

**STATE PROJECT IMPLEMENTATION UNIT,
NCRMP II, RELIEF AND REHABILITATION
DEPARTMENT, GOVERNMENT OF MAHARASHTRA**

**Renovation of Saline Embankment at Narvel
Benavale villages in
Pen Taluka, District Raigad under NCRMP II**

DRAFT FINAL

Social Impact Assessment Report

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Abbreviations

BSNL	Bharat Sanchar Nigam Limited
CAGR	Compounded Annual Growth Rate
CC	Cement Concrete
COI	Corridor of Impact (of Project)
DDMO	District Disaster Management Officer
DPR	Detailed Project Report
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussions
GDP	Gross Domestic Product
GOI	Government of India
GP	Gram Panchayat
GSDP	Gross State Domestic Product
IA	industrial Area
IDA	International Development Association
J&K	Jammu and Kashmir
KDC	Kharland Development Circle
LA	Land Acquisition
LPG	Liquid Petroleum Gas
LT	Low Tension (Transmission Lines)
MHA	Ministry of Home Affairs
MIDC	Maharashtra industrial Development Corporation
MLD	Million Liters per Day
MPCS	Multi-Purpose Cyclone Shelters
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Corporation Ltd.
NCRMP	National Cyclone Risk Mitigation Project
NDMA	National Disaster Management Authority
OP	Operational Policies (of the World Bank)
PIU	Project Implementation Unit
R&BD	Roads and Building Department
RAP	Resettlement Action Plan
RFCTLAR&R	the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013
RFP	Request for Proposal
ROW	Right of Way
SA	Social Assessment
SC	Schedule Caste
SH	State Highway
SIA	Social Impact Assessment

ST	State Transport
ST	Schedule Tribe
UT	Union Territories
WB	The World Bank
WRD	Water Resource Department



EXECUTIVE SUMMARY

1. INTRODUCTION

1.1. Background

Under the World Bank assisted project NCRMP-II, sub component of the “Saline Embankment” is proposed in Narvel-Benavale villages, Taluka Pen and District Raigad in Maharashtra, India.

The Maharashtra State Government, under its Relief and Resettlement Department has set up State Project Implementation Unit (SPIU) to implement NCRMP II infrastructure and capacity building components in the four coastal districts of the state. The project is financially assisted by World Bank. The various state line departments are designated to implement the infrastructure components. **Khar Land Development Circle (KLDC)** with support from the **SPIU** is responsible to implement the saline embankment sub-project” in Narvel-Benavale coastal areas. Narvel-Benavale is one of the four saline embankment sub-projects proposed in coastal Maharashtra under NCRMP II.

Main objectives of the NCRMP project are:

- Minimize risk and vulnerabilities of coastal communities to cyclones.
- To strengthen the structural and non-structural cyclone mitigation efforts through creation of appropriate infrastructure which can help to mitigate the adverse impacts of cyclones, while preserving the ecological balance of a coastal region and strengthening of cyclone warning systems enabling quick and effective dissemination of warning and advisories from source/district/sub-district level to the relevant communities.
- To build capabilities and capacities of people for cyclone risk mitigation in harmony with the conservation of coastal ecosystems.

The NCRMP has identified 13 cyclone prone States and Union Territories (‘UTs’), with varying levels of vulnerability. These States/UTs are divided into two following categories, based on the frequency of occurrence of cyclones, size of population and the existing institutional mechanism for disaster management.

- i. Category I- Higher Vulnerability States: Andhra Pradesh, Gujarat, Orissa, and West Bengal
- ii. Category II-Lower Vulnerability States: Maharashtra, Goa, Karnataka, Kerala, Daman & Diu, Pondicherry, Tamil Nadu, Lakshadweep and Andaman & Nicobar Island

1.2. Regarding requirement of SIA

The Social Impact Assessment (SIA) is aimed at effective assessment of the likely social impacts and their management through efficient and appropriate management measures. With a view to enhance the social system qualities within the saline embankment project influence area and also facilitate implementation of the project in a socially and economically sustainable manner. SIA prepared shall take into account the policy implications of the central and state governments apart from the resettlement policies and regulations of the World Bank. The SIA is to be carried out with utmost adherence to ESM Framework.

1.3. Objectives of SIA

The main objective of Social Impact Assessment (SIA) is to ensure that the project design and implementation are socially acceptable. Further, the objective of SIA shall be to provide inputs for selection of sub-projects and preliminary and also a detailed design of the project. Depending on need based on extent and spread of permanent and temporary project impacts on the community, the Resettlement Action Plans (RAP) is to be developed as part of the SIA. During implementation of the project, the RAP is to be used for executing the resettlement and rehabilitation activities and monitoring measures. In the preparation phase, the SIA shall achieve the following objectives:

- Establish the socio-economic conditions in the project area, and to identify any significant social issues by conducting necessary field investigations, primary surveys and collection of secondary data;
- Assess impacts of the project, and provide for mitigation measures to address the adverse impacts by the provision of the requisite avoidance and/or compensation measures;
- Integrate the social and resettlement issues in the project planning and design; and
- Develop Resettlement Action Plan for implementing, monitoring and reporting of the social and resettlement compensation measures suggested.

1.4. Scope of SIA

The SIA is to identify all potential social issues in the project; and shall develop management measures for addressing all these issues. To this end, the SIA shall consist of the following:

- i. Socio economic baseline established through census surveys;
- ii. Stakeholder Identification & Consultation.
- iii. Project level social issues that would need to be considered in the analysis of alternatives, planning and design project and establish their criticality in the context of the proposed project;
- iv. Social Impact Mitigation Plan to address the project and regional social issues;
- v. As per ESMF guidelines, if the SIA ascertain permanent and temporary project impact on the society, the Resettlement Action Plan (RAP) is to prepare in conformity with the prevailing national and state legislation, policies as well as WB policies.
- vi. Monitoring Plan encompassing the monitoring parameters and schedule for monitoring.

1.5. Methodology and Key Tasks

The first and foremost task is to define likely project impact zone (direct/indirect) based on Detailed Project Report.

- Collected information through desk review and field visits on existing baseline conditions, include all land uses, structures and people (e.g., demography, socio-economic status, vulnerability, status of infrastructure and access to people, livelihood programs, market rate of assets, medical support for sexually transmitted diseases, its prevalence, awareness on HIV/AIDS, legal status of land through revenue records.) within the likely project impact zone.
- Screening and Mapping of the socially sensitive areas urban agglomerations, populated areas, roads and Corridor of Impact, is carried out on GIS platform using satellite imageries, secondary data available from concerned departments. Consultants used tools such as walk through and public consultations with stakeholders.
- Reconnaissance visit and understanding the project site: Reconnaissance visit is carried out on the key issue areas as identified during the desktop study. During informal visit, public consultations carried out to identify socially sensitive areas and suggestions on mitigation of social impacts. The social impacts assessed based on the DPR and same were discussed and points were noted for formulation of social impact mitigation plan.
- Identification of key stakeholders involved in various aspects of the project (project implementing and executing agencies and groups from civil society; description of socio-economic organizations of local communities that may affect project outcomes; carry out public consultation with the likely affected groups, NGOs, district administration and other stakeholders and document the issues raised and outcomes; and assessment of local capacities in terms of participation in planning, implementation and supervision, and evaluation
- Explore viable alternative project designs to avoid, where feasible, or minimize social impacts (displacement, impact on vulnerable community, cultural properties etc.) especially in consultation with the concerned Engineers and the community members on the ground.
- Identification of major and minor social impact issues including loss of assets, livelihood, poverty, gender and health issues and estimate the economic and social Impacts on people and land.
- Stakeholder Consultation: Identifications of all the stakeholders of the project (a) Direct (residents of the project affected area) and (b) Indirect (Forest Department etc), prior publicity of stakeholder consultation and adopting effective method of communication, Conducting consultations formally & informally at two stages, i.e. pre & prior impact assessment) - One to one, FGDs, Expert Consultation, Road side group discussions and finally summarizing the consultations to find out the outcomes of the consultation and addressing raised concerns in the report

- A Resettlement Action Plan (RAP) is to be drafted based on the outcome of the SIA to aid minimize, mitigate, or compensate for adverse impacts on the affected communities focusing on permanent displacement if any. The mitigation plans developed are consistent with the nature of the development and the nature of the impacts and well in conformity with the legal and policy framework of the State, Govt. of India and the WB Operational Policies.

1.6. Fine tuning of methodology

- As discussed with the SPIU, RoW cannot be used as the project deal with corridor and therefore it was agreed to use work Corridor of Impact (COP) of Project.
- As informed by the Executing Agency during review meetings in presence of WB representatives that no land parcels shall be acquired in the project. The saline embankment alignment is revised in such a manner that no land to be acquired, no structures to be demolished or replaced.
- With help of ESMF Guidelines, the Consultants have completed Screening Studies of the entire corridor along the embankment. Strip mapping also completed with support of agencies involved in DPR formulation, field support staff, to demarcate direct impact area, indirect impact area, influence zone, buffer zones and Corridor of Impact of Project.
- Since this is a linear project, the study includes baseline, impact and mitigation along the strip of alignment focusing on corridor area.
- Mitigation measures include mention of important public buildings which has an access through alignment route and its access may be getting affected due to proposed works. Suitable Operational measures for such situations are included in the Mitigation Plan.
- The field survey team did a thorough walk through and carried out an inventory along the alignment of embankment to verify the temporary and permanent impact on the utilities, structures and livelihoods.
- The Key Experts of the Consultant supported by field teams completed discussions with community on discomfort, disturbance and inconvenience due to the construction activity especially at hot spots / sensitive locations.
- The Key Experts with support of the junior professionals disseminated the information on the project activities to the concerned communities and institutional stakeholders.
- Key experts organized consultations with village local bodies, Gram Panchayat and many other community based organizations (statutory / non-government organizations). The purpose was: disclosure of impacts during public consultation. The

teams found these consultations useful to draw community attention and also captured suggestions on mitigation measures to lower the discomfort, inconvenience and disturbance level.

- During initial reconnaissance survey, the Consultants team spotted and identified hot spots, critical and sensitive locations for more detailed survey and public consultation. The purpose was to assess the impact of the project on physical assets, livelihood, accessibility to facilities and amenities etc.

1.7. Consultant appointment and mobilization

M/s EQMS India Pvt. Ltd (Consultant) is entrusted with a responsibility to carry out the SIA studies of the proposed saline embankment project to be implemented in Narvel-Benavale project area and adjoining areas in accordance with the Terms of Reference issued as part of RFP. Contract Agreement was signed in **Aug 2016**. Subsequently, consultant's team constituted of Key Experts was mobilized. The Key Experts were supported by other junior professional key and non-key experts and field personnel as indicated in the proposal on required basis.

Upon mobilization, key experts of consultant held a kick off meeting Chaired by the Project Director SPIU in presence of the concerned functionaries of the line departments involved in the execution of the project activities.

During the meeting the Consultants were briefed by the SPIU Officials about the saline embankment project and prioritized activities synchronized with availability of data, saline embankment alignment in Narvel-Benavale and adjoining areas covered in the project.

The Consultant's Team walked-through along the alignment and studied details of Corridor of Impact of Project (COP). The field work included screening studies as per ESMF guidelines and strip mapping of corridor of impact of the project.

1.8. Data / documents review by consultants

Subsequent to start up meeting, SPIU NCRMP II provided the following data and documents available with them for consultants review and understanding of the envisaged project

- Environment and Social Management Framework, NCRMP-II Volume I Main Report Feb 2015
- Environment and Social Management Framework, NCRMP-II Volume II –Feb 2015
- Draft ESMP – NCRMP II, National Disaster Management Authority, March 2009

Secondary data for purpose of SIA Study was also referred to authenticate & validate the primary information collected. The list of information sources, nature of data collected, purpose of data use and other reference are presented at **Table 1.1**.

Table 1.1 : Summary of Secondary Data with Sources

Source Organisation	Report/source Name	Type of data
Registrar General and Commissioner Census of India	District Census Handbook 2011, District Demographic Data Tables 2011,	Demography
District Economic and Statistical Directorate	District Statistical Profile 2015-16	Land area, amenities, facilities, infrastructure
	District Socio Economic Survey 2015-16	Agriculture
DPR Agency KLDC and SPIU NCRMP II	Detailed Project Report – Narvel Benavale: Jan 2018 and revised in February 2019	Final alignment of the embankment corridor to assess project impact.

1.9. Constraints of Data Base

The Consultants have the following observations on the DPR:

The alignment of saline embankment indicated in the DPR are deemed to have finalized after due considerations of several factors like most optimal length, analysis of alternatives, minimum obstacles among other influential factors. Therefore, embankment routes as proposed in the DPR drawings is considered as final for assessment of likely social impacts.

The initial screening studies, strip mapping and surveys of the embankment alignment done in **Oct 2016**, were re-surveyed in response to the revision in the final DPR due to cost constraints including revision in the route alignment. The same process was followed to collect and update data.

