from urban location to rural areas.

Sl	Radial distance from urban area (km)	Multiplier factor
1	0 – 10	1.00
2	11 – 20	1.20
3	21 – 30	1.40
4	31 – 40	1.80
5	40 above	2.00

iii) **Value of Assets attached to Land or Building** : U/s-29 (1) the collector in determining the market value of the building and other immovable property or assets attached to the land or building which are to be acquired, use the service of a competent engineer or other specialist in the relevant field, as may be considered necessary by him. For trees and plants experience persons in the field of agriculture, forestry, horticulture, sericulture or any other field as s/he may consider necessary.

iv) **100% solatium**: U/s 30, the Collector shall give award of solatium equivalent to one hundred per cent of the market value of the land, multiplied by factors based on distance of the project from urban location in the 1 to 2 scale slab.

v) **Additional 12% interest** : The Collector, while determining the market value under this Section, shall also calculate additional market value @ 12% per annum on such market value as per the provision u/s-30 (3) of the Act.

vi) **Date of calculation of additional 12%** - Calculation of additional 12% of market value will be made for the period commencing on and from the date of the publication of the notification of the Social Impact Assessment Study under Sub-section (2) of section 4, in respect of such land till the date of award or the date of taking possession of the land by the Collector whichever is earlier.

Computation of Compensation

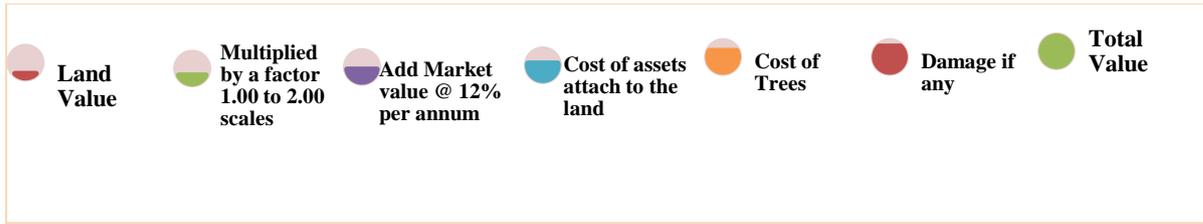


Figure 11: Computation of Compensation as per the Act

5.3.5 HH’s perception on Project impact on specific indicators

At the end of the household interview, each respondent was asked how much they agreed with the following impact of the project and their degree of response has been recorded as **strongly agree, Agree, No opinion** and **Disagree**. The impact of the project on different indicators as agreed/disagreed by the household respondents are analyzed below;

Scope for Numerous business opportunities: The affected families completely disagreed with the perception regarding numerous business opportunities.

Good for local environment: All the respondents have faith that this Sewerage line project may bring a healthy environment in the locality by protecting health problems which have been transmitted by the household sewage.

Provide Employment opportunities for the local people: The Sewerage line project may create the scope for temporary employment mainly wage labour work in the construction side as perceived by the respondents.

Provide better compensation: All 5 respondents agreed or strongly agreed that the project will provide better compensation against loss of their land.

However, the overall impacts of the project on the affected people shall be positive.

5.4 Perceptions of indirectly affected families

It was observed out from the survey of 20 indirectly affected families that most of them are aware of the construction of the Sewerage system project in their area. Regarding the benefits of the project, most of the surveyed indirectly affected households opined that the project may be beneficial for the households. It can provide proper sewerage system and better sanitation facility in the city. After completion of the sewerage line people will not use the septic tank for collection of sewage. On the other hand it will prevent the sewage-borne diseases in the locality. 25% of the indirectly affected families feel that due to digging of sewerage line their building may be affected. On the other hand some respondents said that awareness programme should be organized in the slum areas of the city for the use of sewerage lines, sanitation and its benefits.

5.5 Summary of Focus Group Discussions (FGDs)

As part of the Social Impact Assessment process, public consultation in the form of Focus Group Discussion (FGD) was conducted with both directly and indirectly affected families. The main objectives of the consultation program were to assess the socio-economic impact of the project on affected families as well as on the communities. Therefore, to understand the perception of the community, FGD method was adopted by the research team. For the present study, two FGDs were conducted in the affected areas. During the discussion, the participants shared different issues relating

to the acquisition of land for the construction of the Sewerage system. The summary of the FGDs has been presented here.

