Social Impact Assessment Study for Acquisition of 0.6150 Acres of Private Land from Village Dihakhala Under Khordha Tahasil of Khordha District for Construction of Rajua Diversion Weir (ToR 78-00006)

April, 2026

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ନବକୃଷ୍ଣ ଚୌଧୁରୀ ଉନ୍ନୟନ ଗବେଷଣା କେନ୍ଦ୍ର
Nabakrushna Choudhury Centre for Development Studies
ICSSR Institute in Collaboration with Government of Odisha
Bhubaneswar

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Council of Analytical Tribal Studies (COATS)
Centre of Excellence (CoE),
& ICSSR Recognised Institute

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April, 2026

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We hope the report would be helpful to meet the goal for which it was conducted.

Director,
COATS, Koraput

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ABBREVIATIONS

ADM	Additional District Magistrate
ASHA	Accredited Social Health Activist
AWC	Angawadi Centers
BMV	Bench Mark Valuation
BPL	Below Poverty Line
CBA	Cost Benefit Analysis
CBO	Community Based Oraganisation
COATS	Council of Analytical Tribal Studies
CPR	Common Poverty Resources
CSO	Civil Society Oraganisation
EIA	Environmental Impact Assessment
F	Female
FGD	Focused Group Discussion
GEN	General
HW	Housewife
HH	Household
ICSSR	Indian Council of Social Science Research
LAO	Land Acquisition Officer
M	Male
MoTA	Ministry of Tribal Affairs
NA	Not Available
NCDS	Nabakrushana Choudhury Centre for Development Studies
NDDP	Net District Domestic Product
NGO	Non-Government Oraganisation
NH	National Highway
OBC	Other Backward Caste

PDS	Public Distribution System
PESA	Panchayat Extension to Scheduled Area
PHC	Public Health Centre
PRI	Panchayati Raj Institution
PS	Panchayat samiti
PWD	Persons with Disabilities
R & B	Roads and Buildings
R & R	Rehabilitation and Resettlement
RCC	Reinforced Cement concrete
RFCTLAR & R	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement
RoR	Record of Rights
RTE	Right to Education
RVNL	Rail Vikas Nigam Limited
SC	Scheduled Caste
ST	Scheduled Tribe
SHG	Self Help Group
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
Sq. KM	Square Kilometre
ST	Scheduled Tribe
TDP	Tribal Development Plan
TV`	Television
UP	Upper Primary

EXECUTIVE SUMMARY

0.1 The Project

The Process of **Acquisition of 0.6150 acres from village Dihakhala under Khordha Tahasil of Khordha District for Construction of Rajua Diversion Weir (ToR 78-00006) has already been initiated.** The present SIA Study is being conducted to finalise the process.

0.2 Location

The Diversion Weir is located in Dihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District. The benefits of irrigation, water and soil conservation, and controlling water logging through the project accrue to the people of three village namely Orabarasingh, Dihakhala, and Simipiapatna.

0.3 Need for the Project

The Rajua Diversion weir is providing irrigation facilities, advantages of water and soil conservation, and means of controlling water logging problem. These benefits are available to people and farmers of Dihakhala, and Orabarasingh, villages. The Diversion weir has beneficial effects and serves a public purpose.

0.4 Public Purpose

(a) The Diversion Weir provides irrigation facilities to the people of Dihakhala, & Orabarasing villages under Orabarasingh Gram Panchayat in Khordha tahasil/block of Khordha district. These villages are located in a hilly flood area. So, land acquisition from Dihakhala village for construction of this Diversion Wire serves the public purpose.

(b) The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 defines land acquisition for 'Public Purpose' under five categories including land for infrastructure which includes "Project for water harvesting and water conservation structures" as at 2(iv). (Ref. RFCTLARR Act, 2013 under the Clause Definition of 'Public Purpose'). Land acquisition from dhihakhala village for the construction of Rajua Diversion Weir is for agricultural infrastructure

i.e., irrigation, water harvesting and water conservation structures. On this ground, it serves a public purpose.

(c) The Palli Sabha adopted a resolution for the land acquisition from Dihakhala village for the construction of a Diversion Weir is for the benefit of Orabarasingh Gram Panchayat. So, it serves a public purpose.

Hence, land acquisition for construction of the Diversion Weir serves a public purpose.

0.5 Examination of Alternative and Acquisition of Minium Land

(a) The officials of SE, Irrigation Division, Khordha examined different dimensions and alternatives, and then finalised the course of the construction of the canal, downstream the Diversion Weir. They finalised the proposed course and alignment after a process of thorough examination.

(b) The course of the Diversion Weir has finalised and planned as per the contour line of the geographical area designed by technical experts for smooth flow of water from the project to the agricultural fields. Hence the existing alignment is the best and fixed.

(c) Acquisition of 0.6150 acres of private land for the project is the barest minimum.

0.6 Profile of the Project Affected Village

The socio-economic profile of the affected village and the land losing households is not encouraging. The families are living in a remote village area away from the local town. They are earning their livelihood from agriculture, wage labour, unskilled labour work in stone mines/quarries, and migration remittances. Their houses do not have basic amenities. Their economic condition is average. Quality of the Living Environment is not satisfactory.

The village is not well connected by road, does not have a school beyond primary level. For collecting ration, the villagers have to travel to Orabarasingh.

0.7 Social Impact

Land acquisition has negative impact on income and livelihood of the project affected families. The general view that emerged in the focused group meeting is that all were aware of the project and the land acquisition and all appreciate the benefits of canal irrigation project. They agreed that the project had the only disadvantage that it caused loss of land for the 24 affected households. Proper compensation would compensate their loss. It may be noted that the general perception of the participants was in favour of the project. The benefits accruing from land acquisition and the project was considered to outweigh the losses due to acquisition of land from the affected households. The meeting resolved in favour of land acquisition for the construction of the Diversion Weir irrigation project and early payment of due compensation to the land losers.

0.8 Cost – Benefit Analysis

Cost-benefit analysis of land acquisition from Dihakhala village for the construction of Rajua Diversion Weir as made by the SIA team revealed that the benefits would outweigh the money costs of the project.

0.9 Key Demands of Land-losers in the Public Hearing

The main demands highlighted by the affected households of the Ward in the Focus Group Discussion (FGD) were as follows:

a) The respondents appealed for payment of compensation for the loss of their land considering:

i) The price based on local rate;

ii) The loss they suffered due to losing agricultural production in the past years caused by the construction of canal on their land.

b) All participants in the Focus Group Discussion requested the construction of a passway from one side of the canal to the other side to facilitate movement of tractors and other implements, and the provision of safe drinking water for the villagers.

0.10 Social Impact Management Plan and Mitigation Measures

To mitigate the adverse social impact of Land acquisition for construction of the Diversion Weir in Dhihakhala, the SIA study team proposes some ameliorative measures. These constitute, the Social Impact Management Plan. The broad objective of this SIMP is to suggest interventions that are to be taken up by the project authorities and the government to mitigate the adverse impacts and enhance the beneficial impacts of the project. The measures are:

i. Appropriate compensation should be provided to the households directly affected by land acquisition. There is a demand for payment of compensation on the basis of the price paid by local rate. This may not be possible as per rule and it needs to be solved amicably.

ii. Appropriate compensation should also be provided to the affected households for having lost trees along with land.

iii. The affected families have suffered loss due to losing agricultural production in the past years for the construction of canal on their land. They need to be appropriately compensated for the loss they have already suffered.

iv. The mitigation measures need to be implemented taking genealogy of the affected households into account, resolving disputes and ensuring that compensation and other benefits are awarded to the right person(s).

v. Plantations at desired distance from the canal may be done by forest and the horticulture authorities for promotion of environment. In partnership collaboration with local bodies.

vi. It is important to ensure that compensation is paid in a fixed time frame. The households awarded with compensation benefits should also be provided technical and financial counselling for the effective and productive use of compensation amount.

vii. An effective monitoring mechanism needs to be developed to monitor the implementation of the SIMP and the measures of mitigation. The project authorities

may carry out internal monitoring to assess the progress in implementation of mitigation measures, identify problems and suggest corrective action.

viii. Grievance redressal is an integral part of SIMP. The land acquiring body and the District Collector should look into the grievances of the affected families and issue necessary instructions to the field level functionaries for their effective redressal.

ix. Land is a valuable asset, an insurance against bad weather and a matter of emotional attachment. Once lost in course of land acquisition, it is lost forever and no amount of money or any other compensation can recompense it. The issues in land acquisition should, therefore be addressed empathetically with careful attention to the interests and sentiments of the land losers. Leaving the issues to their own course on the plea of compensatory benefits and awards may be seer injustice.

x. The Rajua Diversion Weir has no acquisition of government land for the project.

0.11 Additional Recommendations

In addition to the measures suggested under the SIMP, the following five suggestions merit mention:

1. The demands of affected households for payment of compensation on the basis of the price paid by Local Rate. Since this price is higher than the benchmark value documented in the records office of the Sub-Registrar Office, Khordha. it may not be possible as per rule. However, it needs to be solved amicably.
2. In case the Diversion weir is constructed our fields will be divided across it. The movement of cattle, agricultural implements, like tractor, power tiller, harvesting machine, etc, will not be possible. Under such a situation, along with the canal, the construction of a bridge over the canal must be given priority.
3. Land records are outdated and may pose problems in identifying the real owner of land leading to litigation for compensation. Gender issues may also arise. Updating land records at regular interval is a genuine demand of the villagers. This should be done. The gender aspect should also be considered.

4. The land losing households being smallholders, their demands and problems relating to land acquisition need to be addressed with a human touch.

5. There should be SIMP social audits and reviews. Government should develop a dedicated group to conduct such audits for both verification and training purposes.

6. Since transparency is the core of both RFCTLARR Act, 2013 and the Odisha RFCTLARR Rules- 2016, Government should share public information on the status of SIMP compliance to assist in capacity building efforts for the local community.

0.12 Conclusion

From the above analysis it is clear that implementation of the canal irrigation project in Khordha district have had both positive and negative impacts on the people. The land acquisition has caused 24 families to lose their lands, livelihood and other amenities but on the other hand a great and improved agricultural infrastructure in the form of irrigation has created and that is in greater public interest. The benefits of irrigation are available to the people of one village in the area. Moreover, if the proposed SIMP is accepted and implemented effectively, it will help minimising the negative impacts and amplifying the positive impacts, & the favourable effects will further outweigh the social costs thereby conferring greater net social benefits on the people of the area. Comparing the losses suffered and the gains, it may be appreciated that the Diversion Weir project is purposeful and rewarding. Hence, the land acquisition programme and related compensation for the irrigation project should be finalised at an earliest.

The SIA team is convinced that the SIMP measures are workable. Considering the social impact and benefits of the project and expecting that the SIMP will be implemented, the SIA Team recommends acquisition of 0.6150 acres of Private land for the construction of Rajua Diversion Weir (ToR 78-0006).

CHAPTER - I
DETAILED DESCRIPTION OF THE PROJECT

1.1 Introduction

Water is the prime life sustaining finite natural resource and a gift of nature to all living beings on the earth, particularly to the mankind. However, gradually the water-sufficient world is changing to a water-deficient one. In our country, there is an increasing stress on the available water due to population explosion and improved standard of living. The scarcity is compounded further because of massive agricultural and industrial development as well as improper and indiscriminate exploitation of water. Spatial and temporal variation in rainfall causes considerable skewness in water availability across regions. The need is its sustainable use through application of appropriate scientific methodologies. Irrigation is one among the ways to make sustainable productive use of water.

Irrigation has always played a strategic role in the process of agricultural development and provides the agrarian basis of our society. It is a vital input for crop growth. It helps improve food security, reduce dependence on monsoons, increase agricultural productivity and create rural job opportunities. Dams used for irrigation projects help produce electricity and transport facilities, as well as provide drinking water supplies to a growing population, control floods and prevent droughts.

Irrigation is now no longer looked upon merely as an artificial application of water to crops in an isolated and individual way, but has come to have a different meaning, especially in the vast arid and semi-arid areas. In such regions, irrigation provides the essential basis for an integrated all-round development and is, therefore, more than a practice and technique; it is a way of life, which embraces all the various aspects of development of a community -economic, social, cultural etc.

The main sources for irrigation water are groundwater from wells, surface water, drainage ponds, rain and municipal water. Drilled wells are a clean source of water for many greenhouse operations. A large number of dams, barrages, hydro power structures, canal networks, etc., have been built all over the country during the successive Plans. Irrigation in India includes a network of major and minor canals

from Indian rivers, groundwater well-based systems, tanks, and other rainwater harvesting projects for agricultural activities. Irrigation helps improve food security, reduce dependence on monsoons, increase agricultural productivity and create rural job opportunities.

Before the Fifth Five-Year Plan, irrigation schemes were classified on the basis of the investments needed to implement the scheme. Since the Fifth Five-Year Plan, India has adopted the command area-based system of classification. The Planning Commission of India adopted the classification of irrigation projects on the basis of culturable command area (CCA). Minor irrigation project (MIP) is a classification of irrigation projects used in India. A project designed to irrigate an area of 2000 hectares or less is classified as MIP.

India has an ambitious river linking national project to enhance the coverage of canal-irrigated area, reduce floods and water shortage. A canal is an artificial channel that is constructed to carry water to the fields to provide irrigation. The water is taken either from the river, tank, dam or reservoirs. The canals can be constructed either by means of concrete, stone, brick or any sort of flexible membrane, which solves the durability issues like seepage and erosion.

Odisha's agriculture sector suffers from recurring natural calamities like droughts, floods and cyclones. The poor farmers are not able to improve their leaving standards. Water for irrigating the crops is important for farmers and crucial for growth and development. Climate change and its impacts also warrant scientific water management through irrigation. Government's climate proofing of CCA efforts is very effective in managing irrigation in the state. The Odisha Integrated Irrigation Project for Climate Resilient Agriculture (OIIPCRA) is to be implemented for building resilience to the vulnerabilities in the CCA of selected minor and medium Irrigation projects in the state. The OIIPCRA project, with a sub-basin approach has envisioned to improve efficiency and make agriculture climate smart.

The Department of Water Resources (DOWR) deals with the planning, development, managing of the State's water resources. Major activities of the department are construction of irrigation projects and their operation & maintenance, water

conservation, groundwater development, flood control & drainage improvement, command area development, water allocation for industrial, commercial & other establishments, formulation of State Water Policy etc. The activities of the department are carried out through the following sub-ordinate organisations/Public Sector Undertakings.

- Major and Medium Irrigation
- Minor Irrigation (flow)
- Mega lift
- Command Area Development & Water Management (CAD&WM)
- Ground Water Development (GWD)
- Odisha Lift Irrigation Corporation (OLIC)
- Water And Land Management Institute (WALMI)
- Odisha Construction Corporation Limited (OCCL)

1.1.1 Advantages of Minor Irrigation Projects

Construction of Minor Irrigation Canal Projects is popular & demanding due to the following:

- Territorial feasibility and adaptability to all regions of the state,
- Less Investment and low cost per Ha.,
- Low gestation period (3-4 Years),
- Early irrigation potential creation i.e., creation of Potential / Benefit in quick time,
- No Rehabilitation & Resettlement (R&R) Issue,
- Easy operation and maintenance; local people's aspiration & involvement in Participatory Irrigation Management (PIM) & Irrigation Management Transfer (IMT),
- Easy Operation & Maintenance (O&M),
- No special assistance required by way of foreign personnel or equipment,

- Water management is relatively simpler than in the case of major and medium irrigation projects,
- Local resources can be easily and effectively mobilised for their execution,
- They generate a large amount of dispersed employment,
- Least disturbance to the environment and ecology, and
- Recharge of the water table in the area for conjunctive use.

Diversion Weir projects are environmentally friendly, and they provide gainful employment opportunities to the rural population, resulting in optimum utilisation of resources. A large number of small irrigation projects on streams & rivulets can provide irrigation to the lands of tribal beneficiaries. The technology is close to the heart of the tribals, and the projects are therefore amply suitable for self-management. Government's water management programme through the Pani Panchayat scheme has aroused widespread enthusiasm.

In Odisha, Minor Irrigation Projects are meant for protective irrigation which is highly sought, especially during the water scarcity period. It supplements the rainfall and is mostly classified under Class-III/Class-IV irrigation, with depth of irrigation supply from mm 460mm (18'') to 230mm (9").

1.1.2 IRRIGATION Schemes/Programmes in place in Odisha

The following schemes of irrigation are being implemented in Odisha for the farmers in the State.

- Pradhan Mantri Krushi Sinchayee Yojana (PMKSY)
- Rural Infrastructure Development Fund (RIDF)
- Japan International Co-operation Agency (JICA)
- Odisha Integrated Irrigated Agriculture and Water Management Investment Programme (OIIAWMIP)
- Odisha Integrated Irrigation Project for Climate Resilient Agriculture (OIIPCRA)
- Dam Rehabilitation and Improvement Project (DRIP)

- Biju Krushak Vikash Yojana (BKVY)
- Deep Bore-well irrigation programme
- Check Dam construction programme
- Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY)
- Parvati Giri Mega lift Irrigation Scheme
- Canal Lining & System Rehabilitation Programme (CLSRP)
- Nabakrushna Choudhury Secha Unnayana Jojana.
- Mukhya Mantri Canal Lining Yojana
- Mukhyamantri Disaster Resilient Saline Embankment Project (MDRSEP)

Source: Activity Report 2024-25 & Annual Report 2018-19 - Department of Water Resources, Government of Odisha

1.2 Background of the project, including developer's background and governance

The Rajua River bifurcates from Daya River at Tirumala in the deltaic system of the river Mahanadi. The farmers of both side of the river Rajua are generally deprived of the Kharif crop due to flood water. So, the farmers of the nearby villages put cross bund at Dholapatna and Saradhapur (3km downstream of Dholapatna) to utilise the water in the river Rajua for Rabi crop in patches. Keeping in view of the above for Rabi cultivation in the area, it was decided to construct a diversion weir at Dholapatna; so that irrigation can be supplied to a CCA of 2666 ha. Since water is crucial for life and development, improving the quality of public investment and infrastructure including expansion in provision of irrigation and drinking water sources has high on the Odisha government's agenda since long.

The Project was planned to be completed by constructing a diversion weir at Dholapatna across river Rajua with construction of afflux bundhs on both side in u/s of the weir. It was proposed to provide irrigation on both sides of Diversion Weir during Rabi season only by constructing two main canals i.e. left main canal for a length of 7.88 km and right main canal for a length of 12.05 km with its distribution systems. There is continuous flow in the river Rajua throughout the year. The non-monsoon flow is independent of rainfall and is entirely due to regeneration of Kanas

Branch Canal system of Mahanadi Delta Stage-II and escape of water through Kanupur escape of Puri Main Canal.

The project has the sole objective of controlling water flow and minimizing water wastage by constructing a check dam, and providing irrigation facilities for agriculture in a water logging area through diversion techniques.

1.2.1 Developer's Background

SE, Khordha Irrigation Division under the Department of Water Resources, Government of Odisha is the developer of the project. The Department of Water Resources, Government of Odisha is the nodal department for all water resources matters since 1994. The project was planned to be completed by constructing a diversion weir at Dholapatna across river Rajua with construction of afflux bundhs on both side in u/s of the weir It was proposed to provide irrigation on both sides of Diversion Weir during Rabi season only by construction to main canal i.e. left main canal for length of 7.88km and right main canal for a length of 12.05 km with its distribution system.

1.2.1 Governance

Governance is important for increasing the coverage of irrigation and improving the use of irrigation water. A key aspect of governance is improving operational efficiency of irrigation and water use. In the instant case, this has been realised through the active supervision, maintenance and management of the Diversion Weir in Dihakhala of Khordha District (ToR 78-00006) by the SE, Khordha Irrigation Division, Khordha.

1.3 Management Structure

The project is being implemented by SE, Khordha Irrigation Division, Khordha which is also the land requiring body for this project. Pani Panchayat looks after irrigation water management. It is a democratically elected body of 126 voters from Dihakhala, beneficiary village under command.

1.4 Rationale for project including how the project fits the public purpose criteria

Public purpose for this project may be defined as the need to provide irrigation facilities to the people of Orabarasingh Gram Panchayat. There is an urgency for this

project too. "Construction of Diversion Weir at Dihakhala village in Orabarasingh GP at Khordha District (ToR 78-00006) will have beneficial effects and it satisfies public purpose.

1. It provides irrigation for agriculture. The benefits of irrigation are reaped by people of 3 villages namely, Dhihakhala, Orabarasingh, and Simipiapatna. The project benefits do not flow only to/ are not limited to a single individual or a company. The diversion weir is in the nature of a public good and satisfies the principle of non-exclusion. Land acquisition for construction of the diversion weir is therefore for a public purpose.

2. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 defines land acquisition for 'Public Purpose' under five categories including land for infrastructure which includes "Project for water harvesting and water conservation structures" as at 2(iv). (Ref. RFCTLARR Act, 2013 under the Clause Definition of 'Public Purpose'). Land acquisition from Dihakhala village for the construction of Dihakhala Sub-Minor is for agricultural infrastructure i.e., irrigation, water harvesting and water conservation structures. Hence, it satisfies public purpose as per clause 2(iv).
3. The broad objective of construction of Dihakhala Sub-Minor is to provide irrigation for agriculture in drought-prone area. So, land acquisition from Dihakhala village for construction of this diversion weir satisfies public purpose.

1.5 Details of project size, location, capacity, outputs, production targets, cost, risks

The details of administrative approval accorded for an amount of Rs.1384.05 lakh vide letter No. 6003/dtd: 12.02.2004 of Department of Water Resources. Odisha, Bhubaneswar

Technical Features

Pond Level	:	4.50M
H.F.L.	:	7.50M
T.B.L.	:	8.00M

Canal		Left	Right
Length	Main	7.880	12.050KM
	Disty	5.630	NIL
	Minor/Sub/Minors	5.987	12.270KM
Ayacut		1254.50	1416.50 Ha
Discharge		2.32	3.20 5.60 cumecs
FSD		0.80	0.90M
B. W		5.60	6.60M

Area to be Benefited

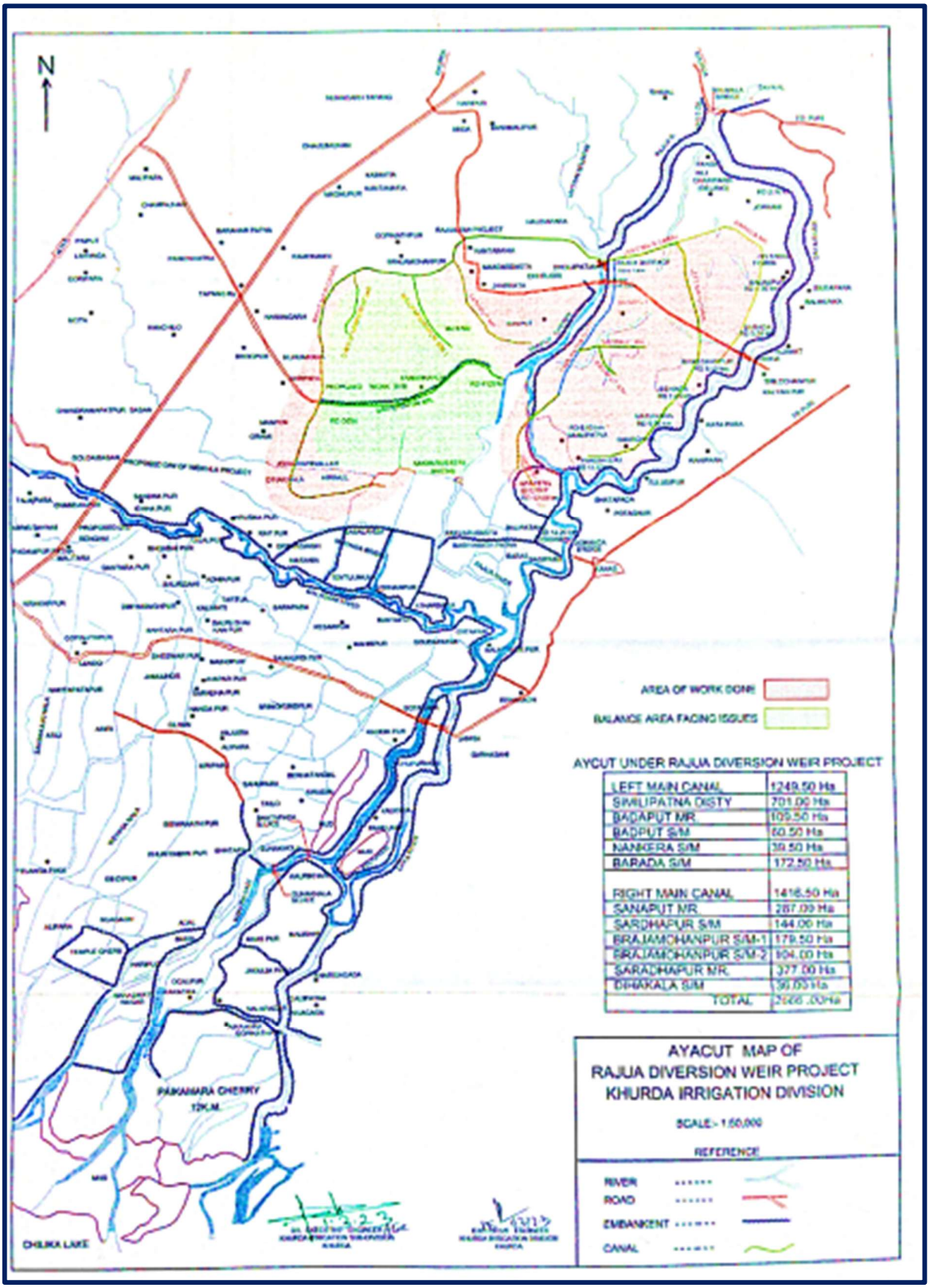
15 villages of Khurdn District 1273 50 hact. and 21 villages of Puri District 1392.50 hact. will be benefited.

1.5.1 Location of the Project

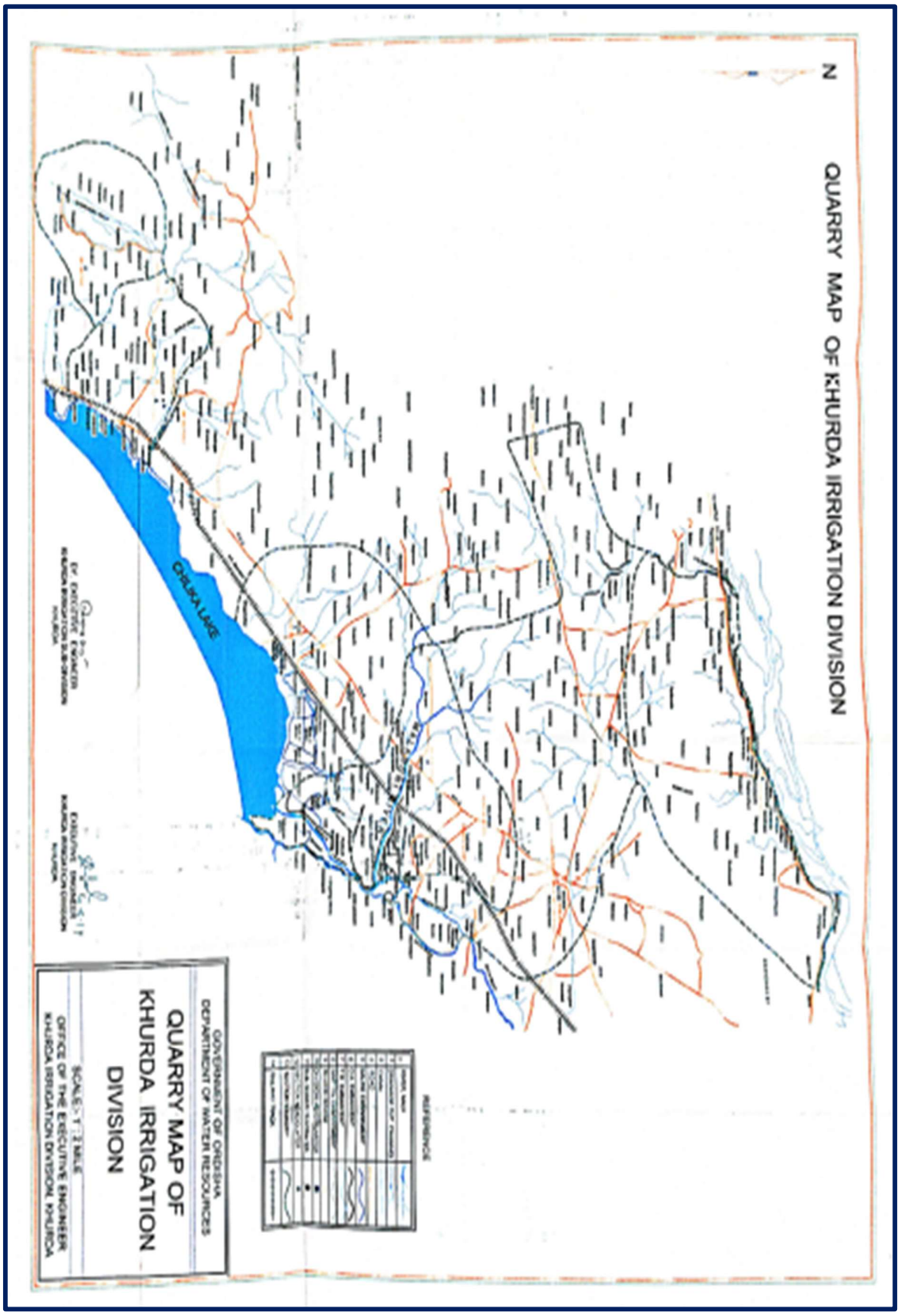
The Project was planned to be completed by constructing a diversion weir at Dholapatna across river Rajua with construction of afflux bundhs on both side in u/s of the weir. It was proposed to provide irrigation on both sides of Diversion Weir during Rabi season only by constructing two main canals i.e. left main canal for a length of 7.88 km and right main canal for a length of 12.05 km with its distribution systems. Area to be Benefited

15 villages of Khordha District 1273 50 ha. and 21 villages of Puri District 1392.50 ha. will be benefited. Maps showing location of the project & affected plots, and the affected village are presented below.