The social impact assessment was done on the basis of joint field visits along the saline embankment with DPR agency and GIS maps provided. However actual demarcation of corridor of impact for the entire length of embankment was not demarcated on the ground, limiting social survey based on their best perception. DPR agency informed that at the time of construction, the line outside the corridor of impact can be demarcated on the ground based on situation at that time.

1.10. Structure of SIA Report

This report contains the following chapters

Executive Summary

Chapter 1: Introduction: Background of the SIA Report describing objectives of SIA, scope of studies, methodology, key tasks, fine tuning of methodology with project proponent and experts, consultant appointment and mobilization, data, documents, review by consultant, constraints of the data base;

Chapter 2: Applicable Social Regulatory Framework covers details of Land Acquisition legislation, salient provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, Minimum R&R Entitlements under the Act, Special Provisions for SCs and STs, Due Diligence of Operational Policies and RFCTLAR&R Act 2013, Entitlement Matrix for saline embankment project;

Chapter 3: Project Description: a brief on National and State Project Elements, sub project activities in the project area;

Chapter 4: Socio Economic Profile of the District and sub project area: The setting up of context of environment in the project area giving an account of present status of the state, district, project area - Raigad and adjoining villages, demography, livelihood pattern, infrastructure and basic amenities in the project area, industries, tourism, festivals, economic profile of the project area of Narvel-Benavale and adjoining villages;

Chapter 5: Proposed Saline Embankment project at Narvel-Benavale is described with greater details in terms of scope of work, location and area coverage, Corridor of Impact of project, limitations of the corridor of impacts;

Chapter 6: Social Impacts, Mitigation Measures and Management Plan: provides an account of impact on land, impact on building structures, livelihood. Social Management Plan gives a matrix on issue specific management of interventions;

Chapter 7: Analysis of Alternatives: This chapter explains the situation in the proposed project area “with” the project scenario and “without” project scenario and further analyses the local situation to adopt the best option to propose alignment with a view to avoid social impact on people, structures and utilities.

Chapter 8: Public Consultation and disclosure – This chapter describes purpose, methodology adopted, consultation with local bodies and line departments, consultation with general public and other stakeholders and community perception on the saline embankment project; in Disclosure it is mentioned about the voluntary land donation for strengthening of the village saline embankment structure and social aspect.

Chapter 9: Budget provisions and institutional arrangements to implement RAP. The chapter gives brief information of budgetary provisions made to implement the RAP especially for the proposed provisions, restoration of structures and utilities, Awareness and Education work

2. APPLICABLE SOCIAL REGULATORY FRAMEWORK

The Saline Embankment project is one of the components under NCRMP II. The NCRMP has a comprehensive ESMF to address the land acquisition, resettlement and rehabilitation issues for the PAPs. The relevant and applicable ESMP provisions which also includes the entitlements and eligible affected families as applicable for Saline Embankment project has been extracted and presented in this section. The ESMF has been developed based on the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013, Government of India and World Bank's Operational Policies for social safeguards.

2.1. The land Acquisition Act 1894 and 1989

Purpose of the act is to set out rule for land acquisition by Government. It is no more applicable as no land acquisition is required for saline embankment project. Moreover, provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 are superseded to LA Act 1894 and its further amendments till 1989.

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

This is an umbrella Act supersede Land Acquisition Act – 1894 / 1989 and National Rehabilitation and Resettlement Policy 2007 applicable to entire India except state of J&K. The Key provisions of the act are:

2.2.1. Definitions Followed in the Present R & R Plan

For this project, procedure and compensation will be as per the RFCT_LARR 2013 and following key definitions will be followed:

- (a) "Administrator" means an officer appointed for the purpose of rehabilitation and resettlement of affected families under sub-section (l) of section 43;
- (b) "Affected area" means such area as may be notified by the appropriate Government for the purposes of land acquisition; (c) 'affected family" includes-
 - (i) A family whose land or other immovable property has been acquired;
 - (ii) A family which does not own any land but a member or members of such family may be agricultural labourers, tenants including any form of tenancy or holding of usufruct right, share-croppers or artisans or who may be working in the affected area for three years prior to the acquisition of the land, whose primary source of livelihood stand affected by the acquisition of land;
 - (iii) The Scheduled Tribes and other traditional forest dwellers who have lost any of their forest rights recognized under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 due to acquisition of land;

- (iv) Family whose primary source of livelihood for three years prior to the acquisition of the land is dependent on forests or water bodies and includes gatherers of forest produce, hunters, fisher folk and boatmen and such livelihood are affected due to acquisition of land;
 - (v) A member of the family who has been assigned land by the State Government or the Central Government under any of its schemes and such land is under acquisition;
 - (vi) A family residing on any land in the urban areas for preceding three years or more prior to the acquisition of the land or whose primary source of livelihood for three years prior to the acquisition of the land is affected by the acquisition of such land;
- (c) "Agricultural land" means land used for the purpose of--
- (i) agriculture or horticulture;
 - (ii) dairy farming, poultry farming, pisciculture, sericulture, seed farming breeding of livestock or nursery growing medicinal herbs;
 - (iii) raising of crops, trees, grass or garden produce; and
 - (iv) and used for the grazing of cattle;
- (d) "Appropriate Government" means, -
- (i) In relation to acquisition of land situated within the territory of, a State, the State Government;
 - (ii) In relation to acquisition of land situated within a Union territory (except Puducherry), the Central Government;
 - (iii) in relation to acquisition of land situated within the Union territory of Puducherry, the Government of Union territory of Puducherry;
 - (iv) In relation to acquisition of land for public purpose in more than one State, the Central Government, in consultation with the concerned State Governments or Union territories; and
 - (v) In relation to the acquisition of land for the purpose of the Union as may be specified by notification, the Central Government;
 - (vi) Provided that in respect of a public purpose in a District for an area not exceeding such as may be notified by the appropriate Government, the Collector of such District shall be deemed to be the appropriate Government;
- (e) "Authority" means the Land Acquisition and Rehabilitation and Resettlement Authority established under section 51;
- (f) "Collector" means the Collector of a revenue district, and includes a Deputy Commissioner and any officer specially designated by the appropriate Government to perform the functions of a Collector under this Act;

- (g) "Commissioner" means the Commissioner for Rehabilitation and Resettlement appointed under sub-section (1) of section 44;
- (h) "Cost of acquisition" includes-
- (i) Amount of compensation which includes solatium, any enhanced compensation ordered by the Land Acquisition and Rehabilitation and Resettlement Authority or the Court and interest payable thereon and any other amount determined as payable to the affected families by such Authority or Court;
 - (ii) Demurrage to be paid for damages caused to the land and standing crops in the process of acquisition;
 - (iii) Cost of acquisition of land and building for settlement of displaced or adversely affected families;
 - (iv) Cost of development of infrastructure and amenities at the resettlement areas;
 - (v) Cost of rehabilitation and resettlement as determined in accordance with the provisions of this Act;
 - (vi) Administrative cost, -
 - (A) For acquisition of land, including both in the project site and out of project area lands, not exceeding such percentage of the cost of compensation as may be specified by the appropriate Government;
 - (B) For rehabilitation and resettlement of the owners of the land and other affected families whose land has been acquired or proposed to be acquired or other families affected by such acquisition;
- (i) Cost of undertaking 'Social impact Assessment study'; (j) "company" means-
- (ii) A company as defined in section 3 of the Companies Act, 1956. Other than a Government company;
 - (iii) A society registered under the Societies Registration Act, 1860 or under any corresponding law for the time being in force in a State;
- (k) "Displaced family" means any family, who on account of acquisition of land has to be relocated and resettled from the affected area to the resettlement area;
- (l) "Entitled to act" in relation to a person, shall be deemed to include the following persons, namely:
- (i) Trustees for other persons beneficially interested with reference to any such case, and that to the same extent as the person beneficially interested could have acted if free from disability;
 - (ii) The guardians of minors and the committees or managers of lunatics to the same

extent as the minors, lunatics or other persons of unsound mind themselves, if free from disability, could have acted:

Provided that the provisions of Order X XX II of the First Schedule to the Code of Civil Procedure, 1908 shall, mutatis mutandis, apply in the case of persons interested appearing before a Collector or Authority by a next friend, or by a guardian for the case, in proceedings under this Act:

(m) "family" includes a person, his or her spouse, minor children, minor brothers and minor sisters dependent on him:

Provided that widows, divorcees and women deserted by families shall be considered separate families:

Explanation. -An adult of either gender with or without spouse or children or dependents shall be considered as a separate family for the purposes of this Act.

(n) "Holding of land" means the total land held by a person as an owner, occupant or tenant or otherwise;

(o) "Infrastructure project" shall include any one or more of the items specified in clause (b) of subsection (/) of section 2;

(p) "Land" includes benefits to arise out of land, and things attached to the earth or permanently fastened to anything attached to the earth:

(q) "Landless" means such persons or class of persons who may be, -

- (i) considered or specified as such under any State law for the time being in force; or
- (ii) in a case of landless not being specified under sub-clause (i), as may be specified by the appropriate Government;

(r) "land owner" includes any person, -

- (i) Whose name is recorded as the owner of the land or building or part thereof, in the records of the authority concerned; or
- (ii) Any person who is granted forest rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or under any other law for the time being in force; or
- (iii) Who is entitled to be granted Patta rights on the land under any law of the State including assigned lands: or
- (iv) Any person who has been declared as such by an order of the court or Authority;

(s) "Local authority" includes a town planning authority (by whatever name called) set up under any Law for the time being in force, a Panchayat as defined in article 243 and a Municipality as defined in article 243P, of the Constitution;

(t) "Marginal farmer" means a cultivator with an un-irrigated land holding up to one hectare or

irrigated land holding up to one-half hectare;

- (u) "Market value" means the value of land determined in accordance with section 26;
- (v) "Notification" means a notification published in the Gazette of India or, as the case may be, the Gazette of a State and the expression "notify" shall be construed accordingly;
- (w) "Patta" shall have the same meaning as assigned to it in the relevant Central or State Acts or rules or regulations made thereunder; (x) "person interested" means-
 - (i) All persons claiming an interest in compensation to be made on account of the acquisition of land under this Act;
 - (ii) The Scheduled Tribes and other traditional forest dwellers, who have lost any forest rights recognized under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006;
 - (iii) a person interested in an easement affecting the land;
 - (iv) persons having tenancy rights under the relevant State laws including share-croppers by whatever name they may be called; and
 - (v) any person whose primary source of livelihood is likely to be adversely affected;
- (x) "prescribed" means prescribed by rules made under this Act;
- (y) "project" means a project for which land is being acquired, irrespective of the number of persons affected;
 - (Ya) "Public purpose" means the activities specified under sub-section (l) of section 2;
 - (Yb) "Requiring Body" means a company, a body corporate, an institution, or any other organization or person for whom land is to be acquired by the appropriate Government, and includes the appropriate Government, if the acquisition of land is for such Government either for its own use or for subsequent transfer of such land is for public purpose to a company, body corporate, an institution, or any other organization, as the case may be, under lease, license or through any other mode of transfer of land;
 - (zc) "Resettlement Area" means an area where the affected families who have been displaced as a result of land acquisition are resettled by the appropriate Government;
 - (zd) "Scheduled Areas, means the Scheduled Areas as defined in section 2 of the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996;
 - (ze) "small farmer" means a cultivator with an un-irrigated land holding up to two hectares or with an Irrigated land holding up to one hectare, but more than the holding of a marginal farmer.

2.3. Compensation for Land Owners

All provisions of the RFCTLARRA, 2013 related to the determination of compensation shall apply. The project proponent shall have to move to the appropriate government along with the details for the land to be acquired for causing publication of preliminary notification as warranted under Chapter 4 (Section

11) of the Act. After hearing of the objection under Section 15. The administrator for Rehabilitation and Resettlement shall prepare a draft Rehabilitation & Resettlement Scheme for the review of the Commissioner Rehabilitation.

The Collector based on the following criteria shall determine the market value of land:

- a. The market value, if any, specified in the India Stamp Act, 1899 (2 of 1899) for the registration of sale deeds or agreements to sell as the case may be, in the area, where the land is situated; or
- b. The average sale price for similar type of land situated in the nearest village or nearest vicinity area; or
- c. Consented amount of compensation as agreed upon under sub-section (2) of section 2 in case of acquisition of lands for private companies or for public private partnership projects, whichever is higher:

Provided that the date of determination of market value shall be the date on which the notification has been issued under section 11. The market value shall be calculated as per above shall be multiplied by a factor to be specified in first schedule.

The First Schedule

[See section 31(2)]

The following components shall constitute the minimum compensation package to be given to those whose land is acquired and to tenants referred to in clause (c) of Section 3 in a proportion to be decided by the appropriate Government.