Kuretula: Sambalpur Unit-5, Sakhigopinath

- The affected area of Kuretula is located under Sambalpur Municipal Corporation. People in the area are well aware of the sewerage line project which is going on in the city. They stated that most of the construction work for the sewerage line work has been completed and that their land will be acquired for the remaining work. The affected families agreed to provide their land for the sewerage line project instead of appropriate compensation. The people of this locality are mostly tribals (Khadia) and depend on daily wage work in the non-agricultural sector in Sambalpur town. Women are also involved in Bidi making work and supporting their family livelihood. The overall economic condition of the affected families is average to good as observed during the survey.
- Municipality tap water are the main source of drinking water in the area. Though the Tube wells are available in the village; people depend on tap water for their drinking purposes.
- Regarding the benefits of the sewerage line project, participants stated that the project would protect against serious health problems which have been transmitted by the household sewage. It will also control the pollution of water bodies such as rivers, streams, and ponds so that the fish and other aquatic species are protected.
- People claimed that the road being rebuilt after the completion of the sewerage line is not as plain as it was earlier, causing more accidents. Hence, the road should be properly repaired by the project authority.
- According to their opinion, some people have illegally encroached on the nearby cremation ground, which creates problems for the local community. So, this problem should be solved as soon as possible by the concerned authority.
- Finally, the affected people agreed to provide land for the construction of the sewerage line; instead they demanded appropriate and acceptable compensation so that they could earn their livelihood by any productive work in the long run.

Thakurpada: Sambalpur Town Unit-15, Ainthapalli

- Sambalpur Town Unit-15, Ainthapalli (Thakurpada) is also located under Sambalpur Municipal Corporation. Here in the FGD, no land loser families were present because as per the RoR only one family is losing land for the sewerage system project who is residing outside of the district. However, the participants are well aware of the sewerage line project which is going on in the city. They stated that most of the construction work for the sewerage line work has been completed.
- The people of this locality are engaged in different occupations like business, service and wage labour work. Some people have migrated to Chennai, Surat, and Bangalore in search of jobs. The overall economic condition of the affected families is good as observed during the survey
- Municipality tap water are the main sources of drinking water in the area. Though the Tube wells are available in the village; people depend on tap water for their drinking purposes.
- Regarding the benefits of the sewerage line project, participants highlighted the project's potential to address significant health issues associated with household sewage transmission.

It will provide a healthy environment for the residents of the city and people will avoid safety tanks for their household sewage

- Additionally, participants claimed that the digging of sewer lines would negatively impact nearby buildings. People will feel discomfort during the work period due to the vibration caused by heavy machinery. Some people opined that during sewer laying, traffic diversion becomes necessary as roads will be occupied for sewerage work.

However, all the participants are in favour of the sewerage system project and believe that the long-standing problem of Sambalpur city will be resolved once it is operational.

6. Social Impact Management Plan (SIMP)

6.1 Social Impact Management Plan

The sub-section 6 of the section 4 of RFCTILARR Act 2013 specifically asks for preparation of a Social Impact Management Plan (SIMP) by listing some ameliorative measures, which are required to be undertaken to mitigate adverse impacts of a project. SIMP is an important component of SIA study which seeks to address the adverse impacts of a project through appropriate preventive and protective mechanisms along with necessary budgetary provisions and institutional arrangement for implementing these in a time-bound manner. This SIMP also contains the measures to be implemented in the different phases of execution or operation of the project, in order to promote positive outcomes and decrease or minimize the adverse impacts that may arise.

For the present SIA Study relating to acquisition of land for Sewerage system project, the SIMP has been prepared as per the rules of the RFCTILARR Act 2013 and guidelines of the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules- 2016. The table below summarizes all the necessary mitigation measures, allocation of responsibilities, time frame, minimization and monitoring of all potential impacts associated with the lifecycle of the project work.