Location of the Project and Affected Plots

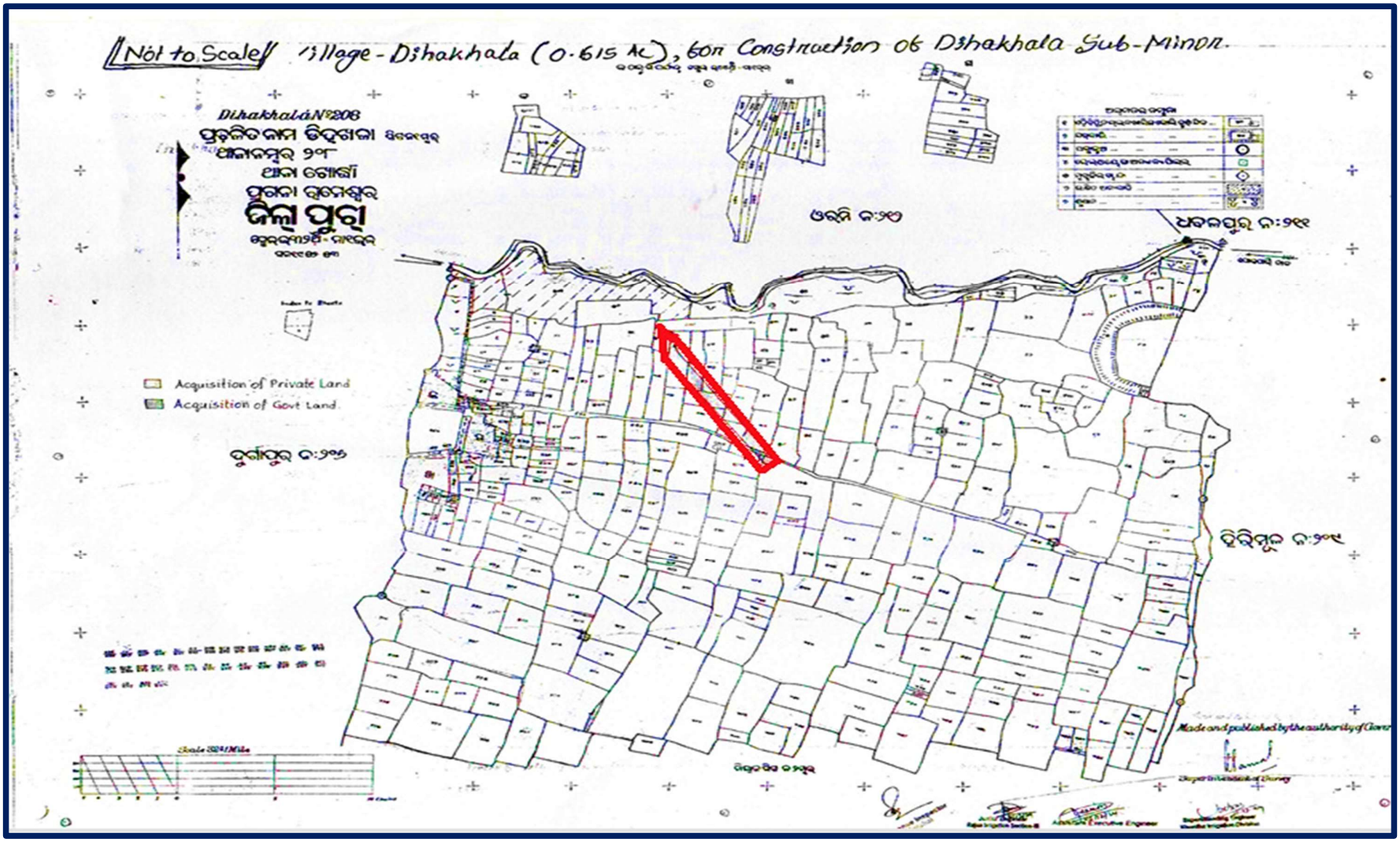


Source: SE, Khordha Irrigation Division, Khordha



Source: SE, Khordha Irrigation Division, Khordha

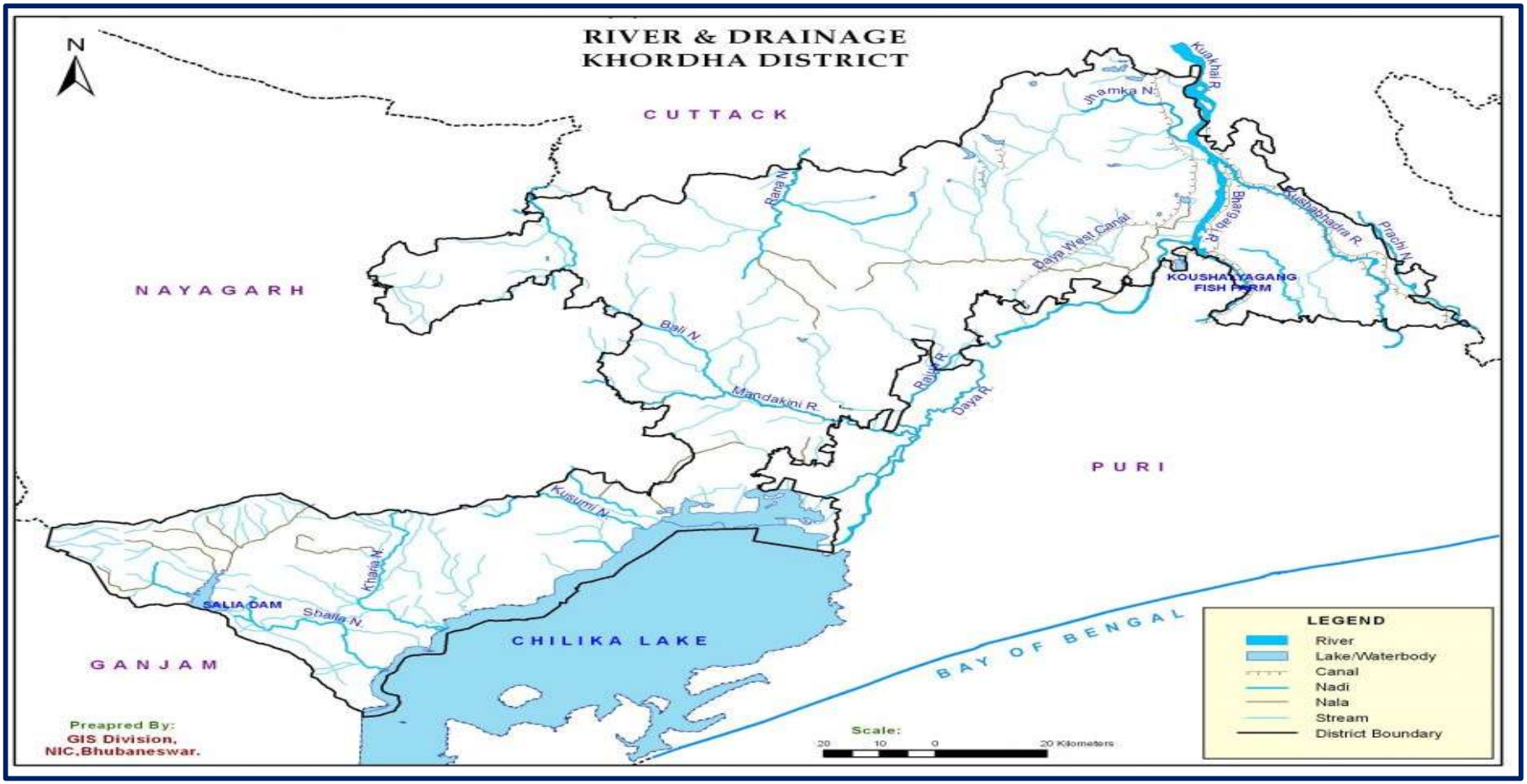
Location of the Project and Affected Plots



Source: SE, Khordha Irrigation Division, Khordha

1.5.2 Capacity, Outputs, Production Targets

The 15 villages of Khordha District 1273 50 ha. and 21 villages of Puri District 1392.50 ha. will be benefited. Maps showing location of the project & affected plots,



Source: SE, Khordha Irrigation Division, Khordha

1.5.3 Cost Estimate

Revised Estimate

During the preparation of original estimate, the design and drawing of the structures of diversion weir and canal structures were not ready. Subsequently after detailed survey, investigation and finalization of canal alignment estimate was prepared. Although head work has been completed, fall board shutter, scouring sluice and H/R gates has already been fixed. Provision has been kept for mechanical operation instead of manual operation as in revised estimate.

The revised estimate of the project amounting to Rs. 4321.76 lakh has been prepared basing on the analysis of Rates 2006 and post GST Rate-2017 with enhanced labour & material rates. The estimated cost of the balance work is Rs. 1824.37 lakh.

The as benefit Cost Ratio of the project ha been calculated considering the irrigation demand of the guidelines of MOWR and works out to 4.23 @10 % interest on capital out. The internal rate of return @ 12 % discount factor works out to 42.08 %

A scanned copy of the said order is furnished below.

Cost Estimate of the Project

Expenditure details schemewise

Page No.

Sl No.	Year	Expenditure	Scheme
1	2001-02	7.07	NABARD
2	2002-03	94.13	NABARD
3	2003-04	79.35	NABARD
4	2004-05	79.61	NABARD
5	2005-06	82.87	NABARD
6	2006-07	80.91	NABARD
7	2007-08	117.48	NABARD
8	2008-09	116.26	NABARD
9	2009-10	120.18	NABARD
10	2010-11	192.94	NABARD
11	2011-12	107.19	NABARD
12	2012-13	79.00	NABARD
13	2013-14	29.61	NABARD
14	2014-15	57.93	NABARD
15	2015-16	20	Completion of incomplete project
16	2016-17	224.19	Completion of incomplete project
17	2017-18	316.87	Completion of incomplete project
18	2018-19	342.50	Completion of incomplete project
19	2019-20	47.42	Completion of incomplete project
20	2020-21	160.00	Completion of incomplete project
21	2021-22	41.88	Completion of incomplete project
22	2022-23	100.00	Completion of incomplete project
	Total	2497.39	

2001-02 to 2014-15 Sub-Total = 1244.53

64 to 79

23 – earlier on Grave WSIDP vide pg-80

24 – 25 – 27 – 29 – 31 – 36 –

Junior Engineer
Rajua Irrigation Section No-III
Khurda

Assistant Engineer
Rajua Irrigation Section No-II
Khurda

Assistant Engineer
Rajua Irrigation Section-I
Khurda

Asst. Executive Engineer,
Rajua Irrigation Sub-Division,
Khurda

Superintending Engineer,
Khurda Irrigation Division,
Khurda

Additional Chief Engineer
Central Irrigation Circle
Bhubaneswar - 12

Chief Engineer & BM
Mahanadi Kathajodi System
Bhubaneswar

Source: SE, Khordha Irrigation Division, Khordha

1.5.4 Risks

There will be no issue with environment and ecology since very few trees cutting may be required which is negligible and they will be no impact on any other aspect for this project

1.6 Examination of Alternatives

The officials of SE, Khordha Irrigation Division, Khordha, examined different dimensions and alternatives, and then finalized the course of the construction of the Dihakhala Sub-minor. They finalized the proposed course and alignment after a process of thorough examination. The course of the canal has been finalized and planned as per the contour line of the geographical area designed by technical experts for smooth flow of water from the project to the agricultural fields. Hence the existing alignment is the best and fixed. The acquisition of private land for the project i.e. 0.0.6150 acre is the barest minimum.

1.7 Phases of project construction

The project involves 7 phases as detailed below.

i. The first step is project planning and preparation, mapping, marking reference points and earmarking the land requirement. These have been done with an extensive and meticulous field review and some preliminary engineering.

ii. The second step is making estimate of construction cost. This has to be based on materials' constitution, construction equipment and machinery requirement, applied technology, skilled and unskilled manpower requirement, and such basic procedures. The estimate has been approved by appropriate authorities.

iii. After the project gets through the authorities and approved by them, an expert team is appointed to conduct a social impact assessment survey and submit a report pointing out the need for the project, the socio-economic impact assessment, a cost-benefit analysis, suggesting a workable social impact mitigation plan and justifying the undertaking of the project.

iv. The fourth stage is making budgetary provisions taking into consideration the estimates of cost of construction, the payment of compensation for land acquisition and such other prospective expenses concerning the project.

v. The next stage is acquisition of government and private land, and common property land, and getting approval of stakeholder departments and institutions for the project.

vi. The project is then advertised for bids. The licensed contractors bid for the work and the work is usually given to the lowest qualified bidder.

vii. Construction is the last phase of a Canal project. All construction works have to be as per quality specifications approved in the bid document subject to supervision, inspection and monitoring by irrigation authorities to ensure standard quality.

The canal is then handed over to the authorities and open to use.

1.8 Core design features and size and type of facilities

1.8.1 Core Design Features

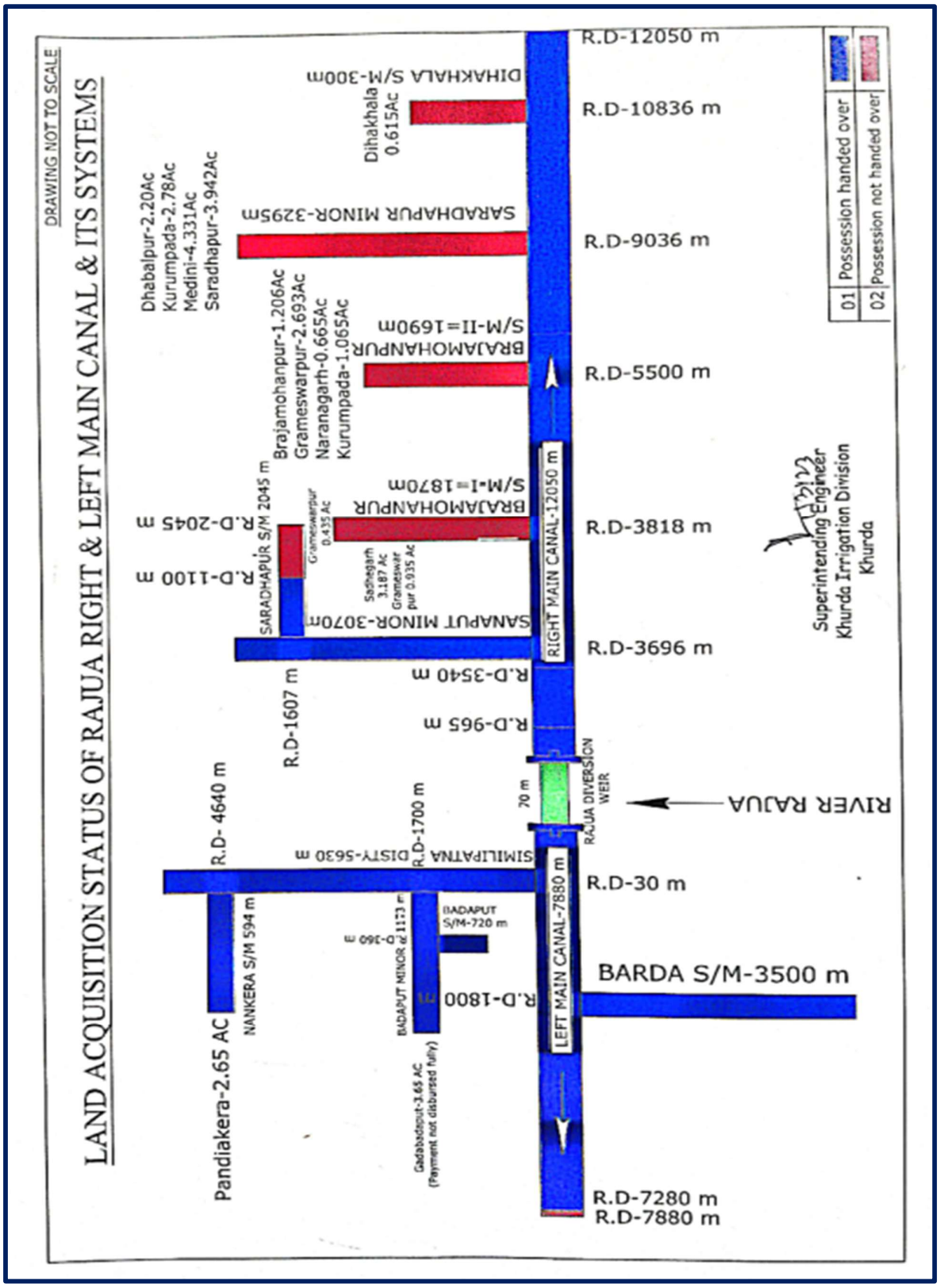
Design

The design and drawings of diversion weir with head regulator of left Canal and Right Main Canal and all structures of canal systems have been completed by the design wing of DOWR.

Environment & Ecology

There will be no issue with environment and ecology since very few trees cutting may be required which is negligible and they will be no impact on any other aspect for this project

Core Design Features



Source: SE, Khordha Irrigation Division, Khordha

1.8.2 The size and type of facilities

The size and type of facilities provided by the construction of the Diversion Weir include provision of water for irrigation purposes.

1.9 Need for ancillary infrastructural facilities

Ancillary infrastructure facilities are required for the construction as part of the project. These are taken up side by side construction of the canal.

1.10 Work force requirements: a) Temporary and b) Permanent

Construction of canal is largely a labour-intensive activity and a significant proportion of total cost constitutes payment to on-site workers. The 'materials and equipment' component of the canal construction create off-site employment. Those are temporary workers engaged by the contractor selected by a bidding process. The on-site work has to be inspected regularly by the technical personnel of the SE, Khordha Irrigation Division, Khordha and they are usually engineers and officials who may be treated as the permanent workforce for the project.

1.11 Details of SIA or EIA if already conducted and any technical feasibility reports

There is no record of any Social Impact Assessment/Environment Impact Assessment study being conducted or any technical feasibility report prepared previously in association with the proposed project prior to the present exercise.

1.12 Applicable legislations and policies

Acquisition of Land is a necessary concomitant of an infrastructure project like of 'Construction of diversion weir by acquiring private land'. The land loser households bear the brunt of adverse livelihoods effects as they are living in allied locations. A social impact assessment study on land acquisition for development projects is mandated by the laws of the land prevailing at the time of planning for the project to ensure that such acquisition is consistent with the national and sub-national legal frameworks. The said study has the express objective of assessment of the potential losses and benefits of the project affected households and suggesting appropriate measures to mitigate any adverse impact of the project implementation. The land

acquisition for the proposed project is governed broadly by the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act 2013 of Government of India and the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016 (ORFCTLARR Rules, 2016) prior to the commencement of the project. However, the making of these two Acts and Rules has a robust foundation of several earlier Acts, Rules and Constitutional provisions. All these are relevant in the instant case.

1.12.1 The Land Acquisition Act 1894

The Land Acquisition Act 1894 and its subsequent amended Act 1984 is the basic foundation governing acquisition of private land for public purpose. The Act provides for cash compensation to land losers for the acquired land and the structure thereon. The issue of 'public purpose' has not been explicitly defined in the Act except laying down some examples of intention for acquiring land.

These include land required for the following.

I. Village sites,
II. Rural or town planning,
III. Planned development of land from public fund in pursuance of government schemes and policies,
IV. A state owned or state-controlled corporation,
V. Provision of residence for poor, homeless or landless households residing in areas affected by natural calamities or those displaced by government schemes or projects,
VI. Housing educational institutions, healthcare units or those displaced due to slum abolition/clearance,
VII. Any development scheme sponsored by or approved by government or local authority, and
VIII. Building for a public office.

Hence the postulation of 'public purpose' remained a debated issue. A second flaw in the Act was that it recognized land rights of only individuals but not collective or community rights over land as is the case with Common Property Resources (CPR) and hereditary usufruct rights.

1.12.2 The Rehabilitation and Resettlement Policy-2006 of Government of Odisha

Government of Odisha has the unique distinction of formulating and implementing a Rehabilitation and Resettlement (R & R) Policy in 2006 that is credited as an improvement over the policies then existing at the national and sub-national levels in the country. The policy made conducting a socio-economic survey covering socio-cultural, resource mapping and infrastructure dimensions of land acquisition prior to acquiring land. It also provides for consulting the Gram Sabha and/or Panchayat in scheduled areas before initiating any proposal for land acquisition. Other elements of the policy include:

i. Preference for employment of a nominated member of each land-losing household.
ii. Imparting training for self-employment
iii. Provision of homestead land and assistance for self-relocation for the displaced families, and
iv. Opting for subscribing to convertible preferred shares out of cash compensation. The most notable aspect in the policy is the resettlement of displaced indigenous and primitive tribal households in a compact area close to their original habitat.

1.12.3 Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Right) Act 2006

The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, is a legislation passed in the Parliament in December 2006. The Act confers the ownership rights of land on tribals if such land is being used by the said tribals as on 31 December 2005. But in case of other traditional forest dwellers, it must have been used for three generations. The ownership of land is only for that piece of forest land which is being actually cultivated or used by the concerned family as on that date. In the case of acquisition of land for "Construction of Dihakhala Sub-Minor at Orabarasingh GP of Khordha district (ToR 78-00006)" no such issue has surfaced during the field study in the said area.

1.12.4 National Rehabilitation and Resettlement Policy 2007

The National R & R Policy 2007 of Government of India is a milestone in the area of land acquisition and the consequential R & R. It was formulated and is being implemented with a view to mending the deficiencies in the old policy, the deficits being:

- The limited applicability of the later to cases of 500 families in the plains and 25 families in the Scheduled areas, Desert Development Blocks, and are included in Schedule V and VI of the Constitution of India,
- Failure to consider a non-displacing or least displacing alternative site option for the project,
- Non-inclusion of prior consent of families before displacement due to land acquisition,
- Absence of social-impact survey,
- Limited provision for livelihood security,
- Inadequate consideration of improving standard of living of the affected families,
- Lack of provision for consideration of issues except exclusive land acquisition,
- Absence of any provision for appraising desirability and justification of the project and assessing the optimal area of land acquisition,
- No provision of time limit for payment of compensation, R & R, utilization of acquired land and disposal of excess acquired land,
- Lack of provisions for addressing problems of vulnerable sections, Scheduled Castes and Scheduled Tribes, and
- Absence of mechanism for quick grievance redressal.

The R & R Policy 2007 attempted to overcome these deficiencies by incorporating changes in the objectives with a view to avoiding displacement or promoting the least displacement with focus on the affected vulnerable and weaker sections. SIA study and formulating a Tribal Development Plan (TDP) have been made mandatory for projects causing displacements beyond threshold limits. The new policy has provisions for annuities in compensation for a life time pension, compact area resettlement, and financial assistance for loss of collection of forest produce in the

event of land acquisition. The applicability is extended to projects involving displacement of 400 persons in plain areas and 200 in tribal and hilly areas. People's participation, public hearings, awareness creation among the affected households, representation of the representatives of affected people in R & R Committees, speedy grievance redressal etc. are the welcome provisions in the 2007 R & R Policy.

1.12.5 Constitutional Provisions

The legal capacity of the State to acquire private property of individuals for public purpose is a matter of debate. The Constitution of India originally provided the right to property under the Articles 19 and 31. Article 19 guaranteed that all citizens have right to acquire, hold and dispose of property. Article 31 stated that "no person shall be deprived of his property save by authority of law". It also provided that compensation would be paid to the person whose property has been acquired for public purpose. The right to property was eliminated by the 44th Amendment Act of the Constitution in 1978. Instead, a new provision has been included in Article 300A which states "Persons not to be deprived of property save by authority of law". This implies that short of consent of the owner, a man's property can be taken only by the consent of the nation as embodied in the laws passed according to Constitution (Basu, 2015: 137). "If the State seeks to acquire the land which is personally cultivated by the owner and such land does not exceed the statutory ceiling, the State must pay to such owner full market value of his

land as well as any building or structure standing there on" (Ibid: P.41).

1.12.5a Samatha Judgment

In this context it would be relevant to put the historic ruling by the Hon'ble Supreme Court of India delivered by a three-judge bench on 11th July, 1997 in Samatha vs. State of Andhra Pradesh and others (1997 Supp.2 SCR, 205). The Constitution 73rd Amendment Act, 1992 stated that every Grama Sabha shall be competent to safeguard and preserve community resources and enjoys the power to prevent alienation of land in Scheduled Areas and to take appropriate action to restore any unlawful alienation of the land of a Scheduled Tribe.

1.12.5b Bhuria Committee Report

The question of land acquisition in the Scheduled Areas was carefully examined by the Bhuria Committee. It noted that the Land Acquisition Act which enables the state to takeover any land for a "Public Purpose" is based on the principle of individual land ownership and does not take cognizance of the customary regulation of common property resources in tribal areas. Among many tribal communities, land and such other natural resources are owned jointly by the community and its use by an individual is sanctioned by the community. Since the Land Acquisition Act does not recognize this basic principle in tribal areas, it is not based on realistic grounds. The committee opined that the basic lacunae in the Act have to be removed by making the consent of the local community in this matter obligatory. In other words, land in the Scheduled Areas should be acquired with the consent of Grama Sabha and the proposed alternative livelihood should be acceptable to them (Bhuria Committee Report, 1995 (mimeo), P.11).

1.12.6 PESA Act, 1996

The recommendations of the Bhuria Committee were considered in the Parliament and in December, 1996 the Parliament of India approved the provisions of the 73rd Constitutional Amendment Act, 1993 to the Scheduled-V Areas of the country under an Act bearing the title "the Provisions of the Panchayats (Extension to the Scheduled Areas) Act" popularly known as the 'PESA Act 1996'.This Act is very significant as it accords statutory status to the Grama Sabhas in the Scheduled Areas with wide ranging powers and authority. This Act has assigned consultative powers to the Grama Sabha with regard to acquisition of land. It states that before making acquisition of land in the Scheduled Areas by the concerned authorities for development of projects and before resettling or rehabilitating persons affected by such projects, the Grama Sabha or the Panchayats at appropriate level (i.e. intermediate and district levels) will be consulted. Alike the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Right) Act 2006, The PESA Act 1996 also has no relevance to acquisition of land for "Construction of Diversion Weir at Khordha district (ToR 78-00006)".

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

The Land Acquisition Act, 1894 was repealed and replaced by the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013. The Act came into force on 1st January 2014 and is designed to regulate acquisition of land by Central and State Governments, except Jammu and Kashmir, for purposes of industrialization, infrastructural development and

urbanization. The Act has considered the essence of Panchayat Extension to Scheduled Areas (PESA) Act, 1996. This Act ensures consultation with the institutions of Local Self Government and Grama Sabha established under the Constitution. The Act ensures, "a human, participative, informed and transparent process for land acquisition for industrialization, development of essential infrastructural facilities and urbanization with the least disturbance to the owners of the land and other affected families and provide just and fair compensation". It has made adequate provisions for such affected persons for their rehabilitation and resettlement and for ensuring that affected persons become partners in the development leading to an improvement in their post-acquisition social and economic status. The provisions of this Act shall apply to land acquisition by government for strategic purposes and infrastructural development. The main provisions of the Act include the following:

a) Payment of fair compensation to land losers,

b) Transparent process of land acquisition,

c) Rehabilitation of displaced persons,

d) Least socio-economic disturbance to affected households,

e) Consulting Grama Sabhas,

f) Preparation of an action plan for mitigation of adverse impact, and

g) Consent of 70% of affected people for land acquisition.

In order to ensure this the Act has laid down in Chapter-II provisions for determination of 'Social Impact' and 'Public Purpose' and 'Preparation of Social Impact Assessment Study Report' by detailed investigation of affected families, extent of lands, houses, settlements and other common property resources likely to be

affected both in the private and public sectors and study of the social impacts of the project. Section 4 of the Act mandates 'Preparation of Social Impact Assessment study' and 4 (1) states "Whenever the appropriate Government intends to acquire land for a public purpose, it shall consult the concerned Panchayat, Municipality or Municipal Corporation, as the case may be, at Village level or ward level, in the affected area and carry out a Social Impact Assessment study in consultation with them, in such manner and from such date as may be specified by such Government by notification". It has also laid down guidelines for preparation of 'Social Impact Management Plan' listing therein, the ameliorative measures required to be undertaken. In chapter-IV Section: 209, it has detailed the process of determination of value of things attached to land and building by experts. It has also provided award of 'Solatium' amount equivalent to 100% of compensation amount.

All these provisions have been made to ensure that the affected families will lead a life of better social and economic standard during post land acquisition period.

1.12.8 The Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016

In exercise of the powers conferred by sub-section (I) of Section 109 of RFCTLARR Act, 2013, the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Rules, 2016 was framed and was published in the extraordinary issue of Odisha Gazette No.1480, dated: 19.10.2015 under the notification of Government of Odisha in Revenue and Disaster Management Department. Objections and suggestions were invited from all persons likely to be affected. As no objection or suggestion on the said draft was received, the Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2016 came into force from 19th October, 2016. The details of the process of the proposal for acquisition of land by the requiring Body, the scrutiny of application of Land Acquisition by the District Collector, and updating of the Land Records by the concerned Tahasildar within a period of three months after receiving land particulars from the Collector has been dealt in the said Rule, 2016. This rule has been strictly followed in the present SIA study. As per Rule 6, Government

of Odisha has designated Nabakrushna Choudhury Centre for Development Studies (NCDS), Bhubaneswar as the State SIA Unit and assigned to it the responsibility of ensuring that SIA studies are conducted as per the provisions of the Act. Institutions / Organizations empanelled for the purpose on the basis of expertise and competency are selected for undertaking SIA study. The important components of conduct of Social Impact Assessment Study as detailed in

they said Rule of 2016 and as relevant to the case of Acquisition of Private Land of 0.6150 acre from Dhihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir at Khordha district (ToR 78-00006)" are as follows:

Sl. No.	Clause No.	Contents
1	6	Establishment of an independent organization as State SIA unit.
2	8	Notification by the State Government for carrying out SIA study.
3	9	Conduct of SIA study in consultation with concerned Panchayat, Ward, or Village.
4	10	Selection of SIA team for each project from the individuals and institutions registered or empaneled as qualified SIA Resource partners.
5	11	Process of conducting Social Impact Assessment.
6	12	Social Impact Management Plan (SIMP) including R & R entitlement matrix.
7	14	Process of conducting Public Hearing in each Grama Sabha or Ward on the findings of SIA.
8	15	Publication of SIA Report and SIMP.
9	16	Publication of the recommendations of the Expert Group.
10	17	Publication of the decision of the State Government.

The Acquisition of Private Land of 0.6150 acre from Dhihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir at Khordha district (ToR 78-00006)" is necessary for

the canal construction work and hence is meant for the welfare of the public. There will be the least amount of land acquisition.

1.13 Draft Report

The Draft Report for SIA Study on Acquisition of Private Land of 0.6150 acre from Dhihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir at Khordha district (ToR 78-00006)" has been prepared in both English and the regional language (Odia) basing on the assessment and analysis of primary and secondary data. The report is structured in seven chapters in addition to an Executive Summary placed in the beginning. After evaluation and approval by the State SIA Unit, the copies of draft report will be distributed to the Irrigation Authority (i.e. the land requiring body), the concerned Collector, Sub-Collector, the L.A.O., Tahasildar of Khordha Tahasil and the local PRI representative (Sarapanch) of Orabarasingh Gram Panchayat of the affected Dihakhala village for their perusal and the public hearing.

1.14 Public Hearing

As per the mandate of Section 5 of RFCTLARR Act, 2013, a Public Hearing Meeting will be organized through the local administration and the land requiring body to elicit views of the public and the officials on the Draft Report. Views on the project impact and additional suggestions for amelioration of negative impacts will be gathered and recorded. Issues relating to land acquisition, compensation, employment generation, grievance redressal, role of administration etc. will be discussed in the public hearing meeting. The views of vulnerable persons i.e. women, physically challenged persons will be sought too. Video recording and transcribing of the public hearings will be done and the proceedings will be placed in the Final Report.

1.15 Structure of the Report

The Draft SIA Report is structured in seven chapters in addition to an Executive Summary placed in the beginning. Chapter I being introductory contains the detailed description of the project including background of the project and a brief description

of the project profile, and the constitutional and legal framework mandating an SIA study. Team composition, approach, tools, methods, processes and limitations of the study are presented in Chapter-II. A detailed picture of Land Assessment has been given in Chapter-III. Estimation and enumeration of affected families and assets are given in Chapter-IV. The socio-economic profile of the project affected village including directly affected surveyed households and views of 10 unaffected sample households is presented in Chapter-V. Basing on primary survey the possible social impacts of the project are analysed in Chapter-VI. Chapter-VIII contains a cost-benefit analysis, a Social Impact Management Plan, some recommendations, and the conclusion.

1.16 Limitations of the Study

The design of the SIA study as also the approach, tools, methods and processes used to collect and analyses data, draw the results there from and interpret the conclusions are all in line with similar studies conducted earlier. But despite special efforts, the work is not fool proof and cannot claim perfection. Still there remains something to be desired. The study has the limitation that the actual impact is likely to be different from those assessed in the study. This is because the real situation is not amendable to exact assessment. Therefore, marginal errors might have remained in the report. However, all care has been taken to make the study reasonably realistic.