S.N.	Component of compensation package in respect of land acquired under the Act	Manner of determination of value
1	Market value of land	To be determined as provided under section 26.
2	Factor by which the market value is to be multiplied in the case of rural areas	1.00 (one) to 2.00 (Two) based on the distance of project from urban area, as may be notified by the appropriate Government
3	Factor by which the market value is to be multiplied in the case of urban areas	1 (One)
4	Value of assets attached to land or building	To be determined as provided under section 29
5	Solatium	Equivalent to one hundred per cent of the market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 for rural areas plus value of assets attached to land or building against serial number 4 under column (2)

S.N.	Component of compensation package in respect of land acquired under the Act	Manner of determination of value
6	Final award in rural areas	Market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 plus value of assets attached to land or building mentioned against serial number 4 under column (2) plus solatium mentioned against serial number 5 under column (2).
7	Final award in urban areas	Market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 3 plus value of assets attached to land or building mentioned against serial number 4 under column (2) plus solatium mentioned against serial number 5 under column (2).
8	Other component, if any, to be included	

2.4. Elements of Rehabilitation and Resettlement Entitlement for Affected Families

Under Chapter V Section 31, the collector has been empowered to pass the Rehabilitation and Resettlement award for each affected family in terms of entitlement provided in the Second Schedule.

The Second Schedule

[See section 31(2)]

Elements of Rehabilitation and Resettlement entitlements for all the affected families (both land owners and the families whose livelihood is primarily dependent on land acquired) in addition to those provided in the first schedule.

S.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
1.	Provisions of housing units in case of displacement	<p>If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq. m in plinth area.</p> <p>The benefits listed above shall also be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area and which has been involuntarily displaced from such area:</p> <p>Provided that any such family in urban areas which opts not to take the house offered, shall get a onetime financial assistance for house</p>

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
		<p>construction, which shall not be less than one lakh fifty thousand rupees:</p> <p>Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house:</p> <p>Provided also that no family affected by acquisition shall be given more than one house under the provisions of this Act.</p> <p>Explanation- The houses in urban areas may, if necessary, be provided in multi-storied building complexes.</p>
2.	Land for Land	<p>In the case of irrigation project, as far as possible and in lieu of compensation to be paid for the land acquired, each affected family owning agricultural land in the affected area and whose land has been acquired or lost, or who has, as a consequence of the acquisition or loss of land, been reduced to the status of a marginal farmer or landless, shall be allotted, in the name of each person included in the records of rights with regard to the affected family, a minimum of one acre of land in the command area of the project for which the land is acquired:</p> <p>Provided that in every project those persons losing land and belonging to the Scheduled Castes or the Scheduled Tribes will be provided land equivalent to land acquired or two and a one-half acre, whichever is lower.</p>
3	Offer for Developed Land	<p>In case the land is acquired for urbanization purposes, twenty per cent of the developed land will be reserved and offered to land owning project affected families, in proportion to the area of their land acquired and at a price equal to the cost of acquisition and the cost of development.</p> <p>Provided that in case the land-owning project affected family wishes to avail of this offer, an equivalent amount will be deducted from the land acquisition compensation package payable to it.</p>
4	Choice of Annuity or Employment	<p>The appropriate Government shall ensure that the affected families are provided with the following options:</p> <p>(a) Where jobs are created through the project, after providing suitable training and skill development in the required field, make provision for employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or</p> <p>(b) One-time payment of 5 lakh rupees per affected family; or</p> <p>(c) Annuity policies that shall pay not less than 2000 rupees per month per family for 20 years, with appropriate indexation to the consumer price</p>

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
		index for agricultural labourers
5	Subsistence grant for displaced families for a period of one year	<p>Each affected family, which is displacing from the land acquired shall be given a monthly subsistence allowance equivalent to 3000 rupees per month for a period of one year from the date of award.</p> <p>In addition to this amount, the schedule castes and the scheduled tribes displaced from scheduled areas shall receive an amount equivalent to 50000 rupees.</p> <p>In cases of displacement from the scheduled areas, as far as possible, the affected families shall be relocated in a similar ecological zone, to preserve the economic opportunities, language, culture and community life of the tribal communities.</p>
6	Transportation cost for displaced families	Each affected family which is displaced shall get a one-time financial assistance of 50000 rupees as transportation cost for shifting of the family, building materials, belongings and cattle.
7	Cattle shed / Petty shops cost	Each affected family having cattle or having a petty shop shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of 25000 rupees for construction of cattle shed or petty shop as the case may be.
8	One-time grant to artisan, small traders and certain others	Each affected family of an artisan, small traders or self-employed person or an affected family which owned non-agricultural land or commercial, industrial or institutional structure in the affected area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of 25000 rupees
9	Fishing rights	In cases of irrigation or hydel projects, the affected families may be allowed fishing rights in the reservoirs, in such manner as may be prescribed by the appropriate Government
10	One-time Resettlement Allowance	Each affected family shall be given a one-time "Resettlement Allowance" of 50000 rupees only
11	Stamp duty and registration fee	<p>(1) The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body.</p> <p>(2) The land for house allotted to the affected families shall be free from all encumbrances.</p> <p>(3) The land or house allotted may be in the joint names of wife and</p>

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
		husband of the affected family.

2.5. R&R Benefits for PAFs belongings to ST& SC

1. In case of families, loose access to forest due to projects a special plan will be formulated for development of alternate fuel, fodder and no timber forest produce.
2. Each PAF of ST followed by SC categories shall be given preference in allotment of land if any land is available for allotment of PAF's.
3. Each ST family will get an addition one-time financial assistance of 180 days minimum wages for labour for loss of customary right's or usage of forest produce.
4. ST category PAF's will be resettled as far as possible in the same schedule area in a compound block so that they can retain their ethnic, linguistic and cultural identity.
5. The resettlement area prominently inhabited by S.T.s shall get 1000 Sqm. land free of cost for community and religious gatherings or the community shall be compensated for one-time assistance of Rs. 2.5 lakh.
6. The ST's families resettled out of the district will get 25% higher resettlement grant.
7. Each PAF of SC and ST category shall get reward for the acquired land at the circle rate prevalent in the nearest area as applicable for the general category

2.6. Due Diligence on WB Operational Policies and RFCTLAR&R Act 2013

The National Act on Right to Fair Compensation and Transparency in Land Acquisition, Resettlement and Rehabilitation Act, 2013 (RFCTLAR&R Act 2013) has more synergies and largely in consistent with the provisions of the OP 4.12 and 4.10. The critical synergies and provisions in common between the two are presented below.

- Mandatory ex-ante social assessments to determine whether an acquisition serves a public purpose;
- Requirements to ascertain the minimum land requirements, assess the impact of the acquisition on livelihoods, shelter, public infrastructure, and community assets;
- Provisions to minimize adverse impacts, assessment of cost and benefits of acquisition, enhanced land-loss compensation formulas; livelihoods support for affected persons; comprehensive resettlement and rehabilitation benefits and assistance; census of the affected families to record their socio-economic profile and potential losses, and inventory of affected public and community assets, options and choices for affected families and special provisions for disadvantaged groups; and legal mandate that affected persons must receive compensation and assistance before their property is taken; and;

- Consultations and disclosure, and post-implementation audits.

At the same time, there are a few notable differences between the Act and the World Bank's policy requirements:

- Persons who live or depend on rights-of-way or public lands excluded from the Act's benefits and entitlements;
- A three-year residency requirement for persons losing livelihood, to receive resettlement and rehabilitation benefits. World Bank's OPs is not specific on this, but the objective and the principles of OPs broadly supports for extending the entitlements to these persons if they are notified on the date of the census survey;
- The valuation of assessing buildings, structures, existing utilities under the act remains based on depreciation method as under previous Act.

Provision for Negotiated settlement is not included in the new Act. Negotiated settlement is one of the key provisions in World Banks OPs.

Brief description of other related acts and policies as under in Table 2.1

Table 2.1 : Related acts and Policies

World Bank OP 4.12 – Involuntary Resettlement	The project entails land acquisition though, at a low scale for widening, realignments, junction improvements, bypasses etc. It would also adversely affect structures used for various purposes, livelihood of people (mainly earning their livelihood by means of petty shops and providing various services). Many of them have been operating from the government land. Thus, both title holders and non-title holders alike would be affected as a Consequence of the project.	Not Applicable
Environment (Protection) Act, 1986 and subsequent amendments & EIA Notification S. O.1533 Dated 14 th September 2006 and subsequent amendments	As per the Environmental Impact Assessment (EIA) Notification, 14 th September 2006 and its amendment up to December 2009, new projects or activities require Prior Environmental Clearance. Projects have been grouped under Category “A” requiring clearance from Expert Appraisal Committee (EAC) of MoEF, GoI and Category B” requiring clearance from the State Expert Appraisal Committee (SEAC). The concerned Committee (EAC or SEAC) will finalize the TOR on the basis of Form-1, proposed TOR & Pre-Feasibility/ Feasibility Report. Environmental Impact Assessment study is to be carried out as per the TOR provided by the Committee. Public Hearing is required for Category „A” project. List of projects requiring Prior Environmental Clearance is given in the “SCHEDULE” of EIA Notification.	Not applicable – Saline Embankment is not included in the Schedule of EIA Notification.
Coastal Regulation Zone Notification (CRZ), Department of Environment, Forest and Wildlife, MoEF, 2011	Central Government have declared the coastal stretches of seas, bays, estuaries, creeks, rivers and back waters which are influenced by tidal action (in the landward side) up to 500m from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) & High Tide Line (HTL) as “Coastal Regulation Zone” (CRZ), as per the provisions of the CRZ Notification 6th January 2011 . The main objectives of the Coastal Regulation Zone Notification, 2011 are: <ul style="list-style-type: none"> • To ensure livelihood security to the fishing communities and other local communities living in the coastal areas; • To conserve and protect coastal stretches and; • To promote development in a sustainable manner 	Applicable (Clearance Obtained)

	<p>based on scientific principles, taking into account the dangers of natural hazards in the coastal areas and sea level rise due to global warming. For regulating development activities, the coastal stretches within 500 meters of High Tide Line on the landward side are classified in to four categories namely CRZ-I, II, III and IV. The development or construction activities in different categories of CRZ area shall be regulated by the concerned authorities at the State / Union Territory level, in accordance with norms stipulated in the CRZ regulation and in the state / UT coastal zone management plan.</p>	
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2.7. Entitlement Matrix for Saline Embankment Project

The Entitlement Matrix specific to Saline Embankment Project is developed based on the provisions of the RCTLARR Act, 2013 and World Bank's safeguard policies as suggested in the approved ESMF. The details are given below in **Table 2.2** hereunder:

Table 2.2 : Entitlement Matrix: Applicable Provisions to Narvel Benavale Saline Embankment Project

Sr. No.	Impact Category	Unit of Entitlement	Details of Entitlement	Applicability
01	Encroachers	Affected Persons – Individual / Family	<p>Assistance amount equivalent for impacted structures at replacement cost determined on the basis of R&BD Schedule of Rates as on date without deducting depreciation cost.</p> <p>Encroachers shall be given advance notice of 2 months in which to remove assets / crops</p>	No encroachers affected
02	Squatters		<p>Assistance amount equivalent for impacted structures at replacement cost determined on the basis of R&BD Schedule of Rates as on date without deducting depreciation cost.</p> <p>All squatters will be paid subsistence allowance of Rs. 30000/-.</p> <p>All squatters will be paid Rs. 10000 as shifting allowance</p> <p>Right to salvage materials from</p>	No squatters affected

Sr. No.	Impact Category	Unit of Entitlement	Details of Entitlement	Applicability
			affected structures	
Loss of Livelihood – Title and non-title holders				
3	Loss of Livelihood – title holders and commercial squatters	Individual / Family	One-time grant of Rs. 25,000/- (value prescribed under RFCTLARR Act 2013) Training Assistance	In Narvel Benvale SE project it is not applicable as there shall be no loss of livelihood
	Agricultural Land	Individual / Family	Value prescribed under RFCTLARR Act 2013.	People are willing to give their lands without any claim of amount for this development project and consent of almost all farmers have been submitted to KLDC and SPIU
4	Foreseeable and unforeseen impacts* likely during the construction stage	Owner, affected person	Payment of damages if any to structures Temporary access would be provided where necessary	There shall be 627 affected families (whose land or immovable property shall be acquired) of which there shall be 26 displaced families (who because of acquisition of land and house has to be re-located and resettled from the affected area to the resettlement area). About 16 Nos. Pucca houses, 11 Nos. Kuchha houses / Jhopdi, 3 Nos. Toilets, 01 Nos. wells (unlined), 42 Nos. Trees, 24 Nos. Fish pond shall be impacted. Regarding inaccessibility or inconvenience, the project has planned to minimize number of days of inconvenience by executing the work in small sections and timely manner.
5	Temporary loss of income of mobile kiosks if any	Kiosk owner	Two months advance notice to vacate the areas	Not Applicable. No kiosk will be affected.
6	SC, ST and		Assistance to include in government	There are no permanent

Sr. No.	Impact Category	Unit of Entitlement	Details of Entitlement	Applicability
	Disabled persons		welfare schemes if not included, if eligible as per Govt. criteria and Additional benefits to SC and ST as per the provisions of RFCTLARR Act 2013 schedule	displacements
7	Women		In case of extending any productive asset, joint ownership in the name of husband and wife will be offered. While disbursing the entitlements, women will be given the first priority to receive the entitlement benefits over other entitled persons	Not applicable
8	Loss of or impact on any common or cultural properties	Community, village, ward	Resources such as cultural properties and community assets shall be conserved (by means of special protection, relocation, replacement etc.) in consultation with the community	Along the alignment/corridor of impact, 0.50 km road, 10 Nos. Electrical poles, 8 Nos. Jetties, 24 Nos. Fish pond, 05 Nos. Drying fish platform, 04 Nos. Crematorium, 02 Nos. Temples, 05 Nos. Solar lights, 03 Nos. Passengers shed shall be impacted. It is considered in Social Management and Mitigation plan.
9	Unforeseen impacts		Any unforeseen impacts shall be documented and mitigated in accordance with the principles and objectives of the policy	No unforeseen impacts envisaged. In case any accidental damages to the private or public properties during construction, the same will be restored to its original status.