Table 17: Social Impact Management Plan to mitigate the Impact

Sl.	Key Impact Parameters	Perceived Adverse Impacts of the Project	Nature of Impact	Proposed Mitigation Action Plan	Responsibility	Timeline
01	Land & Land Based Livelihood	<ul style="list-style-type: none"> ▪ Loss of land ▪ In adequate compensation ▪ Street Vendors would not be compensated the land value though they have been occupying the land since long. 	Significant And Permanent	<ul style="list-style-type: none"> • Extension of fair, transparent and equitable compensation of acquired land as per the provisions of the RFCTLAR&R Act, 2013. • Realistic payment of compensation amount. 	Project Management team of OWSSB & GoO	Prior and during project construction period
02	Employment and Economy	<ul style="list-style-type: none"> • It was experienced that there are chances of misuse of compensation amount and other cash assistance in different unproductive purposes. 	Significant And Temporary	<ul style="list-style-type: none"> • Special attention should be given to the affected families regarding the utilization of compensation amount 	Project Management team of OWSSB	Post-Construction period
03	Impact on Public Infrastructure	<ul style="list-style-type: none"> ▪ Damage existing structures, ▪ Affect electricity supply and telecommunication lines, ▪ Clutter road sides with pipes, ▪ Cause general nuisance to public. 	Not significant And Temporary	<ul style="list-style-type: none"> ▪ Minimum damage to existing structures, avenue trees and other natural vegetation, electricity & telephone lines and other infrastructure services ▪ Cleared earth and debris should be properly disposed off ▪ Storage sites should be identified for stacking pipes 	• Appointed Contractor & Project authority	Construction & operation phase
04	Impact on Local Culture	<ul style="list-style-type: none"> ▪ There may not be any change in Socio-cultural structures of the affected families as there is no displacement but it may lose the historical information. 	Negligible	<ul style="list-style-type: none"> ▪ If such type of case arises the local government should be immediately informed 	Appointed Contractor	Construction phase of the project
05	Safety of Sewers	<ul style="list-style-type: none"> ▪ Unsafe sewers can lead to public health problems and cause general nuisance to public 	Significant	<ul style="list-style-type: none"> ▪ Relevant codes of practice to be followed during design and construction stages 	OWSSB/ PHED	Construction phase of the project
06	Impact on Traffic	<ul style="list-style-type: none"> ▪ Traffic jams, bottlenecks, delays and inconveniences to general public. ▪ Serious disruptions of vehicular traffic, pedestrian access and commerce 	Significant and Temporary	<ul style="list-style-type: none"> ▪ Minimise vehicle movements ▪ Preference for unused or low-traffic roads Construction of temporary roads and diversion of traffic 	Traffic Police/ Contractors	Construction phase

Sl.	Key Impact Parameters	Perceived Adverse Impacts of the Project	Nature of Impact	Proposed Mitigation Action Plan	Responsibility	Timeline
07	Risk of Accident	<ul style="list-style-type: none"> Endangering lives of people/workers during construction due to inadequate safety measures 	Significant And Permanent	<ul style="list-style-type: none"> Adequate traffic control measures should be taken Sign board warning at open sewer trench Guard rails to protect pedestrians Strong safety policy for workers; protective helmets to be provided 	Contractor/OWSSB/PHED	Construction phase
08	Impact on Health	<ul style="list-style-type: none"> Adverse health of local people due to unsanitary practices and spreading of diseases from vectors 	Significant and Temporary	<ul style="list-style-type: none"> Proper sanitation and drinking water should be provided Medical facilities to be provided to prevent communicable diseases 	Contractor/OWSSB/PHED	Construction phase

6.2 Institutional Arrangement for Implementation of SIMP:

Social Impact Management Plan is basically done to mitigate adverse impacts through suitable ameliorative plans. In order to look after the welfare of the affected families and the community as a whole institutional arrangements at various levels are made in the RFCTLARR Act, 2013 as well as in the Government of Odisha Rules, 2016. The District Collector as the head of R&R, District Administration including Additional District Magistrate, Sub-Collector, Land Acquisition Officer, Administrator of the Project, Project level Rehabilitation and Resettlement Committee, State level R&R monitoring committee should look after for the proper implementation of the project including payment of compensation, facilitation of disbursement of Rehabilitation and Resettlement entitlement, speedy disposal of disputes for the affected families and grievances redressal. Apart from these supports, NGOs, Independent Evaluation Agency, Implementing Support Consultants are required to be involved in the process for the proper monitoring of the project and in order to ascertain the progress of activities as per recommendations of the R&R Committees set up at the district level. An independent evaluation through third party is also necessary for periodic evaluation of SIMP.

Monitoring & Evaluation of SIMP:

Monitoring and Evaluation of SIMP implementation will provide opportunity to assess the success of the implementation of ameliorative measures recommended in the report. However, the key monitoring and evaluative indicators are; Fair compensation and resettlement measures as per the RFCTLAAR Act, 2013, Timely disbursement of funds to the affected families, Implementation of the proposed project in the timeframe defined, Safety and environmental measures and Recreate livelihood opportunities etc.

7. Social cost benefits & recommendations

7.1 Analysis of social cost & benefits of the project

A cost and benefit analysis is the process of identifying all the costs and benefits associated with a project. Projects can create opportunities and benefits for the inhabitants of the proposed project area, but at the same time they can also create negative effects. Costs should include direct and indirect costs, intangible costs, opportunity costs and the cost of potential risks. Benefits should include all direct and indirect revenues, as well as intangible benefits. A common unit of monetary measurement should then be applied to all items listed. Care should be taken to not underestimate costs or overestimate benefits. The final step is to quantitatively compare the results of the aggregate costs and benefits to determine whether to take up the project or not.