Site Photographs

Source: Household Survey and Field Visits, 2026

The Canal on the Affected Plots

Sign Board of Rajua Diversion Weir

Source: Household Survey and Field Visits, 2026

CHAPTER - II
TEAM COMPOSITION, APPROACH, METHODOLOGY AND SCHEDULE OF THE SIA

2.1 Introduction

Section 4 (1) of the RFCTLARR Act 2013 of Government of India and the Odisha RFCTLAR&R Rules 2016 mandate a Social Impact Assessment (SIA) Study before starting the process of land acquisition for construction of any development/ infrastructure project. The State SIA unit has assigned, to the Council of Analytical Tribal Studies (COATS), the responsibility to conduct the SIA study for acquisition of 0.6150 acre of private land from **09** title holder affected households from Dihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir at Khordha District (ToR 78-00006)".

2.2 Objectives of the study

The SIA Study is undertaken with the following objectives.

i. To assess if the project for which land will be acquired serves '*public purpose*'.
ii. To estimate the number of affected families, magnitude of loss of land assets based on the actual holdings of the families and the number of families among them likely to be displaced physically or occupationally, if any, due to acquisition of land.
iii. To assess the extent of lands- public and private, houses, settlements and other common properties likely to be affected by the proposed acquisition.
iv. To examine whether the extent of land proposed for acquisition is the bare minimum necessity for the commissioning of the proposed project.
v. 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.
vi. 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 infrastructures, etc and the impact of these costs on the overall costs of the project vis-à-vis the benefits of the project.

vii. To suggest remedial intervention with proposal of appropriate ameliorative measures to minimise the negative impact in the social impact management plan by designing different programmes.

2.3 List of all Team Members with Qualifications

This SIA study is based mostly on primary data collected through personal face-to-face interview method by canvassing a well-designed household schedule and other schedules relevant to the study. The same were processed for analytical purposes. However, secondary data have been used at appropriate stages and places in the report. A seven-member Social Impact Assessment Study Team was constituted for doing all that is required to complete the work. The members of the team are professionals with previous experience in SIA, evaluation and research studies.

The constitution of the SIA team is given in the following table.

Table-2.1: Structure of the SIA Study Team

Sl. No.	Name of the Staff and Qualification	Designation/ Responsibility	Research Experience	Contact No.
1	Dr. P C Mohapatro M.A., Ph.D.	Director, COATS	40 Years	9437094323
2	Dr. Jagabandhu Samal M.A., M.Phil., Ph.D.	Professor, COATS	40 Years	9437233382
3	Dr. Maguni Charan Behera MA. Ph.D.	Honorary Professor, COATS	35 Years	93374 76986
4	Dr. Rabinarayan Patra M.A., Ph.D.	Visiting Professor and Team Leader	36 Years	9437317543
5	Dr. Ashok Kumar Nanda, MA, M.Phil, Ph.D	Asso. Professor & Field Supervisor	15 Years	9337554282
6	Sri Gopinath Pradhan, M.A., M.Phil	Asso. Professor & Field Investigator	14 Years	8763914770
7	Sri Santosh Kumar Panda, MCA	Computer Programmer	10 Years	9437821021
8	Sri Rama Krushna Choudhury, MBA	Accountant-cum-Computer Operator	4 Years	7978832877

The SIA study encompassing field survey, data processing, preparation of SIA report including SIMP of Land Acquisition for were done under the supervision and guidance of the Dr. Maguni Charan Behera; Team Leader Dr. Rabinarayan Patra, Visiting Professor of COATS who has 36 years of experience in teaching and research. The field investigation was monitored and the report fine-tuned by Dr. P.C. Mohapatro, Director, COATS; and Dr. Jagabandhu Samal, Professor of COATS who have over 40 years' experience in first hand empirical research. Dr. Ashok Kumar Nanda provided necessary technical support. Sri Gopinath Pradhan, Lecturer in Tribal Studies, COATS has over 14 years of teaching and research experience at COATS including his involvement in all survey-based research and in the eight SIA Studies conducted by the institute is appointed as the Field Investigator. Sri Rama Krushna Choudhury, the Accountant-cum-Computer Operator of COATS is given the job of Computer Operator for the SIA study. Sri Santosh Kumar Panda having expertise in computer programming has done the programming work for the SIA study.

2.4 Description and rationale for the methodology and tools used to collect information for the SIA

2.4.1 Approach

Social Impact Assessment has at its core the knowledge about the present socio-economic status and the overall environment as well as the likely changes due to implementation of the project in a particular area. Comprehensive desk-based research with focus on participatory approach has been adopted for the study.

2.4.2 Broad Methodology

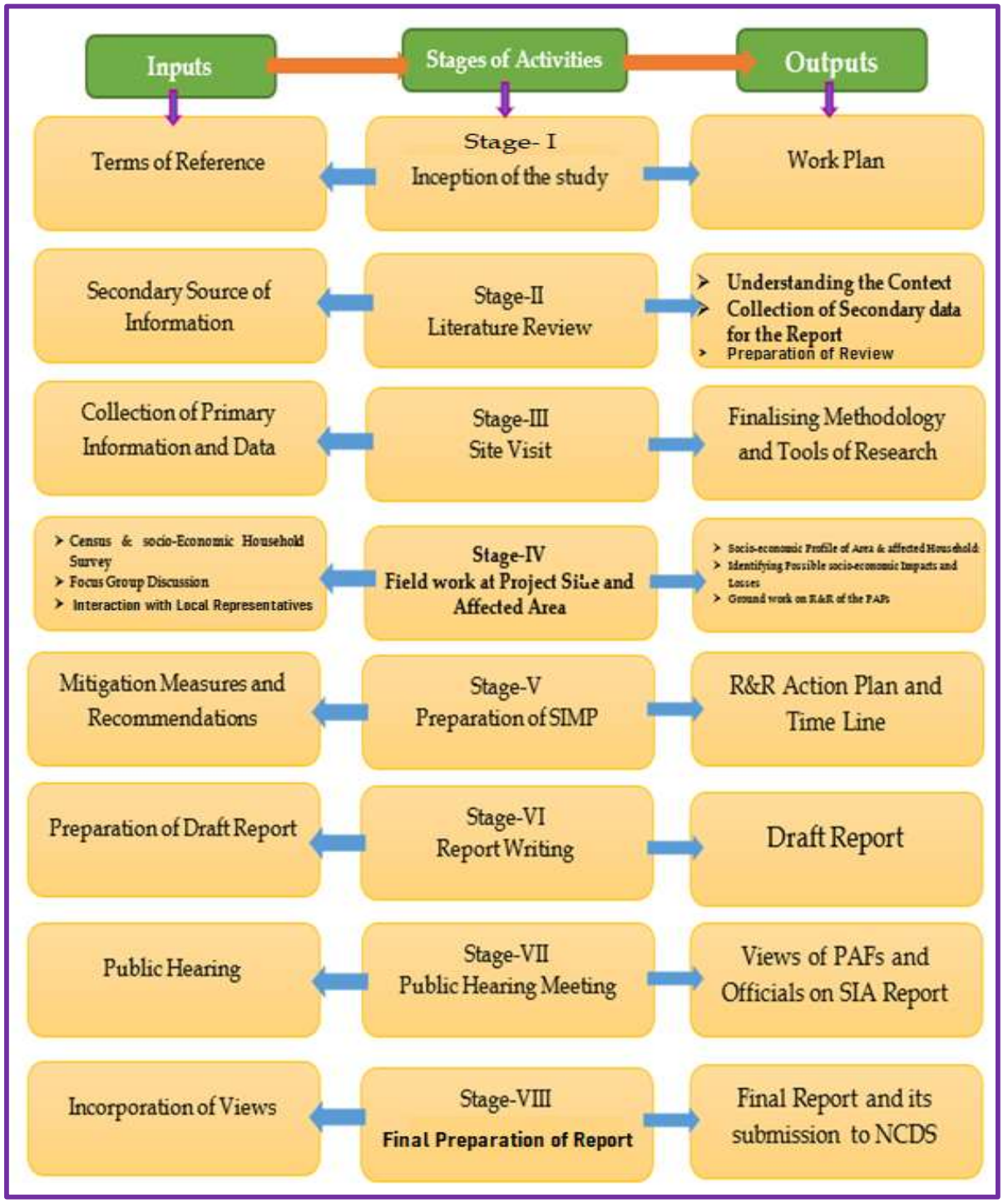
The methodology of the SIA study has been formulated in accordance with the objectives and scope of the study, and provisions of the law. It involves participatory appraisal tools and processes like social mapping, resource mapping and focus group discussions with the people in the affected village in a step-like fashion.

i. Identification of the assigned affected village.
ii. Specifying data requirements with sources and collection of data.
iii. Identification of stakeholders and their involvement.

iv. Preparing an inventory of all the affected households and the impact on them.
v. Conducting field level scoping study.
vi. Conducting survey of land losing directly affected households by applying census method and of indirectly affected non-land losing households by applying simple random sampling technique.
vii. Assessment of likely impact of the project on both categories of households mentioned at (vi) above and holding informal discussion on compensation and income restoration programmes.
viii. Designing a Social Impact Management Plan indicating entitlements of all affected parties – individuals, households, community.
ix. Preparation of Draft SIA study report.
x. Organizing public hearing to elicit reactions and views of stakeholders on draft report.
xi. Preparation of final report by incorporating the inputs derived from public hearing and submission of the report to the state SIA Unit.

The broad methodology of research is summarised in a flow chart as under.

Flow Chart of Stage-wise Activities for Preparing the SIA Report



Source: COATS Survey team,2026

2.4.3 Secondary Research

At the initial step, the field investigators established linkage with the district administration, Khordha, for gleaning information on the area and the people to be

covered by the study. The investigators obtained useful information that helped in collecting required data. The Director of COATS, the Project Director and the field investigators of the SIA study team visited various offices of the district and Khordha Tahasil, met the concerned officers of line department and collected the details about the project.

Relevant documents, records and reports were obtained from designated sources. These include the documents relating to RoRs, baseline information on the project affected village and area, legal framework, institutional mechanisms in place governing the project etc. The 2011 census data were used to validate field data.

2.4.4 Identification of the Impact Area

As per the land particulars provided by the Coordinator, State SIA Unit, Dhihakhala village under Orabarasingh GP of Khordha Tahasil of Khordha District is going to be affected by the project. This village constitutes the impact area of the project.

2.4.5 Analytical Tools and Consultation Methods

Four sets of tools were used for collection of information for the SIA Study viz. Household Interview Schedule, village Profile Schedule, Focused Group Discussion Schedule and Social & Resource Mapping.

2.5 Data Sources

The study is based on both secondary and primary data.

2.5.1 Secondary Data

The sources from which secondary data were obtained have been (a) Reports about the Project and the area to be affected by it, (b) Census reports, and (c) Records of Government of Odisha. Land schedule, demography of affected village, map of the project area and project details, Records of Acts and Rules, Policy Guidelines, District Statistical Handbook, and other Reports have been the main documents used for garnering required secondary data. Relevant information collected from the MI Offices at Khordha and Khordha have also been used in preparing this report.

2.5.2 Primary Data, Site visits, Sampling methodology, Analytical Tools and Consultation Methods

The sources of primary data are: a) household survey, b) site visits, c) FGDs, d) participatory appraisals, e) Interviews with key informants and stakeholders and f) public hearing meetings. Primary data were collected through door-to-door survey of affected households using schedules and they relate to socio-economic profile, livelihood sources, infrastructure and socio-economic status of the village. Census method was applied for the affected households and simple random sampling technique for the indirectly affected households in the village to collect this information. An FGD was organized to elicit response of project affected and unaffected people and of Panchayat level functionaries to collect information on possible project impact in the area including compensation. Key informants, field level government functionaries of Line Departments, and officials were also interviewed and consulted.

2.6 Sampling Methodology

The primary data used in this SIA Study have been collected by using the census and sampling methodology: census for data collection from directly affected households and sampling for data relating to families who might be indirectly affected or not affected by the project. The specific sampling method used in the study is simple random sampling technique. In all, 10 non-land losing families have been selected from the affected village.

A wide range of qualitative data e.g. those relating to people's perceptions about the social impact, social costs and benefits, impoverishment and food security risks have also been collected by using the household interview schedule.

2.7 Schedule of Consultations with Public Representatives and Stakeholders

Broadly speaking, the study is based on 6 sets of information viz. (a) Baseline information about the socio-economic status of households and community in the pre-project period, (b) information about the likely socio-economic impact, their magnitude, distribution and time frame, (c) Information about the positively and

negatively affected groups, (d) Information on the perception of the people to be affected about the project benefits and harms, (e) Information on potential action and measures of intervention to mitigate/minimize the adverse impact and (f) Information on institutional capacity and preparedness to implement the action plan and corrective measures.

Household Interview Schedules were used to collect information from the land losing and sample non-land losing families. A Village Profile Schedule was used to elicit information relating to the project affected village. Focused Group Discussion Schedule was used in gathering information from villagers and local knowledgeable persons. The stakeholders and knowledgeable persons living in the concerned village were invited along with the affected and unaffected households to the Focused Group Discussions in the affected village to elicit the views of different sections of the people on the socio-economic, cultural and environmental impacts of the project. The findings of these discussions helped the SIA team to present a reasonably correct picture of the positive and negative impacts of the proposed acquisition of land. Detailed discussions were also made about their expectation of compensation for loss of private property. These discussions also helped the SIA team to provide a Comprehensive SIMP of the project.

The study also adopted the Participatory Appraisal method to enable the SIA team to get information about the location of individual lands acquired for the project. Wealth ranking and/or wellbeing ranking methods were done through the local people to find out vulnerable groups in the village.

2.8 Public Hearing and Incorporation of Feedback therefrom

A Public Hearing Meeting will be conducted to disseminate the findings as contained in the Draft SIA Report. Views of the public, the land losing households and concerned officials will be sought and the proceedings will be placed in the Final Report.

2.9 Data Compilation and Data Analysis

Collected data were consolidated in a database and were subjected to rigorous treatment to draw generalized results for preparing the report. The report is prepared

on the basis of analysis of tabulated data. In addition to quantitative data, a range of qualitative data, that were collected through direct interactive method, were also used to make the report informative and comprehensive.

2.10 Preparation of a Social-Impact Management Plan

The SIA study team prepared a Social Impact Management Plan (SIMP) containing ameliorative measures to address the negative social impacts of the project identified in the course of SIA study. Due care has been taken to provide a comprehensive analysis of social costs incurred and benefits accrued from the project and the impoverishment risk of the land losing families, and suggest a mitigation plan. The implementation of SIMP will help improve the socio-economic status of the households and the village in the affected area.

2.11 Limitations of the Study

The design of the SIA study as also the approach, tools, methods and processes used to collect and analyse data, draw the results there from and interpret the conclusions are all in line with similar studies conducted earlier. But despite special efforts, the work is not fool proof and cannot claim perfection. Still there remains something to be desired. The study has the limitation that the actual impact is likely to be different from those assessed in the study. This is because the real situation is not amendable to exact assessment. Therefore, marginal errors might have remained in the report. However, all care has been taken to make the study reasonably realistic.

2.12 Brief Description of Public Hearing on The Draft SIA Report (Verbatim Record)

2.12.1 Introduction

Section 5 of ***"The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013"*** mandates conducting a public hearing as part of the SIA study in the area of land acquisition. The meeting is to be held after giving adequate publicity about the date, time and venue for the public hearing to ascertain the views of the affected and non-affected families, video-record them and

include them in the Final Social Impact Assessment Report. Accordingly, a 'Public Hearing' meeting on the Draft SIA Report on "Social Impact Assessment Study on Social Impact Assessment Study for "Acquisition of 0.6150 acres of Private Land from village Dihakhala under Khordha Tahasil of Khordha District for Construction of Rajua Diversion Weir (ToR 78-00006)" were organized at Government Upper Primary School, Dihakhala village with the help of the local administration and the land requiring body **during 11:00 A.M to 1:00 P.M. on 20.03.2026.**

The details of these meetings are presented below with photocopies of signatures of participants appended to this chapter. Copy of video recording of proceedings are submitted with the report.

2.12.2 Public Hearing Meeting, Government Upper Primary School, Dihakhala

Time : 11:00 hrs. – 13:00 hrs.

Date : 20th March, 2026 (Friday)

Venue: Government Upper Primary School, Dihakhala, Orabarasingh GP of Khordha Tahasil, of Khordha District.

Participants (Government Officers):

Miss. Anamya Sristhi Satapathy, Deputy Collector-cum-LAO, Khordha

Sri Ranjan Kumar Mohanty, Deputy Collector, Office of Sub-Collector, Khordha

Sri Rishab Tripathy, Assistant Collector, Khordha

Sir Soumendra Barik, SDO, Rajua Irrigation Project, ***Khordha Irrigation Division, Khordha***

Sri Papun Swain, JE, Rajua Irrigation Project, Khordha Irrigation Division, Khordha

Sri Nibash Nayak, Junior Revenue Assistant, JRA, LAO, Collectorate, Khordha

Sir Debiprasad Sahu, Revenue Inspector (RI), Land Acquisition Section, Khordha

Participants (PRI Members):

Sir Sanjaya Kumar Ratasingh, Representative of Sarpanch, **Orabarasingh Gram Panchayat.**

Sir Dusasana Sundaray, Ex-Sarapancha, Orabarasingh Gram Panchayat.

Sri Bijaya Kumar Harichandan, Ex-Sarapancha, Orabarasingh Gram Panchayat

Sri Abakash Mohanty, Ex-Sarapancha, Orabarasingh Gram Panchayat

Participants (The SIA Study Team from COATS, Koraput)

Dr. Ashok Kumar Nanda, Associate Professor & Field Supervisor

Sri Gopinath Pradhan, Associate Professor, COATS, Koraput

Sri Debasis Panda, Investigator, COATS, Koraput

Participants (Villagers): 15

At the outset, Dr. Ashok Kumar Nanda, Field Supervisor delivered his welcome address, highlighted the objectives of the public hearing meeting, and requested the land losing households and villagers to cooperate with the district administration and the Irrigation Division in giving up their affected land for a greater cause of nation building. The leader of the SIA Study Team discussed the main findings of the SIA Study and requested the participants from the village to speak out their demands. Sri Dr. Ashok Kumar Nanda identified the land losers and highlighted the extent of land loss for each of them.

Sri Dushasan Sundaray, Sri Sidheswar Srichandan and Sri Bijaya Kumar Harichandan wanted to know the exact rate (@acre) at which they will be paid compensation by the Irrigation Division for their land and the time frame. To this query, Asst. Collector / Spl. LAO said that the amount will be decided by looking at the BMV which will take little time and assured that they will be duly compensated as per rules maximum by October/ November this year. Sanjaya Kumar Ratasingh Sarapanch representative appealed the officers to consider the demands of the land losers and villagers.

The Official Response

The Official response to the concerns, appeals and queries of the land losers and the public present in the Public Hearing Meeting are as follows:

Asst. Collector /LAO, Khordha committed to communicate people's concerns and demands expressed in the public hearing meeting to the government for effective redressal and favourable action and also said that the rate can be ascertained after viewing the records and payment of compensation will be expedited and completed by the end of 2026.

- In response to public grievances the SDO/JE, Irrigation Division try to convince the public that water distribution will be fair and reach the end point of the canal with effective management, for which the government has provided for Pani Panchayat Committee. Hence, the apprehension of lose is not real. Alonge with the canal, the Pani Panchayat Committee will be constituted.
- To the question of Villagers about the title dispute such as the patta with the seller and the land deeds with the buyers the Land Accusation Officer (LAO) apprise that if the dispute could not be solved then we facilitate the claimants to represent their case before the law authority constituted for the purpose. After finalization of the land dispute then the compensation is paid. The claimants can apply till the end of the notification periods of the payments.

The details of the Public Hearing Meeting have been video recorded and the scanned copy of the signatures of officials and participants have been attached at the end of this chapter.

The proceedings of the Public Hearing Meeting were conducted very peacefully.

2.13 Specific feedback incorporated in the Report

The specific feedback received from the participants in the public hearing meeting conducted on 20th March, 2026 is incorporated in summary from as in Table 2.2.

- We don't have objection to transfer the land for the Rajua Diversion Weir Project. But the upper part of the proposed canel remains dry most of the months of the year. So, the possibility of having water in our place is very low. What is the benefit of transferring the land when we would not get water for our land when needed?
- There is an existing canal for the irrigation of our land. If the existing canal is renovated and merge with the proposed canal, there will be no need of transferring land for the proposed canal from which we would not get water.
- The proposed canal will be a service canal, to be channelised from the main canal Rajua. This proposed new canal we be of no use since we have an existing dependable canal.

- We will lose the land, will not get water and nor adequate compensation for the loss.
- In case the canal is constructed our fields will be divided across it. The movement of cattle, agricultural implements, like tractor, power tiller, harvesting machine, etc, will not be possible. Under such a situation, along with the canal, the construction of a bridge over the canal must be given priority.
- The transfer of land is subject to settlement of title disputes among the family members. Therefore, the Government has to initiate steps to settled dispute before the land acquisition.
- We observe that more land area is marked with erecting pillars then the measure of land to be acquired for construction of the proposed of canal. That creates doubt. The villagers therefore appeal that any decision and action in this regard should be intimated to the villagers and taken in their consultation. The villagers assured that they are always ready to co-operate with the Government for developmental work in the interest of the public.

Table 2.2: Abstract of feedback received in the Public Hearing Meeting

Sl. No.	People's Concerns	Appeals and demands
1	Loss of livelihood	➢ Provide Employment opportunity & benefits through MGNREGA and Different Social Security Schemes as per the GP norm,
2	Development	➢ In case the Diversion weir is constructed our fields will be divided across it. The movement of cattle, agricultural implements, like tractor, power tiller, harvesting machine, etc, will not be possible. Under such a situation, along with the canal, the construction of a bridge over the canal must be given priority.
4	Compensation	➢ Fair compensation as per the actual price of land in the area which is higher than BMV. ➢ Uniform national rate for whole of India.

2.14. Conclusion

It is worth noting that all the participants in the Public Hearing Meeting unconditionally supported the need for land acquisition for the construction of the

Diversion weir. The meeting was concluded with a formal vote of thanks by Sri Debasis Panda of COATS, Koraput to the land losers, public and officials for making the Public Hearing Meeting successful by sparing their valuable time, through their active participation and by making constructive suggestions.

The details of the Public Hearing Meeting have been video recorded and the scanned copy of the signatures of officials and participants have been attached at the end of this chapter.

The proceedings of the Public Hearing Meeting were conducted very peacefully.

ରାଜୁଆ ଡାଇଭର୍ସନ ୱେୟାର (ଟିଓଆର ୭୮-୦୦୦୭) ନିର୍ମାଣ ପାଇଁ ଖୋର୍ଦ୍ଧା ଜିଲ୍ଲାର ଖୋର୍ଦ୍ଧା ତହସିଲ ଅନ୍ତର୍ଗତ ଡିହଖଲା ଗ୍ରାମରୁ ୦.୭୧୫୦ ଏକର ପରିମାଣର ଘରୋଇ ଜମି ଅଧିଗ୍ରହଣ ଜନିତ ସାମାଜିକ ପ୍ରଭାବ ଆଧ୍ୟୟନ ସମ୍ବନ୍ଧୀୟ ଜନଶୁଣାଣି ।

ସ୍ଥାନ: ସରକାରୀ ଉଚ୍ଚ ପ୍ରାଥମିକ ବିଦ୍ୟାଳୟ, ଡ଼ିହଖଲା

ତାରିଖ: ୨୦/୦୩/୨୦୨୬ ସମୟ: ପୂର୍ବାହ୍ନ ୧୧:୦୦ ଘଟିକା

ଉପସ୍ଥିତ ଅଧିକାରୀ ଓ ଗ୍ରାମବାସୀ

କ୍ର.ନଂ	ଅଂଶ ଗ୍ରହଣକାରୀଙ୍କ ନାମ	ପଦବୀ	ଦୂରଭାଷ ନଂ.	ଦସ୍ତଖତ
1	Ananya Sristi Satpathy	Dy collectn - cum LAO, Khordha	8328660657	20/03/26
2	Ranjan Kumar Mohanty	Dy. Collector, o/o. Sub-Collector	9861493867	20/03/2026
3	Rishab Tripathy	Asst. collector, Khordha	8763003454	20/3/26
4.	Soumendra Barik	SDO, Rajua Irr. Sub-Divn	7978671413	20-3-26
5	Sangaya Kumar Rabsingh	Ex, Sarapanch, Orabanghasi	8456924461	
6.	Dushasan Sunday	Villager	9937262977	
7	Bijay Ku. Harichandan	villager	9777115550	
8	Ashoka Mohanty	villager	7064673319	
9	Sukhishyam Jhankad	Social worker	8455059285	
10	ଅଜ୍ଞାତ ନାମା ଗ୍ରାମବାସୀ			
11	ଯଦୁମଣି କୁମାର ଜେନାଙ୍କୁଲୁ	villager	7381471997	
12	Charadhar Nishank	village	8456957172	
13	Padmanav Jamichad S.	farmer	9937371917	
14	ଶ୍ରୀମତୀ ନାମ ଅଜ୍ଞାତ	farm	9937954658	
15	ଅଜ୍ଞାତ ନାମ			ଅଜ୍ଞାତ ନାମ
16	ଅଜ୍ଞାତ ମହିଳା ଗ୍ରାମବାସୀ			ଅଜ୍ଞାତ ମହିଳା ଗ୍ରାମବାସୀ
17	Nabakishore Rautary			Nabakishore Rautary
18	Prakash Chandra Bhuyan		6372297742	Prakash Chandra Bhuyan

ରାଜୁଆ ଡାଇଭର୍ସନ ୱେୟାର (ଟିଓଆର ୭୮-୦୦୦୦୭) ନିର୍ମାଣ ପାଇଁ ଖୋର୍ଦ୍ଧା ଜିଲ୍ଲାର ଖୋର୍ଦ୍ଧା ତହସିଲ ଅନ୍ତର୍ଗତ ଡିହଖଳା ଗ୍ରାମରୁ ୦.୭୧୫୦ ଏକର ପରିମାଣର ଘରୋଇ ଜମି ଅଧିଗ୍ରହଣ ଜନିତ ସାମାଜିକ ପ୍ରଭାବ ଆଧ୍ୟୟନ ସମ୍ବନ୍ଧୀୟ ଜନଶୁଣାଣି ।

ସ୍ଥାନ: ସରକାରୀ ଉଚ୍ଚ ପ୍ରାଥମିକ ବିଦ୍ୟାଳୟ, ଡ଼ିହଖଳା

ତାରିଖ: ୨୦/୦୩/୨୦୨୬ ସମୟ: ପୂର୍ବାହ୍ନ ୧୧:୦୦ ଘଟିକା

ଉପସ୍ଥିତ ଅଧିକାରୀ ଓ ଗ୍ରାମବାସୀ

କ୍ର.ନଂ	ଅଂଶ ଗ୍ରହଣକାରୀଙ୍କ ନାମ	ପଦବୀ	ଦୂରଭାଷ ନଂ.	ଦସ୍ତଖତ
19	Mahendra Rautaray	Villager.		
20	Papun Jurin	JE Pujya	6370139644	2/03/26
21	Nibash Nayak	IRA Collector	4045-	
22	Bhagaban Sahu	R.I. L.A.Section	7504114604	
23	Sidheswar Sahichandan			
24	Charkadh Mishank			
25	Dr. A.K. Nanda.	Asso. Prof. CDMTS,	9337555202	

Public Hearing: Views from the Venue- Government Upper Primary School, Dihakhala

Source: SIA Study Team, COATS, Koraput, 2026

Source: SIA Study Team, COATS, Koraput, 2026

HOUSEHOLD SURVEY

Source: Household Survey and Field Visits, 2026

CHAPTER - III
LAND ASSESSMENT

3.1 Introduction

The main objective of this SIA Study on acquisition of 0.615 acre of Private Land from Dihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir and Dihakhala Sub-Minor at Khordha District (ToR 78-00006)". is to investigate the socio-economic profile of the affected village and households, the project-affected people, details of affected property along with its type and ownership, nature and extent of land to be acquired, social impacts on the families affected directly and indirectly by the project, and the type of impact and its magnitude.

The Project area belongs to Dihakhala village of Orabarasingh Gram Panchayat under Khordha Tahasil of Khordha District for "Construction of Diversion Weir and Dihakhala Sub-Minor at Khordha District (ToR 78-00006)". This is because it provides irrigation facilities in ayacut area. benefitting Dihakhala, Orabarasingh , and dholapatna beneficiary villages under command. A socio-economic field investigation covering **24** directly affected extended households of the **nine** RoR holder affected sample households was conducted with the aid of structured interview schedules to obtain necessary information for the study.

Construction of Diversion weir in Dihakhala Village (ToR 78-00006) requires acquisition of land. The costs involved in terms of investment and compensation to the land-loser households can greatly influence the overall budget of the project. Since land is very scarce and the land-losers have to be duly compensated, it is imperative to limit land acquisition to the barest minimum and this has been adhered to in the instant case as for other developmental projects elsewhere. Land assessment has therefore become an extremely important issue in land acquisition for an infrastructure project like the Construction of Dihakhala Sub-Minor at Khordha district (ToR 78-00006).

3.2 Maps showing the Area of Impact under the Project

The Diversion Weir in Dihakhala is 3.720km long. The affected area belongs to two RoR holder households of Dihakhala village of Khordha Gram Panchayat under

Khordha Tahasil of Khordha District. The loss to the directly affected households due to land acquisition is 0.6150acre. The project was planned to be completed by constructing diversion weir at Dholapatna across river Rajua with construction of afflux bundh on both side in the upstream of the weir. It was proposed to provide irrigation on both side of diversion weir during Rabi season only by constructing two main canals as i.e. Left Main Canal for a length of 7.88 km and right main canal for a length of 12.05 km with its distribution system. Hence there is no change in the scope of the work. The maps showing the Area of Impact are given in Chapter I.

RAJUA DIVERSION WEIR PROJECT (DETAIL LENGTH OF CANAL)

			NAME OF CANAL	LENGTH IN MTR	MAIN CANAL IN MTR	DISTRIBUTARY IN MTR	MINOR IN MTR	SUB-MINOR IN MTR
(A)			RIGHT MAIN CANAL					
	1		MAIN CANAL	12050	12050			
	2	I	SANAPUT MINOR	3070			3070	
		II	SARADHAPUR MINOR	3295			3295	
	3	I	BRAJAMOHANPUR SUB-MINOR-I	1870				1870
		II	BRAJAMOHANPUR SUB-MINOR-II	1690				1690
		III	SARADHAPUR SUB-MINOR	2045				2045
		IV	DIHAKHALA SUB-MINOR	300				300
			RIGHT MAIN CANAL SUB-TOTAL =	24320	12050	0	6365	5905
(B)			LEFT MAIN CANAL					
	1		MAIN CANAL	7880	7880			
	2	I	SIMILIPATNA DISTRIBUTARY	5630		5630		
	3	I	BADAPUT MINOR	1173			1173	
	4	I	BADAPUT SUB-MINOR	720				720
		II	NANAKERA SUB-MINOR	594				594
		III	BARADA SUB-MINOR	3500				3500
			LEFT MAIN CANAL SUB-TOTAL =	19497	7880	5630	1173	4814
			TOTAL RIGHT & LEFT MAIN CANAL SUB-TOTAL =	43817	19930	5630	7538	10719

3.3 Area of Impact under the Project

The area of impact has been described above at 3.2. It is clear from the discussion above that other than the loss 0.6150acre of agricultural to the two directly affected households RoR holder households of Dihakhala village, the Project does not have any other adverse environmental, social or any other impact. The benefits of the project include irrigation, water and soil conservation, and controlling water logging.