The date of field survey of likely affected structures and project affected families will be cutoff date.

2.8. Grievance Redressal Mechanism

As prescribed in the ESMF, NCRMP II designed a Grievance Response Mechanism (GRM) to answer to queries, receive suggestions and address complaints and grievances about any issues in application of the guidelines adopted in this framework for inclusive project design, and assessment and mitigation of social and environmental impacts. An elaborate grievance redressal system is also prescribed in new LA and R&R Act 2013.

In NCRMP, all efforts shall be made so that the compensation package for PAF's is decided in consultation with the community so as to avoid any dispute.

A two-level GR mechanism is visualized at the level of Kharland Development Circle (KLDC) at its Sub-division office at Alibag and Divisional office and in case grievance is not addressed at this level then second level at SPIU NCRMP II Mumbai. In case of a potential dispute in the project area the matter shall be brought to the notice of KLDC cell through a defined process of addressing the same at the level of Divisional Engineer. He/She shall be responsible to address the concerns of the aggrieved person at first stage. The Cell shall also have a representation from district collector (or his deputed senior level representative) who shall witness the hearing of the case with KLDC Divisional Engineer. The case shall be heard in presence of (a) the affected party, SHE Cell shall try to reach an amicable solution to the grievance. There shall be an official specially devoted for recording the grievance applications and arrange basic logistics process for hearing at the level of SHE. At contractor level only grievances applications shall be received at the boxes placed at work sites, labour colony and his office within project area which shall be open in the presence of KLDC representative and referred to the SHE Cell of KLDC. The corrective preventive action and supervision responsibility will be well defined for a time bound action by contractor and closer report by executive engineer. The response to the complaint with resolution will be communicated back to the aggrieved person within 15 days.

However, in case of non-satisfactory solution, the matter shall be brought to the notice of the SPIU GRM headed by Project Manager (PM) and facilitated by Social Expert at the unit. SPIU/GRM Cell shall be the final authority to decide the case. The hearing shall be attended by all members present for hearing at the KLDC as well as SPIU officials. The Social Expert shall facilitate and also maintain a record of the proceedings and the final decisions.

3. PROJECT DESCRIPTION

3.1. Background:

The global warming and climate change is impacting the coastal areas of India. The Maharashtra coastal districts too are not exception to these processes. The saline embankment sub project in Narvel Benavale shall help to protect people, property, livestock and agricultural fields from saline water inundation. In the time of cyclonic conditions these are of extreme importance to life and livelihood and help in sustainable agricultural production. Like other districts of the Konkan, the Raigad district too is situated between Sahyadris (Western Ghats) on the eastern side and Arabian Sea on the west. Due to high rainfall in the Western Ghats and its foothills on Konkan side, most of the rivers here have their origin in the runoff from the steep mountain slopes. The majority of the population here is living in flood prone area. Their houses, agricultural land, livestock are the main risk factors. The usual risks faced by these villages are land sliding, erosion of soil, loss of cultivating lands, destruction of houses along with means of livelihood & loss of livestock's. Irreversible damage to fishing, crops & sometimes fields has been caused due to the floods & landslides which are the major threats to the fishing and farming community here. Not only the fishing areas and farms but the inhabited areas are also exposed to the disaster. During rainy season, all the blocks of Raigad district and the town experience heavy rainfall, flooding and landslide. As an impact, people lose their livelihood resources, houses, agricultural & allied occupational resources.

The Raigad District Disaster Management Plan 2015 mentions that during span of 2009 to 2014 the district suffered 56 human deaths and over 213 cattle deaths while government had to pay huge amount of compensation for the loss of crops, shops, public property, etc. The DDMP Raigad narrates the vulnerability that there are 2 villages along the river side with 5825 vulnerable population, 19 villages along the sea coasts with 37,530 vulnerable persons and 11 along the creeks which can cause threat to 2357 villagers. NCRMP:

3.2. Maharashtra State Project Elements

The National Cyclone Risk Mitigation Project has been drawn up by Ministry of Home Affairs ('MHA'), Government of India ('GoI') with the purpose of creating suitable infrastructure to mitigate the effects of cyclones in the coastal states of India in a sustainable way. The NCRMP is a flagship program, the first Bank funded project in India exclusively focusing on ex-ante disaster risk mitigation. It is being implemented by the NDMA with support from the Ministry of Home Affairs (MHA), focusing on cyclone prone coastal States and Union Territories with financial aid from International Development Association (the "Bank") in the form of a "credit" toward the cost of National Cyclone Risk Mitigation of Project (NCRMP) II. Overall the project is organized in four components:

- **Component A** – Last Mile Connectivity for the dissemination of cyclone warnings and advisories from district/ sub-district level to communities, to be implemented by NDMA in consultation with participating States/ UTs.
- **Component B** – Construction of physical infrastructures for cyclone risk mitigation to be implemented by the States/ UTs.

- **Component C** – Technical assistance for capacity building on hazard risk management to be implemented by States/ UTs.
- **Component D** – Project Management and Monitoring applicable to all implementing agencies

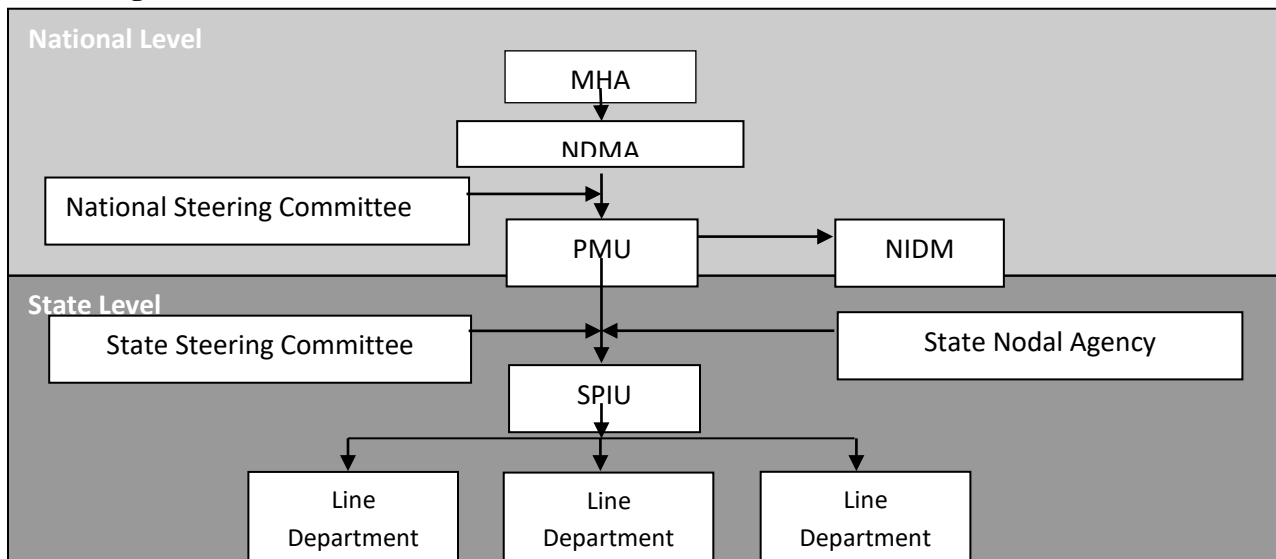
Maharashtra is one of the lower vulnerability states where NCRMP Phase II is implemented and all four components are planned to be implemented in the coastal districts of the state. The component B is focused on creating cyclone risk mitigation infrastructure and in Maharashtra following sub-projects are proposed:

- Construction of 13 Multipurpose Cyclone Shelters (MPCS) to be implemented through PWD.
- Underground electrical cabling (UG) in 3 towns to be implemented through Maharashtra State Electricity Distribution Ltd.
- Renovation of Saline Embankment Embankments at 8 sites through Kharland Development Corporation (KLDC).

The total budget outlay of the Maharashtra NCRMP II is Rs. 397.95 Crores.

To implement the NCRMP II in Maharashtra, the state government has set up a ‘State Project Implementation Unit’ (SPIU) at its Relief and Rehabilitation Department. The Unit is to operate as nodal agency for implementation of NCRMP II in coordination with line government agencies namely MSEDCL, Kharland Development Authority, State Disaster Management Authority, Public Works Department, etc. Management framework of NCRMP II is given in

Figure 3.1. Below:



Source: Operations Manual, NCRMP-II

Figure 3.1 : Management Framework of NCRMP Project

The SPIU, Relief and Rehabilitation Department, Government of Maharashtra engaged “EQMS India Pvt. Ltd. As consultant to carry out the SIA/ RAP study for development of saline

embankment for Kachali Pitakiri, Narval Benvale, Morakhota and Vadhiv in Maharashtra as per requirement of World Bank Operational Policy 4.01, 4.10 and 4.12. This SIA/RAP report focuses on social impacts and proposed social management plans (measures) for Saline embankment development for Narval Benvale and adjacent areas. Separate reports are prepared for Kachali Pitakiri, Morakhota and Vadhiv.

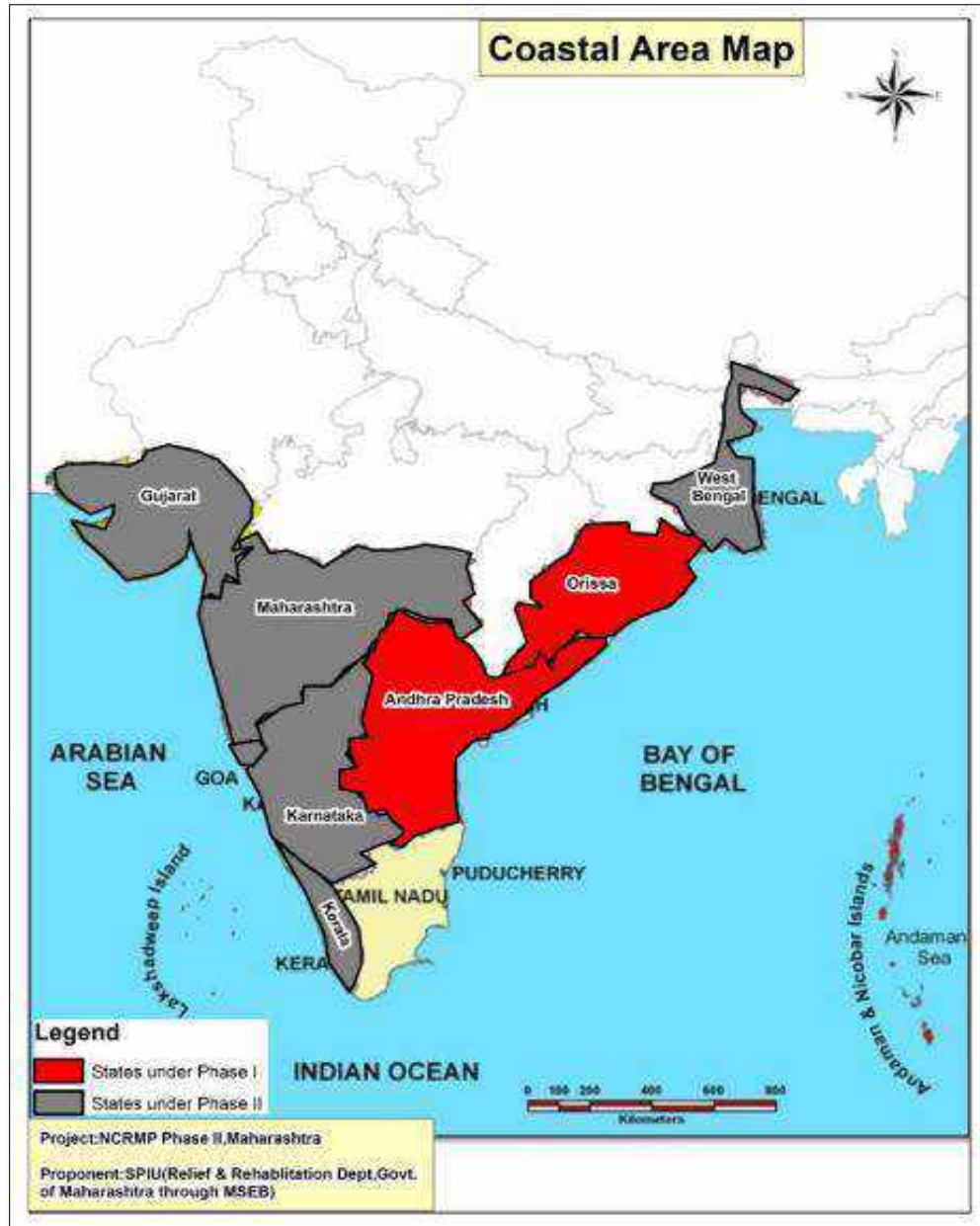


Figure 3.2 : Coastal Area Map of India Showing States Covered Under NCRMP

3.3. Project Location and Salient Features

The Narvel Benavale Khar Land (embankment) Scheme measures about 16.44 km and protects village Kaleshrivadi, Tukaramwadi, Mothe Bhal, Vitthalwadi, Lakhola, Borze, Narvel,

Benavale, Sarebhag and Vashi with total benefited area of 1388 ha. The embankment is situated near villages Bhal, Narvel & Benavale in Taluka Pen, District Raigad. The Kharland Development Board constructed Narvel Benavale Khar Land Scheme in 1952 to protect the settlements and agriculture fields of above mentioned villages. Embankment abuts Bhogwati and Amba River/creek. The Scheme is located at a distance of 20 Kms from Taluka Place at Pen. Site is connected through Narvel Benavale, Washi-Vadhav, Vadhav-Kaleshree and other small roads to NH-66 (Alibag-Khopoli road). At present embankment is in dilapidated or became under section largely due to continuous erosive action of tides, meandering action of the creek and heavy rainfall. Further workers and animals have been using the earthen embankment as a road, which has aggravated the damage of the embankment.