When people are directly or indirectly affected by the development project, cost and benefits are also taken into account. The sewerage system project will provide long term benefits whereas some part of cost should be spent for the elimination of expected issues and impacts on the project. So, the cost and benefits of the project needs to be analyzed. Since it is related to the issue like the socio-cultural and economic aspects of the people who are giving their land for the project and people who are indirectly affected by the project should be well recognized and issues are well mitigated. The tangible benefits will be the reduction of issues and well managed the impacts of the project.

- Taking policy-level decisions is necessary for the Project Authority to allocate a portion of the cost towards the development of people who will have direct or indirect effects from the project.
- The cost for the people will be well beneficial to the project for the management of the stakeholders otherwise they can put the project in problem and may cause more cost due to delay of project. So, cost for the people’s development in this project will be less than the benefits of the project in long run.
- The benefits are the expected result after the construction of the project but the project has to keep an amount for the developmental activities in affected areas which may be a cost but it will provide tangible benefits for the successful running of the project.

When we analyze the benefits of the construction of the Sewerage System project, it is revealed that the proposed project is designed on the city area and is meant to provide a sewerage line for Sambalpur town in order to improve the quality of life, the sustainability of the environment, the health and safety of residents and reduce pollution on the river Mahanadi. After the sewerage line is completed, a long-standing sewerage problem will be resolved in the city. Further, it will reduce the health risks of the people by removing most of the contaminants from wastewater. Taking into account all the above advantages, there is no doubt that the people of Sambalpur city will enjoy a better quality of life and a better environment in the coming years. This clearly indicates that the project is undoubtedly for long term benefit of the people and the state as against the cost.

7.2 Recommendations

The SIA study would certainly be beneficial for the implementing agency to prepare its plan of action according to the needs and aspirations of the affected people. Since the study was conducted in census mode, there were ample opportunities to understand and capture the feelings and perceptions of the affected families as well as the communities. Apart from individual opinion with regard to the overall benefits and losses due to the construction of the project; the research team also collected information from different sections of people through FGD which is reflected in the report.

The recommendations made in the report are mostly drawn from the community meetings, focus group discussions and stakeholder consultations. However, these recommendations are neither static nor binding upon the community rather they can further be improvised by intensive engagement with the affected communities by the implementing agencies. In light of the findings, the following steps may be taken for successful implementation of the project:

- Awareness Programme for Sewerage lines & benefits of sanitation: Awareness campaigns should be organized in collaboration with NGOs, to inform local residents about the use of sewerage lines, sanitation, and their benefits. Mass media campaigns should be organized to raise awareness about the environmental implications of unsanitary conditions.
- Traffic Management: The traffic will have to be diverted during sewer laying, as much of the roads will be occupied for sewerage work. Therefore, the movement of traffic near the project site needs to be properly managed. Construction of temporary roads and diversion of traffic needs to be done to ensure the safety of the local people.
- Renovation/ construction of the road network: People claimed that the road being rebuilt after the completion of the sewerage line is not as plain as it was earlier, causing more accidents. Hence, the road should be properly repaired by the project authority after completion of the sewerage line work.
- Inclusion of vulnerable groups in the social security network- All the affected families are in the vulnerable category and would lose their land due to the sewerage line project. So they may be directly connected to the respective government departments for inclusion in the Social Security network.
- Proper utilization of compensation amount: One of the key issues of any rehabilitation programme is proper utilization of compensation amount for productive purposes. Past experience in development projects indicates that the affected families make unproductive expenses out of compensation amounts as a result poverty exists. So, it is suggested that the The Project authority should play an active role in motivating the affected families to utilize the compensation amount for productive purposes to avoid fraudulent chit-fund companies.

The project aims to enhance the environmental sanitation facilities and overall living standards of the people in the region. While some land has already been acquired for the project, it is hoped that the Land Requiring Body will take suitable measures to minimize the impact on the affected community. Once the sewerage system is constructed, the people of the town can look forward to a healthier environment.