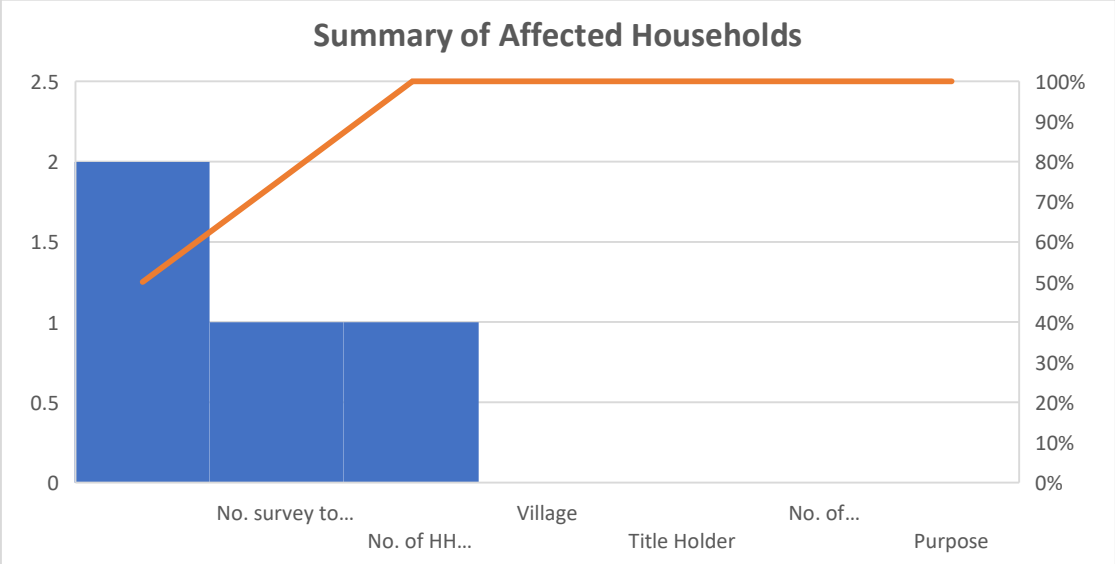
3.4 Extent and Location of Land proposed to be acquired for the Project

The original RoR document provided by the Land Acquisition Office, Khordha district through NCDS, Bhubaneswar for the SIA Study of the project affected village contained a list of 9 title holders from whom land has been acquired for the project. The details of land losing households are given in Table 3.1.

Table 3.1: Summary of Affected Households

Village	Title Holder			No. of Extended HH	No. survey to be Done	No. of HH Actually Surveyed			Purpose
	As per RoR List	Dead	Alive			Title Holder	Extended	Total Surveyed	
Dihakhala	3	1	3	1	4	3	1	4	Construction of Dihakhala sub-Minor
	0	0	1	0	1	1	0	1	
	0	6	0	5	5	0	**5**	5	
	0	1	0	3	3	0	3	3	
	0	2	0	2	2	0	2	2	
	0	1	0	2	2	0	2	2	
	0	1	0	3	3	0	3	3	
	1	0	1	0	1	1	0	1	
	0	2	0	1	1	0	1	1	
	0	1	0	2	2	0	2	2	
	4	15	5	19	24	5	19	24	

Source: Primary Household Survey, 2026



"Construction of Canal in Dihakhala Sub-Minor at Khodha district (ToR 78-00006)". This constitutes 0.6150 acre of private land **already acquired for which the SIA study**

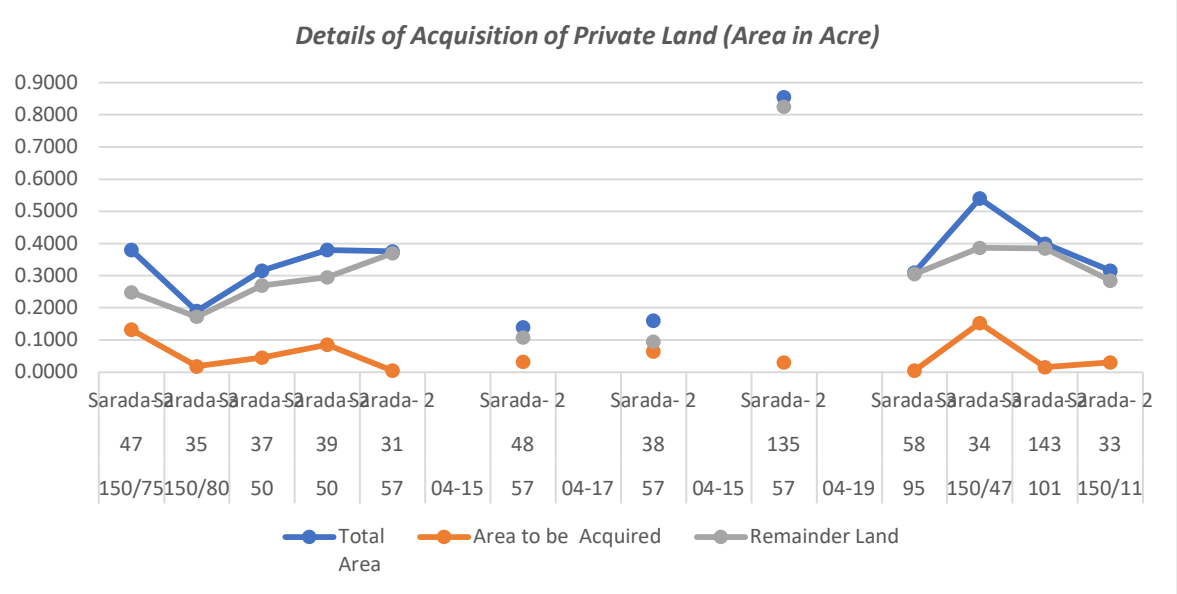
is being done now. The details of land requirement and land acquisition for the project are given in Table 3.2.

Table 3.2: Details of Acquisition of Private Land (Area in Acre)

Details of Acquisition of Private Land (Area in Acre)

Sl. No	Village	Khata No	Plot No.	Type of Land	Total Area	Area to be Acquired	Remainder Land	Purpose
1	Dihakhala	150/75	47	Sarada- 2	0.3800	0.1320	0.2480	Construction of Dihakhala sub-Minor Construction of Canal
2		150/80	35	Sarada- 3	0.1900	0.0180	0.1720	
3		50	37	Sarada- 2	0.3150	0.0450	0.2700	
4		50	39	Sarada- 2	0.3800	0.0850	0.2950	
5		57	31	Sarada- 2	0.3750	0.0050	0.3700	
6		04-15						
7		57	48	Sarada- 2	0.1400	0.0320	0.1080	
8		04-17						
9		57	38	Sarada- 2	0.1600	0.0650	0.0950	
10		04-15						
11		57	135	Sarada- 2	0.8550	0.0300	0.8250	
12		04-19						
13		95	58	Sarada- 3	0.3100	0.0050	0.3050	
14		150/47	34	Sarada- 3	0.5400	0.1530	0.3870	
15		101	143	Sarada- 2	0.4000	0.0150	0.3850	
16		150/11	33	Sarada- 2	0.3150	0.0300	0.2850	
Total					***4.3600***	***0.6150***	***3.7450***	

Source: RoR Records, 2026



3.5 Land proposed for acquisition is the Barest Minimum

The course of the diversion weir was finalized and planned as per the contour line of the geographical area designed by technical experts for smooth flow of water from the project to the agricultural fields. Hence the existing alignment is the best and fixed. The case for alternative site was already explored and Construction of Diversion weir in Dihakhala on the acquired land has considered the best from technical points of view. Acquisition of private land for the project i.e. 0.6150 acre is the barest minimum.

3.6 Possible Alternative Sites and Feasibility

The case for alternative sites has already been explored at the time of construction of the canal in the 2023 and there is no scope for examining it and its feasibility at the present.

3.7 Land proposed for acquisition in the Non-Scheduled Area is the Last Resort

The Division weir in Dihakhala at Khordha district (ToR 78-00006) is in the Non-Scheduled Area in Khordha Tahasil of Khordha District. The course of the canal has been finalized and constructed as per the design of the technical experts and the existing alignment is fixed.

3.8 Land already purchased and alienated and their intended Use

It has been mentioned above that the canal has been constructed long since by acquiring required land from government and private sources. Compensation for acquisition of all private land has already been paid except for the 0.6150 acre for which this SIA Study is being done now. Although this land measuring 0.6150 acre has also acquired and used for the construction the compensation will be paid to the owners after the approval of the SIA Study report by the authorities.

3.9 Use of Public and Unutilised Land for the Project

The project has been constructed using two types of land viz. private land. Acquisition of private land have been made for the construction of the canal because there is no other unutilised land that could have been used for the project. This means that there is no unutilized land in the vicinity of the Project Area. Private land acquired for the project was used for agricultural purposes.

3.10 Nature of Land, Present Use, Irrigation Coverage and Cropping Pattern

For the construction of the Dihakhala Sub-minor, land was obtained from private sources. Private land measuring 0.6150 acre comprises of *Sarada*-2 land and Sarada-3 land. *Sarada-2 and Sarada-3 l*ands *are* agricultural land. Paddy, Vegetables and groundnut were grown on the land, while Kulthi, and Black gram were grown on the sarada land.

3.11 Issues in Food Security

According to the responses of respondents to the schedule for land losing households, Construction of Canal in Dihakhala on the acquired land has posed some threat to their household food security. This is because they suffer loss of food produce which they raised on the acquired land. However, government PDS provisions has solved the problem at the present.

3.12 Size of Holdings, Ownership Patterns, Land distribution and Residential Houses

The land holdings status of the affected households is summarized in Table 3.3.

Table -3.3 Distribution of Project Affected Households by Size of Holding

Village	Number of Surveyed Households by Size Class of Farmer					
	Marginal (<1 ha.)	Small (1-2 ha.)	Semi-Medium (2-4 ha.)	Medium (4-10 ha.)	Large (10 ha. & above)	All Size Classes
Dihakhala	24 (100.00)	0	0	0	0	24 (100.00)

Source: Primary Households Survey,2026
Note: Figures in parentheses are percentages

It is pertinent to note that among the 04 households, for which the household surveys under the SIA Study have been conducted, 24 (100 per cent), the sons of a deceased RoR holder are marginal farmers, the wife of the other deceased RoR holder.

In addition to ownership of affected land, another factor relevant to SIA study is the purpose for which land is used at the household level. A brief account of land use pattern of affected surveyed households is given in Table 3.7 which shows that all land is used for agricultural purposes.

Table 3.4: Land Use Pattern of Affected Households (In Acre)

Village	Cultivation	Orchard	Residential	Commercial	Forest	No Use/ Barren	Others	Total
Dihakhala	**0.240 (11.46)**	-	-	-	-	1.645 (78.52	0.210 (10.02	**2.095 (100.00)**

Source: Primary Households Survey, 2025
Note: Figures in parentheses are percentages

3.13 Recent changes in ownership and use of land

As per the information furnished by the 24 respondents in the affected village, over the last 3 years, there has been no change in ownership and use of land in the affected plots. There has also been no transfer of land during the last 3 years.

3.14 Land Prices

3.14.1 Market Value of Land

The market value of land to be acquired from private land owners is determined by applying the following procedure.

1. Ascertaining the officially determined and documented Bench Mark Value (BMV) per acre of land (of the *Kisam* same as the land to be acquired) pertaining to the date of preliminary notification for land acquisition under Section 11(1) of the Rules for the villages from the Office of the Sub-Registrar of the area.

2. Computing the average of per acre prices of land transacted in the area during three years preceding the date of preliminary notification for land acquisition as obtained from the prices mentioned in sale deeds maintained in the Office of the Sub-Registrar. This is assessed by serializing all sale deeds relating to the area for the past three years in descending order of per acre value and then calculating the average of per acre values of fifty per cent of number of sale deeds from above.

3. The higher of 1 and 2 is taken as the market value of land to be acquired.

   The details of Benchmark Valuation as obtained from the Registration office, Khordha. The highest of 1 and 2 is considered in valuing the affected land. The date for determination of market value of land shall be the date on which the

preliminary notification for land acquisition is issued under Section 11(1) of rules. The Benchmark Valuation of Land to be acquired for the project is given in Table 3.5.

Table 3.5: Benchmark Valuation of Affected Land

Village	Khata No.	Plot No.	Area to be Acquired (In Acre)	Type of Land	Value Per Acre (From Dt. 01.04.2024 to Dt. 31.03.2026	BMV of Land to be Acquired
Dihakhala	150/75	47	0.1320	Sarada- 2	***146410***	***19326.12***
	150/80	35	0.0180	Sarada- 3	***146410***	***2635.38***
	50	37	0.0450	Sarada- 2	***146410***	***6588.45***
	50	39	0.0850	Sarada- 2	***146410***	***12444.85***
	57 04-15	31	0.0050	Sarada- 2	***146410***	***732.05***
	57 04-17	48	0.0320	Sarada- 2	***146410***	***4685.12***
	57 04-15	38	0.0650	Sarada- 2	***146410***	***9516.65***
	57 04-19	135	0.0300	Sarada- 2	***146410***	***4392.30***
	95	58	0.0050	Sarada- 3	***146410***	***732.05***
	150/47	34	0.1530	Sarada- 3	***146410***	***22400.73***
	101	143	0.0150	Sarada- 2	***146410***	***2196.15***
	150/11	33	0.0300	Sarada- 2	***146410***	***4392.30***
Total			***0.6150***			***90042.15***

Source: BMV Statement, 2024-2026; Office of the Sub-Registrar, Khordha

Note: Calculation based on information gathered from the BMV Statement

In the instant case, the price per acre mentioned in the BMV statement in Table 3.5 is the relevant market value for consideration of compensation.

In addition to market value, the following factors are considered in assessing the value of affected land for purposes of compensation.

3.14.2 Multiplying factor and Sliding Scale

The multiplying factor for assessment of land price is decided in accordance with the Government of Odisha notification in the Revenue Disaster Management Department issued vide No.LA(A)-23/2014/9068 dated 19.03.2016. The same is reproduced in Table 3.6.

Table 3.6: Radial Distance, Sliding Scale and Multiplier Factor

Sl. No.	Slab	Radial Distance from Nearest Town (Km.)	Multiplier Factor
1	1	0-10	1.00
2	2	11-20	1.20
3	3	21-30	1.40
4	4	31-40	1.80
5	5	Above 40	2.00

Source: Notification, No.RDM-LAA-CLRFIC-20002-2015 (Part) 22485 / R & DM. dated 22/06/2018, Revenue and Disaster Management Department, Government of Odisha. Copy at end of the Chapter.

Dihakhala village is located at a distance of about 18.600 KM from the nearest urban area Khordha. So, in the context of calculation of compensation for Land Acquisition for the construction of Diversion weir at Khordha Tahasil of Khordha District (ToR 78-00006) project the relevant multiplying factor is 1.20 as at Slab-2.

3.14.3 Value of Assets, Trees etc. on Land

Section 29(1) of the Rules provides for considering the value of (a) buildings, house(s), and other immovable property or asset(s) attached to the land to be acquired; and (b) plants and trees on such land for purposes of determining the value of land. The District Collector, who is the authority to determine the valuation of land, shall use the service of a competent engineer or other specialists in the relevant field like those in the field of agriculture, forestry, horticulture, sericulture, fishery etc. as she/he may dim necessary.

The value of structures and installations on land affected due to acquisition is determined by the District Collector in consultation with the EE (R&B), EE (PHD) & competent officials of Water Resources department.

The value of trees to be affected due to land acquisition is determined by the District Collector in consultation with competent officials of forest department/ horticulture department.

It is pertinent to note that the affected plots do not have any structure and installation whatsoever. However, there were trees on the affected plots from which land acquisition has been made by the Government.

3.14.4 Solatium@100%

Under sub-section (1) of Section 30 of the RFCTLARR 2013, an award of 100 per cent of market value of land, i.e., the amount arrived at by multiplying the multiplier value to the BMV of land, plus the value of the assets attached to the land, i.e., structures, installations etc.

3.14.5 Additional Award

Under Section 30(3) of the Act an additional a 12 per cent interest per annum from the date of publication of preliminary notification on land acquisition made under Section 11(1) to the date of publication of Declaration and summary of Rehabilitation and Resettlement made under Section 19(1) of the Act and to the date of award of benefits to the affected households or the date of taking possession of the land by the District Collector, whichever is earlier (normally one year each for maximum 2 years) is to be awarded on the value of land to be acquired from private owners as mentioned at sub-section 3.11.1.

Following sections 11(1), 19(1), 29(1), and 30(3) of the RFCTLARR Act 2013; supposing the BMV of land-on-land acquisition with a hypothetical market value of land under acquisition as ₹ 1,00,000/-, multiplying factor 2 supposing the land is situated beyond 40 KM from the nearest census town, and cost of structure etc. being ₹1,00,000/-, the calculation of compensation to be awarded on land is illustrated below in Table 3.7 for better appreciation.

Table 3.7: Calculation of Total Compensation

Sl. No.	Items	Amount ₹
1	Market Value	100000
2	Multiplying Factor	2
3	Total (1+ 2)	200000

4	Cost of Structure, Trees etc.	100000
5	Total (3 + 4)	300000
6	Solatium	300000
7	Additional 12% Per Annum on Market Value of land at 1 above for 2 years (Cut – off Date being the date of preliminary notification from (1) one year and from 19 (1) to Award maximum one year)	24000
	Grand Total (5 + 6 + 7)	**624000**

Source: Notification, No.RDM-LAA-CLRFIC-20002-2015 (Part) 22485 / R & DM. dated 22/06/2018, Revenue and Disaster Management Department, Government of Odisha.

Note: The figures at 1 & 4 are hypothetical.

Fax/Email

GOVERNMENT OF ODISHA
REVENUE AND DISASTER MANAGEMENT DEPARTMENT
****

No. RDM-LAA-CLRFIC-0002-2015(part)/ 22485/R&DM, Dated. 22 JUN 2018

From

Dr. C. S. Kumar, IAS
Principal Secretary to Government

To

All RDCs
All Collectors
All LAOs/ Spl LAOs

Sub: Calculation of solatium for determuination of compensation under RFCTLAR&R Act, 2013: Clarification regarding

Ref: This Department letter No.4030 dated 07.02.2014/ Lt No 29747 dated 7.09.2017 and Notification No.14131 dated19.04.2018

Sir/ Madam,

In inviting a reference to the subject cited above, I am directed to say that confusion regarding calculation of compensation under the RFCTLAR&R Act still persists in certain quarters in the field. In this connection, Commerce and Transport Department has sought clarification as to whether 100% solatium will be paid on the cost of land alone or on the cost of land and the cost of structure and or trees attached to the land taken together.

2. In this connection, the relevant provision of the RFCTLAR&R Act, 2013 were examined. The term 'Land' is defined under Section-3(p) of the Act as that "Land includes benefits to arise out of the land and things attached to the earth or permanently fastened to anything attached the earth". Section-27 of the Act provides that "The Collector having determined the market value of the land to be acquired shall calculate the total amount of compensation to be paid to the land owner (whose land has been acquired) by including all assets attached to the land". Similarly, Section-30(1) of the Act envisages that "The Collector having determined the total compensation to be paid, shall, to arrive at the final award, impose a "Solatium" amount equivalent to one hundred percent of the compensation amount. In the explanation, it further states that "For the removal of doubts it is hereby declared that

solatium amount shall be in addition to the compensation payable to any person whose land has been acquired." Further the First Schedule of the Act at sl No 5 while prescribing the manner of determination of value of Solatium states that solatium is " equivalent to one hundred percent of the market value of land mentioned against serial No.1 multiplied by the factor specified against serial number 2 for rural areas or serial number 3 for urban areas plus value of assets attached to land or building against serial number 4 under column 2."

3. It is relevant to reiterate that the State Government in the Notification under reference has prescribed the following sliding scale (from 1 to 2 in urban- rural continuum) on the basis of the radial distance from the nearest urban area to determine the multiplying factor.

Radial Distance from nearest Urban area (in Km)	Multiplying factor
0-10	1
>10- 20	1.2
>20-30	1.4
>30-40	1.8
Above 40	2

4. In careful consideration of the facts above, the Government have been pleased to clarify that solatium will be calculated on the cost of land and cost of building taken together, but not on the additional market value.

5. For better appreciation, the calculation of total compensation to be awarded, supposing the cost of market value of land as Rs.1,00,000/-, multiplying factor being 2 supposing that the land issituated beyond 40 km from the nearest urban area and cost of structure being Rs.1,00,000/-is illustrated below;

Sl	Items (supposing the land value to be Rs.1.00 lakh)	Amount
1	Market Value	1,00,000/-
2	Multiplied factor as per distance- 2	X 2
3	Total	2,00,000/-

4	Cost of structure, trees etc	1,00,000/-
5	Total (3+4)	3,00,000/-
6	100% Solatium	3,00,000/-
7	Additional Market value on cost of land @ 12% per year for two years (cut off date being the date of preliminary notification, from 11(1) to 19(1) one year and from 19(1) to Award maxm one year)	24,000/-
8	Grand total (5+6+7)	6,24,000/-

Yours faithfully,

22.6.2018

Principal Secretary to Government

22486

Memo No._____/R&DM Date 22 JUN 2018

Copy forwarded to P.S. Minister, Revenue and DM/ OSD to Chief Secretary for kind information of Hon'ble Minister and Chief Secretary, respectively.

22/6/18

Joint Secretary to Government

22487

Memo No._____/R&DM Date 22 JUN 2018

Copy forwarded to CRC-cum-Special Secretary to Government, C&T Department for information and necessary action.

22/6/18

Joint Secretary to Government

22488

Memo No._____/R&DM Date 22 JUN 2018

Copy forwarded to Secretary, Board of Revenue, Odisha, Cuttack for information and necessary action.

22/6/18

Joint Secretary to Government

22489

Memo No._____/R&DM Date 22 JUN 2018

Copy forwarded to Joint Secretary, LA(B) and (C) Branch, R&R Cell/ IMU Cell for information and necessary action. Joint Secretary, IMU Cell with a request to upload the circular in the Department website.

22/6/18

Joint Secretary to Government

CHAPTER – IV
ESTIMATION AND ENUMERATION OF AFFECTED FAMILIES

4.1 Introduction

The Social Impact Assessment Study on acquisition of 0.6150 acre of private land from the Dihakhala village under Khordha Tahasil of Khordha District for ***"Construction of Dihakhala Sub-Minor at Khordha District (ToR 78-00006)"*** is based mostly on primary data collected from the 24 directly affected and 5 non-affected households in Dihakhala village. The directly affected households are losing land and accompanying agricultural production, and suffer the consequential loss of livelihood. The extent and severity of the impact will depend on the area of land and linked livelihood opportunities that is being lost due to land acquisition. It will also depend on who the losers are and what they are losing and how much. These issues are important in a Social Impact Assessment Study. Some of the important aspects of land acquisition have been analyzed in this chapter.

4.2 Families whose Land or Other Immovable Properties will be acquired

Information on households who are affected by land acquisition for the Canal Project is given in Table 4.1.

Table 4.1: Loss of Land and Type of Land

Details of Acquisition of Private Land (Area in Acre)						
Village	**Khata No**	**Plot No.**	**Type of Land**	**Total Area**	**Area to be Acquired**	**Purpose**
Dihakhala	150/75	47	Sarada- 2	0.3800	0.1320	Construction of Dihakhala Sub-Minor & Construction Diversion Weir
	50	37	Sarada- 2	0.3150	0.0450	
	50	39	Sarada- 2	0.3800	0.0850	
	57	31	Sarada- 2	0.3750	0.0050	
	04-15					
	57	48	Sarada- 2	0.1400	0.0320	
	04-17					
	57	38	Sarada- 2	0.1600	0.0650	
	04-15					
	57	135	Sarada- 2	0.8550	0.0300	
	04-19					
	101	143	Sarada- 2	0.4000	0.0150	
	150/11	33	Sarada- 2	0.3150	0.0300	
	Sub total			***3.3200***	***0.4390***	
	150/80	35	Sarada- 3	0.1900	0.0180	
	95	58	Sarada- 3	0.3100	0.0050	
	150/47	34	Sarada- 3	0.5400	0.1530	
	Sub total			***1.0400***	***0.1760***	
Grand Total				**4.3600**	**0.6150**	

Source: RoR Records, 2026

Agricultural Land (***Sarada-2*** and ***Sarada-3***) have been acquired from the 24 households of the village. All such land were used for agricultural purposes. None of the affected households is losing homestead land (Gharabari). All these households are vulnerable as can be seen from Table 4.2.

Table 4.2: Vulnerability Position of Affected (Land Losing) Households

Village	No of Households							
	Joint Family	Nuclear Family	Women Headed Families	Physically/Mentally Disabled Person		Priority Household	Loss of Cultivable Land Families	All affected Households Survey
				Households Having	Family Headed By			
Dihakhala	13	11	7	-	-	24	23	24
	(54.17)	(45.83)	(29.17)	-	-	(100)	(95.83)	(100)

Source: Primary Household Survey, 2026

All the land losing households are socio-economically vulnerable. All of them are priority households (PHH) and have PHH cards, and semi-medium farmer, and they earn their living from agriculture and business. All belong to general & OBC category.

4.3 Land Under Occupation of Tenants

None of the 24 households is a tenant on the affected land, all use their own land and *Sarada-I and Sarada-II* land. None of them has also leased out his land.

4.4 Families **of agricultural labourers, tenants or holding of usufructuary rights, Share-croppers or artisans who may be working in the affected area for three years prior to the acquisition of the land.**

All 24 are agricultural wage workers and they cultivate their own land too. None of them belong to the categories of tenants or holder of usufructory rights, share-croppers or artisans who may be working in the affected area for three years prior to the acquisition of the land.

4.5 Families who have been assigned land by the state government or the central government under any of its schemes

None of the 24 land losing households have been assigned land by either the state government or the central government under any of the government schemes.

4.6 Families who have been residing on any land in the urban areas for preceding three years or more prior to the acquisition of the land

None of the 24 land losing households belongs to this category.

4.7 Families indirectly impacted by the project (Gatherers of forest produce, hunters, fisher folk, boat men etc.)

All the affected households are deriving their livelihood mainly from agriculture, crop farming in particular. None of them belongs to the categories of hunters, fisher folk, boat men etc.

4.8 Period of Ownership of Affected Plot and Land

The land acquired for the project were in the ownership of the households for a very long time before acquisition.

4.9 Inventory of Productive Assets and Significant Lands

Since all private land acquired for the project is agricultural land *Sarada-2 and Sarada-3),* none of the households is going to lose homestead land and buildings constructed on the affected land. None of them will be displaced.

4.10 Land of Religious Shrines

There is no religious shrine whatsoever on the affected land.

CHAPTER-V
SOCIO-ECONOMIC AND CULTURAL PROFILE

5.1 Introduction

Land acquisition for development projects have direct and indirect effects on the land losing households and the locality. For a clear understanding of these impacts, it is necessary to study the Socio-Economic and Cultural Profile of people and the project affected area by collecting relevant information through a household survey and holding discussions with knowledgeable local people and officials. These are also mandated in a Social Impact Assessment Study. The socio-economic profile of the area and affected families and the unaffected/indirectly affected sample households as obtained from the survey for the SIA study has been presented in this Chapter.

5.2 Khordha District

Bhubaneswar was made the capital of Odisha (earlier known as Orissa) in place of Cuttack on 19 August 1949 although the decision to this effect was taken in 1946. The capital city is a part of Khordha district. Khordha District was carved out of erstwhile Puri district on 1st April 1993 in the process of reorganisation of districts in Odisha. Puri district was divided into three districts namely, Puri, Khordha and Nayagarh. The district is named after its headquarters Town Khordha. Khordha was formerly known as Jajarsingh or Kurada meaning foul mouthed. The old milestones of the area had the word KURADA which have now been white washed and the word "Khurdha" is written on them. It is also told that the word "Khordha" is derived from two Odia words- "Khura" meaning razor and "Dhara" meaning edge, probably because the soldiers of erstwhile Khordha were as sharp and dreadful as the edge of a razor. The district's name was changed from Khordha to Khordha in 2000.

It lies in between 84° 55" to 86° 5" East longitude and 19°40" to 20°25" North latitude covering geographical area of 2813 square kilometers which comprises 1.81 percent of the state area. It is one of the developed districts of the state and houses the state capital at Bhubaneswar. The district is bounded by Cuttack district in the north, Ganjam district in the south, Puri district in the east and Nayagarh district in the west.

Its bioclimatology is much influenced for the short radial distance from the Bay of Bengal and presence of a huge water body like the Chilika Lake.The district enjoys normal 1408mm rainfall with maximum and minimum temperatures of 42.2 degree Celsius and 11.1 degree Celsius respectively. The mean relative Humidity ranges from 46% to 89%. It is situated in the East & South-eastern coastal plain and the agro-climatic zone is blessed with sandy-loam, Lome, clay-lome and clayey soil in varied agro-eco system. The district is divided into two sub-regions such as the Deltaic Alluvium sub-region which comprises 3 blocks e.g., Balianta, Balipatna and Chilika; and the Lateritic sub-region comprising 7 blocks i.e., Banpur, Begunia. Bhubaneswar, Bolagarh, Jatni, Khordha & Tangi blocks.

A broad profile of the district is presented in Table 5.1.

Table 5.1 Broad Profile of Khordha District

Sl. No.	Indicators	Reference Year	Unit	Magnitude
1	Geographical Area	2024	Sq. Km	2813
	Longitude	2024	Degree	84^0 55' to 86^0 5' East
	Latitude	2024	Degree	19^0 40' to 20^0 25' North
2	Forest Cover	2024	Sq. Km & %	669.74 (23.81 %)
3	Sub-division	2024	No	02
4	Blocks / Tahasils	2024	No	10
	Municipal Corporation	2024	No	01
5	Municipalities	2024	No	02
6	N.A.C.	2024	No	02
7	Gram Panchayats	2024	No	190
8	Villages	2024	No	1534
9	Households	2024	No	494212
10	Population	2011	No	2251673
11	SC Population	2011	No & %	297472 (13.2%)
12	ST Population	2011	No & %	115051 (5.1 %)
13	Density of Population	2011	Persons per sq. Km.	800
14	Literacy rate	2011	%	86.88
15	Female literacy rate	2011	%	81.61
16	Sex ratio	2011	Female per 1000 Males	929
17	Child Population (0-6 years)	2011	No	237394
18	Per Capita real NDDP	2011-12	Rupees	36088*

Source: District Statistical Handbook - Khordha - 2024
****Odisha Economic Survey – 2014-15***

Table 5.2 Profile of Workers of Khordha District

Sl. No.	Indicator	Reference Year	Unit	Magnitude
1	Total Workers	2011	No. & %	792193
2	Main Workers	2011	No. & %	632625 (79.86%)
3	Marginal Workers	2011	No. & %	159568 (20.14%)
4	Cultivators (% of Total workers)	2011	No. & %	92662 (11.70%)
5	Agricultural Labourers (% of Total workers)	2011	No. & %	116274 (14.68%)
6	Household Industry Workers (% of Total workers)	2011	No. & %	39471 (04.98%)
7	Other Workers (% of Total workers)	2011	No. & %	543786(68.64%)
8	Unemployment Rate *	2011-12	No	24 per 1000 workforce

Source: District Statistical Handbook,2024
****Report on Employment and Unemployment Situation of Odisha 2009-2010***

Among the total workers, 11.70 per cent are cultivators, 14.68 per cent are agricultural labourers, 04.98 per cent are household industry workers and 68.64 per cent are other workers. Of the 792193 total workers at the district level, 632625 (79.86%) are main workers and 159568 (20.14%) are marginal workers. The unemployment rate in the district was 24 per 1000 workforce in 2011-12.