This kharland scheme is selected under the NCRMP-II project for Renovation. Kharland Development Circle has obtained the clearance from Coastal Zone Management Authority for repair and strengthening of embankment for its Renovation. There are no notified eco-sensitive zones within 10 km radius of the embankment. No reserve forest area is present within 1 km radius of the embankment. In addition, no archaeological site is present within 300 m radius of the proposed embankment. Mangroves exist all along the embankment towards the creek side and on land side in some patches. Mangroves are classified as protect forest areas as per High Court Order of 2005. Mangroves exist all along the embankment towards the creek side hence, the existing toe line on the creek side avoiding mangroves has been considered as the starting point of the proposed embankment.. Map showing location of the embankment site is shown at **Figure 3.3**

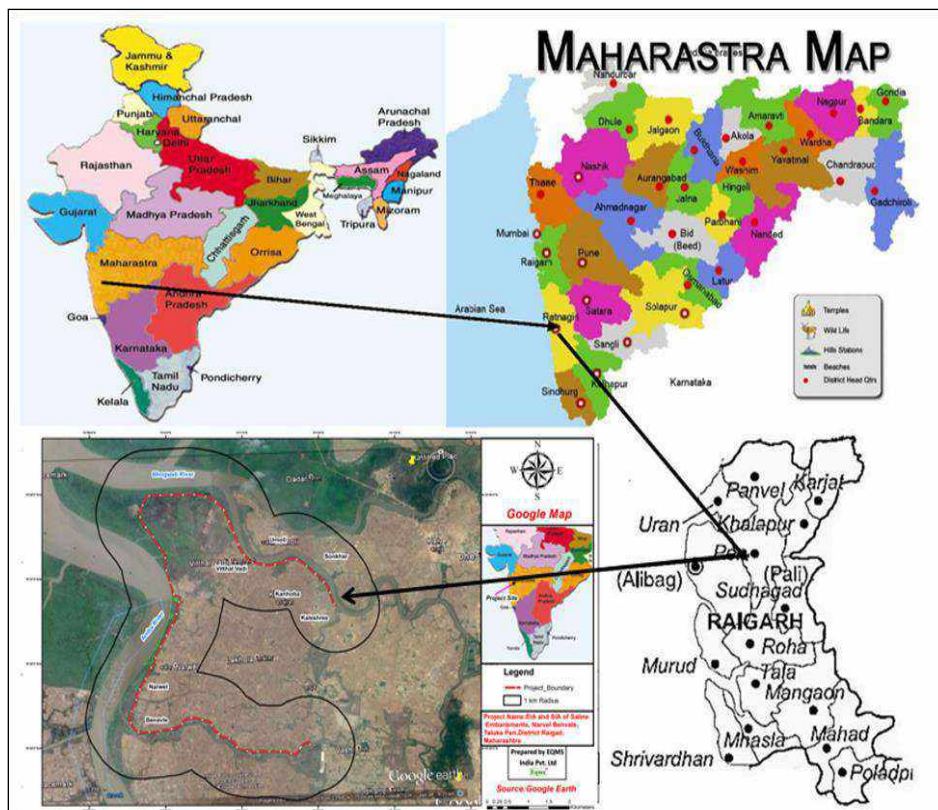


Figure 3.3 : Location Map of Narvel-Benavale Embankment Site

Detailed information about the site is shown in Table 3.1

Table 3.1 : Detailed Information about the Saline Embankment

S.No.	Parameter	Description
Embankment		
1.	Type of embankment (Homogeneous / zoned/ rockfil):-	Zoned¹
2.	Length of embankment (m) :	16440
3.	Top width (m) :-	3.00
4.	Top Bund level TBL (m)	5.18
5.	Maximum Bottom Width (m)	23.76
6.	Seismicity of the project area (IS:1893) :-	Zone – IV
7.	Slope of embankment. 1) U/S (Field side.) 2) D/S (Creek side.)	1.50 : 1 1.50 : 1
8.	Sill level.	0.83
9.	High tide level.	2.6
10.	High flood level.	3.88
11.	Free board.	1.5 m.
Sluice Gate/Ugadi		
12.	No. of C.D. Works.	8
13.	Location.of CD works	Existing: Ch. 388m, 1786m, 2507m, 6732m, 7228m, 8787m & 9547m Proposed: 16405 m
14.	Opening	Rectangular
15.	Catchment area.	20.37 Sq. Kms.
16.	Flood discharge as per DICKNS FORMULA	174.22 cum/sec
17.	Area of water way provided.	149.89 Sqm.
18.	Dimensions of opening (mxm)	Existing: 7 nos Proposed: 1 additional Total: 7 reconstructed +1 new Existing 1) Ch.393m 3 x 1.50 x 2.43 2) Ch.1786m 3 x 1.50 x 2.43 3) Ch.2507m 3 x 1.50 x 2.43 4) Ch.6732m 3 x 1.50 x 2.43 5) Ch.7228m 3 x 1.50 x 2.43 6) Ch.8787m 3 x 1.50 x 2.43 7) Ch.9547m 3 x 1.50 x 2.43

¹ Zoned embankments are the one which comprises of zones of selected materials having different degree of porosity, permeability and density

		Proposed 8) Ch.16405m 7 x 1.5 x 2.43
19.	Types of Gates	FRP / PPGL Gates, with horizontal hinges on top, acting one way restricting thereby saline water to enter in the benefited area.

3.4. Need of Saline Embankment –Narvel Benavale Project:

The renovation, strengthening and development of saline embankment are aimed at protecting fresh water area from salinity ingressions due to storm surge and high tide sea waters. The activity will protect the natural resources – land, water, crops, vegetation, livestock and also human resources getting affected due to the salinity ingressions. The protective measures will ensure enhancement of crop productivity, increased income, attract flow of finances, investments, jobs and other livelihood opportunities, which brings in people from different cultural and social background. The long-term impacts of the renovation and strengthening of saline embankments not only provide impetus to the local economy but also bring about a multi-dimensional economic, social and cultural change. Improvements of saline embankments, de-silting of the mouths of channels and rivers and additional vantage to the roads and cross drainage structures have been advocated. Proper forecasting and other curative measures with proper Disaster Management programme can mitigate the flood and cyclone to a great extent. Vulnerable population of 3334 lives and their property to the tune of Rs. 675 Lakhs will be protected from Cyclone and tsunami. On completion of renovation work of Narvel Benavale Saline Embankment, the area of 334.00 ha will get reclaimed. At present only 210 Ha in this area is under Kharip paddy cultivation.

Land acquisition is not proposed as lands owners have volunteered to donate land as only a small piece of land parcel is required from their land for constructing/strengthening the embankment. However, there are 19 pakka houses on the embankment out of which 3 nos may be saved due to straightening of the embankment between 13230 and 13380, thus 16 nos of pakka house will be impacted. 24 nos of fish ponds, 11 kachha houses and 3 private toilets will be affected due to renovation of embankment. Given the continuous erosive action and unpredictable climatic change impacts there is need to protect the coastal communities and saline embankment is one of the most feasible solutions to protect lives, properties and productive assets and villagers are aware of the erosion which prompted them to extend consent to renovate the existing bunds by offering additional land, if any.

3.5. Benefits of the Sub-Project

The saline embankment project shall provide direct and indirect benefits to the people of Narvel Benavale of Pen Taluka, Raigad District, where more than 12544 vulnerable population and their property to the tune of Rs. 1222.50 Lakhs shall be protected from Cyclonic conditions or disasters such as tsunami. Further, besides improving livelihood opportunities for the people living there. The length of the embankment is 16.44 km having chainage 0 to 16440 m. Also,

sluices (CD works) are proposed at suitable locations (at 8 locations) after determining the area required to drain the peak flood discharge from the field in to the creek in the form of rectangular openings.

- The saline embankment development is resilient to cyclonic conditions hence safe for public lives, private and public properties, livelihoods assets of the coastal communities. The system becomes resilient to the natural disasters.
- **Safeguard to Coastal Dwellers:** 12544 lives can be saved from the devastating dangers of cyclone and tsunamis.
- **Safety to livestock/housing:** Protection of 815 houses costing about 1222.50 lacs.
- **Other Benefits:** Benefits due to renovation of Narvel Benavale saline embankment are mentioned below in **Table 3.2**.

Table 3.2 : Benefits due to Proposed Renovation work at Narvel Benavale saline embankment

S.No.	Content	Benefits
1.	Area of land to be saved from saline water ingress	There will be an improvement in the microclimate and soil productivity and thus, agriculture production can also be enhanced significantly, with the available livestock. Agricultural fields will be protected from saline water inundation and the sustainable agricultural production could be ensured. The project envisages protection of 1388 Ha. This component will help in stopping of the salinity ingress in the agricultural lands, improving sweet water recharge in the agricultural lands and controlling run off water.
2.	Saving life and assets of people	Embankment will save life of 12544 people, 815 house holds and assets worth 1222.50 lacs). Also, embankment can be used as approach road for rescuing the life of people during cyclone and will also help to maintain supply continuity during emergency
3.	Area of land irrigated with construction of canals / creek irrigation.	The water ponds and ground water recharge will be free from salination making ground water potable.
4.	Availability of potable drinking water	The water ponds and ground water recharge will be free from salination making ground water potable. Water for drinking is one very critical problem. Villagers are dependent either on wells, bore wells, or local natural resources. The cost of fetching water from outside to the villagers is 36 lacs. for six

		month.
5.	To protect areas from erosion of soil.	The saline embankment will act as a barrier between the creek & the coastal lands, thereby protecting the coastal lands from getting washed away during floods & daily tidal fluctuations.
6.	Employment opportunities during construction	During the construction earthen embankment provides opportunities to the poor people residing in villages as well as its maintenance work in future.
7.	Reduction in migration of people	<p>Due to shortage of the natural resources & opportunities for development, people migrate towards the urban areas, like Mumbai, Thane, Pune and Kolhapur.</p> <p>By renovation of existing saline embankment there will be an improvement in the microclimate and soil productivity and thus, agriculture production will also be enhanced significantly. Agricultural fields will be protected from saline water inundation and the sustainable agricultural production could be ensured. The project envisages protection of 1388 Ha. of kharland from saline water, thereby making the coastal farmers fetch agricultural income to the tune of Rs. 565.27 Lacs in the next 20 Year's Span of the embankment.</p>

4. SOCIO ECONOMIC PROFILE OF PROJECT AREA

4.1. The District Profile

Raigad is one of the 36 districts in the state of Maharashtra. The district is bounded by Mumbai Harbor to the northwest, Thane District to the north, Pune District to the east, Ratnagiri district to the south, and the Arabian Sea to the west. For administrative purposes the district is divided into 4 sub divisions viz., Alibag, Panvel, Mapgaon and Mahad. Pen is town and taluka in Raigad District. Pen is famous and known for its world class Ganesh Idols. Narvel Benavale embankment is located in Pen taluka and protects the villages Kaleshrivadi, Tukaramwadi, Mothe Bhal, Vitthalwadi, Lakhola, Borze, Narvel, Benavale, Sarebhag and Vashi with length of 16.44 km and total benefited area of 1388 ha. Population of 12544 people will be protected with the renovation of embankment. Major occupation of people within the benefited area is agriculture, fishing and jobs. Map of Raigad District is given in **Figure 4.1**.