Photographs of the SIA Study



Data collection from the affected family



Data collection from the affected family



Data collection from the affected family



Discussion with the affected family



Focus Group Discussions



Focus Group Discussions

ANNEXURES

ANNEXURE-1: NOTIFICATION FOR SIA STUDY

**ଓଡ଼ିଶା ସରକାର
ରାଜସ୍ୱଓବିପର୍ଯ୍ୟୟପରିଚାଳନାବିଭାଗ**

RDM-LAC-SBP-0007-2023- 36871 /RDM dated 17 OCT 2023

ସାମାଜିକପ୍ରଭାବନିର୍ଦ୍ଧାରଣନିମନ୍ତେଅଧିସୂଚନା

ରାଜ୍ୟ ସରକାର ପ୍ରଭାବିତ ଗ୍ରାମ / ଝାଡ଼ ସ୍ତରରେ ସମ୍ପୂର୍ଣ୍ଣ ଗ୍ରାମ-ପଞ୍ଚାୟତଙ୍କ ପରାମର୍ଶକ୍ରମେ ନିମ୍ନଲିଖିତ ଭୂମି ଅଧିଗ୍ରହଣ କରିବାକୁ ଚାହୁଁଛନ୍ତି ଏବଂ ସେଥି ନିମନ୍ତେ ସର୍ବସାଧାରଣ ଉଦ୍ଦେଶ୍ୟରେ ପ୍ରଭାବିତ ଅଞ୍ଚଳରେ ସାମାଜିକ ପ୍ରଭାବ ନିର୍ଦ୍ଧାରଣ (Social Impact Assessment) ସର୍ବେକ୍ଷଣ କରିବାକୁ ଚାହୁଁଛନ୍ତି। ଭୂମି ଅର୍ଜନ, ପୁନର୍ବାସ ଓ ଅଇଥାନରେ ଉଚିତ ମୂଲ୍ୟ ଏବଂ ସ୍ୱଚ୍ଛତା ଅଧିକାର ଆଇନ – ୨୦୧୩ ର ଧାରା ୪ ଅନୁଯାୟୀ ଉକ୍ତ ସର୍ବେକ୍ଷଣ କରାଯିବ।

- ୧. ପ୍ରକଳ୍ପ ବିକାଶକାରୀଙ୍କ ନାମ:- ପ୍ରକଳ୍ପ ଜଙ୍ଗା , ଓଡ଼ିଶା ଜଳଯୋଗାଣ ଓ ପରିମଳ ପରିଷଦ, OWSSB, ସମ୍ବଲପୁର ।
- ୨. ପ୍ରସ୍ତାବିତ ଭୂମି ଅଧିଗ୍ରହଣ ର ଉଦ୍ଦେଶ୍ୟ- ସମ୍ବଲପୁର ଜିଲ୍ଲାରେ ଜଳଯୋଗାଣ ଓ ପରିମଳ ପ୍ରକଳ୍ପ ନିର୍ମାଣ ନିମନ୍ତେ ।
- ୩. SIA study କରୁଥିବା ଅନୁଷ୍ଠାନର ଯୋଗାଯୋଗ ସୂଚନା :- **KARTABYA, Bhubaneswar.**
SIA ସର୍ବେକ୍ଷଣ ଅନୁଷ୍ଠାନ: Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, Phone No. 0674-2300471/ 2301094
- ୪.ପ୍ରକଳ୍ପ ପାଇଁ ସମ୍ବଲପୁର ଜିଲ୍ଲାରେ ପ୍ରସ୍ତାବିତ ଭୂଅଧିଗ୍ରହଣର ବିବରଣୀ/ ତଥ୍ୟସିଲ

କ୍ରମିକ ନଂ	ତହସିଲ	ଗ୍ରାମ ପଞ୍ଚାୟତ/ ସହରାଞ୍ଚଳ	ଗ୍ରାମ	ବେସରକାରୀ ଜମି	ମନ୍ତବ୍ୟ
୧	ସମ୍ବଲପୁର	ସମ୍ବଲପୁର	ସମ୍ବଲପୁର ଟାଉନ ୟୁନିଟ୍-୫ (ଶାନ୍ତିଗୋପିନାଥ)	୦.୦୩୭୦	
୨	ସମ୍ବଲପୁର	ସମ୍ବଲପୁର	ସମ୍ବଲପୁର ଟାଉନ ୟୁନିଟ୍-୧୫ (ଅଇଁଠାପାଲି)	୦.୦୩୭୦	
			ମୋଟ୍-	୦.୦୭୩୦	

ଭୂମି ଅଧିସୂଚିତ ନକଲ ଏଥି ସହିତ ସଲଗ୍ନ କରା ଯାଇଛି ।

୫. ପ୍ରସ୍ତାବିତ ପ୍ରକଳ୍ପ ର ସଂକ୍ଷିପ୍ତ ବିବରଣୀ :- ସମ୍ବଲପୁର ଜିଲ୍ଲାର ସମ୍ବଲପୁର ତହସିଲର ଉପରୋକ୍ତ ୦୨ ଟିଏ ରାଜସ୍ୱ ଗ୍ରାମରେ ପ୍ରକଳ୍ପ ଜଙ୍ଗା , ଓଡ଼ିଶା ଜଳଯୋଗାଣ ଓ ପରିମଳ ପରିଷଦ, OWSSB, ସମ୍ବଲପୁରଙ୍କ ସମ୍ବଲପୁର ଜିଲ୍ଲାରେ ଜଳଯୋଗାଣ ଓ ପରିମଳ ପ୍ରକଳ୍ପ ନିର୍ମାଣ ନିମନ୍ତେ ଘରୋଇ ଜମି ଅଧିଗ୍ରହଣ କରାଯିବ ।