5.3 Agriculture and Allied Activities

5.3.1 Physiographic and Agro-climatic Condition

The district is situated in the East and South-eastern coastal plain. It is blessed with sandy-loam, loam, clay-loam and claye soil in varied depth. Its bio climatology is very much influenced by the short radial distance from the Bay of Bengal and the presence of a gigantic water body like Chilika lake. It has a few hill ranges and dense forests also in the Eastern Ghats. The normal annual rainfall of the district is 1408 mm with temperature varying between maximum 42.2^{o} and minimum 11.10. Its mean RH ranges from 46% to 89%. The district is having meagre irrigation facilities and is very much dependent on monsoon rain for farming. Owing to inequitable and erratic

rainfall the district encounters flood and drought situations in almost every alternate year.

5.3.2 Nature and type of soil

On the basis of soil, climate, topography, geo-hydrology and other resources, Khordha district is divided into two district sub-regions - the Deltaic Alluvium sub-region, which comprises three blocks such as, Balipatna, Balianta and Chilika and the Lateritic sub-region consisting of seven blocks such as, Bhubaneswar, Begunia, Bolagad, Tangi, Banapur, Jatni and Khordha.

5.3.3 Land Use Pattern

Out of the total geographical area of the district (281300 ha.), 124650 ha. are available for cultivation during 2014-15. Forest covers 61867 ha. Land put to non-agricultural uses comes to 44250 ha. Net sown area works out to 124240 ha. As the district is having very meagre irrigation facility,double cropped area is limited. As such the cropping intensity remains lower (159%) as compared to the all-Odisha average of 167%.

Table 5.3 The statement below gives the land use pattern in the district in the year 2014-15.

Sl. No	Land Utilisation pattern	Area in Hectares 2014-15
1	Geographical Area	281300
2	Cultivable Area	138321
3	Cultivated Area	124650
4	Barren and Uncultivable Land	14467
5	Forest Area	61867
6	Land put to non-Agril. Use	44250
7	Permanent. Pasture	5498
8	Misc. Tree Crops and groves	10369
9	Culturable Waste	6551
10	Other Fallow Lands	12222
11	Current fallow	1836
12	Net area sown	124240
13	Gross Cropped area	198180
14	Cropping Intensity	159 %

Source: Directorate of Agriculture and Food Production, Odisha

5.3.4 Area under Irrigation

The total irrigation potential created in the district so far works out to 58175 ha. Out of 10 blocks of the district 6 blocks account for less than 20% irrigation in Rabi season and less than 35% in Kharif season. Canal irrigation being the major source of irrigation covers 2 blocks i.e Balianta and Balipatna. More than 90% of the cultivated area of these two blocks is under canal irrigation. In addition to the 7700 nos. of privatelift points, 200 nos. of government lift points are operating in the district. The source- wise break-up of irrigated area during 2014-15 is given below:

Sources		Area in Hectares
Major Irrigation Projects	:	17987
Medium irrigation projects	:	6815
Minor irrigation projects	:	16112
Govt LIPs	:	5255
Pvt. LIPs	:	7753
Dug wells	:	2178
Other Sources	:	2075

Over the years there has been rapid increase in area under lift irrigation and this has been made possible due to supply of the credit by different institutional agencies, particularly the cooperatives, CARD and the commercial banks providing credit to the farmers. Government of Odisha has also installed a good number of lift irrigation points in the district.

5.4 Profile of Khordha Block

This SIA Study is on acquisition of 0.6150 acre of private land from Dihakhala village under Khordha Tahasil of Khordha District for "Construction of Diversion Weir in Dihakhala village at Khordha District (ToR 78-00006)".

Out of the 10 Blocks of Khordha District, Khordha Block is going to be affected by the construction of Rajua Diversion Weir in village Dihakhala. Khordha Block is the central administrative hub located near the district headquarters. Khordha district covers a geographical area of 2,813 sq km and contains 1,534 inhabited villages. Within the Khordha Block specifically, a total of 27,423 households with a population of 1,36,244 were found as per the 2011 census. Regarding the workforce, a total of 46,395

workers is found in the block, out of which 34,157 are main workers and 12,238 are marginal workers. The average annual rainfall of the Khordha region is approximately 1,408.4 mm, characterized by a tropical climate. Agricultural activities are diverse; cereals like paddy and maize are the primary crops, alongside pulses such as mung, biri, and kulthi. Oilseeds, including groundnut and mustard, are also cultivated. Given the district's unique soil and irrigation facilities, vegetables and mangoes are major produce, while sugarcane remains a significant cash crop in the irrigated belts of the block.

A brief profile of Khordha Block is given in Table 5.4.

Table 5.4: Broad Profile of Khordha Block of Khordha District

Sl. No.	Parameter	Reference Year	Unit	Magnitude
0	Geographical area in	2024	Sq.Km.	302.67
1	No. of Villages	2024	No.	132
2	Total households in the Block	2024	No.	27423
3	Total Population of the Block	2024	No. & %	136244 Male: 69683 (51.15%) Female: 66561 (48.85%)
	SC Population	2024	No.	15880 Male: 8023 (50.52%) Female: 7857 (49.59%)
	ST Population	2024	No.	11205 Male: 5567 (49.68%) Female: 5638 (50.32%)
4	Literacy (%)	2024	No. & %	83.84 Male: (89.73%) Female: (77.68%)
5	Sex Ratio	2024	Females per 1000 males	929
6	Total Workers and worker population Ratio	2024	No. & %	46395 (34.05%)
7	Main Workers (%)	2024	No.& %	34157 (73.62%)
8	Marginal Workers (%)	2024	No. & %	12238 (26.38%)

9	Cultivators (% of total workers)	2024	No. &%	7472 (16.11%)
10	Agricultural Labourers (% of total workers)	2024	No. & %	9926 (21.03%)
11	Household Industry Workers (% of total workers)	2024	No. & %	2539 (5.47%)
12	Other Workers (% of total workers)	2024	No. & %	26458 (57.23%)

Source: District Statistical Handbook, Khordha: 2024

5.4 Profile of Dihakhala Village

Dihakhala is a medium size village located in Jankia Block of Khordha district, Orissa with total 102 families residing. The Dihakhala village has population of 441 of which 231 are males while 210 are females as per Population Census 2011.

In Dihakhala village population of children with age 0-6 is 45 which makes up 10.20 % of total population of village. Average Sex Ratio of Dihakhala village is 909 which is lower than Orissa state average of 979. Child Sex Ratio for the Dihakhala as per census is 800, lower than Orissa average of 941.

Dihakhala village has higher literacy rate compared to Orissa. In 2011, literacy rate of Dihakhala village was 84.34 % compared to 72.87 % of Orissa. In Dihakhala Male literacy stands at 93.20 % while female literacy rate was 74.74 %.

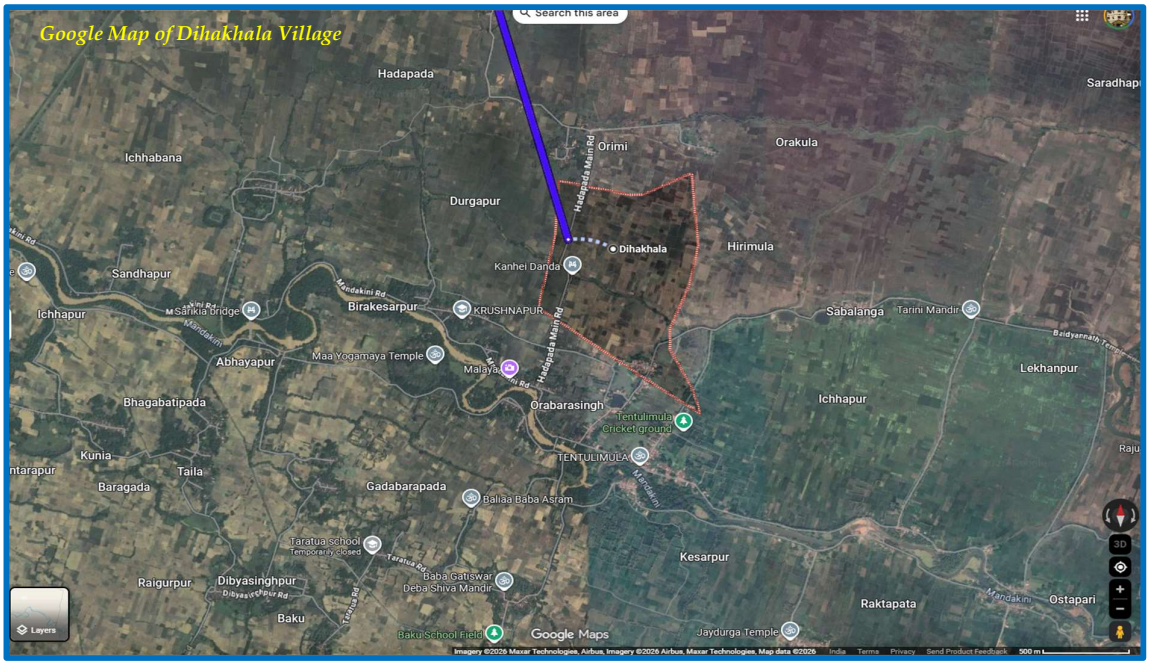
As per constitution of India and Panchyati Raaj Act, Dihakhala village is administrated by Sarpanch (Head of Village) who is elected representative of village.

Table 5.5: Broad Demographic Profile of Dihakhala Village of Khordha Block

Particulars	Total	Male	Female
Total No. of Houses	102	-	-
Population	441	231	210
Child (0-6)	45	25	20
Schedule Caste	0	0	0
Schedule Tribe	0	0	0
Literacy	84.34 %	93.20 %	74.74 %
Total Workers	152	134	18
Main Worker	136	-	-
Marginal Worker	16	7	9

Source: ›Indian Village Directory, https://villageinfo.in › Odisha › Khordha › Khordha › Dihakhala

A glimpse of Dihakhala Village as obtained by accessing google can be had from the following map.



Google Map of Dihakhala Village

5.5 Demographic Profile of Affected Households

The demographic and socio-economic peculiarities of the affected households in the one village under the project area are presented in this section. Agriculture is practiced on both irrigated and rainfed land.

5.5.1 Social and Religious Profile

Historically, religion and caste of a household are a reflection on its social and economic status. It may be true the other way also. The socio-religious composition of affected households shows that all the 24 land losing households belong to OBC and are Hindus, and some of them are women headed.

5.5.2 Gender Composition of population

The gender aspect of total population of affected households is depicted in Table 5.6.

Village	Total Population			Average Family Size	Sex Ratio
	Male	Female	Total		
Dihakhala	68 (8.11)	57 (6.80)	125 (14.91)	5 (0.60)	838

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

The total population of the 24 affected households is found to be 125. Of them, 68 or 8.11 per cent are male and 57 or 6.80 per cent are female. The average family size is 5 and the sex ratio is low at 838.

5.5.3 Age Composition

The age distribution of population is an important dimension of the demographic profile. It reveals the proportion of productive population and the dependency burden. The details are furnished in Table 5.7.

Table 5.7: Age Distribution of Population of Affected Households

Sl. No.	Village	0-6			7-14			15-45		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Dihakhala	8	1	9	6	3	9	32	31	63
				(7.20)			(7.20)			(50.40)

Sl. No.	Village	46-60			60 and above			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Dihakhala	12	12	24	10	10	20	68	57	125
				(19.20)			(16.00)			-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

It is revealed from the table that the highly productive age group (15-45 years) constitutes 50.40 per cent of the total population followed by the 46-60 / and 60+ years age groups each with 19.20 and 16.00 per cent shares. 7.20o person belongs to the 07-14 years age group. The population in the 0-6 years age group is 9 or 7.20 percent. The working age population 15-60 accounts for 69.60.60 per cent of population suggesting a dependency load of 23.20 per cent which is little high.

5.5.4 Marital Status

Marital status of population in the affected households is given in Table 5.8.

Table 5.8: Marital Status of Affected Persons

Village	Marital Status				Total
	Married	Unmarried	Widow	Separated	
Dihakhala	**80 (80.00)**	**12 (12.00)**	**8 (08.00)**	**0**	**100 (100)**

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

It is revealed from the table that the married account for 80.00 per cent while unmarried, constitute 12.00 per cent, widows have an 8.00 per cent share and no separated persons share in the population.

5.5.5 Educational Status of Population

Education is a key component of human development that determines the socio-economic status of a population and their eligibility for rehabilitation under a land acquisition programme. The educational status of people in the affected households is reflected in Tables 5.9 and 5.10.

Table 5.9: Literacy Status

Village	Non-School Age			Illiterates			All Literates			Total Population		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Total
Dihakhala	6	1	7	-	2	2	62	54	116	68	57	125
			(5.60)			(1.60)			(92.80)			-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

It is vivid in Table 5.9 that among the total population numbering 125 in the 24 affected families, there is seven (5.60 per cent) in the non-school age (0-6 years), 2 or 1.60 per cent are illiterates and 116 or 92.80 per cent are literates. The illiteracy level among the affected population is low. This may be because the village is located away from the Khordha Block headquarters and has a primary school. Boys and girls have to cover distance for education beyond primary level which acts as a encouraging factor to pursue studies

The distribution of literates by their levels of education is shown in Table 5.10.

Table 5.10: Distribution of Literates by Levels of Education

Village	Just Literate			Elementary			High School		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	-	5	5	9	4	13	11	10	21
			(4.31)			(11.21)			(18.10)

Village	HSC Pass			Plus +2			Graduate		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	6	6	12	7	9	16	22	11	33
			(10.34)			(13.79)			(28.45)

Village	Post Graduate			Technical Courses			Total Literates		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	1	5	6	6	4	10	62	54	116
			(5.17)			(8.62)			-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

Among the 116 literates, 5 or 4.31 per cent are just literates (able to speak their local language and sign), 13 or 11.21 per cent have read up to elementary level, 21 or 18.10 per cent up to class X, 12 or 10.32 per cent is a Graduate, 1 or 11.1, and 10 or 8.6 2per cent has technical degree.

5.5.6 Distribution of Population

The activity status i.e. what the people in a population are doing, is an important indicator of their socio-economic position. For analytical purposes, people aged 15 years and above are considered to assess the activity status. A summary sketch is given in Tables 5.11 & 5.12.

Table 5.11: Distribution of Population by Activity Status

Village	Working and employed			Retired Employee			Unemployed			Housewife	Physically Challenged and Non-Working Elderly 60+			Pursuing Studies			Total		
	Male	Female	Person	Male	Female	Person	Male	Female	Person		Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	36	7	43	4	1	5	3	2	5	32	1	5	6	10	6	16	54	53	107
	(40.19)			(4.67)			(4.67)			(29.91)	(5.61)			(14.95)			(50.47)	(49.53)	-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentage

Among the total 107 people in the affected households, 16 or 14.95 per cent belongs to the 0-14 years' age group. Among the 107, 43 (40.19 per cent) are engaged in productive activities and 5 or 4.67 per cent belongs to retired employees. Of the remaining 32, (29.91per cent) are housewives. This means that 107, 43 or 40.19 per cent are working to provide livelihood for 32 including them. The dependency load is thus very high. A high dependency burden has implications for adverse impact of land acquisition for the project.

Occupation and socio-economic standard are interlinked. Therefore, it needs attention. The details in this regard are given in Table 5.12.

Table 5.12: Distribution of Population by Occupation

Village	Agriculture & Allied			Agricultural Labour			Daily Wage Labour			Salaried		
	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	3	-	3	-	-	-	-	-	-	15	6	21
			(6.98)			-			-			(48.84)

Village	Crafts			Business			Others			Total		
	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female	Person
Dihakhala	-	-	-	15	1	16	3	-	3	36	7	43
			-			(37.21)			(6.98)	(83.72)	(16.28)	-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages.

It can be read off the table that only 43 persons are engaged in some gainful activity for earning livelihood for their households. All the 43 economically active are engaged in agriculture and allied activities. Along with this they also earn some income by

working as wage labour in nearby Khordha and Vedanta, with well-to-do farmers in other villages, and as temporary migrants to other states. This establishes the primacy of agriculture and points to the problem that the acquisition of agricultural land for the project has posed on their livelihoods.

5.6 Economic Condition of the Affected Households and Basic Facilities

5.6.1 Income, Poverty and Indebtedness

Household income, poverty and indebtedness shed useful light on the economic condition of a household. Information on occupation, income, poverty and indebtedness are also helpful in preparing Social Impact Management Plan (SIMP) for the affected households. The information on this count is portrayed in Tables 5.13 and 5.14.

Table 5.13: Distribution of Affected Households by Income Class

Village	Number of Households by Level of Income (Rs.)					
	<= 100000	100001-200000	200001-300000	300001-500000	500001 & Above	Total
Dihakhala	7	1	2	3	11	24
	(29.17)	(4.17)	(8.33)	(12.50)	(45.83)	-

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentages

The table shows that the annual income of the 24 surveyed households ranges from less than ₹1,00,000 to above ₹5,00,000. One household has annual income up to ₹1,00,000. Three households are earning in the range ₹1,00,001-₹5,00,000. A good thing is that all the affected households earn above the poverty line. However, income of the households is medium and they lead a life style is normal existence.

Table 5.14: Loan Particulars of Affected Households

Village	No. of Borrower HHs	Source of Loan				
		Bank	Money-lender	SHG/ LAMP etc.	Frields & Relatives	All
Dihakhala	7	6	1	-	-	7
		(85.71)	(14.29)	-	-	-

Source: Primary Household Survey, 2026

Seven of the 24 affected households have reported to have borrowed to meet the deficit in family expenditure-income. It came out that the borrowers are heads of the households. Six has borrowed from a Bank and One Money Lende (85.71 and 14.29 Per cent) the other took a hand loan during the previous year. They took the loans to meet family needs and agriculture.

5.6.2 Consumer Durables and Other Assets of the Affected Households

Ownership and use of consumer durables are an important indicator of household well-being. Valuable information in this regard is presented in Table 5.15.

Table 5.15: Household Possession of Consumer Durables and Assets

Sl. No.	HH Assets	No. of Households
		Dihakhala
1	Television	29
2	Refrigerator	12
3	Telephone/Mobile	49
4	Cycles	17
5	Two-Wheeler	12
6	Three-Wheeler	1
7	Four-Wheeler	6
8	Bus	0
9	Income Earning Machineries (Solar, Power Tiller, Etc.)	10
10	Ornaments	9

Source: Primary Household Survey, 2026
Note: Figures in brackets are percentage

All the 24 affected households have their own residential houses and possess utensils, mobile phones, Two-Wheller, Three-Wheeler, Four-Wheeler cycles, meagre amount of ornaments, cooking gas connection and Six households has a four-wheeler. This shows that the overall economic condition of the households is average.

5.6.3 Condition of Housing and Amenities

House is a basic necessity and some in-house amenities are necessary for a decent living. Useful information in this regard is given in Tables 5.16 and 5.17.

Table 5.16: Housing Structure

Village	Roof						
	Thatched	Asbestos	Tiles	Concrete	Tin	Any Other	All
Dihakhala	2	1	-	13	8	-	24
	(8.00)	(4.00)	-	(56.00)	(32.00)	-	(100)

Village	Floor				
	Earthen	Cement	Tiles	Any Other	All
Dihakhala	-	8	15	1	24
	-	(32.00)	(64.00)	(4.00)	(100)

Village	Wall					
	Mud	Brick With Mud	Wood with Mud	Brick with Cement	Any Other	All
Dihakhala	-	-	-	24	-	24
	-	-	-	(100)	-	(100)

Source: Primary Household Survey, 2026.

The survey has revealed that all the affected households have their own permanent houses in which the family lives and its possessions are housed. 13 of them have concrete buildings and 15 have tile flooring. One & two each have asbestos and Thatched. Then have normal cement and sand flooring.

Table 5.17: In-House Amenities

Village	Electricity Connection	Drinking Water Source					Bathroom		Latrine		Washing Space	
		Pipe Water	Tube Well	River/ Stream	Open Well	Others	Within House	Outside House	Adjacent to House	Outside House	Within House	Outside House
Dihakhala	24	7	23	-	-	-	24	-	24	-	24	-
	(100.00)	(29.17)	(95.83)	-	-	-	(100.00)	-	(100.00)	-	(100.00)	-

Source: Primary Household Survey, 2026

The households have access to drinking water available in the common village tube well and they also use pipe water for drinking and cooking purposes. All houses are electrified. All have bathrooms and latrines outside their house but they are using it occasionally. The latrines and the lone concrete house have been constructed with funds under government schemes. They mostly defecate in the open and normally bath in the stream. All households have livestock for which they have fully separate but traditional sheds.

5.7 Health Status and Health Seeking Behaviour

Health is wealth and vital for both human capital formation and a fair living standard. Information on health status and health seeking behaviour of the affected households have been collected from them. As reported, no household had suffered chronic illness during the preceding year. When they fell ill, they first make use of traditional indigenous healing practices and visit local PHC & CHC and Khordha DHH, if needed.

5.8 Vulnerability Position

In a population there may be some vulnerable sections/people. They are prone to greater risk in any eventuality that affects their livelihood such as land acquisition for a project, in the instant case. The vulnerability condition of a household is reflected in its socio-economic status viz., OBC, persons with disabilities (PWDs), women and others, position with respect to the poverty line (BPL), the households holding ration cards etc. It is disheartening to note that the affected households are highly vulnerable: they belong to OBC and general category. This information has been given in Table 4.2 of Chapter-III.

5.9 Women's Participation

Gender roles are gaining prominence in quality-of-life considerations of people. Women's role in household decision-making and the freedom they enjoy in community participation are crucial in this regard. It surfaced during the survey that in all the cases, all household decisions are taken by the head of the household in all male-headed families. In the family where woman is the head, the eldest son is taken

into confidence in making the decisions. However, the decisions taken by the head are usually discussed and accepted and no conflict of opinion has been reported. Liberally speaking, the decisions are jointly taken. Women reported to have taken part in the decisions. Similarly, women are also permitted to take part in social, cultural, and religious activities. They are usually accompanied by male members who may be a male child. All households have their women in the SHGs as members. This suggests that women's participation in household decisions and at the community level is reasonably good.

5.10 Profile of Sample Unaffected Households

The demographic and socio-economic peculiarities of the sample unaffected households in the project affected village are more or less similar to those of the directly affected households discussed above.

All the 10 sample households earn their livelihood by pursuing different economic activities deriving a substantial proportion of total income from agriculture, live in their own houses with some basic amenities, and receive treatment from government allopathic hospitals when any of their family members falls ill.

5.11 Land-use and Livelihood

The land utilisation pattern obtaining in the project affected village has been discussed in Chapter-3 through Table 3.6. It may be reiterated here that all land except the homestead land is used for agricultural purposes and all affected land is agricultural land. The most important fact that emerges from the occupational distribution of workforce is that agriculture is a major employer for the affected households. It has certainly been a predominant source of labour absorption and livelihood for the people in the affected village.

5.12 Local Economic Activities

Economic activities in a village typically reflect the natural environment, available resources, and cultural practices. In the context of Dihakhala village, these include (a) Agriculture (growing Paddy, Vegetables and groundnut on the Dhana-3 land, and Kulthi, and Black gram on the Sarada-III); (b) Horticulture crops raised in the area surrounding

the house; (c) Rearing of sheep, goats, and cattle; (d) Raising Poultry birds; (e) Daily wage work, with workers commuting to and from, Bhubaneswar, and Mining & Industrial Project daily for work and income; and (f) Migration to the southern and western states. A handful of people has regular jobs.

5.13 Factors that Contribute to Local Livelihoods

Local livelihood system is conditioned by the natural and socio-economic contexts in which people live. These include land and soil fertility, natural and environmental capital, labour and labour quality and the like. They determine the choice of households for farm vs. non-farm employment, migration and level of dependency all of which influence the level of wellbeing.

The SIA survey in the affected village shows that there has been some change in use of cooking energy from LPG and firewood remains predominant. It has also revealed that farm households tend to increase crop yields through application of machinery, fertilizers and pesticides. Non-farm employment is not so significant.

The people of Dihakhala village earn their livelihood mostly from land-based activities. Broadly speaking, three livelihood sources have been identified in the village and its locality. These are: (a) Agriculture which includes cultivation and production of Paddy & Pulses (Kulthi, Mung), Vegetables; (b) Wage Labour with workers commuting to and from Khordha, and Bhubaneswar & Industrial Project. Some work as farm workers in well-to-do farmers, fields.

5.14 Kinship Patterns, and Social and Cultural Organisations

Family ties and what man does with the basic facts of life like marriages, parenthood, siblingship, socialization etc. define the kinship patterns. Kinship bears a strong relationship with family system (Joint or Nuclear), property and land rights of family members, rituals etc. The village has both joint and nuclear families, all the children are inheritors of parental property and land, decisions are usually taken by the male head of the family through discussion and consensus, and members in a family owe loyalty to each other. For all practical purposes, the family is the basic unit and an

effective institution imparting informal training and socialization to the individuals to groom them as responsible members of the society and as citizens.

Social and cultural organisations are broadly a pattern of relationships between and among individuals and social groups in a society. They set unwritten norms for guiding and controlling human interaction relating to affiliation and collective resources. The social and cultural organisations help build a sense of community feeling and act in accordance with standard operating procedures to link many likeminded people and to keep the group together.

In this report we have taken the family system and headship of family as well as social class system to shed some light on the kinship pattern obtaining in the project affected village. A summary picture of affected households is given in Table 5.18 which reveals that they are nuclear families and two each of them are male and women-headed.

Table 5.18: Kinship Pattern

Social Class	Dihakhala				
	No. of HH	No. of Joint Family HH	No. of Nuclear Family HH	No. of Male Headed HH	No. of Female Headed HH
SC			-		-
ST	-	-	-	-	-
OBC	3	3	-	3	-
General	21	10	11	14	7
Total	**24**	**13 (54.17)**	**11 (45.83)**	**17 (70.83)**	**7 (29.17)**

Source: Primary Household Survey, 2026

5.15 Shrines and Sacred Places

Like other typical hill side and forest fringe villages in Odisha, Dihakhala village has its shrines and sacred places. These include the village Goddess (*Gram Devati*) and the presiding deity of the village, *Tarini*. They are placed in a central place of the village and worshiped on different occasions as per their culture and custom.

5.16 Administrative Organisations

The village committee is the administrative organization in a village. The village has the Samiti Member & Ward Member who represents it in the Gram Panchayat. The

Gram Sabha is the overall authority for the development and administration of justice within the village. It is learnt that the Ward Member and the title-holder household heads of the village have shown interest for infrastructure development, promotion of education and health, and delivery of public services. However, road and drinking water infrastructure are missing in the village and people sincerely want them. It may be noted that all quarrels between members are settled through the informal village courts in the presence of the elected representative, the Ward Member.

5.17 Political Organisations

The project affected village is politically very sensitive. People and households are close to the Congress & BJP party as they think the PHH card benefits are given by the State Government. The affected village do not have offices of any political party. People become more active during election time.

5.18 Regional Dynamics and Historical Change Processes

By nature, man is change oriented and so is his human settlement. The dynamics of the relationships between individuals, the family and their social, economic and physical environments are reflected in changes in their lifestyles. These dynamics are shaped by adaptation to the happenings, institutions and the mechanism in place around a habitat. Education, occupation, land ownership patterns, demographics, technology, transportation and communication, and cultural norms are the prime determinants of regional dynamics. Education has made progress in the area and governmental interventions have made some marginal improvement in the area. More needs to be done.

5.19 Quality of the Living Environment

Quality of life is the general level of well-being of people and societies. It is the degree to which people are healthy, wealthy and wise, and are able to participate freely in the events of individual, family and social life. Three factors play a role in the quality-of-life context, viz. education, health and level of income. In this respect we have taken four variables to assess the quality of life of people and the society in the project affected village of Khordha District. They are:

i. The average years of education.

ii. The percentage of population in the 60+ age bracket.

iii. The percentage of households having in-house and/or within premise drinking water facility and latrines.

iv. The percentage of households holding PHH cards.

The quantitative information on these variables is given in Table 5.19.

Table 5.19: Quality of Life of Population

Village	Average Years of Education among Population aged 6+ Years			Percentage of Population in 60+ Age Group			Percent of HHs Having	
	Male	Female	Person	Male	Female	Person	Drinking Water Facility	Latrines
Dihakhala	11.69	10.91	11.33	8.00%	8.00%	16.00%	100%	100%

Source: Primary Household Survey, 2026

It may be seen from the table that the average years of education of population above 6 years of age is about 11.33 years and it is quite discouraging. The table shows that 16.00 per cent of the population is above 60 years of age. The figures for male and female population work out to 8.00 per cent and 8.00 per cent respectively. This means that both the sex has same longevity. It is good to see that all the surveyed households have latrines and electricity.

The quality of life is also influenced by the quality of the living environment. These are represented by institutional arrangements for education, health, earning, cultural space and other amenities of life obtaining in the villages. A brief on this score is given in the following table 5.20.

Table 5.20: Quality of the Living Environment

Sl. No.	Particulars	Number of units
1	AWC	2
2	Primary School	1
3	Secondary School	1
4	Higher Secondary School	0

5	ASHA	1
6	Panchayat Water Supply Point	24
7	Roads	BT road/Pacca with CC road
8	Intra village Road	Concrete and fever block
9	Electricity	yes
10	Solar	8
11	Temple	4
12	Playground	1
13	NGO/Trust	0
14	SHG	9
15	Crematorium/Cemetery	2

Source: Primary Household Survey, 2026

It is good to see that the affected Dihakhala village is electrified and the UP School is also having electric connection. It has *Pacca & CC* roads to connect the all-weather roads at a 1 kms distance, with concrete intra-village road and drinking water facility from the common Village Pond, Pipe water supply & tube wells all provided by the Government. The village has a government Primary school and upper Primary imparting education up to Class–VIII. Those who pursue further studies, go to Orabarasingh GP located at a distance at 2 KMs where they avail education up to Class-X and then to Block and Thasil headquarters Khordha about 18 KMs away to read up to Plus +2 and higher studies. For education the villagers depend on Khordha and other distant places.

The village has an ASHA worker. The 9 women SHGs in the village are engaged only in securing funds through the bank linkage programme and recycling the same among the members on mutually agreed basis at an interest. The SHGs are doing socio-economically productive work.

The nearest healthcare facility is located GP headquarters and is also in a Community Health Centre (CHC). The village is covered under PDS facility and the villagers get their PDS supplies from the Panchayat dealer at Orabarasingh. The village has two crematorium places.

CHAPTER - VI
SOCIAL IMPACTS

6.1 Introduction

The objective of the Social Impact Assessment Study for Acquisition of 0.6150 acre of private land from the Dihakhala village under Khordha Tahasil of Khordha District for "Construction of Diversion Weir in Dihakhala at Khordha District (ToR 78-00006)" is to assess the impact of acquisition on the land-losing and indirectly affected households in the affected village. The details of the possible impacts are analysed in this chapter.

6.2 Framework and Approach

The broad framework and approach to identifying the actual and potential impacts is based on empirical survey. Household interview, focused group discussions, consultations with line department officials and local knowledgeable persons etc. were used to elicit information on impacts at the household and community levels. Data were processed to make them manageable and usable. Statistical tables have been formed to capture classified information. The framework draws from multidisciplinary perspectives to comprehend multidimensionality of the process, impacts and responses and allows for comparisons and policy formulation. Simple tools like averages and percentages have been used to make meaningful analysis and infer informative conclusions.

6.3 Description of Impacts

Land acquisition, construction of the project, completion of the work and opening the project for irrigating lands have varied impacts on the people and the society at large. These include impacts on land, income, livelihoods, physical resources, private assets, health, culture and social cohesion. The gender aspect of the impacts is also an important dimension. The nature and severity of some of these impacts have already been discussed in the previous chapter. A short recapitulation of the same and additional impacts is presented below.