Figure 4.1 : District profile of Raigad District

4.2. Socio-economic Environment

The saline embankment Project is located in the Raigad District. Details of socio-economic environment of Raigad District and Project area are presented in the sections below. Project area for saline embankment development activities comprises Narvel Benavale village side embankment. Census, 2011 data has been referred to collect the data on socio-economy.

4.3. Area and Administrative Structure of Raigad District and Project Area

For administrative purposes, The Raigad district is divided into 15 Talukas (Tahsils) namely Alibag, Panvel, Karja, Pen, Roha, Mangaon, Mahad, Shrivardhan, Tala, Murud, Poladpur, Khalapur, Sudhagad, Mhasala, Urant.

As per 2011 official census report, the population of the district is 26, 34,200 with sex ratio of 959, which is higher than the state ratio of 929. The geographical area of Raigad district is 7,152 sq km. The average literacy is 82.34% comprising male literacy of 89.13% and female literacy of 76.92%. The schedule Caste (SC) and Schedule Tribe (ST) community are considered as socially weak, hence the state and central governments have several welfare schemes for their economic and social development. SC population of Raigad District is 134952 out of which male are 67980 and female are 66972. ST population of Raigad District is 305125 out of which male are 153657 and female are 151468.

Table 4.1 : Raigad District at a Glance

Sr. No.	Particulars	Year	Unit.	Statistics
Geographical Information				
A	Area			
	Latitude			17.51 to 19.80
	Longitude			72.51 to 73.40
	Geographical Area		Sq. km	7148
B	Administrative Units			
	Sub-Divisions		Nos.	4
	Tehsils		Nos.	15
	Panchayat Samiti		Nos.	11
	Nagar Palika		Nos.	821
	Gram Panchayat		Nos.	1919
	Revenue Villages			
2	Population	2011		
	Sex-wise	2011		
	Male	2011	Lakh	13.44
	Female	2011	Lakh	12.90
	Rural Population	2011	Lakh	16.64
	Urban Population	2011	Lakh	9.70
	Total	2011	Lakh	26.34
	Density	2011	Population per sq. km	368

	Sex ratio	2011	No. of Females per 1000 males	959
	Rate of Literacy			
	Male	2011	Percentage	89.13
	Female	2011	Percentage	76.92
	Total	2011	Percentage	83.14
3	Agriculture			
		2012-13	“000” Hectares	
A	Land Utilization			
	Total area	2012-13	Th. Hect	687
	Forest cover	2012-13	Th. Hect	149
	Non Agricultural land	2012-13	Th. Hect.	52
	Cultivable Barren Land	2012-13	Th. Hect.	104
4	Forest			
	Forest	2012-13	Th. Hect.	149
5	Live Stock & Poultry (asper 19th Livestock Census 2012)			
A	Cattle and Buffaloes	2012	In 000's	293
	a) Cows	2012	In 000's	224
	b) Buffalos	2012	In 000's	69
B	Other Livestock			
	a) Goats and sheeps	2012	In 000's	88
	b) Pigs	2012	In 000's	1.5
	c) Poultry	2012	In 000's	38
C	Railways			
	Length of Rail line	2013-14	Kms	299
D	Roads	2013-14		
	National Highway	2013-14	Km.	154.00
	State Highway	2013-14	Km.	1244.00
	Major District Roads	2013-14	Km.	566.00
	Other District Roads	2013-14	Km.	970.00
	Rural Roads	2013-14	Km.	2957.00
	Total roads	2013-14	Km.	5932.00
6	Communication			
	i) No. of Telephone connections (Rural & Urban) Telephone connection	2015-16		
	ii) No. of Post Offices	2015-16	Nos.	560
	iii) Mobiles	2015-16		
7	Education			
	a) Primary School	2015-16	Nos.	2305
	b) Secondary School	2015-16	Nos.	707

	c) Higher Secondary School	2015-16	Nos.	110
	d) Industrial Training Institutes (Govt)	2015-16	Nos.	137
	e) Colleges (Degree)	2015-16	Nos.	11
	f) Technical University	2015-16	Nos.	0
8	Banking			
	a) Nationalized Banks	2016-17	Nos.	309
	b) Private Banks	2016-17	Nos.	47
	c) RRBs	2016-17	Nos.	3
	d) Co-operative Banks	2016-17	Nos.	59
	e) Total Banks	2016-17	Nos.	418

(Source: Census 2011)

4.4. Demography

Population of the project area is given below in **Table 4.2** and **Table 4.3**. Entire project area is rural area with total population of 12421 out of which male are 6217 and female are 6204 with sex ratio of 1002 which is higher than state ratio of 929.

Table 4.2 : Population of Project Area

S.No.	Village	No. of Household	Population					
			Total	Male	Female	SC	ST	OBC+GEN
1.	Mothe Bhal	218	923	462	461	0	0	923
2.	Vitthalwadi	228	1085	561	524	0	0	1085
3.	Kanhoba	149	493	222	271	0	6	487
4.	Kaleshriwadi	231	939	465	474	0	4	935
5.	Lakhola	100	453	225	228	3	0	450
6.	Benavale	120	494	243	251	0	0	494
7.	Bahiramwatak	88	368	184	184	0	4	364
8.	Narwel	166	664	322	342	0	0	664
9.	Wadhav	382	1660	846	814	4	6	1650
10.	Div	303	1294	655	639	6	0	1288
11.	Borze	321	1377	699	678	0	0	1377
12.	Washi	661	2671	1333	1338	17	31	2623
	Total	2967	12421	6217	6204	30	51	12340

Source: Census Data dated 2011

The average household size in the Raigad district is approximately four persons per households.

Proposed embankment is located in the Pen Taluka of Raigad District. As per the Census India 2011, Pen Taluka has 45,142 households, population of 1,95,454 of which 99,570 are males and 95,884 are females. The population of children between age 0-6 is 21,884 which is 11.2% of total population. The sex-ratio of Pen Taluka is around 963 compared to 929 which is average of Maharashtra state. The

literacy rate of Pen Taluka is 69.18% out of which 75.8% males are literate and 62.3% females are literate. The total area of Pen is 527.68 sq.km with population density of 370 per sq.km. Out of total population, 76.14% of population lives in Urban area and 23.86% lives in Rural area. There are 2.28% Scheduled Caste (SC) and 16.58% Scheduled Tribe (ST) of total population in Pen Taluka. Urban area of the Pen Taluka is Pen Municipal Corporation.

The Pen Municipal Council has population of 37,852 of which 19,257 are males while 18,595 are females as per report released by Census India 2011. Population of Children with age of 0-6 is 3910 which is 10.33% of total population of Pen (M CI). In Pen Municipal Council, Female Sex Ratio is of 966 against state average of 929. Moreover, Child Sex Ratio in Pen is around 911 compared to Maharashtra state average of 894. Literacy rate of Pen city is 91.40% higher than state average of 82.34%. In Pen, Male literacy is around 93.91% while female literacy rate is 88.82%.

Traditionally, Pen city was populated by Agri, Brahmins and merchant's community as it was centre of culture, education and trade. But now, city of Pen has become a beautiful amalgam of diverse castes and religions, co-existing peacefully, side by side. Project site falls in rural area of the Pen Taluka. Details of socio-economy of project area is given in section below. The Socio-economic profile of Project area is summarized in **Table 4.3**

Table 4.3 : Socio Economic Profile of Narvel Benavale Project Area

Sr No	Particular	Numbers			Remark	
1	Demography of the Project Area.	1388 ha			All 14 village	
2	SC/ ST population	81			Wahi – 41	
3	Literacy	Village	HH	Total Population	Literate Male	Literate Female
		Mothe Bhal	218	923	371	261
		Vitthalwadi	228	1085	478	342
		Kanhoba	149	493	160	154
		Kaleshriwadi	231	939	367	270
		Lakhola	100	453	199	163
		Benavale	120	494	216	184
		Bahiramwatak	88	368	143	114
		Narwel	166	664	272	247
		Wadhav	382	1660	688	541
		Div	303	1294	545	458
		Borze	321	1377	586	513
		Washi	661	2671	1119	916

		Total	2967	12421	5144	4163												
4	Occupation/ Livelihood Pattern	Farming & Fisheries																
Infrastructure Facilities																		
Village	Facility at a Distance in Km from village																	
	Primary School	Middle School	Secondary School	Higher Secondary School	College	Hospital	Dispensary	PHC	PHSC	Post Office	Telephone Connection	Bank	Credit Society	Source of Water	Retail Market	Wholesale market	District administration	Takuka / Block Administration
Kaleshri,	0	3	3	3	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Mothe Bhal,	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Vitthalvadi	0	3	3	3	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Narvel,	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Benavale,	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Bahiram Kotak,	0	5	5	5	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Vadhav,	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Div	0	2	2	2	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Vashi,	0	0	0	0	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Lakhole, - Kanhoba,	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10
Borje	0	4	4	4	10	10	8	8	8	4	4	4	4	3	10	10	45	10

Archaeological, cultural and aesthetic Sites

There no such sites either notified or not-notified sites by competent authorities in the study area.

Industries

No industries exist in the study area. However, at a distance of 20 km there are industrial area having major industrial plants such as Jindal Steel Works on Pen – Alibag highway on the bank of river Amba. A few villagers from villages work either on a contract or permanent labour. The company has supported villagers with funding support to renovate 900 m of saline embankment at village Vithalwadi Bhal under Corporate Social Responsibility with an investment of 29 lakh.

Social Infrastructure

The community mentioned that the accessibility to various facilities and amenities is an issue in the area. The communities used to travel to the area by boat before 1969. After 1970s, road connectivity established in the area. However, during monsoon and flooding season, the villagers are travelling of boats. Jetty construction is requested in village Benavale.

Family structures:

There are a few joint families. Majority families are nuclear.

4.5. Economic Profile of the District

During 2013-14, the district had per capita income of Rs. 1,32,607. The District population is mainly dependent on household economic activities, industrial and service sector employment and other. The agriculture – crop cultivation is restricted to a small area and it is an occupation of a small portion of the population. However, agriculture, forestry, Fishing, Industrial and construction activities dominate the primary sector. Since last 20 years several industrial areas are being promoted and built by the Govt in the vicinity of Raigad. The industrial development has promoted employment generation in the Raigad to large extent. The largest aluminum plant, mango pulp canning industries, fishery packaging industries, cold storages, ice making plants and many other industrial installations have generated employment to boost the district economy.

Raigad is located and is considered as most preferred tourist destination in Konkan region. Historical places, seashore and coastal area attract tourist.

Raigad and nearby coastal areas are famous for unique fishery species – Prawns, Crabs and many other such species are famous amongst the sea food lovers in local area as well as tourists. These species are also exported to different parts of Maharashtra due to their demand by people. Fishermen community is dominant in all coastal areas on sea side as well as on estuaries, rivers and other water bodies.

In addition to agriculture, the Raigad offers a good residential place for industrial work force in the vicinity of the area (in a 30-km radius). Raigad is a major trade Centre for agriculture, industrial marketing and service sector units.

Broadly, the fishing, agriculture, horticulture, tourism industry and recent decades the industrial development are major sources of earnings for the people. However, any change in the climatic conditions or hydro-metrological disasters, it can affect this economy and sources of livelihoods of the people dependent on these means. Small villages such as Narvel Benavale are mostly dependent on only monsoon crop paddy and their entire economy is dependent on this crop only. In case of heavy rains or salinity ingrace of farming land can affect their economy to at large extent. Saline Embankment is one of the measures to mitigate the impacts of flooding, cyclone or such calamities.

5. SALINE EMBANKMENT PROJECT: NARVEL BENAVALA

5.1. Scope of Development of Saline Embankment under the project

The proposed project which is renovation of Narvel Benavale saline embankment under NCRMP-II is proposed due to continuous erosive action of tides, heavy rainfall, meandering of river, etc as mentioned above which has led to dilapidated condition and damage to embankment and constant bank erosion. The purpose of this Saline Embankment project is to raise the height and widening the base of existing embankments, strengthening the existing embankments, modifying alignment wherever required and also laying the top of the embankment with suitable materials. The length of the embankment is 16.44 km having chainage 0 to 16405 m. Top width is 3 m. Top bund level is 5.18 m. Maximum bottom width is 23.76 m. Distance of the toe of the embankment from

5.2. The major planned activities under the project are listed below:

A. Embankment

ROW of embankment will be cleared off the vegetation. Earth will be stripped upto the depth of 15 cm from the RoW. Existing embankment will then be compacted using compactors and rollers. Thereafter the earth (hearting (earth) followed by casing (murrum) material) & other material will be laid in layers as per approved design. Geo-textile will be provided on the slopes followed by murrum. Thereafter stone pitching will be carried out on the embankments using stone rubble or stone chips. Rock toe of the embankment will be constructed for retaining the embankment. Gabion wall/protection wall is proposed to be constructed in various sections which are weak and where enough land is not available to strengthened the embankment and minimize the social issues. The embankment will be constructed with suitable material as determine by Engineer & compaction to 95 % of standard proctor density with vibratory roller.