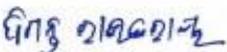
୭. SIA ସର୍ବେକ୍ଷଣ ରେ ଅନ୍ତର୍ଭୁକ୍ତ ପ୍ରକଳ୍ପ ଅଞ୍ଚଳ ଏବଂ ପ୍ରକଳ୍ପ ପ୍ରଭାବିତ ଅଞ୍ଚଳ :-
ସମ୍ବଲପୁର ଜିଲ୍ଲାରେ ଉପରୋକ୍ତ ୦୨ ଟିଏ ଗ୍ରାମର ୦.୦୭୩୦ ଏକର ଘରୋଇ ଜମି ସମ୍ବଲପୁର ଜିଲ୍ଲାରେ ଜଳଯୋଗାଣ ଓ ପରିମଳ ପ୍ରକଳ୍ପ ନିର୍ମାଣ ନିମନ୍ତେ ଅନ୍ତର୍ଭୁକ୍ତ । ପ୍ରକଳ୍ପ ପ୍ରଭାବିତ ଜମିର ବିସ୍ତୃତ ଚାଲିକା/ ଚଫସିଲ SIA ସର୍ବେକ୍ଷଣ ଅନ୍ତର୍ଭୁକ୍ତ ପାରିବ ।

୭. SIA ସର୍ବେକ୍ଷଣ ର ପ୍ରାଥମିକ ଉଦ୍ଦେଶ୍ୟ ଏବଂ ମୁଖ୍ୟ କାର୍ଯ୍ୟା ବଳୀ :-
ସର୍ବସାଧାରଣ ଉଦ୍ଦେଶ୍ୟ ନିର୍ଦ୍ଧାରଣ
ପ୍ରଭାବିତ ଅଞ୍ଚଳରେ ଥିବା ସମସ୍ତ ଗ୍ରାମପଞ୍ଚାୟତ / ଗ୍ରାମ / ଖାର୍ଡର ପରାମର୍ଶକ୍ରମେ SIA ସର୍ବେକ୍ଷଣ କରାଯିବ । SIA ସର୍ବେକ୍ଷଣ କ୍ଷେତ୍ରପରିବର୍ତ୍ତନ, ପ୍ରଭାବିତ ବ୍ୟକ୍ତିଙ୍କ ସାମୁହିକ ଆଲୋଚନା ଏବଂ ପ୍ରଭାବିତ ବ୍ୟକ୍ତିଙ୍କ ମତାମତ ଚୁଡ଼ାନ୍ତ ରିପୋର୍ଟ ରେ ସ୍ଥାନିତହେବ ।
ଭୂମି ଅଧିଗୃହିତ ପ୍ରତ୍ୟକ୍ଷ ଅଥବା ପରୋକ୍ଷ ଶତକଡ଼ା ୨୫ ଭାଗ ପ୍ରଭାବିତ ସମସ୍ତ ଗ୍ରାମ ସଭାମାନଙ୍କ ରେ ଜନ ଶୁଣାଣି କରାଯିବ ।

୮. ଗ୍ରାମସଭା / ଭୂମିମାଲିକଙ୍କସହମତିଆବଶ୍ୟକକି?
ସହମତିଆବଶ୍ୟକ ।

୯. SIA ସର୍ବେକ୍ଷଣ ଆରମ୍ଭ ଏବଂ ସମାପନ ରିପୋର୍ଟ ପ୍ରଦାନ ଏବଂ ତାହାର ପ୍ରକାଶନ
ସରକାରୀ ବିଜ୍ଞପ୍ତି ପ୍ରକାଶିତ ଦିବସ ଠାରୁ ୬ ମାସ ମଧ୍ୟରେ SIA ସର୍ବେକ୍ଷଣ ସମାପନ କରାଯିବ ।
SIA ସର୍ବେକ୍ଷଣ ରିପୋର୍ଟ ସମ୍ପୂର୍ଣ୍ଣ ପ୍ରଭାବିତ ପଞ୍ଚାୟତ/ ଗ୍ରାମ/ ଖାର୍ଡ ସ୍ତରରେ ସ୍ଥାନୀୟ ଭାଷାରେ ପ୍ରକାଶନ କରାହେବ । ତତସହିତ ଜିଲ୍ଲାପାଳ, ଉପଜିଲ୍ଲାପାଳ ଏବଂ ବ୍ଲକ ମହକୁମାରେ ପ୍ରକାଶନ କରାଯିବ ଏବଂ ସର୍ବସାଧାରଣ କ୍ଷେତ୍ରରେ ସରକାରଙ୍କ ୱେବସାଇଟରେ ସ୍ଥିତିତହେବ ।