6.3.1 Impact on Land

In any land acquisition activity, the major impact is always on land of the families whose land is acquired for the project. The details have been presented in Table 3.4 in Chapter 3, Table 4.1 in Chapter 4 and Table 6.1 given below. It has already been discussed that 0.6150acres of private land owned by 04 directly affected title holder households and their extended families totaling 24 households has been acquired by the irrigation authorities for the canal project. Hence, land acquisition will prove burdensome. This measures the direct adverse effect of the project on the affected families.

Table 6.1: Impact on Agricultural Land (Area in Acre)

Details of Acquisition of Private Land (Area in Acre)					
Village	**Khata No**	**Plot No.**	**Type of Land**	**Total Area**	**Area to be Acquired**
Dihakhala	150/75	47	Sarada- 2	0.3800	0.1320
	50	37	Sarada- 2	0.3150	0.0450
	50	39	Sarada- 2	0.3800	0.0850
	57	31	Sarada- 2	0.3750	0.0050
	04-15				
	57	48	Sarada- 2	0.1400	0.0320
	04-17				
	57	38	Sarada- 2	0.1600	0.0650
	04-15				
	57	135	Sarada- 2	0.8550	0.0300
	04-19				
	101	143	Sarada- 2	0.4000	0.0150
	150/11	33	Sarada- 2	0.3150	0.0300
	Sub total			***3.3200***	***0.4390***
	150/80	35	Sarada- 3	0.1900	0.0180
	95	58	Sarada- 3	0.3100	0.0050
	150/47	34	Sarada- 3	0.5400	0.1530
		Sub total		***1.0400***	***0.1760***
	Grand Total			**4.3600**	**0.6150**

Source: RoR Records, 2026

It can be seen in Table 6.1 above that the impact of land acquisition has been born by all the 24 affected households in the village. The loss of land will be a personal and household loss causing livelihood problems to all the 24 affected households in the

affected village. This is because all the private land is agricultural land (0.4390 acre is of *Sarada-2 kisam* and 0.1760 acre is of *Sarada-3 kisam*). Agriculture being the major source of livelihood of the people, the local economy being agriculture driven and the land to be acquired being of a big amount measuring 0.6150acre, the land-losing households are losing their livelihoods due to acquisition of their land for the project and the loss is burdensome.

6.3.2 Impacts on Livelihood and Income

Land acquisition certainly has negative impact on income and livelihood of the project affected families. This issue may be discussed by looking at quantitative information on the livelihood as well as perception of respondents of the project affected families to queries regarding the local economy effect of the canal irrigation project. The respondents reported to have used their *Sarada-2 kisam* and *Sarada-3 kisam* lands for growing local variety of pulses, Paddy, Black gram, small millets (Ragi), Groundnut and vegetables. All these except sugar cane are partly used for family consumption and partly for sale. The households sell Paddy in the open market as they get rice on their PHH cards.

6.3.3 Impacts on Physical Resources and Private Assets

Along with land, physical resources and assets built on land will be a casualty due to project-based land acquisition. It has surfaced during the survey that the land acquisition in the instant case does not involve any impact on in-built assets and resources as these are not there on the affected land.

6.3.4 Impact on Public Services and Utilities

Public utilities are forms of infrastructure which provide public service. Irrigation is an example of such infrastructure which helps in increasing agricultural yields. Construction of the diversion weir irrigation project provides irrigation facilities to farm lands of Dihakhala, and nearby Villages under command in the area and hence has a favourable impact on public utilities and services in the locality. The good thing is that no existing public service and utility has been lost due to land acquisition for the project.

6.3.5 Impact on Health

It is expected that construction of the canal irrigation project is a positive sign but it may have unfavourable impact on health and human life.

6.3.6 Impact on Culture and Social Cohesion

In this case of land acquisition for the Diversion weir project, there has been no displacement of families. Hence there has been no adverse impact on local culture and social cohesion.

6.3.7 Gender-based Impacts

Construction of the Diversion weir project may be seen as resulting in loss of family peace and negative gender impact if the families use the compensation money for drinking alcohol and misuse in other unproductive way and express the intoxicating bevaviour on women and in the family. However, the respondents didn't give any opinion on such adverse effects except that they lost their land.

6.3.8 Perception of Non-Land losing Households

Ten sample households (who will not lose land) belonging to the project affected village have been interviewed to obtain their views on the impact of the Diversion weir project. They have more or less similar perceptions as that of the directly affected households who have lost land due to land acquisition for the project. The consensus view is that construction of the Diversion weir project confers positive irrigation benefits but it may accompany misuse of compensation money.

6.3.9 Overall Impact – Focused Group Discussions

The study team held a focused group discussion and informal interactions in the affected village. The participants expressed free opinion on the project, its impact and their grievances. The list of participants along with photographs is appended to this chapter.

The general view that emerged in the meeting is that all were aware of the project and the proposed land acquisition and all appreciate the benefits of Diversion weir project. Proper compensation will compensate their loss.

It may be noted that the general perception of the participants is in favour of the project. The benefits accruing from land acquisition and the project will outweigh the

losses due to acquisition of land from the affected households. The meeting resolved in favour of land acquisition for the construction of the Diversion weir project and early payment of due compensation to the land losers. The views of the participants in the Focus Group Discussions are summarized in Table 6.4.

Table 6.2: Perceptions of the Focused Group

Village	Date of Meeting	No. of Participants			No. Supporting the project on the ground of Overall Improvement
		Male	Female	All	
Dihakhala	09-05-2025	07	04	11	11

Source: Primary Survey, 2026

The respondents appealed for payment of compensation for loss of their land considering:

(i) The price paid by Local Purchase Price of Dihakhala village;

(ii) Main Canal is updated

(iii) The loss they suffered due to losing agricultural production.

(iv) There must be a hassle-free payment procedure, because many of them are apprehending that government system is very much cumbersome which may not be easy for the affected people to get their money.

(v) Affected People have the opinion that they should be properly compensated for the loss of their land and assets.

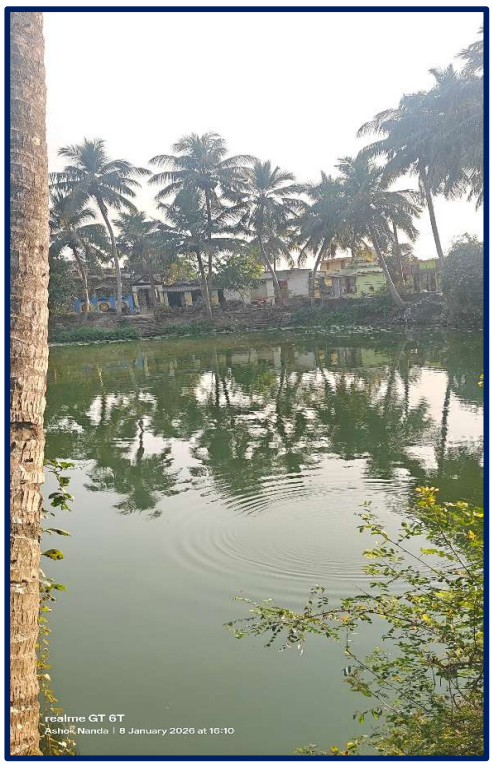
(vi) Left out of land after land acquisition, which may not be viable for cultivation or other use should be acquired by the authority with proportionate compensation provision.

(vii) Compensation for the loss of common property resources may be taken up with due consultation with the communities.

All present in the focus group discussion have requested to solve the above problems.

VILLAGE LEVEL FOCUS GROUP DISCUSSION & FIELD PHOTOS

Source: SIA Survey team, COATS, Koraput, 2026



Source: SIA Survey team, COATS, Koraput, 2026

FOCUS GROUP DISCUSSION AT DIHAKHALA

Focus Group Discussion (FGD)

Social Impact Assessment Study for Land Acquisition of 0.98 acres from Kebadatula village under Muniguda Tahasil of Rayagada district for "Construction of Canal in Sitarampur MIP at Rayagada District (ToR 28-00001)"

Name of Village: Dihakhala. **Name of GP:** Orabarsingh.
Name of Block: Khoorda. **Name of Tahasil** Khoorda
Name of District: Khoorda.

LIST OF PARTICIPANTS

Sl. No.	Name	Occupation	Sex	Age	Social Category	Signature
01	Bichitra Kumar Bal Singh	Business		9938140102		Bichitra Kumar Bal Singh
02	Sriniboth. Sricharda.			8465897133		
03	Sangeeta.	Sanepuda.				Sangeeta Padsar
04						SARAPANCH ORABARSINGH G.P.
05	Sabita Nisanka.	House wife.	F	32	Gen.	Sabita Nishank
06	Padmanav Hemendr.	Farmer.				Padmanav Hemendr
07	Sujit Mangus					Sujit Mangus
08	Bhimasen Sunkara	Business				Bhimasen Sunkara
09	Dinesh. K. Pakaray	Samiti Sabhya Orabarsingh				Dinesh K. Pakaray 8249152607
10	Sanjaya Kalesh	-		6370061919		
11	Pravat Sricharda.	9337115193		-		
12	Ashok Kumar.			9437875375		
13						
14						
15						
16						

(Name of the Investigator)

Date: 12/01/26

(Signature of the Supervisor)

Date: 12/01/26

Source: SIA Survey team, COATS, Koraput, 2026

CHAPTER – VII

COST-BENEFIT ANALYSIS, RECOMMENDATIONS AND CONCLUSION

7.1 Introduction

The possible socio-economic impacts of acquisition of 0.6150acre of private land from the Dihakhala village under Khordha Tahasil of Khordha District for "Construction of Diversion Weir in Dihakhala Village at Khordha District (ToR 78-00006)" on the land-losing and sample indirectly affected households in the project affected Dihakhala village have been discussed in the previous chapters of this report. The analysis is based on information collected through a primary survey of households, group discussions and consultative process within the broad frameworks of laws of the land. The important findings of the study along with a cost benefit analysis of the project and some recommended mitigation measures have been presented in this chapter.

7.2 Analysis of Costs and Benefits

The cost-benefit analysis (CBA) is widely used for determining justification for the development projects. The CBA exercise is built on evaluation of likely positive and negative impacts technically known as benefits and costs of the project. These are judged on the basis of both direct and indirect effects as well as the financial and non-financial impacts of the project on a set of agents and stakeholders. The CBA is done using this information and helps in taking a final decision as to whether the project is worth having. The project is to be launched only if total benefits are greater than, or at least equal to, total costs. It may be noted that all the costs and benefits are not amenable to exact quantitative measurement. The social costs and benefits are more difficult to estimate in comparison to economic costs. This is because the effects are projected and not actual, and because they span over a period of time extending to a number of years in the future. The analysis therefore has to base on substantial guesswork and approximations. CBA is largely indicative in nature and certainly not absolute. However, it can be used as a reasonable guide to project planning and implementation.

7.2.1 Social Costs and Benefits

Social costs are non-market costs. These include the emotional cost of loss of ancestral land and the environmental loss in the post construction phase due to due to felling of trees for construction of the canal. The environment may be damaged on account of loss of trees which the land acquisition entails. On completion, the project is facilitating water flow and cooling atmosphere, irrigation and associated benefits from agriculture, and reduced need for migration. These constitute the social benefits of the irrigation project. Social cost-benefit aspects and respondents' perception on the social costs and social benefits of the project are summarized in Tables 7.1 and 7.2.

Table 7.1: Social Cost-Benefit Comparison

Social Costs		Social Benefits	
1	Emotional costs of loss of ancestral land	1	Coolness in the area due to flowing water
		2	Irrigation
		3	Increased cropping intensity & multiple cropping
2	Environmental costs of loss of trees	4	Higher farm productivity
		5	Better Food security due to increased production
		6	Reduced migration

Source: Primary household survey and Focus Group Discussion, 2026

Table 7.2: Perception of Households on Social Costs and Benefits of the Project

Village	Social Costs		Social Benefits			
	Ancestral Land	**Environmental Cost**	**Cooling environment**	irrigation and associated benefits from agriculture	Improved Food security	Reduced migration
Dihakhala	24	24	24	24	15	8

Source: Primary Household Survey and Focus Group Discussion, 2026

All the 24 affected households consider loss of land as an economic and emotional loss because they have lost their ancestral land.

As regards the social benefits, all agree that the construction of the diversion weir is facilitating water flow and cooling atmosphere, has brought irrigation and associated benefits from agriculture, better food security and reduced need for migration.

In sum, it may be seen that the social benefits outweigh the social costs and hence the overall impact is considered beneficial to the people and the state.

7.2.2 Economic Costs and Benefits

Economic costs of the canal irrigation project include cost of land and trees attached to it, loss of crops that were grown on the acquired land, costs of construction of the canal including labour and material costs, and annual maintenance costs. The economic benefits, both explicit and implicit, which the project will confer constitute increase in revenue to be earned by government from payment water use charges by the beneficiary farmers of the five command villages, higher and gainful employment and higher agricultural income following irrigation.

It may be noted that excepting valuation of land & trees attached thereto, and the costs of construction of the project all other aspects of economic costs and benefits cannot be accurately measured. Valuation of land and trees will be made according to the provisions of RFCTLARR Act, 2013 and costs of construction have been decided by the irrigation authorities. The SIA study team has gathered valuable information basing on which cost of trees can be made.

An approximate valuation of acquisition of 0.6150 acre of private land from the Dihakhala village under Khordha Tahasil of Khordha District for "Construction of Diversion Weir at Khordha District (ToR 78-00006)" is presented here. Following the guideline issued by Government of Odisha, vide notification no.22485/R&DM, dated 22.06.2018, the calculation of compensation for land and trees is given in the following Table 7.3.

Table 7.3: Calculation of Compensation for Land

Sl. No.	Items	Amount (₹)
1	Market Value of 0.6150acre (BMV)	90042
2	Multiplier factor as per distance-59km (>40 km)	2
3	**Total**	180084
4	Cost of Trees	0
5	**Total**	180084
6	100% Solatium	180084
7	Additional 12% on cost of land at sl. no. 3 for one year or actual acquisition whichever is less for maximum two years	21610
8	***Total (5+6+7)***	***201694***

Source: Notification, No.RDM-LAA-CLRFIC-20002-2015 (Part) 22485 / R & DM. dated 22/06/2018, Revenue and Disaster Management Department, Government of Odisha & Primary Data, 2023

So, the bare land cost will be ₹ ***201694***.

The comparison of economic costs and benefits is given in Table 7.4.

Table 7.4: Economic Cost-Benefit Comparison

Economic Costs	Economic Benefits
Value of Trees and Land	More employment
Value of crops grown	Higher agricultural income
Construction Cost	Increased revenues for the government due to irrigation
Annual Maintenance Cost	

Source: Primary Household Survey, 2026

7.2.3 Problems of Application of Cost-Benefit Analysis

The accurate application of CBA is conditioned by the accuracy of estimation of costs and benefits of the project. Since costs and benefits of projects have both economic and social aspects, have relevance to direct and indirect impacts on stakeholders and relate to both present and future, exact valuation is not possible. Values need to be imputed and there will be subjectivity. Therefore, the CBA exercise is really challenging. By intuitive logic it is surmised that the benefits will be the costs of the canal irrigation project and hence the project is worth launching.

7.3 Assessment of Public Purpose

According to the provisions of the RFCTLARR Act-2013 and the Odisha RTFCTLARR Rules-2016, the government can acquire land for its own use, to hold and control

including for public sector undertakings, and for public purpose. 'Public purpose' includes:

(a) Strategic use- Police, National Security etc.
(b) Infrastructure projects – water harvesting and water conservation structures (which includes) irrigation, air strips, railways, roads, bridges etc.
(c) Industrial projects – mining, manufacturing zones, special economic zones, healthcare, tourism, space programmes etc.
(d) Government housing projects.
(e) Development projects for village sites, low-income group benefiting housing etc.
(f) Agricultural and allied sector development projects and so on.

The canal irrigation project has helped to lower temperature and increase greenery in the canal area, expand irrigation, contribute to agricultural growth with better farm practices, multiple cropping, higher cropping intensity, crop diversification, higher yields and agricultural income, creation of gainful employment and so on. The acquisition of land for the project is therefore for a public purpose as per the provision of the RFCTLARR Act 2013 and Odisha RFCTLARR Rules 2016

7.4 Nature and Intensity of Impacts

The adverse impacts of land acquisition for the canal irrigation project, have a time element in them in that they may relate to the short – run or long run and be permanent or temporary. Impacts that are permanent have the same severity or intensity in all phases of the project cycle, viz. at the time of acquisition, pre-construction, during construction and post-construction phases of the project. Temporary impacts, on the other hand, show a diminishing tendency in terms of their degree of severity over the project cycle. Permanent impacts continue to haunt even after the construction phase, have effects that are long term in nature, while any impact that disappears with the completion of construction work is termed as short-term impact. The nature and intensity of the adverse impacts of the Project in Khordha District as identified during the SIA survey of households are indicated in Table 7.5.

Table 7.5: Nature and Intensity of Impacts

Impact Type	Description of Impact	Phases of Project Cycle	Nature of Impact	Intensity of Impact
Livelihood and flow of Income from land	Loss of crop output	All Phases	Permanent	Long-term
Environment	Environmental loss due to loss of land	All Phases	Permanent	Long-term

Source: SIA Study Team, 2026

It may be seen from the table that the impact of land acquisition is more or less permanent. Loss of livelihood and income can be mitigated through planned programmes of interventions and their effective implementation.

7.5 Social Impact Management Plan: Measures, Responsibilities and Viability

The RFCTLARR Act, 2013 and the Odisha RFCTLARR Rules-2016 mandate the agency conducting a SIA study and preparing a report to draw up a Social Impact Management Plan (SIMP) containing the measures to mitigate negative social impacts that may arise due to land acquisition for any project. The measures must include those to avoid, mitigate and compensate the negative impacts and for the better, to improve the situation and standard in comparison to that prevailing prior to acquisition of land. The SIMP, in addition to measures of mitigation and management of adverse effects, should also contain the list of appropriate agencies to undertake the responsibility of executing the plan, monitoring and grievance redressal. The need to prepare SIMP may not arise if the area has no settlements. In such view of the facts, a SIMP has been prepared as part of the Report on SIA of land acquisition for Diversion Weir Project in Khordha District.

7.6.1 Objectives

The broad objective of this SIMP is to suggest interventions that are to be taken up by the project authorities and the government to alleviate the adverse impacts and enhance the beneficial impacts of the project. The specific objectives are three-fold:

(i) To discern the potentially effective management measures to minimize the adverse effects that may arise from land acquisition.

(ii) To collate the different mechanisms of management and measures of intervention into a single point.

(iii) To provide necessary guide to the affected households for making the most productive utilization of the compensation benefits that will be awarded to them.

It is expected that the effective implementation of SIMP will improve the well-being of the land-losing households and the overall welfare of the people in the project affected area.

7.6.2 The Mandates for Ameliorative Measures

Keeping in mind the adverse impacts of the land acquisition and the project, the Social Impact Management Plan has been prepared in accordance with the specifications prescribed in Form-E of the Odisha RFCTLAR&R Rules, 2016. As per Rules-2016, the SIMP needs to provide for ameliorative measures required to be undertaken for addressing the possible adverse impacts of the project as at Table 7.6.

Table 7.6: Adverse Effects of Land Acquisition

Sl. No.	Area	Impact
1	Livelihood of affected families	Adverse effects have been caused by land acquisition.
2	Public infrastructure	Public infrastructure has not been affected due to acquisition
3	Community properties including places of worship	No Damage has been caused.
4	Drainage and sanitation	No Damage has been caused.
5	Sources of drinking water	No damage has been caused.
6	Sources of water for cattle	No damage has been be caused.
7	Community ponds	No damage has been caused.
8	Grazing land	No damage has been caused.
9	Plantations	No damage has been caused.

Source: Table 3.3 and Table 3.4

7.6.3 The Proposed SIMP

The adverse effects of land acquisition for the canal irrigation project include loss of livelihood of affected families, no damage has been done to existing public infrastructure, places of worship, drainage and sanitation, sources of drinking water,

sources of water for cattle and community ponds due to acquisition of land. But, livelihood and income of land losing families have been adversely affected and loss of trees on their land has been suffered.

Hence, the proposed SIMP for the project affected village has two broad sets of measures. This includes measures to mitigate and manage the impacts on:

(i) Land-losing households on account of losing their land attached thereto, as also livelihood and income;

(ii) The affected area as a whole that may suffer damage/loss to environment. In addition, a mechanism for grievance redressal has also been suggested.

A full view of the SIMP may be had at a glance at Table 7.7.

Table 7.7: Social Impact Management Plan

Impacted Group	Impact Category	Nature of Impact	Project-Cycle	Suggested Mitigation Measures	Responsibility
A. Title Holders	Livelihood and Income	Los of Livelihood and Income from agriculture	During and After construction	Guidance for productive investment of compensation money	Project Implementing Agency, SE, Khordha Irrigation Division, Khordha
B. Affected Area	Development Work	------	-----	Construction of Improvement works	District Administration and SE, Khordha Irrigation Division, Khordha

Source: SIA Study Team, 2026

It may be seen in the table that this SIMP has given a good coverage to the requirements prescribed in Form-E except those which have been considered beyond scope of this study in the context of the affected locality. For example, neither the land-losing households have any pond on the affected plots nor is there any community pond in the area. Therefore, there is no scope for creating/renovating/upgrading a community pond.

7.6.4 Estimates of Compensation

The compensation for land with trees attached thereto with interest @ 12 per cent per annum on value of land and solatium @100 per cent is determined in accordance with the provisions of RFCTLARR Act, 2013 and the Odisha RFCTLARR Rules-2016 as illustrated in a Table in Notification No.RDM-LAA-CLRFIC-0002-2015(part)/22485, dated 22 June, 2018. The District Collector has the authority and the responsibility to decide on the compensation. It may be noted that within the limits of information that the SIA team has been provided by the SE, Khordha Irrigation Division at Khordha and Khordha, Tahasildar, Khordha, Office of the Sub-Registrar, Khordha and observations of the COATS study team, the Report has mentioned compensation for the loss of land, and Valuation of Loss of Produce on acquired Land only.

7.6.5 Entitlement Matrix

In accordance with the provisions of the RFCTLARR Act, 2013 and the Odisha RFCTLARR Rules – 2016 an Entitlement Matrix has been prepared containing a list of persons entitled to benefits to be awarded by way of compensation and other benefits to the project affected families for land acquisition. The Matrix contains a summary of all those who have been identified during the SIA Survey as persons directly affected by the land acquisition and hence are entitled to the benefits of compensation etc. that will be awarded to the title holder households. For this purpose, the date of completion of the survey shall be taken as the cut-off date. Obviously, persons who will come to settle in the affected land afterwards shall not be entitled to any land acquisition linked benefit whatsoever. The list of persons and their relevant details are presented in the 'Entitlement Matrix' in Table 7.8.

Table: 7.8 Entitlement Matrix

Village	Khata No	Plot No.	Total Area (In Acre)	Area to be Acquired (In Acre)	Remainder Land (In Acre)	Type of Land	Name of the Owner and Address	Name of the Climant	Contact Person	*Total No. Of climant*	*Title Holder*			*No. of Extended HH*	*No. survey to be Done*	*No. of HH Actually Surveyed*			Purpose
											As per RoR List	*Dead*	*Alive*			*Title Holder*	*Extended*	*Total Surveyed*	
Dihakhala	150/75	47	0.3800	0.1320	0.2480	Sarada-2	**Shyam Sundar Mangaraj, Bhaskar Mangaraj**, F: Bhobani Mangaraj, **Sunil Kumar Mangaraj,** F: Jujisthira Mangaraj, **Damadar Mangaraj**, F: Mayadhar Mangaraj, Caste: Mahalayak, Village: Dihakhala	Shyam Sundar Mangaraj Bhaskar Mangaraj Sunil Kumar Mangaraj Namita Mangaraj (W)	Padmanav Harichandan: 9937371917	4	3	1	3	1	4	3	1	4	**Construction of Canal**
	150/80	35	0.1900	0.0180	0.1720	Sarada-3	**Raghunath Jena, Dhaneswar Jena**, F: Padma Charan Jena, **Jagannath Jena**, F:Babana Jena, **Anubati Badajena** H: Laxmidhar Badajena, **Arun Badajena, Prasanta Badajena, Rashmita Biswal**, F: Laxmidhar Badajena Caste: Khandayat, Vill: Pariraipur, Thana: Brahmagiri Dist: Puri	Raghunath Jena Sale to Prabhat Srichandan	Prabhat Srichandan: 8895302813	1	0	0	1	0	1	1	0	1	

50	37	0.3150	0.0450	0.2700	Sarada-2	**Gouranga Sundara, Keushna Sundara,** F: Manu Sundara, **Dasarath Sundar,** F: Mardhyagaji Sundara, **Bhobani Sundara, Golakha Sundara, Brajabihari Sundara, F:** Gadadhar Sundara, Caste: Sudra, Vill. Dihakhala	Ramesh Chandra Sundara Dusasana Sundara Ugrasena Sundara Bhimasena Sundara Madhusudan Sundara	Chagali Sundara: 7008397551	5	0	6	0	5	5	0	**5**	5	
50	39	0.3800	0.0850	0.2950	Sarada-2															
57	31	0.3750	0.0050	0.3700	Sarada-2	**Chintamani Mohapatra, F:** Kulamani Mihapatro Caste: Brahman, Vill: Godipada														
04-15				0.0000		**Sikim Praja: Ramachandra Bhjabala F:** Arata Bhjabala, Caste: Sudra, Vill: Dihakhala	Kanakalata Bhujabal (W) Ragabati Bhjabal (W) Pramila Bhujabal (W)	Prakesh Bhujabal: 6372297742	3	0	1	0	3	3	0	3	3	
57	38	0.1600	0.0650	0.0950	Sarada-2	**Chintamani Mohapatra, F:** Kulamani Mihapatro Caste: Brahman, Vill: Godipada														
04-15						**Sikim Praja: Ramachandra Bhujabala F:** Arata Bhujabala, Caste: Mahalayak, Vill: Dihakhala															

57	48	0.1400	0.0320	0.1080	Sarada-2	**Chintamani Mohapatra, F:** Kulamani Mihapatro Caste: Brahman, Vill: Godipada													
04-17						**Sikim Praja: Sanatana Routa, Bhikari Routa F:** Bala Routa, Caste: Mahalayak, Vill: Dihakhala	Gadadhar Nisanka Gangadhar Nisanka	Gadadhar Nisanka: 8280082012 Gangadhar Nisanka: 7735325428	2	0	2	0	2	2	0	2	2
57	135	0.8550	0.0300	0.8250	Sarada-2	**Chintamani Mohapatra, F:** Kulamani Mihapatro Caste: Brahman, Vill: Godipada													
04-19						**Sikim Praja: Hata Routara F:** Bramhachari Raoutara, Caste: Mahalayak, Vill: Dihakhala	Subasini Rautara (W) Bula Rautara	Nabakishor Rautara: 9348481090 Kusa Rautara:7008040241	2	0	1	0	2	2	0	2	2
95	58	0.3100	0.0050	0.3050	Sarada-3	**Basudev Ramanuja das Guru Sri Adhikari Bisnu Chida Ramanuja Das**, Caste: Brahman Bisanba, Vill: Balisahi, Giriswami Matha Puri	Naba Kishor Rautara Krushna Ch Rautara Dusasana Rautara	Nabakishor Rautara: 9348481090 Kusa Rautara:7008040241	3	0	1	0	3	3	0	3	3
150/47	34	0.5400	0.1530	0.3870	Sarada-3	**Sidheswar Srichandan, Nidhi Srichandan, Gatikrushna Srichandan F:** Kalapatrau Srichandan, Caste:	Sidheswar Srichandan	Prabhat Srichandan: 8895302813	1	1	0	1	0	1	1	0	1

							Karan, Vill: Dihakhala													
	101	143	0.4000	0.0150	0.3850	Sarada-2	**Biswambar Srichandan, Surendra Srichandan F:** Kasi Srichandan, Caste: Sudra, Vill: Dihakhala	Basanta Srichandan (W)	Satyapriya Srichandan: 9511895873	1	0	2	0	1	1	0	1	1	
	150/11	33	0.3150	0.0300	0.2850	Sarada-2	**Champei Dei H:** Purnachandara Swain, Vill: Dihakhala	Budhinath Swain Madhab Chandra Swain	Madhab Cha, Swain: 8018728509 Aditya Swain: 7749056428	2	0	1	0	2	2	0	2	2	
Total			***4.3600***	***0.6150***	***3.7450***					24	4	15	5	19	24	5	19	24	

Source: Household Survey, 2026

The entitlement benefits will be determined looking at the area and nature of land to be acquired for the project, assessment of market value of such land to be calculated considering the approved Benchmark Value (BMV), multiplications with admissible factors as per the sliding scale, 12 per cent interest and 100 per cent solatium.

7.6.6 SIMP – Measures for Rehabilitation, Resettlement, Livelihood Restoration and Income Generation

The basic approach to mitigation of adverse impacts of land acquisition involves rehabilitation and resettlement of land-losing households, and measures for livelihood restoration and income generation. The land requiring body, the government and the local administrative organization should focus on the following measures. A good thing is that in case of land acquisition for the canal irrigation project there will be no displacement and hence there will be no issue of resettlement.

i. Appropriate compensation should be provided to the households directly affected by land acquisition. There is a demand for payment of compensation on the basis of the local purchase price. This may not be possible as per rule and it needs to be solved amicably.
ii. The affected families have suffered loss due to losing agricultural production in the past so many years for the construction of canal on their land. They need to be appropriately compensated for the loss already suffered.
iii. The mitigation measures need to be implemented taking genealogy of the affected households into account, resolving disputes and ensuring that compensation and other benefits are awarded to the right person(s).
iv. Plantations at desired distance from the Diversion weir approach road may be done by forest and the horticulture authorities for promotion of environment.
v. It is important to ensure that compensation is paid in a fixed time frame. The households awarded with compensation benefits should also be provided technical and financial counselling for the effective and productive use of compensation amount.
vi. An effective monitoring mechanism needs to be developed to monitor the implementation of the SIMP and the measures of mitigation. The project

authorities may carry out internal monitoring to assess the progress in implementation of mitigation measures, identify problems and suggest corrective action.

vii. Grievance redressal is an integral part of SIMP. The land requiring body and the District Collector should look into the grievances of the affected families and issue necessary instructions to the field level functionaries for their effective redressal.

viii. Land is a valuable asset, an insurance against bad weather and a matter of emotional attachment. Once lost in course of land acquisition, it is lost forever and no amount of money or any other compensation can recompense it. The issues in land acquisition should therefore be addressed empathetically with a close eye on the interests and sentiments of the land-losers. Leaving the issues to their own course on the plea of compensatory benefits and awards may be seer injustice.

7.6.7 Measures Stated by the Land Requiring Body in the Project Proposal

No such measure has been shared by the land requiring body.

7.6.8 Viability of the Mitigation Measures

It has already been described that land acquisition for the canal irrigation project causes a host of negative impacts on the land-losing households. These include: loss of agricultural land with trees, livelihoods and income, loss to environment etc. People will face difficulties due to these impacts. Given the optimism about the favourable impacts of construction of the canal and the consequential improvement in agriculture, the awards of compensation and other benefits, and the awareness as well as preparedness among the people with reference to land acquisition and bearing the loss, the burden will be lessened. Besides, the measures suggested in the SIMP, if implemented effectively, would reduce the adverse impacts to a minimum tolerable level.