B. Groynes

Groynes are the vertical stone structures which are engineerd at the sharp curves or edges of the embankment so as to divert the water/waves to prevent direct hitting to the embankment. These structures will prevent the washing away/scouring and erosion of the embankment. These groynes will be constructed at curvature points in this embankment. Provision for Groynee construction is kept in the DPR. It is proposed to provide groynes at chainage 13500, 13595, 13550, 14570, 14600, 14640, 14790, 15100 and 15150.

C. CD Works

There are total seven nos of CD work existing in embankment. CD works are existing at Chainage 388 m, 1786 m, 2507 m, 6732 m, 7228 m, 8787 m, 9547 m. One more CD work will be constructed at chainage 16405 m. Ring bund will be provided at location of the CD works construction to prevent flow of water from creek to land during high tide. Raft foundation will be provided for the proposed CD work. Material approved by enginner and as per BOQ will only be used for construction of the CD works. Rock toe will be provided in starting and end chainages of the CD work to prevent scouring of the CD works due to water action.

D. Approach Road

Approach road of total length 500 m (250 m on each side) will be constructed to connect the embankment with the existing roads.

5.3. Location Map of the Project Area

The following is the location map of the project area



Source: Google Map based on .kml file

Figure 5.1 : Location Map of the Project Area

5.4. Corridor of Impact of Project

Saline Embankment project will cover total length of 16.44 km in Narvel Benavale project area. The DPR proposes to renovate the saline embankment belong to Kharland Development Circle operating under auspices of Water Resource Department. The proposed saline embankment alignment have been finalized after due consideration of several factors like most optimal length, analysis of alternatives, minimum obstacles and impact on the local communities.

Strip map shows few obstacles due to existing utilities along the alignment routes of embankment. The social team during their survey along the route observed that there is no conflict due to private properties and legal right of way boundaries. The consultant has pointed out that the private properties shall not be demolished due to the advance technique to be used in saline embankment renovation.

5.5. Limitations of the Corridor

The alignment proposed for saline embankment within package is surrounded by mangrove forest area. The protection of mangrove forest has been considered in the design for the development of embankment to ensure that no impact shall take place on the mangrove forest area.

A rapid socio-economic survey along the alignment observing Corridor of Impact on both side of embankment was conducted covering entire alignment route stretch of embankment. A detailed video-recording of the entire alignment covering COI has been done. The purpose of the field surveys was to assess and collect information on degree of temporary and permanent impact on the people.

Individual interviews and Focus Group Discussions were held at each sensitive location to capture perception of people and their suggestions to reduce negative impacts of the project on their properties, resources, livelihood, discomfort and inconvenience. The checklist used for the survey is attached at **Annexure 1**. Format for conduct of Census survey of PAPs is placed at **Annexure 2**. However, survey indicated that there are total 627 project affected people (private and Government) and 26 people whose properties (houses, ponds & toilets) are getting affected. Other than this community property (community toilet, sheds, jetties, road, solar lights, electricity poles, electricity line, crematorium etc) are also getting affected.

6. SOCIAL IMPACTS ASSESSMENT, MITIGATION MEASURES AND MANAGEMENT PLAN

6.1. Background:

A socio-economic appraisal using walk through surveys along the alignment observing Corridor of Impact (CoI) of embankment was conducted covering entire alignment stretch of both side of embankment. A detailed video-recording of the entire alignment covering COI has been done. The purpose of the field enumeration was to collect information on various Socio-economic features of impact and to assess degree of the impacts on the people in terms of whether these impacts are permanent in nature (after the project) due to loss of productive assets and livelihood means or temporary (during project construction) such as inaccessibility to assets and means of livelihood, discomfort and inconvenience causing day to day life and wellbeing of people.

This chapter gives the details of the methodology adapted to identify all types of socially sensitive locations in the COI and the type of impact of saline embankment project therein, if any. Most of these places are shown on strip maps and also video graphed for better clarity and identification of such impacted location/s. The chapter lists the finding of the various methodologies adopted, especially rapid field appraisal and transact walk which would reveal that there are no permanent impacts on any of the sensitive locations or public properties or utilities due to proposed alignment. The chapter would help identify locations in the corridor of impact which are likely to cause discomfort to the people due to noise and dust during construction and inaccessibility of way for some time during construction and plan mitigation measures.

The chapter also describes the social impacts of the saline embankment development in Narvel Benavale and mitigation & management measures. The social surveys carried out and subsequent social impact assessment reveals that it is likely to generate some impacts during construction phase of the project. Though it was observed that due to renovation of the saline embankment, there shall be no impact on access to residential and commercial buildings, existing utilities and temporary impact on livelihood of local people.

6.2. Methodology Adopted:

The survey was carried out covering entire length of the route alignment of the saline embankment system. Rapid Field Appraisal consists of (1) Reconnaissance visit to identify most sensitive locations likely to be impacted by the project and (2) Field Survey to document project impact on community and economy. This was done using a check list and questionnaire which was filled in while one to one and focus group interviews at sensitive locations and (3) Strip mapping with sensitive social location plotted where there are likely temporary social impacts in terms of inconvenience to pedestrians, discomfort to the people and also showing temporary impact on livelihood during construction phase. (Refer Volume 1 – Strip Mapping submitted separately).

The team surveyed entire embankment alignment with 15 m both side considering corridor of impact. **During field surveys the EQMS team has undertook the following process:**

- Video recording for embankment alignment with identified impact areas and documented site conditions of the corridor of impacts.
- Social survey and conduct of focus group discussions
- Consultations with concerned Govt. Offices.
- Capturing adequate data for strip mapping of the alignment route of the saline embankment.

Like any other development / infrastructure project for the public purpose, land (Public and Private) invariably is to be acquired by the appropriate government either for its own use or for a requiring body, as the case may be. The total private land required for renovation of Narvel Benavale Khar Land Scheme is 4.8963 ha which is spread over 08 villages in Pen Taluka of District Raigad, Maharashtra. Though the renovation of Saline Embankment project has been conceived with the sole objective of minimal displacement of people because of their property in the project affected area, the acquisition of land and other for public purpose has been necessitated. The acquisition of the land shall be in consonance with “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013”, (RFCTLARRA 2013) which has come into force from 1-1-2014, notified by Government of India.

6.3. Social Impact Assessment Studies

The Socio-economic survey of the project-affected village (PAV) and project affected Families (PAF) in the form of household survey was undertaken for gathering baseline information on various socio-economic parameters, which included the following:

- a. Assessment as to whether the proposed acquisition serves public purpose.
- b. Estimation of project affected families including families likely to be displaced.
- c. Extent of land (Public / Private), houses and other assets, to be affected by the acquisition.
- d. Feasibility of Acquisition at an alternative place.
- e. Assessment of bare minimum extent of land needed for the project.
- f. Study of social impact and mitigate cost in addressing these and its ramification on the overall cost of the project vis-à-vis the benefits of the project.

6.3.1. Public Purpose

In the wake of the fact that the land to be acquired is within the territory of, the State Government of Maharashtra is the Appropriate Government intends to acquire the land for Khar Land Development Corporation (KLDC) for renovation of the infrastructure project. In the preset case, the proposed renovation project for Saline embankment is essentially an infra-structure project. Thus, the provisions of “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013” applies in respect of all activities related to land acquisition for the project.

6.3.2. Village-wise Project Affected Families

The village-wise details of project affected families and total private land to be acquired in the village is shown in **Table 6.1**. It is evident that there shall be 627 affected families (whose land or immovable

property shall be acquired) of which there shall be 26 displaced families (who because of acquisition of land and house has to be re-located and resettled from the affected area to the resettlement area).

Table 6.1 : Village-wise details of PAF

S.N.	Name of Village	Land To be Acquired (ha)	No. of PAF
1	Kaleshrivadi	0.4317	78
2	Tukaramvadi	0.1747	40
3	Mothe Bhal	0.0593	03
4	Vithalwadi	0.2921	131
5	Lakhola	0.9155	58
6	Borze	0.766	83
7	Narvel	0.781	76
8	Benavale	1.476	158
Total		4.8963	627

6.3.3. Extent of land (Public / Private), houses and other assets, to be affected

Besides the private land (4.8963 ha) residential and other immovable which fall within the new alignment shall also have to be acquired. The details of which are enumerated in **Table 6.2**. In addition to these a few public properties which fall within the ROW of modified alignment shall have to be dismantled for clearing construction site for enabling laying of new section of embankment. The details of such public properties which needs to be relocated are enumerated in **Table 6.3**.

Table 6.2 : List of Private Assets to be acquired

S.N.	Particular	Qty
1	Pucca houses	16 Nos.
2	Kuchha houses/Jhopdi	11 Nos.
3	Toilet	3 Nos.
4	Wells (unlined)	01 Nos.
5	Trees	42 Nos.
6	Fish pond	24 Nos.

Table 6.3 : List of Community Assets to be impacted

S.N.	Particular	Qty
1	Road	0.50 km
2	Electrical poles	10 Nos.
3	Jetties	8 Nos.
4	Fish pond	24 Nos.
5	Drying fish platform	05 Nos.
6	Crematorium	04 Nos.
7	Temples	02 Nos.
8	Solar lights	05 Nos.
9	Passengers shed	03 Nos.

6.3.4. Feasibility of Acquisition at an alternative place.

Existing 16.44 km long earthen embankment for protection of inland settlements and properties of villages located in its vicinity and for control of saline water ingress was constructed in 1952 by Kharland Development Board. Saline embankment has now become undersection at various location over the period and thus requires renovation by repairing and strengthening.

Being more than 66-year-old and after having withstood the onslaught of devastating cyclones in 1994 and 2009, the embankment has outlived its useful life because of overtopping of the earthen section which has drastically washed away or reduced to undersize with top level of bund reduced to lower than the high tide levels and inland areas being inundated. Meandering of the river further eroded the bank and the earthen embankment is washed out. C.D. works are in a dilapidated condition due to daily tidal fluctuations resulting from toe-erosion of foundations causing collapse of the structures. Therefore, immediate renovation of the existing embankment by increasing its height and bottom width in conformity with upstream and downstream side slopes and providing stone/rip rap pithing on slopes is vehemently and urgently required to obviate any unfortunate situation of the sudden failure by washing of the substantial length of embankment causing colossal loss of public life and properties.

During investigation and planning stage and at the time of preparation of DPR, detailed investigations were carried out to explore the alternatives in respect of alignment, structural and hydraulic design and balance is struck in favor of the best alternative of siting it at the original location incorporating the standard specification of PWD, Government of Maharashtra, Maharashtra Maritime Board.

Thus, it is abundantly clear that the proposed project is site specific. Therefore, it is clear that land acquisition at any other alternative place for locating the project components is not plausible by any stretch of imagination. The locations of borrow area and muck disposal site have been considered in view of techno-economical consideration.

6.3.5. Assessment of bare minimum extent of land needed for the project.

The proposed saline embankment alignment has been finalized after due consideration of several factors like most optimal length, analysis of alternatives, minimum obstacles and impact on the local communities. Total land requirement for the proposed embankment is 24.396 ha of which 11.5958 ha of existing embankment shall be utilized and additional 12.8002 ha of land is required for renovation of embankment of which private land shall be 4.8963 ha

The land requirement for various components of the project i.e. embankment, groynes and C.D. works have been in sync with the dimensions determined based on detailed hydraulic as well as structural design as per standard designed practices. Likewise, the alignment for embankment and its section has been finalized keeping in view the highest tide level as per the tide tables published by the Maharashtra Maritime Board over a period of 25 years up to the year 2016. The design of the Cross-Drainage works is adopted in the form of R.C.C Structures founded on Raft footings & supported by counter-fort retaining walls on sides so as to save in the quantity of concrete as well as land requirement.

For obtaining construction material like sand, stone/boulder earth no new quarry shall be opened and these shall be procured from existing approved quarries thereby implying minimization of land required for quarry sites. Thus, to keep the land requirement to the minimum, an all-out effort has been made.

6.4. Summary of Social Impacts

- **Permanent Project Impacts**

The saline embankment shall be renovated and repaired within existing ROW of 15 m both side of embankment. The access road to the Narvel Benavale villages belongs to the state Government of Maharashtra. Total area under the existing embankment is 243960 sq. m out of which 115958 sq. m is existing and additional 128002 sq. m of land is required . As per the survey there are total 627 project affected people (private and Government) and 26 people whose properties (houses, ponds & toilets) are getting affected. Other than this community property (community toilet, sheds, jetties, road, solar lights, electricity poles, electricity line, crematorium etc) are also getting affected. Measures are also taken to minimize impact on the community . Therefore, there are 26 project Affected Persons and legal and policy provisions in this regard get triggered in the project. Hence there is need for formulation of RAP and its implementation.

Voluntary land Donation

Land acquisition is likely to take place through a combination of several methods. Identification of available vacant government lands is the most preferred method. In addition, the lands belonging to temples trusts, Gram Panchayats, etc. were also explored. All the beneficiaries are agreed to give their additional land without any compensation for this Saline Embankment. Villagers and the Sarpanch of Group Grampanchayat agreed to extend all the necessary co-operation for completion of this project.

They opined that there would be no problem in implementing the project as the land under the scheme is already in acquisition.