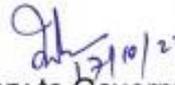
ରାଜ୍ୟପାଳ କି ଆଦେଶାନୁସାରେ


ଦିଗନ୍ତ ରାଉତରାୟ
ଅତିରିକ୍ତ ଶାସନ ସଚିବ

Memo No. 36872 Dated 17 OCT 2023

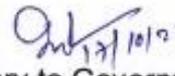
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SRO Number may be allotted to this publication.


Under Secretary to Government

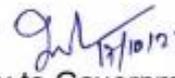
Memo No. 36873 Dated 17 OCT 2023

Copy forwarded to Housing & Urban Development Department for information and necessary action.


Under Secretary to Government

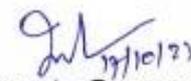
Memo No. 36874 Date 17 OCT 2023

Copy forwarded to RDC (N.D), Sambalpur/ Collector, Sambalpur/ LAO, Sambalpur for information and necessary action.


Under Secretary to Government

Memo No. 36875 Dated 17 OCT 2023

Copy forwarded to State Coordinator, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar for information and necessary action.

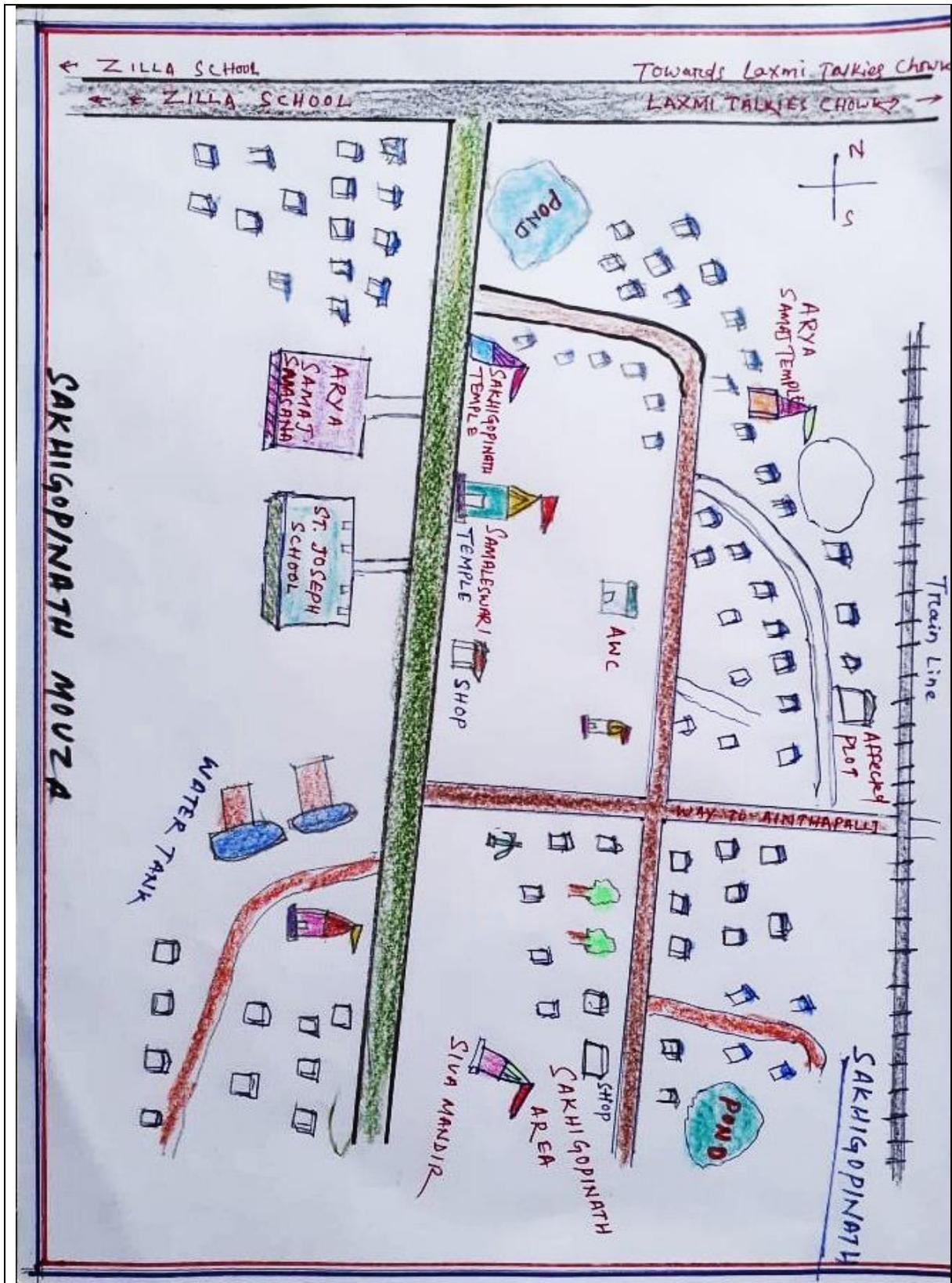

Under Secretary to Government

Memo No. 36876 Dated 17 OCT 2023

Copy forwarded to the e-governance Cell, R&DM Department for information and necessary action.


Under Secretary to Government

ANNEXURE-2: SOCIAL MAP OF THE AFFECTED VILLAGES



Social Map of Sambalpur Town, Unit-5 (Sakhigopinath)

ANNEXURE-4: MATRIX OF AFFECTED PEOPLE

SL.	Name of the ROR Holder	Name of the PAP	Relation with record holder	Age	Sex	Marital_ Status	Caste	Occupation	Total land Owned (in Acre)	Khata No of affected area	Plot No.of affected area	Kissam of affected plot	Total Affect ed area	Total aquair ed Area	% of acquired land against affected land	% of acquired land against total land
1	Bandana Khadia	Bandana Khadia	Self	73	Male	Married	ST	Pension	0.9	559	741	Bahalpani Dophasali	0.073	0.036	49.32	4.0
2		Lalita Khadia	Wife	70	Female	Married	ST	Pension								
3		Ranjit Khadia	Son	52	Male	Married	ST	Salaried- Pvt								
4		Premasila Khadia	Daughter in Law	43	Female	Married	ST	Housewife								
5		Hitesh Khadia	Grand Son	20	Male	Unmarried	ST	Student								
6		Sanjit Khadia	Son	38	Male	Married	ST	Daily Wage Earner								