It is hoped that the land requiring body and the government will accept and implement appropriate ameliorative measures both with content and spirit to mitigate the losses of the affected households and the locality at large. In view of this expectation, the positive

impacts will hopefully outweigh the negative ones to confer net benefits on the land-losing families and the project area.

7.6.9 Costs of SIMP Implementation

The costs of SIMP implementation mainly include cost of land, trees and lost agricultural production, costs of plantations, and costs of miscellaneous development work. These are simply estimates based on official and unofficial information collected by the SIA Study Team.

The cost of land has been calculated basing on the information provided by the District Registration Office, Khordha in the BMV Statement as per the prevailing market price as recorded in the sale deeds pertaining to the affected village. The valuation of trees is to be made basing upon the rates to be decided by the Forest Department officials looking at the price quoted by the land-losing households. Similar information will make a full-fledged tentative cost estimate for the other components

7.6.10 SIMP Timeline

The component-wise time required for implementing the amelioration measures given in Table 7.8 is illustrated in SIMP timeline in Table 7.11 below.

Table 7.11: SIMP Timeline

CONTENT	DURATION
Dissemination of SIMP	One Month
Land Assessment, Costing of trees & Disbursement of compensation	Two Months
Assessment, and execution and maintenance	Three Years
Construction of development work	One Year
Grievance Mechanism	One Month

Source: SIA Study Team, 2026

The timeline of the SIMP is presented in the graphic below. The overall implementation of the SIMP may require three years. The timeline is tentative based on the perception of the SIA Study Team.

Graph: SIMP Timeline

Activity	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Dissemination of SIMP												
Land Assessment, Costing of trees & Disbursement of compensation												
Assessment, and execution and maintenance												
Construction of development work												
Grievance Mechanism												

Source: SIA Study Team, 2026
Note: Q1, Q2, Q3, Q4 indicate quarterly periods

7.7 Recommendations

In the household surveys, in Focused Group Discussions, and in conversations with knowledgeable persons, certain concerns were raised which need to be addressed in the context of land acquisition.

To mitigate these negative impacts, the SIA Study Team has suggested a Social Impact Management Plan containing some specified measures. In addition to these, the following five suggestions may be noted.

1. Appropriate compensation should be provided to the households directly affected by land acquisition. There is a demand for payment of compensation on the basis of the local purchase price. This may not be possible as per rule and it needs to be solved amicably.

2. Land records are outdated and may pose problems in identifying the real owner of land leading to litigation for compensation. Gender issues may also arise. Updating land records at regular interval is a genuine demand of the villagers. This should be done. The gender aspect should also be considered.

3. The land losing households being smallholders, their demands and problems relating to land acquisition need to be addressed with a human touch.

4. There should be SIMP social audits and reviews. Government should develop a dedicated a group to conduct such audits for both verification and training purposes.
5. Since transparency is the core of both RFCTLARR Act, 2013 and the Odisha RFCTLARR Rules- 2016, Government should share public information on the status of SIMP compliance to assist in capacity building efforts for the local community.

7.8 Conclusion

From the above analysis it is clear that implementation of the Diversion Weir project in Khordha District had have both positive and negative impacts on the people. The land acquisition has caused 24 families to lose their lands, livelihood and other amenities but on the other hand a great and improved agricultural infrastructure in the form of irrigation has been created and that is for a great cause. The benefits of irrigation are available to the people of 3 villages in the area. Moreover, if the proposed SIMP is accepted and implemented effectively, it will help minimizing the negative impacts and amplifying the positive impacts, & the favourable effects will further outweigh the social costs thereby conferring greater net social benefits on the people of the area.

Comparing the losses suffered and the gains, it may be appreciated that the canal project is purposeful and rewarding. Hence, the land acquisition programme for the Diversion Weir Project should be finalised.

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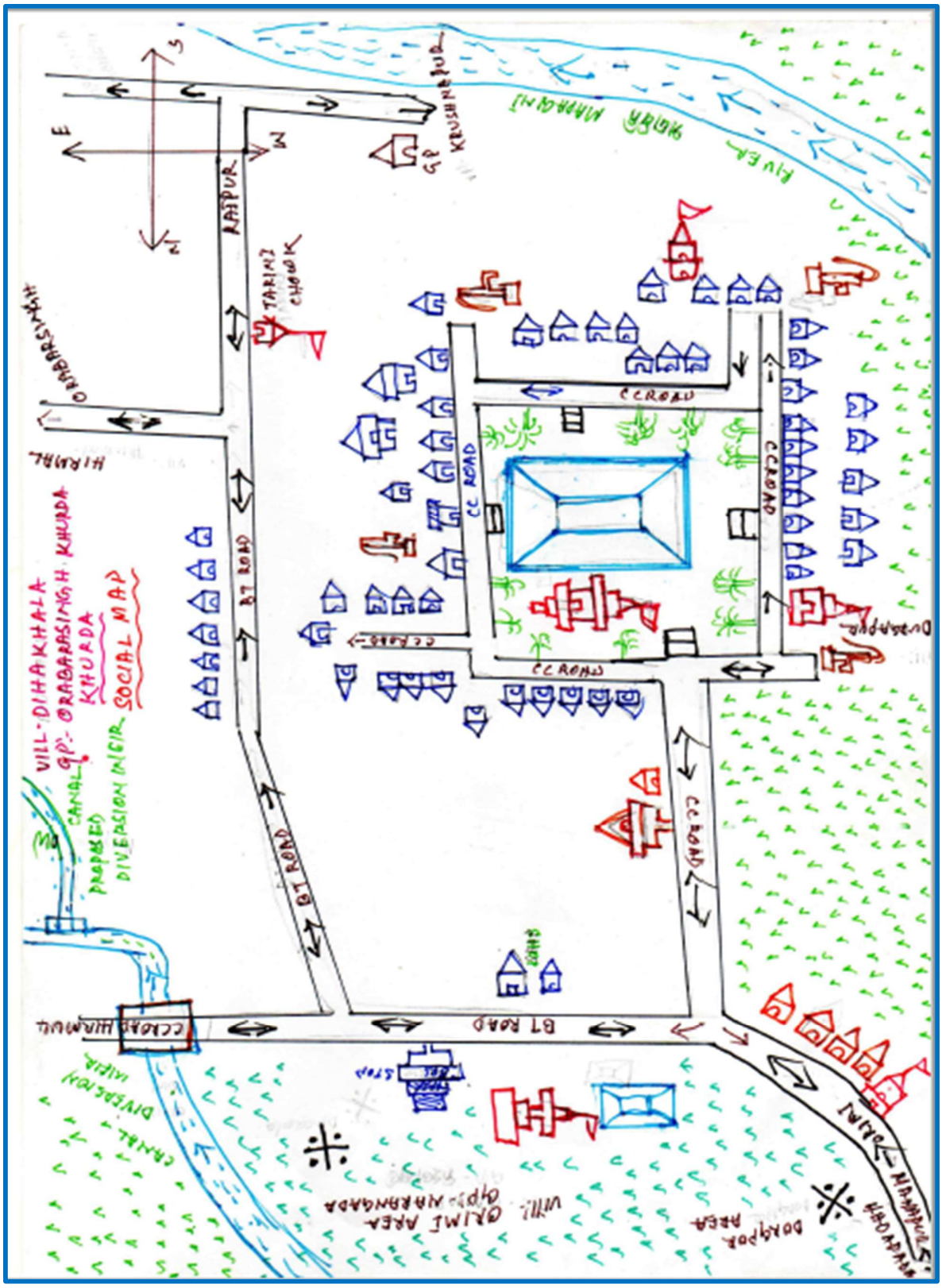
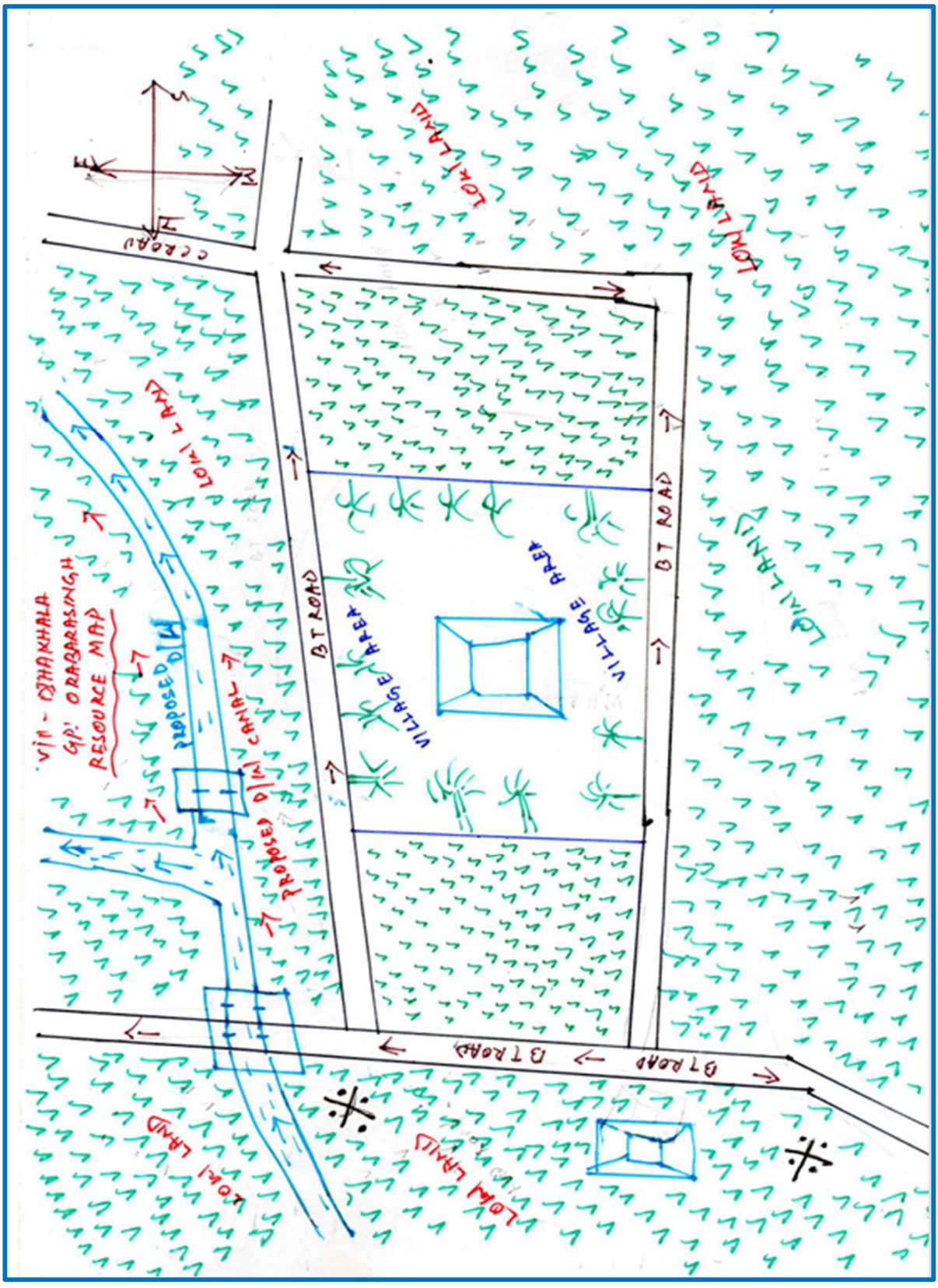
ANNEXURE-I

SOCIAL MAP: DIHAKHALA



Source: Filed Survey, 2026

RESOURCE MAP: DIHAKHALA



Source: Filed Survey, 2026

ANNEXURE-II

4 (1) NOTIFICATION & LAND SCHEDULE

ଓଡିଶା ସରକାର

ରାଜସ୍ୱ ଓ ବିପର୍ଯ୍ୟୟ ପରିଚାଳନା ବିଭାଗ

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No.RDM-LAA-KHD-0002-2025- 46780 **/R&DM, Dated** 12 DEC 2025

ସାମାଜିକ ପ୍ରଭାବ ନିର୍ଦ୍ଧାରଣ ନିମନ୍ତେ ଅଧିସୂଚନା

ରାଜ୍ୟ ସରକାର ପ୍ରଭାବିତ କ୍ଷେତ୍ର ଜିଲ୍ଲାପାଳ, ଖୋର୍ଦ୍ଧାଙ୍କ ପରାମର୍ଶ କ୍ରମେ ନିମ୍ନଲିଖିତ ଭୂମି ଅଧିଗ୍ରହଣ କରିବାକୁ ଚାହୁଁଛନ୍ତି ଏବଂ ସେଥି ନିମନ୍ତେ ସର୍ବ ସାଧାରଣ ଉଦ୍ଦେଶ୍ୟରେ ପ୍ରଭାବିତ ଅଞ୍ଚଳରେ ସାମାଜିକ ପ୍ରଭାବ ନିର୍ଦ୍ଧାରଣ (Social Impact Assessment) ସର୍ବେକ୍ଷଣ କରିବାକୁ ଚାହୁଁଛନ୍ତି । ଭୂମି ଅର୍ଜନ, ପୁନର୍ବାସ ଓ ଥାଇଥାନରେ ଉଚିତ ମୂଲ୍ୟ ଏବଂ ସ୍ୱଚ୍ଛତା ଅଧିକାର ଆଇନ ୨୦୧୩ ର ଧାରା ୪(୧) ଅନୁଯାୟୀ ଉକ୍ତ ସର୍ବେକ୍ଷଣ କରାଯିବ ।

୧. ପ୍ରକଳ୍ପ ବିକାଶକାରୀଙ୍କ ନାମ:- ଅଧିକ୍ଷଣ ଯନ୍ତ୍ରୀ, ଖୋର୍ଦ୍ଧା ଜଳସେଚନ ବିଭାଜନ, ଖୋର୍ଦ୍ଧା (Superintending Engineer, Khordha Irrigation Division, Khordha)

୨. ପ୍ରସ୍ତାବିତ ଭୂମି ଅଧିଗ୍ରହଣ ର ଉଦ୍ଦେଶ୍ୟ:- ରାଜୁଆ ଡାଇଭର୍ସନ ୱେୟାର ପ୍ରକଳ୍ପ ।

୩.SIA ସର୍ବେକ୍ଷଣ ଅନୁଷ୍ଠାନ:- Council of Analytical Tribal Studies, an empanelled agency under Nabakrushna Choudhary Centre for Development Studies, Bhubaneswar.

୪. SIA study କରୁଥିବା ଅନୁଷ୍ଠାନର ଯୋଗାଯୋଗ ସୂଚନା:- Nabakrushna Choudhary Centre for Development Studies, Bhubaneswar, Pin-751001 Phone No.1000000001, 7827451458

୫. ପ୍ରକଳ୍ପ ପାଇଁ ଖୋର୍ଦ୍ଧା ଜିଲ୍ଲାରେ ପ୍ରସ୍ତାବିତ ଭୂମି ଅଧିଗ୍ରହଣର ବିବରଣୀ /ତଫସିଲ

କ୍ରମିକ ନଂ	ତହସିଲ	ଗ୍ରାମ	ବେସରକାରୀ ଜମି	ମନ୍ତବ୍ୟ
୧	ଖୋର୍ଦ୍ଧା	ତିହଖଳା	ଏ ୦.୬୧୫	

ଏଥି ସହିତ ଭୂମି ଅନୁସୂଚୀ ସଂଲଗ୍ନ କରାଯାଇଅଛି ।

(କ) ପ୍ରସ୍ତାବିତ ପ୍ରକଳ୍ପ ର ସଂକ୍ଷିପ୍ତ ବିବରଣୀ:-ଖୋର୍ଦ୍ଧା ଜିଲ୍ଲା ଖୋର୍ଦ୍ଧା ତହସିଲ ଦିହଖଲା ମୌଜାରେ ରାଜୁଆ ଡାଇଭର୍ସନ ୱେୟାର ପ୍ରକଳ୍ପ ଅଧୀନରେ "ଡିହଖଲା ସବ-ମାଇନର" ନିର୍ମାଣ ନିମନ୍ତେ ଅଧିକ୍ଷଣ ଯନ୍ତ୍ରୀ, ଖୋର୍ଦ୍ଧା ଜଳସେଚନ ବିଭାଜନ, ଖୋର୍ଦ୍ଧାଙ୍କ ଦ୍ୱାରା ଭୂମି ଅଧିଗ୍ରହଣ ଆବଶ୍ୟକ ହେଉଅଛି ।

(ଖ) SIA ସର୍ବେକ୍ଷଣରେ ଅନ୍ତର୍ଭୁକ୍ତ ପ୍ରକଳ୍ପ ଅଞ୍ଚଳ ଏବଂ ପ୍ରକଳ୍ପ ପ୍ରଭାବିତ ଅଞ୍ଚଳ :- ଖୋର୍ଦ୍ଧା ଜିଲ୍ଲା ରେ ଉପରୋକ୍ତ ୧ ଗୋଟି ମୌଜା ରେ ଏ ୦.୬୧୫ ଘରୋଇ ଜମି ଅନ୍ତର୍ଭୁକ୍ତ । ପ୍ରକଳ୍ପ ପ୍ରଭାବିତ ଜମିର ବିସ୍ତୃତ ତାଲିକା/ତଫସିଲ SIA ସର୍ବେକ୍ଷଣ ଅନ୍ତେ ମିଳି ପାରିବ ।

(ଗ) ଗ୍ରାମସଭା / ଭୂମି ମାଲିକଙ୍କ ସହମତି ଆବଶ୍ୟକ କି ? ଯଦି ଏହି ଅଧିଗ୍ରହଣ ଘରୋଇ କମ୍ପାନୀଙ୍କ ପାଇଁ ହେଉଥାଏ ତେବେ ୮୦ ପ୍ରତିଶତ ପ୍ରଭାବିତ ପରିବାରଙ୍କ ପୂର୍ବସମ୍ମତି ଆବଶ୍ୟକ ପଡ଼ିବ ଏବଂ ଯଦି ସରକାରୀ ବେସରକାରୀ ଭାଗିଦାରୀ ପ୍ରକଳ୍ପ ନିମନ୍ତେ ଏହି ଅଧିଗ୍ରହଣ ହେଉଥାଏ ତେବେ ୭୦ ପ୍ରତିଶତ ପ୍ରଭାବିତ ପରିବାରଙ୍କ ପୂର୍ବସମ୍ମତି ଆବଶ୍ୟକ ପଡ଼ିବ ।

(ଘ) SIA ସର୍ବେକ୍ଷଣର ପ୍ରାଥମିକ ଉଦ୍ଦେଶ୍ୟ ଏବଂ ମୁଖ୍ୟ କାର୍ଯ୍ୟାବଳୀ:- ସର୍ବସାଧାରଣ ଉଦ୍ଦେଶ୍ୟ ନିର୍ଦ୍ଧାରଣ ପ୍ରଭାବିତ ଅଞ୍ଚଳରେ ଥିବା ସମସ୍ତ ଗ୍ରାମବାସୀ ଙ୍କ ପରାମର୍ଶ କ୍ରମେ SIA ସର୍ବେକ୍ଷଣ କରାଯିବ। SIA ସର୍ବେକ୍ଷଣ କ୍ଷେତ୍ର ପରିଦର୍ଶନ, ପ୍ରଭାବିତ ବ୍ୟକ୍ତିଙ୍କ ସାମୁହିକ ଆଲୋଚନା ଏବଂ ପ୍ରଭାବିତ ବ୍ୟକ୍ତିଙ୍କ ମତାମତ ଚୁଡାନ୍ତ ରିପୋର୍ଟ ରେ ସ୍ଥାନିତ ହେବ। ପ୍ରଭାବିତ ଅଞ୍ଚଳରେ ଜନଶୁଣାଣି ପ୍ରକ୍ରିୟା ନିମନ୍ତେ ଓଡିଶା ନ୍ୟାୟୋଚିତ କ୍ଷତିପୂରଣ ଅଧିକାର ଏବଂ ଭୂଅର୍ଜନ, ପୁନର୍ବାସ ଓ ଥଇଥାନ କ୍ଷେତ୍ରରେ ସ୍ୱଚ୍ଛତା ନିୟମାବଳୀ ୨୦୧୬ ର ନିୟମ-୧୪ ଦ୍ରଷ୍ଟବ୍ୟ।

(ଙ) SIA ସର୍ବେକ୍ଷଣ ଆରମ୍ଭ ଏବଂ ସମାପନ ରିପୋର୍ଟ ପ୍ରଦାନ ଏବଂ ତାହାର ପ୍ରକାଶନ ସରକାରୀ ବିଜ୍ଞପ୍ତି ପ୍ରକାଶିତ ଦିବସଠାରୁ ୬ ମାସ ମଧ୍ୟରେ SIA ସର୍ବେକ୍ଷଣ ସମାପନ କରାଯିବ। SIA ସର୍ବେକ୍ଷଣ ରିପୋର୍ଟ ସମ୍ପୃକ୍ତ ପ୍ରଭାବିତ ପଞ୍ଚାୟତ /ଗ୍ରାମ/ୱାର୍ଡ ସ୍ତରରେ ସ୍ଥାନୀୟ ଭାଷାରେ ପ୍ରକାଶନ କରାହେବ । ତତସହିତ ଜିଲ୍ଲାପାଳ, ଉପଜିଲ୍ଲାପାଳ ଏବଂ ବ୍ଲକ ମହକୁମାରେ ପ୍ରକାଶନ କରାଯିବ ଏବଂ ସର୍ବସାଧାରଣଙ୍କ ଗୋଚରାର୍ଥେ ସରକାରଙ୍କ ୱେବ ସାଇଟ ରେ ସୂଚିତ ହେବ ।

ରାଜ୍ୟପାଳଙ୍କ ଆଦେଶାନୁସାରେ

(ସୁରଞ୍ଜନ ପ୍ରଧାନ)
ଅତିରିକ୍ତ ଶାସନ ସଚିବ

Memo No. 46781 /Rev & DM, Dated 12 DEC 2025

Copy along with the land schedule forwarded to the Director, Printing Stationery, Odisha, Cuttack for information and necessary. He is requested to publish the Notification in the next issue of the Odisha Gazette as this is a statutory one.

SRO Number may be allotted to this publication.

12.12.2025
Joint Secretary to Government

Memo No. 46782 /Rev & DM, Dated 12 DEC 2025

Copy forwarded to Department of Water Resources/ Superintending Engineer, Khordha Irrigation Division, Khordha for information and necessary action.

12.12.2025
Joint Secretary to Government

Memo No. 46783 /Rev & DM, Dated 12 DEC 2025

Copy forwarded to RDC(CD), Cuttack /Collector, Khordha / Land Acquisition Officer , Khordha for information and necessary action.

12.12.2025
Joint Secretary to Government

Memo No. 46784 /Rev & DM, Dated 12 DEC 2025

Copy forwarded to the State Co-ordinator ,Nabakrushna Choudhury Centre for Development Studies ,Bhubaneswar *(email: ncdsbbsr1987@gmail.com)* for information and necessary action.

12.12.2025
Joint Secretary to Government

Memo No. 46785 /Rev & DM, Dated 12 DEC 2025

Copy forwarded to the e-Governance Branch with a request to upload the Notification in the website.

12.12.2025
Joint Secretary to Government

ପ୍ରସ୍ତାବିତ ଭୂମି ଅଧିଗ୍ରହଣ ଅନୁସୂଚୀ

ଜିଲ୍ଲା - ଖୋର୍ଦ୍ଧା

ତହସିଲ - ଖୋର୍ଦ୍ଧା

ମୌଜା - ତିହୁଖଳା

କ୍ରମିକ ନମ୍ବର	ମୌଜା	ଗ୍ରାମାଞ୍ଚଳ / ସହରାଞ୍ଚଳ	ଖାତା ନମ୍ବର	ପ୍ଲଟ ନମ୍ବର	ପ୍ଲଟ ର ମୋଟ ରକ୍ବା	ଅଧିଗ୍ରହଣ ହେବାକୁ ଥିବା ରକବା	କିସମ	ଖାତା ରୟତ
୧	୨	୩	୪	୫	୬	୭	୮	୯
୧	ତିହୁଖଳା	ଗ୍ରାମାଞ୍ଚଳ	୧୫୦/୭୫	୪୭	୦.୩୮୦	୦.୧୩୨	ଶାରଦ-୨	ଶ୍ୟାମ ସୁନ୍ଦର ମଙ୍ଗରାଜ, ଭାସ୍କର ମଙ୍ଗରାଜ ପି: ଭୋବନୀ (ମଙ୍ଗରାଜ, ସୁନିଲ କୁମାର ମଙ୍ଗରାଜ ପି: ଯୁଧିଷ୍ଠିର ମଙ୍ଗରାଜ, ଦାମୋଦର ମଙ୍ଗରାଜ ପି: ମାୟାଧର ମଙ୍ଗରାଜ ଜା: ମହାଲାଏଜ ବା: ତିହୁଖଳା
୨			୧୫୦ /୮୦	୩୫	୦.୧୯୦	୦.୦୧୮	ଶାରଦ-୩	ରଘୁନାଥ ଜେନା, ଧନେଶ୍ୱର ଜେନା ପି: ପଦ୍ମ ଚରଣ ଜେନା, ଜଗନ୍ନାଥ ଜେନା ପି: ବାବନ ଜେନା, ଅନୁବତୀ ବଡଜେନା ସ୍ତ୍ରୀ: ଲକ୍ଷ୍ମୀଧର ବଡଜେନା, ଅରୁଣ ବଡଜେନା, ପ୍ରଶାନ୍ତ ବଡଜେନା, ରଶ୍ମିତା ବିଶ୍ୱାଳ ପି: ଲକ୍ଷ୍ମୀଧର ବଡଜେନା ଜା: ଖଣ୍ଡାୟତ ବା: ପାରିରାଏପୁର ଥା - ବ୍ରହ୍ମଗିରି ଜି - ପୁରି
୩			୫୦	୩୭	୦.୩୧୫	୦.୦୪୫	ଶାରଦ-୨	ଗୌରାଙ୍ଗ ସୁନ୍ଦରା, କୃଷ୍ଣ ସୁନ୍ଦରା ପି: ମନୁ ସୁନ୍ଦରା, ଦାଶରଥି ସୁନ୍ଦରା ପି: ମର୍ଦ୍ଦଗାଜୀ ସୁନ୍ଦରା, ଭୋବନି ସୁନ୍ଦରା, ଗୋଲେଖ ସୁନ୍ଦରା, ବ୍ରଜବିହାରୀ ସୁନ୍ଦରା ପି: ଗଦାଧର ସୁନ୍ଦରା ଜା: ଶୁଦ୍ର ବା: ନିଜିଗାଁ

୪			୫୦	୩୯	୦.୩୮୦	୦.୦୮୫	ଖାଉଦ-୨	ଘୋରାଙ୍ଗ ପୁନରା, କୃଷ୍ଣ ପୁନରା ପି: ମନୁ ପୁନରା, ଦାଶରଥି ପୁନରା ପି: ମର୍ଦ୍ଦରାଜୀ ପୁନରା, ରୋଦତି ପୁନରା, ଗୋରେଖ ପୁନରା, ଜୁଜବିଧାରା ପୁନରା ପି: ଉଦାଧର ପୁନରା ଜା: ଶୁଦ୍ର ବା: ନିଡିଗାଁ
୫			୫୭	୩୧	୦.୩୭୫	୦.୦୦୫	ଖାଉଦ-୨	ତିରାମଣି ମହାପାତ୍ର ପି:କୁବନାଣି ମହାପାତ୍ର ଜା: ବ୍ରାହ୍ମଣ ବା: ରୋଡିପଡା
			୦୪ -୧୫					ପିଲିମ ପ୍ରଜା-ଘାମଚନ୍ଦ୍ର ଭୁବନଦଳ ପି:ଥାଉତ ଭୁବନଦଳ ଜା: ଶୁଦ୍ର ମହାଲାଏକ ବା: ନିଡିଗାଁ
୬			୫୭	୪୮	୦.୧୪୦	୦.୦୩୨	ଖାଉଦ-୨	ତିରାମଣି ମହାପାତ୍ର ପି:କୁବନାଣି ମହାପାତ୍ର ଜା: ବ୍ରାହ୍ମଣ ବା: ରୋଡିପଡା
			୦୪ -୧୭					ପିଲିମ ପ୍ରଜା-ଧରିଜାଳି ଖାଉଦ, ଭିଜାରା ଭାଉତ ପି: ବାଲା ଭାଉତ ଜା: ମହାଲାଏକ ବା: ନିଡିଗାଁ
୭			୫୭	୩୮	୦.୧୫୦	୦.୦୬୫	ଖାଉଦ-୨	ତିରାମଣି ମହାପାତ୍ର ପି:କୁବନାଣି ମହାପାତ୍ର ଜା: ବ୍ରାହ୍ମଣ ବା: ରୋଡିପଡା
୮			୦୪ -୧୫					ପିଲିମ ପ୍ରଜା-ଘାମଚନ୍ଦ୍ର ଭୁବନଦଳ ପି:ଥାଉତ ଭୁବନଦଳ ଜା: ଶୁଦ୍ର ମହାଲାଏକ ବା: ନିଡିଗାଁ
			୫୭	୧୩୫	୦.୮୫୫	୦.୦୩୦	ଖାଉଦ-୨	ତିରାମଣି ମହାପାତ୍ର ପି:କୁବନାଣି ମହାପାତ୍ର ଜା: ବ୍ରାହ୍ମଣ ବା: ରୋଡିପଡା

			୦୫-୧୯					ବିଜିମ ପୁଜା-ଘଟ ରାଉତରା ପିତୃଦତ୍ତାରା ରାଉତରା ଜା: ଶୁଦ୍ର ବା: ନିଲିଗାଁ
୯			୯୫	୫୮	୦.୩୧୦	୦.୦୦୫	ଶ୍ରାଉତ-୩	ବାସୁଦେବ ରାମାନୁଜ ଦାସ ଗୁରୁ ସ୍ତ୍ରୀ ଅଧିକାରୀ ବିଷ୍ଣୁ ଚିତ ରାମାନୁଜ ଦାସ ଜା: ବ୍ରାହ୍ମଣ ବୈଷ୍ଣବ ବା: ବାଲିପାଟି ରିସିସ୍ୱାମି ମଠ ପୁରୀ
୧୦			୧୫୦/୪୭	୩୪	୦.୫୪୦	୦.୧୫୩	ଶ୍ରାଉତ-୩	ସିବେଶ୍ୱର ଶ୍ରୀଚନ୍ଦନ, ନିଧି ଶ୍ରୀଚନ୍ଦନ, ରତିକୃଷ୍ଣ ଶ୍ରୀଚନ୍ଦନ ପି: କଳ୍ପତରୁ ଶ୍ରୀଚନ୍ଦନ ଜା: ଉତ୍କଳ ବା: ନିଲିଗାଁ
୧୧			୧୦୧	୧୪୩	୦.୪୦୦	୦.୦୧୫	ଶ୍ରାଉତ-୨	ବିଶ୍ୱମ୍ଭର ଶ୍ରୀଚନ୍ଦନ, ଫୁଟେନ୍ଦ୍ର ଶ୍ରୀଚନ୍ଦନ ପି: ଜାଣି ଶ୍ରୀଚନ୍ଦନ ଜା: ଶୁଦ୍ର ବା: ନିଲିଗାଁ
୧୨			୧୫୦/୧୧	୩୩	୦.୩୧୫	୦.୦୩୦	ଶ୍ରାଉତ-୨	ଚମ୍ପେଇ ବେରା ପୁ:ପୂର୍ଣ୍ଣଚନ୍ଦ୍ର ସାହି ବା: ବିନପଡା
				ମୋଟ ଅଧିଗ୍ରହଣ ରକବା:-ଏକର ୦.୬୧୫				

ଭୂ-ଅର୍ଜନ ଅଧିକାରୀ, ଖୋର୍ଦ୍ଧା

ANNEXURE-III

Social Impact Social Impact Assessment Study for Land Acquisition 0.6150 acres of Private Land from village Dihakhala under Khurda Tahasil of Khurda District for Rajua Diversion Weir (ToR 78-00006)

Household Survey Questionnaire

Question ID	Question	Choices
Section Name	**Section 0: Primary Information**	
S0Q1	**0.1. Khata No**	
S0Q2	**0.2. Plot No**	
S0Q3	**0.3. Title Holder Family/Extended Family**	
S0Q4	**0.4. Village Name**	
S0Q5	**0.5. GP Name**	
S0Q6	**0.6. Block**	
S0Q7	**0.7. Tahasil**	
Section Name	**Section 1: General Information**	
S1Q1_1	**1.1. Respondent Name**	
S1Q1_2	**1.2. Contact Number**	
S1Q1_3	**1.3. Nature of Property to be Affected**	[1] House [2] Homestead Land [3] Agricultural Land [4] Commercial Establishment [5] Others
S1Q1_4	**1.4. Years of Occupation**	
S1Q1_5	**1.5. Present Address of the Property (Location)**	
Section Name	**Section 2: Identification of the Household**	
S2Q2_1	**2.1. Religion of the Household**	[1] Hindu [2] Muslim [3] Christian [4] Others (Specify)
S2Q2_1_a	**2.1.a. Please Specify Your Religion**	
S2Q2_2	**2.2. Caste of the Household**	[1] SC [2] ST [3] OBC [4] General
S2Q2_3	**2.3. Sub-Caste/Sub-Tribe**	
S2Q2_4	**2.4. Have you been displaced earlier?**	[1] Yes [2] No
S2Q2_4_a	**2.4.a. From Where: Village**	

Question ID	Question	Choices
S2Q2_4_b	**2.4.b. From Where: Tahasil**	
S2Q2_4_c	**2.5.c. From Where: District**	
S2Q2_4_d	**2.5.d. When**	
S2Q2_4_e	**2.5.e. Name of the Project**	
Section Name	**Section 3 : Socio-Economic Status**	
	Household Particulars	

Name of Person	*Relationship with HH*[1]	*Sex*[2]	*Age*	*Marita Status*[3]	*Educational Qualification*[4]	*Main Occupation*[5]	*Income from Main Occupation*	*Other Occupations*[6]	*Income from Other Occupation*

Options: ***1.*** [1] Self, [2] Spouse, [3] Children, [4] Parents, [5] Siblings, [6] In-Laws, [7] Others

2. [1] Male, [2] Female, [3] Third Gender

3. [1] Married, [2] Unmarried, [3] Divorcee, [4] Separated, [5] Widowed

4. [1] Illiterate, [2] Just Literate, [3] Elementary Level, [4] High School, [5] Matriculate, [6] Intermediate, [7] Graduate,
[8] Post Graduate, [9] Technical Degree, [10] Technical Diploma, [11] ITI/CT etc, [12] Professional Degree (MBA etc)

5. [1] Cultivator, [2] Allied Activity, [3] Agricultural Laborer, [4] Daily Wage Earner, [5] Salaried, [6] Craft Artisan, [7] Business,
[8] Professional, [9] Housewife, [10] Studying, [11] Unemployed, [12] Old & Unable, [13] Physically Challenged

6. [1] Cultivator, [2] Allied Activity, [3] Agricultural Laborer, [4] Daily Wage Earner, [5] Salaried, [6] Craft Artisan, [7] Business,
[8] Professional, [9] Housewife

Section Name	**3.2. Vulnerability Condition of the Household**	
S3Q3_2_a	**3.2.a. Type of Family**	[1] Joint [2] Nuclear
S3Q3_2_b	**3.2.b. Is it a Woman Headed Household?**	[1] Yes [2] No
S3Q3_2_c	**3.2.c. Is it Headed by Physically/Mentally Challenged Person?**	[1] Yes [2] No
S3Q3_2_d	**3.2.d. No. of Physically/Mentally Challenged Persons in Family**	
S3Q3_2_e	**3.2.e. Is it Priority Household (PHH)?**	[1] Yes [2] No
Section Name	**3.3. Dwelling Condition**	
S3Q3_3_a	**3.3.a. Housing**	[1] Own House [2] Rented

Question ID	Question	Choices
S3Q3_3_b	**3.3.b. If Living in Own House, Size of Homestead Land in acres**	
S3Q3_3_c	**3.3.c. Do you have Patta?**	[1] Yes [2] No
S3Q3_3_d_i	**3.3.d.i. House No.: ${hrecpos}**	[Enumerator Note]
S3Q3_3_d_ii	**3.3.d.ii. Built Up (Sq. ft.)**	
S3Q3_3_d_iii	**3.3.d.iii. No. of Rooms**	
S3Q3_3_d_iv	**3.3.d.iv. No. of Storeys**	
S3Q3_3_d_v	**3.3.d.v. Construction Details : WALL**	[1] Mud [2] Brick with Mud [3] Bamboo or Wood with Mud [4] Brick with Cement [5] Other (Specify)
S3Q3_3_d_vi	**3.3.d.vi. Construction Details : WALL (Other)**	
S3Q3_3_d_vii	**3.3.d.vii. Construction Details: ROOF**	[1] Thatched (ଛଣ) [2] Asbestos [3] Tiles [4] Concrete Roof [5] Tin [6] Other (Specify)
S3Q3_3_d_viii	**3.3.d.viii. Construction Details: ROOF (Other)**	
S3Q3_3_d_ix	**3.3.d.ix. Construction Details: FLOOR**	[1] Earthen [2] Cement [3] Tiles [4] Other (Specify)
S3Q3_3_d_x	**3.3.d.x. Construction Details: FLOOR (Other)**	
Section Name	**3.3.e. Aspects of Housing Condition**	
S3Q3_3_e_i	**3.3.e.i. Separate Place for Animals**	[1] Yes [2] No
S3Q3_3_e_ii	**3.3.e.ii. Bathroom**	[1] Within House [2] Outside House
S3Q3_3_e_iii	**3.3.e.iii. Latrine**	[1] Adjacent to House [2] Outside House
S3Q3_3_e_iv	**3.3.e.iv. Washing Space**	[1] Within House [2] Outside House
S3Q3_3_e_v	**3.3.e.v. Electricity Connection**	[1] Yes [2] No
S3Q3_3_e_vi	**3.3.e.vi. Source of Drinking Water**	[1] Pipe Water [2] Tube Well/Hand Pump [3] River/Stream [4] Open Well [5] Other

Question ID	Question	Choices
S3Q3_3_e_vii	**3.3.e.vii. Whether the House presently resided is likely to be affected by the Project?**	[1] Yes [2] No
Section Name	**3.4. Possession of Assets**	
S3Q3_4_1_a	**3.4.1.a. Television**	
S3Q3_4_1_b	**3.4.1.b. Refrigerator**	
S3Q3_4_1_c	**3.4.1.c. Cell Phone**	
S3Q3_4_1_d	**3.4.1.d. Computer/Washing Machine**	
S3Q3_4_1_e	**3.4.1.e. Cycles**	
S3Q3_4_1_f	**3.4.1.f. Two-Wheeler**	
S3Q3_4_1_g	**3.4.1.g. Three-Wheeler**	
S3Q3_4_1_h	**3.4.1.h. Four-Wheeler (Car/Bolero)**	
S3Q3_4_1_i	**3.4.1.i. Bus/Truck/Tractor**	
S3Q3_4_1_j	**3.4.1.j. Income Earning Machinery**	
S3Q3_4_1_k	**3.4.1.k. Ornaments**	
Section Name	**3.5. Income Particulars**	
S3Q3_5_1_a	**3.5.1.a. Agriculture, Horticulture, Livestock Rearing, Fishery**	
S3Q3_5_1_b	**3.5.1.b. Forest Collection**	
S3Q3_5_1_c	**3.5.1.c. Wage Labour**	
S3Q3_5_1_d	**3.5.1.d. Service (Govt./Private)**	
S3Q3_5_1_e	**3.5.1.e. Business (Shop/Haat/Vending/Caste Based Craft Work)**	
S3Q3_5_1_f	**3.5.1.f. Migration and Remittances**	
S3Q3_5_1_g	**3.5.1.g. Social Security Cash Earning**	
S3Q3_5_1_h	**3.5.1.h. Any Other**	
Section Name	**3.6. Expenditure Pattern**	
S3Q3_6_1_a	**3.6.1.a. Food**	
S3Q3_6_1_b	**3.6.1.b. Agriculture/Occupation Related**	
S3Q3_6_1_c	**3.6.1.c. Housing (Construction and Repair)**	
S3Q3_6_1_d	**3.6.1.d. Cooking Fuel**	
S3Q3_6_1_e	**3.6.1.e. Clothing Fuel and Gas**	
S3Q3_6_1_f	**3.6.1.f. Health**	

Question ID	Question	Choices
S3Q3_6_1_g	**3.6.1.g. Education**	
S3Q3_6_1_h	**3.6.1.h. Transport**	
S3Q3_6_1_i	**3.6.1.i. Communication**	
S3Q3_6_1_j	**3.6.1.j. Social Functions (Marriage, Thread Ceremony, Funeral Ceremony)**	
S3Q3_6_1_k	**3.6.1.k. Others (Electricity Dues, Water Charges, Loan Repay etc.)**	
Section Name	**3.7. Indebtedness (If the Household has taken Loan during the Last Year)**	
S3Q3_7_1	**3.7.1. From Bank**	[Enumerator Note]
S3Q3_7_1_a	**3.7.1.a. Loan Amount Taken from Bank**	
S3Q3_7_1_b	**3.7.1.b. Purpose of the Loan**	[1] Productive Investment [2] Purchasing Durables [3] Meeting Emergency Needs [4] Marriage of Children [5] Paying of Past Loan [6] Others
S3Q3_7_2	**3.7.2. From Moneylender**	[Enumerator Note]
S3Q3_7_2_a	**3.7.2.a. Loan Amount Taken from Moneylender**	
S3Q3_7_2_b	**3.7.2.b. Purpose of the Loan**	[1] Productive Investment [2] Purchasing Durables [3] Meeting Emergency Needs [4] Marriage of Children [5] Paying of Past Loan [6] Others
S3Q3_7_3	**3.7.3. From SHG/LAMP**	[Enumerator Note]
S3Q3_7_3_a	**3.7.3.a. Loan Amount taken from SHG/LAMP**	
S3Q3_7_3_b	**3.7.3.b. Purpose of the Loan**	[1] Productive Investment [2] Purchasing Durables [3] Meeting Emergency Needs [4] Marriage of Children [5] Paying of Past Loan [6] Others
S3Q3_7_4	**3.7.4. From Friends and Relatives**	[Enumerator Note]
S3Q3_7_4_a	**3.7.4.a. Loan Amount taken from Friends and Relatives**	
S3Q3_7_4_b	**3.7.4.b. Purpose of the Loan**	[1] Productive Investment [2] Purchasing Durables [3] Meeting Emergency Needs [4] Marriage of Children [5] Paying of Past Loan [6] Others
Section Name	**3.8. Agricultural Activities**	
S3Q3_8_1	**3.8.1. Major Crops Grown**	[1] Paddy

Question ID	Question	Choices
		[2] Millets [3] Horticultural Crops [4] Vegetables [5] Pulses [6] Others (Specify)
S3Q3_8_1_a	**3.8.1.a. Specify the Name of Major Crops Grown**	
Section Name	**3.9. Health Status**	
Section Name	**3.9.1. Illness during Last 12 Months**	
S3Q3_9_1_a	**3.9.1.a. Has any member of your family suffered from any Illness during last 12 months?**	[1] Yes [2] No
S3Q3_9_1_b	**3.9.1.b. If Yes, Specify the number of persons**	
S3Q3_9_1_c	**3.1.9.c. Name of the Diseases**	
S3Q3_9_1_d	**3.9.1.d. Type of Treatment Taken**	[1] Allopathic Govt. [2] Allopathic Pvt. [3] Homeopathy [4] Ayurvedic [5] Faith Healers [6] Quacks [7] No Treatment [8] Others (Specify)
S3Q3_9_1_e	**3.9.1.e. Specify from where you took treatment**	
Section Name	**3.9.2. Chronic Disease during Last Year**	
S3Q3_9_2_a	**3.9.2.a. Did Household Members Suffer from any Chronic Disease during Last Year?**	[1] Yes [2] No
S3Q3_9_2_b	**3.9.2.b. If Yes, Specify the number of persons**	
S3Q3_9_2_c	**3.9.2.c. Name of the Diseases**	
S3Q3_9_2_d	**3.9.2.d. Type of Treatment Taken for Chronic Disease**	[1] Allopathic Govt. [2] Allopathic Pvt. [3] Homeopathy [4] Ayurvedic [5] Faith Healers [6] Quacks [7] No Treatment [8] Others (Specify)
S3Q3_9_2_e	**3.9.2.e. Specify from where you took treatment for Chronic Disease**	
Section Name	**3.10. Decision-making & Women's Involvement (Household, Socio-Cultural, Political)**	
S3Q3_10_header	**3.10. Decision Making and Involvement**	[1] Male [2] Female [3] Both
S3Q3_10_1	**1. Financial matter & Purchase of Assets**	[1] Male [2] Female [3] Both
S3Q3_10_2	**2. Education of child**	[1] Male [2] Female [3] Both

Question ID	Question	Choices
S3Q3_10_3	**3. Health care of child/Self**	[1] Male [2] Female [3] Both
S3Q3_10_4	**4. Household activities**	[1] Male [2] Female [3] Both
S3Q3_10_5	**5. Participation in Community Affairs (Socio-cultural & political)**	[1] Male [2] Female [3] Both
S3Q3_10_6	**6. Active membership of SHG**	[1] Male [2] Female [3] Both
S3Q3_10_7	**7. Making Direct Income contribution to HH**	[1] Male [2] Female [3] Both
Section Name	**Section 4 : Land Particulars**	
Section Name	**4.1. Total Area of Land Owned/Possessed (area in Acre)**	
S4Q4_1_1	**4.1.1. Private Land**	
S4Q4_1_2	**4.1.2. Government Land**	
S4Q4_1_3	**4.1.3. Religious Land**	
S4Q4_1_4	**4.1.4. Community Land**	
S4Q4_1_5	**4.1.5. Forest Land**	
S4Q4_1_6	**4.1.6. Other Land**	
Section Name	**4.2. Type of Land (area in Acre)**	
S4Q4_2_1	**4.2.1. Irrigated Land**	
S4Q4_2_2	**4.2.2. Non-Irrigated Land**	
S4Q4_2_3	**4.2.3. Dongar Land**	
S4Q4_2_4	**4.2.4. Homestead Land**	
S4Q4_2_5	**4.2.5. Forest Land**	
S4Q4_2_6	**4.2.6. Other Land**	
Section Name	**4.3. Use of Land (area in Acre)**	
S4Q4_3_1	**4.3.1. For Cultivation**	
S4Q4_3_2	**4.3.2. For Orchard**	
S4Q4_3_3	**4.3.3. For Residential Purpose**	
S4Q4_3_4	**4.3.4. For Commercial Purpose**	

Question ID	Question	Choices
S4Q4_3_5	**4.3.5. For Forestry**	
S4Q4_3_6	**4.3.6. Not Used/Barren**	
S4Q4_3_7	**4.3.7. For Other Purposes**	
Section Name	**4.4 Area of Land to be Acquired (in Acre) > Agricultural Land**	
S4Q4_4_1	**4.4.1. Area of Land to be Acquired (in Acre) > Agricultural Land**	[Enumerator Note]
S4Q4_4_1_a	**4.4.1.a. Total Area**	
S4Q4_4_1_b	**4.4.1.b. Area to be Affected**	
S4Q4_4_1_c	**4.4.1.c. Scale of Impact**	
S4Q4_4_1_d	**4.4.1.d. Market Price of Affected Land**	
Section Name	**4.4 Area of Land to be Acquired (in Acre) > Homestead Land**	
S4Q4_4_2	**4.4.2. Area of Land to be Acquired (in Acre) > Homestead Land**	[Enumerator Note]
S4Q4_4_2_a	**4.4.2.a. Total Area**	
S4Q4_4_2_b	**4.4.2.b. Area to be Affected**	
S4Q4_4_2_c	**4.4.2.c. Scale of Impact**	
S4Q4_4_2_d	**4.4.2.d. Market Price of Affected Land**	
Section Name	**4.4 Area of Land to be Acquired (in Acre) > Residential Land**	
S4Q4_4_3	**4.4.3. Area of Land to be Acquired (in Acre) > Residential Land**	[Enumerator Note]
S4Q4_4_3_a	**4.4.3.a. Total Area**	
S4Q4_4_3_b	**4.4.3.b. Area to be Affected**	
S4Q4_4_3_c	**4.4.3.c. Scale of Impact**	
S4Q4_4_3_d	**4.4.3.d. Market Price of Affected Land**	
Section Name	**4.4 Area of Land to be Acquired (in Acre) > Commercial Land**	
S4Q4_4_4	**4.4.4. Area of Land to be Acquired (in Acre) > Commercial Land**	[Enumerator Note]
S4Q4_4_4_a	**4.4.4.a. Total Area**	
S4Q4_4_4_b	**4.4.4.b. Area to be Affected**	
S4Q4_4_4_c	**4.4.4.c. Scale of Impact**	
S4Q4_4_4_d	**4.4.4.d. Market Price of Affected Land**	

Question ID	Question	Choices
Section Name	**4.4 Area of Land to be Acquired (in Acre) > Other Land**	
S4Q4_4_5	**4.4.5. Area of Land to be Acquired (in Acre) > Other Land**	[Enumerator Note]
S4Q4_4_5_a	**4.4.5.a. Total Area**	
S4Q4_4_5_b	**4.4.5.b. Area to be Affected**	
S4Q4_4_5_c	**4.4.5.c. Scale of Impact**	
S4Q4_4_5_d	**4.4.5.d. Market Price of Affected Land**	
Section Name	**4.5. Tenant and Claimant Details**	
S4Q4_5_1	**4.5.1. Name of the Owner, If the Present Occupier is Tenant**	
S4Q4_5_2	**4.5.2. People Associated with the Land to be Acquired**	[1] Agricultural Labourer [2] Sharecropper
S4Q4_5_3	**4.5.3. Are there any other Claimants for the Land under acquisition other than You?**	[1] Yes [2] No
Section Name	**Section 5 : Impact, Resettlement and Rehabilitation Option**	
Section Name	**5.1. What Losses will be incurred by you due to Land Acquisition**	
S5Q5_1	**5.1. What Losses will be incurred by you due to Land Acquisition**	[Enumerator Note]
S5Q5_1_1	**5.1.1. Displacement**	[1] Yes [2] No
S5Q5_1_2	**5.1.2. Loss of Livelihood**	[1] Yes [2] No
S5Q5_1_3	**5.1.3. Loss of Assets attached Land**	[1] Open Well [2] Tube Well [3] Mandap [4] Others
S5Q5_1_4	**5.1.4. Loss of FRUIT Bearing Trees**	[Enumerator Note]
S5Q5_1_4_a	**5.1.4.a. Name**	
S5Q5_1_4_b	**5.1.4.b. Total Number of Trees**	
S5Q5_1_4_c	**5.1.4.c. Number of Trees to be Loss**	
S5Q5_1_5	**5.1.5. Loss of NON-FRUIT Bearing Trees**	[Enumerator Note]
S5Q5_1_5_a	**5.1.5.a. Name**	
S5Q5_1_5_b	**5.1.5.b. Total Number of Trees**	
S5Q5_1_5_c	**5.1.5.c. Number of Trees to be Loss**	
Section Name	**5.1. What Losses will be incurred by you due to Land Acquistion**	
S5Q5_1_6	**5.1.6. Loss of Irrigation Point (in Nos)**	[Enumerator Note]

Question ID	Question	Choices
S5Q5_1_6_a	5.1.6.a. Well	
S5Q5_1_6_b	5.1.6.b. Bore Well	
S5Q5_1_6_c	5.1.6.c. Pond	
S5Q5_1_6_d	5.1.6.d. Other	
Section Name	5.2. Percentage of Loss and Willingness to Acquire Land	
S5Q5_2_1	5.2.1. What Percentage of your Present Earning will Lost due to the Land Acquisition?	
S5Q5_2_2	5.2.2. Are You willing to allow the Authorities to acquire your Land?	[1] Yes [2] No
Section Name	5.3. Compensation and Other Assistance Sought against Land Acquisition	
S5Q5_3_1	5.3.1. Resettlement & Relocation Option(s) for Displacement	[1] Self Relocation [2] Project Assisted Relocation
S5Q5_3_2	5.3.2. Compensation Option for Loss of Land/Structure	[1] Land for Land or Structure for Structure [2] Cash for Loss of Land/Structure
S5Q5_3_3	5.3.3. Income Restoration Assistance	[1] Engagement in Construction Phase [2] Loan in any Income/Employment Generation Scheme [3] Vocation Training
Section Name	Section 6 : Perception of Household Regarding the Project	
Section Name	6.1. Knowledge on Proposed Project	
S6Q6_1_1	6.1.1. Are you aware of the proposed Project?	[1] Yes [2] No
S6Q6_1_2	6.1.2. Do You think that will be Beneficial?	[1] Yes [2] No
Section Name	6.2. Perception of the Household about Benefits/Negatives (Social, Cultural, Economic) of the Project	
Section Name	6.2.1. Perception on Benefits	
S6Q6_2_1_a	6.2.1.a. Economic Benefits	[1] Increase in Employment [2] Increase in Business Opportunities [3] Increase in Land Value [4] Increase in Income [5] Transportation [6] Market Expansion [7] Agricultural Intensity Diversification [8] Others (Specify)
S6Q6_2_1_b	6.2.1.b. Specify Other Economic Benefits	
S6Q6_2_1_c	6.2.1.c. Social/Cultural Benefits	[1] Improvement in Infrastructure [2] Socio-Cultural Activities [3] Awareness Creation

Question ID	Question	Choices
		[4] Others (Specify)
S6Q6_2_1_d	**6.2.1.d. Specify Other Social/Cultural Benefits**	
Section Name	**6.2.2. Perception on Losses**	
S6Q6_2_2_a	**6.2.2.a. Economic Losses**	[1] Loss of Land [2] Loss of Structure [3] Loss of Business [4] Loss of Income [5] Loss of Livelihood [6] Others (Specify)
S6Q6_2_2_b	**6.2.2.b. Specify Other Economic Losses**	
S6Q6_2_2_c	**6.2.2.c. Social/Cultural Losses**	[1] Health [2] Environment [3] Family Violence [4] Kinship [5] Community Life [6] Others (Specify)
S6Q6_2_2_d	**6.2.2.d. Specify Other Social/Cultural Negatives**	
S6Q6_3_header	**6.3. Positive Impacts**	
S6Q6_3_1	**1. Increase employment**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_3_2	**2. Increase business opportunities**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_3_3	**3. Increase land value**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_3_4	**4. Increase income**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_3_5	**5. Help infrastructural development**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_3_6	**6. Create opportunities for my existing business**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree

Question ID	Question	Choices
S6Q6_3_7	**7. Create investment opportunities for local area**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_header	**6.4. Negative Impacts**	
S6Q6_4_1	**1. Cause negative health impact**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_2	**2. Cause loss of business**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_3	**3. Cause loss of employment**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_4	**4. Cause loss of income**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_5	**5. Cause loss of livelihood**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_6	**6. Lead to increased alcohol use**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_7	**7. Cause family violence for compensation sharing**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_8	**8. Cause unproductive use of compensation money**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_9	**9. Cause loss of kinship and community life**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree

Question ID	Question	Choices
		[5] Strongly Disagree
S6Q6_4_10	**10. Cause loss of environment and CPR**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_4_11	**11. Cause loss of cultural fabric/ religious shrine & property/ institutions/ community structure**	[1] Strongly Agree [2] Agree [3] No Opinion [4] Disagree [5] Strongly Disagree
S6Q6_5	**6.5. Major Challenges you anticipate from the Project and the Solution you Prefer:**	
Section Name	**Section 7 : Finalization and Authorization of Responses**	
S7Q7_1	**Please Take a Selfie with the Respondent**	
S7Q7_2	**Please Record the Geo Point Location**	

Part-II
General Infrastructure Survey
"Social Impact Assessment Study for Land Acquisition of 0.6150 acres of Private Land from village Dihakhala under Khurda Tahasil of Khurda District for Rajua Diversion Weir (ToR 78-00006)"

Name of the Village: _____Name of GP/ Municipality: _____

Name of Block: _____ Name of the Tahasil: _____

Name of District: _____

Sl. No.	General Infrastructure Existing in Project Area	No. in the village (if available)	Distance to nearest place where available (Km)
1	**Road (internal/external)**		
	i. Kuccha		
	ii Pucca		
	iii semi pucca		
2	**Water Supply (specify type)**		
	i Dug Well		
	ii Tube well		
	iii Hand pumps		
	iv Pipeline		
	v Any other specify		
3	Electricity (Yes-1, No-1)		
4	Cremation ground		
5	Brick Yards		
6	Market Area		
7	Cattle Market Area		
8	Village Industry Sites		
9	Samudaya Bhavan		
10	Anganwadi Centre		
11	Panchayat Ghar		

Sl. No.	General Infrastructure Existing in Project Area	No. in the village (if available)	Distance to nearest place where available (Km)
12	Community Hall		
13	Post Office		
14	Police Station / Police Posts		
15	Banks (specify type)		
	i. Commercial bank		
	ii. Regional rural bank		
	iii Credit Cooperative Society		
16	Prayer Hall/Bhagabata Tungi		
17	Schools/ Education Centres		
	(specify type)		
	i Primary		
	ii Secondary		
	iii High School		
	iii Technical Institution		
	iv Adult Education Centre		
	v College (General Education)		
	vi Special schools for disabled /		
	vii. other vulnerable groups Center		
	viii. Library / Study Centers		
18	Health Centre (specify type):		
	i PHC/CHC		
	ii Sub Centre		
	iii ANM Centre		
	iv Dispensary / hospital (Allopathic / Ayurvedic / Homeopathic /others)		
	v Veterinary centre		
19	Fair Price Shops		

Sl. No.	General Infrastructure Existing in Project Area	No. in the village (if available)	Distance to nearest place where available (Km)
20	Cooperative societies		
21	Shops i Textile Shops		
	ii. Grocery shops		
	iii. Chemists and Pharmacy		
	iv. Hardware/cement/construction material shops		
	v. Hotels/lodges/guest houses		
22	**Service Centre**		
	i. Flour mill		
	ii. Tractor repairs		
	iii. Cycle/automobile repairs		
23	**Servicemen**		
	i Barber		
	ii. Carpenter		
	iii. Blacksmith		
	iv. Goldsmith		
	v. Tailor		
	vi. Cobbler		
	vii. Masons		
	viii. Potter		
	ix. Washer man		
	x. Any Other		
24	Others (specify)		

(Name of the Investigator) **(Signature of the Supervisor)**

Date: ..... **Date: .....**

Part-III

Social and Cultural Infrastructure Survey

"Social Impact Assessment Study for Land Acquisition of 0.6150 acres of Private Land from village Dihakhala under Khurda Tahasil of Khurda District for Rajua Diversion Weir (ToR 78-00006)"

Name of the Village: _____Name of GP: _____

Name of Block: _____ Name of the Tehsil: _____

Name of District: _____

Sl. No.	**Social and Cultural infrastructure Existing in project area**	**No. in the village (if available)**	**Distance to nearest place where available (Km)**
	A) Social Infrastructure		
1	Festive locations		
2	Local trade guilds		
3	Trading spots		
4	Bhajan Mandals		
5	Sports Groups/associations/clubs		
6	Musical Groups/associations/clubs		
7	Dance Teams/associations		
8	Drama groups/associations/club		
9	Self Help Groups		
10	Yuvak Mandals		
11	Yuvati mandals		
12	Folk art Groups		
13	Painting groups		
14	Handicrafts associations		
15	Local Bandsets		
16	Co-operative Bodies:1-Credit Co-ops, 2. Consumer Co-ops, 3. Fishing Co-ops, 4. Craft Co-ops, 5. Milk Producers' Co-ops, 6. Farmers' co-ops, 7. Poultry Producers co-ops, 8. Labour co-ops		
17	Moneylenders		
18	Local quack doctors		
19	Caste Panchayats/Committee of Elders		
20	Village Panchayat		
21	Any Other organized units of social or cultural nature (specify)		
	B) Cultural Infrastructure		

Sl. No.	**Social and Cultural infrastructure Existing in project area**	**No. in the village (if available)**	**Distance to nearest place where available (Km)**
1	Forts		
2	Ancient Palaces		
3	Canons		
4	Battlefields		
5	Other monuments		
6	Village entrance gates		
7	Boundary stones		
8	Akhadas		
9	Archaeological sites		
10	Monasteries		
11	Maths		
12	Mathadhipatis		
13	Chawdy		
14	Dharamshala		
15	Musafir khanas		
16	Caravan series		
17	Jatra Grounds		
18	Holy Groves		
19	Holy springs		
20	Samadhis		
21	Dargahs		
22	Caves		
23	Birth places of religious leaders /saints		
24	Inscriptions		
25	Memorial stones		
26	Mahasati stones		
27	Temples		
28	Idgahs		
29	Masjids		
30	Churches		
31	Gurudwaras		
32	Jain Basadis		
33	Buddhist stupas		
34	Other religious monuments		
35	Others (specify)		

(Name of the Investigator) **(Signature of the Supervisor)**

Format for Public Consultations

"Social Impact Assessment Study for Land Acquisition of 0.6150 acres of Private Land from village Dihakhala under Khurda Tahasil of Khurda District for Rajua Diversion Weir (ToR 78-00006)"

Issues	Participants' Opinion/Comments		Remarks
	Male	Female	
General perception and awareness about the project			
Support of local people for the proposed project?			
Any problem faced due to the upcoming WS Road project in your locality			
Any critical issues or concern by the local people regarding the project.			
General socio-economic condition: what are the economic activities? cropping pattern(seasonal),			
Average land holding size Loss of community life like any market places or community activities to be affected			
Has there been land acquisition before: if yes, what was the process of land acquisition and compensation package?			
Any religious sites affected			
Health status-availability of hospital/health centre. Are there any chronic diseases prevalent in this area?			
Poverty level: What is the economic status of people in the area:			
Education Status: percentage of literacy			
Employment status: percentage of employment/unemployment/underemployment			
Migration pattern (if any), inward or outward			
Social composition in the locality (number of general population/SC/ST, women headed household, etc (in no.)			
Women's position in the locality			
Prevalence of child labour in the area?			

Issues	Participants' Opinion/Comments		Remarks
	Male	Female	
Is trafficking of children/women common in the area?			
If the project is constructed, it necessitates dislocation, where would you like to be relocated?			
What is the possibility of shifting the religious structure(s) and where to relocate?			
Perceived losses from the project(specify)			
Any organizations of a social nature (NGOs/CBOs/Civil Society) active in the area? Name of these organizations			
Any other issues people may like to share			
Will there be likely involvement of local people in the implementation of the project?			

Focus Group Discussion (FGD)

Social Impact Assessment Study for Land Acquisition of 0.98 acres from Kebadatula village under Muniguda Tahasil of Rayagada district for "Construction of Canal in Sitarampur MIP at Rayagada District (ToR 28-00001)"

Name of Village: _____Name of GP: _____

Name of Block: _____Name of Tahasil_____

Name of District: _____

LIST OF PARTICIPANTS

Sl. No.	Name	Occupation	Sex	Age	Social Category	Signature

(Name of the Investigator) **(Signature of the Supervisor)**

Date: ..... **Date: .....**