7		Surekha Khadia	Daughter in Law	30	Female	Married	ST	Housewife								
8		Anju Khadia	Daughter	40	Female	Unmarried	ST	Housewife								
9	Bhagavan Khadia	Etware Khadia	Wife	65	Female	Widow	ST	Housewife								
10		Dipak Khadia	Son	40	Male	Married	ST	Salaried- Pvt								
11		Kabita Khadia	Daughter in Law	35	Female	Married	ST	Housewife								
12		Suraj Khadia	Son	37	Male	Married	ST	Daily Wage Earner								
13		Chuki Khadia	Daughter in Law	30	Female	Married	ST	Housewife								
14	Ramdas Khadia	Dillip Khadia	Son	46	Male	Widow	ST	Daily Wage Earner								
15		Biswa Khadia	Grand Son	20	Male	Unmarried	ST	Daily Wage Earner								
16		Anam Khadia	Son	38	Male	Unmarried	ST	Daily Wage Earner								
17		Saraswati Khadia	Daughter	25	Female	Unmarried	ST	Housewife								
18	Fiku Khadia	Karthik Khadia	Son	56	Male	Married	ST	Daily Wage Earner								
19		Sukumani Khadia	Daughter in Law	50	Female	Married	ST	Housewife								
20		Binod Khadia	Grand Son	36	Male	Married	ST	Daily Wage Earner								
21		Sunita Khadia	Grand Daughter in Law	30	Female	Married	ST	Housewife								
22		Bimala Khadia	Grand Daughter in Law	45	Female	Widow	ST	Housewife								
23		Sonu Khadia	Great Grand son	22	Male	Unmarried	ST	Daily Wage Earner								

SIA Study for Acquisition of private land for “Construction of Sewerage System in Sambalpur town”

SL.	Name of the ROR Holder	Name of the PAP	Relation with record holder	Age	Sex	Marital_ Status	Caste	Occupation	Total land Owned (in Acre)	Khata No of affected area	Plot No.of affected area	Kissam of affected plot	Total Affect ed area	Total aquair ed Area	% of acquired land against affected land	% of acquired land against total land
24		Monu Khadia	Great Grand son	20	Male	Unmarried	ST	Housewife								
25		Tanu Khadia	Great Grand Daughter	18	Female	Unmarried	ST	Housewife								
26		Rajin Khadia	Grand Son	42	Male	Married	ST	Daily Wage Earner								
27		Sumitra Khadia	Grand Daughter in Law	35	Female	Married	ST	Housewife								
28		Kiran Khadia	Great Grand son	18	Male	Unmarried	ST	Student								