Procedures was in place to ensure that all donations are voluntary and freely given; that the donor is the legitimate owner of the land; and that the donor is fully informed of the nature of the project, the implications of donating the land. Copy of Consent letter (Marathi) is attached in **Annexure 7**.

The following measures have applied in dealing with land donations, based on their relevance to the cases being encountered:

- ✓ An assessment that the affected person does not suffer a substantial loss affecting his/her economic viability as a result of the donation;
- ✓ Consent letter has been provided where the land acquisition and resettlement policy has been discussed with the affected person and acknowledgement by the affected person of his knowledge of the land acquisition and resettlement policy.
- ✓ Certification from the government body that the land is free of claims or encroachments from any third party;

Therefore, there are 26 Project Affected Persons and legal and policy provisions in this regard get triggered in the project. Hence there is need for formulation of RAP and its implementation.

The EQMS team jointly completed survey along the route alignment of the proposed embankment renovation. The DPR agency has mentioned that the budget provisions are made in the DPR for (a) Renovation and Repair of the existing embankment (b) Restoration of any damage to the structure in the ROW during construction. KLDC/ WRD has been suggested to issue a formal letter giving information about the project, its positive impacts and seeking their cooperation in the form of consent to laying the new saline embankment infrastructure on the land belonging to the respective owners. Since part of the lands along the embankment also belong to government, no issue is foreseen in using the same after following due procedure. Other bodies are too either private or statutory and known to each other due to various other projects. No concern is visualized and KLDC shall complete this formality at the earliest.

Total 627 project affected people (private and Government) and 26 people whose properties (houses, ponds & toilets) are getting affected. Other than this community property (community toilet, sheds, jetties, road, solar lights, electricity poles, electricity line, crematorium etc) are also getting affected. Measures are also taken to minimize impact on the community properties. Thus, there are permanent impacts on the land, people, property and any other consideration.

- No involuntary land acquisition is anticipated, as additional land is through a voluntary contribution of land by the landowners. Existing Narvel Benavale saline embankment was constructed using private and government lands earlier, however as per the proposed renovation and strengthening the design requires additional land. Width of the embankment as per the existing design and proposed design requirements is shown in the **Table 6.4** below. Total land requirement for the renovated embankment is 243960 sq. m out of which 115958 sq. m is existing and additional 128002 sq. m of land is required². However, people have given their consent to KLDC to use their land for construction of embankment. Village wise detail of the land requirement is given below in **Table 6.5**.

Table 6.4 : Showing Existing and Proposed Right of Way (RoW)/Bottom Width Details

Sl. No	Name of the Saline Embankment	Existing bottom width in meters	Designed Bottom width meters
1	Narvel Benavale	0.0 m to 15.31 m	10.33-23.76

Source: DPR

Table 6.5 : Village Wise Detail of Land Requirement

Village	Private			Government land/creek side land/other land			Total Land
	Existing Land-ha	Additional Land-ha	Total	Existing Land-ha	Additional Land-ha	Total	
Kaleshrivadi	0.2399	0.4317	0.6716	0.7761	0.9799	1.756	2.4276
Tukaramvadi	0.1002	0.1747	0.2749	0.4735	0.3388	0.8123	1.0872

² As per the PAP List Prepared by KLDC

Mothe Bhal	0.0722	0.0593	0.1315	0.3001	0.4192	0.7193	0.8508
Vithalwadi	0.4169	0.2921	0.709	2.681	3.0605	5.7415	6.4505
Lakhola	0.7365	0.9155	1.652	0.0806	0.089	0.1696	1.8216
Borze	0.6495	0.766	1.4155	0	0	0	1.4155
Narvel	0.9709	0.781	1.7519	0.0924	0.1645	0.2569	2.0088
Benavale	1.8255	1.476	3.3015	0.1022	0.1559	0.2581	3.5596
Sarebagh	0	0	0	2.0397	2.6477	4.6874	4.6874
Vashi	0	0	0	0.0386	0.0484	0.087	0.087
Total	5.0116	4.8963	9.9079	6.5842	7.9039	14.4881	24.396

Source: KLDC

- **Temporary Impact during Construction**

It is likely to trigger temporary impacts during construction phase such as:

- Temporary inconvenience of access to access road to village. Apart from that temporary impact will be on existing utilities i.e. Electric poles, crematorium, etc.
- During surveys it was observed that one crematorium shall be impacted. The local people demand an alternate built up crematorium.
- During construction, air, dust, noise pollution is anticipated which may lead to create discomfort to the local people as well as commuting population but it has been taken care by EIA by spraying water, etc.

6.5. Social Management Plan

The Social Management Plan (SMP) is an amalgamation of all proposed mitigation and monitoring actions, set to a time frame with specific responsibility assigned and follow-up actions defined. SMP shall be a part of EMP and is a plan of actions for avoidance, mitigation and management of the impacts associated with social concerns arising from construction and operation stages of the project. The necessary social mitigation measures have been compiled in view of the likely impacts associated with the proposed saline embankment project at Narvel Benavale village area.

6.6. Objective of Social Management Plan

The SMP contents a few mitigation, monitoring and institutional measures to be taken up during the construction and operation (post-construction) stages of the project. The SMP has been designed keeping in view of the regulatory and other requirements to ensure the following:

- Minimum disturbance to the social components.
- Compliance with the regulatory acts, rules and guidelines of the GoI & state government and maintaining the quality of the social safeguard issues as per the prescribed norms by regulatory bodies.
- Compliance to the Operational Policies and Guidelines of the World Bank (Funding Organisation).

- Strict adherence to the local social values and community resources to the extent possible
- Enhancement of Project benefits for Society
- Sustainable development and operation of project

6.7. Social Management Planning

The major activity associated with the proposed sub project of Narvel Benavale saline embankment development involves renovation and repairing of existing saline embankment, backfilling and restoration of damage or accidental damage to community utilities, during construction phase.

A brief Social Management Plan for such activities especially during construction and operation phases is prepared. SMP lists the activities involved with associated social impacts, suggestive impact mitigation measures, and implementation plan covering monitoring and supervisory responsibilities.

6.7.1. Guiding Principles for Addressing Social Issues

i. Cultural Property Resource (CPR)

All utilities and common property resources likely to be affected due to the project shall be relocated with prior approval of the concerned agencies before start of construction. Similarly, cultural properties whose structure is likely to get affected, shall be relocated at suitable locations, as desired by the community before construction starts. Local community need to be contacted and discuss relocation aspects, sitting as well as their maintenance.

All necessary and adequate care shall be taken to minimize impact on cultural properties (which includes cultural sites and remains, places of worship including temples, mosques, churches and shrines, etc., graveyards, monuments and any other important structures as identified during design and all properties/sites/remains notified under the Ancient Sites and Remains Act.

ii. Land Acquisition / Private Purchase

The private land acquisition shall be made through voluntary land donation process. All the beneficiaries have agreed to give their additional land without any compensation for this Saline Embankment. Farmers have given willingness to give their land in writing for construction of bund in order to protect their farms and village in total.

iii. Proposed Consultation and Information Disclosure

The ESMF provides involvement of all the stakeholders“ at each stage of the project planning and implementation. The SPIU/state level nodal agency shall be responsible for ensuring participation of the community at sub-project level. Involvement of the community includes interactions with the community and disclosing relevant information pertaining to the project tasks.

6.7.2. Planning

Dissemination of project information to the community and relevant stakeholders is to be carried out by the SPIU at this stage of the project initiative. The community at large shall be made aware of the project alternatives and necessary feedback is to be obtained. This should

include the process being followed for prioritization of the identified sub-projects and the proposed benefits. Community and other stakeholders should be involved in the decision making to the extent possible.

Sub-project information is to be distributed amongst the community towards increasing their awareness and their roles and responsibilities. Consultations with Project Affected Persons and their profiling are mandatory requirements of preparing RAP.

i. Implementation Stage

Consultations as part of the implementation stage would be direct interactions of the implementation agency with the Project Affected Persons. These would comprise of consultations towards relocation of the PAPs, relocation of cultural properties, and towards address of impacts on environmental resources as water bodies, trees etc. With the implementation of R&R provisions in progress, consultations and information dissemination is to be undertaken to let the affected persons be informed of the progress. Implementation stage also involves redressal of grievances in case of R&R aspects.

ii. Information Disclosure

The mechanism of information dissemination should be simple and be accessible to all. The means that may be explored include briefing material and organization of community consultation sessions. The briefing material (to be prepared in local language) can be in the form of a) brochure (including project information, land acquisition and details of entitlements including compensation and assistance given to the PAPs) that can be kept in the local Government office; b) posters to be displayed at prominent locations and c) leaflets that can be distributed throughout the length of the project corridors. Consultation meetings should also be organized at regular intervals by the SPIU to acquaint the PAPs of the following:

- Information on benefits of the project and awareness during construction and maintenance of the saline embankment.
- Timeline and progress of the project;
- Information on voluntary land acquisition Time line for acquisition.
- Compensation and relocation of common existing utilities
- Information on compensation and entitlements;

The following is the Social Management Plan (SMP) which describes mitigation measures for avoiding or minimizing adverse or negative social impacts likely to occur during saline embankment project implementation (**Table 6.6**).

Table 6.6 : Social Management Plan (SMP)

Sr. No.	Social Issue	Management Measures	Responsibility	
			Planning and Execution	Supervision / Monitoring
01	Discomfort and inconvenience to Community	Timely completion of work	KDC	SPIU/PMC
		No point of Repair of Entire Saline embankment length posing problem for smooth traffic. The work can be split into small parts of say 100 m.	Contractor	KDC
			Contractor	KDC
02	Requirement of additional land for strengthening/Renovation	<ul style="list-style-type: none"> • No land acquisition is anticipated, as additional land is through a voluntary contribution of land by the landowners. • As per KLDC additional land (12.8 ha) is required for strengthening of the bund which is private land (4.8963 ha) and Government/other land (7.9039 ha) • Consents letter through voluntary donations are obtained from landowners by the Revenue Officer facilitated by KLDC. Farmers have given willingness to give their land in writing for construction of bund in order to protect their farms and village in total. • District administration and KLDC have jointly organized Public consultation meetings to create awareness about the proposed embankment and also on requisite voluntary contribution for the same on their behalf. • Embankment is straightened between the chainage 13230 and 13380 m • Consultation shall be carried out with the community again prior start of construction • Grievance readdress mechanism shall be provided at Kharland office so as community can lodge the complaint if any. Information shall be given to the people about this grievance readdress mechanism through consultation and appropriate media • Land shall be taken on land side as per the proposed design and consent letters only 	KLDC	SPIU

		<ul style="list-style-type: none"> The saline embankment shall be renovated within the proposed right of way 		
2	Shifting of the utilities - electricity poles	<ul style="list-style-type: none"> Ten electricity poles and service electricity line need to be shifted for embankment strengthening and renovation. Shifting of the poles and the line should be carried out through MSEDCL prior to start of work. Concurrence should be obtained from MSEDCL and all the conditions mentioned in the concurrence shall be followed by KLDC HT electricity line Pole is present at 18.749467°N, 73.017458°E, as it comes in the outer right end of the embankment so it not to be shifted from the existing location. KLDC in consultation with MSEDCL shall identify the exact number of poles and length of the line for shifting and the cost required for the same i.e. shifting shall be included in the DPR. Proposed shifting locations shall be confirmed by MSEDCL with the concerned stakeholders and MSEDCL shall undertake the responsibility of shifting The necessary costing for shifting of of poles/service line shall be included in the DPR cost Necessary safety and protection work shall be undertaken by the contractor for shifting the electricity poles, electricity line and solar lights. 	KLDC/MSEDCL	SPIU
3	Shifting of utilities- Solar lights	<ul style="list-style-type: none"> Five Solar lights are available at the embankment zone and all are required to be shifted temporarily as per survey for renovation of the embankment Proposed shifting locations shall be confirmed by gram panchayat with the concerned stakeholders and gram panchayat shall undertake the responsibility of shifting. Alternative should be provided after dismantling the solar light till the time solar lights are shifted. The necessary costing for shifting of these utilities shall be included in the 	KLDC/Gram panchayat	SPIU

		<p>DPR cost.</p> <ul style="list-style-type: none"> Necessary safety and protection work shall be undertaken by the contractor for shifting the electricity poles, electricity line and solar lights. 		
	Shifting of CPR: Jetties-8 nos	<ul style="list-style-type: none"> Alternate access to the jetties from the village shall be provided during the construction phase Concurrence shall be taken from Maritime Board and gram panchayat prior dismantling and reconstructing the jetties. All conditions as prescribed in the concurrence letter shall be followed Cost for construction of the jetties shall be included in the DPR as per discussion with the Maritime Board Necessary safety and protection work shall be undertaken by the contractor Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 	KLDC/Maritime Board	SPIU
	Shifting of CPR: Crematorium-4 nos	<ul style="list-style-type: none"> Four crematorium exists at the chainage 2280, 2550-2580, 9555, and 13030 m which will be affected and required to be shifted during embankment construction. These crematoriums are CC structure covered with the shed. Dimension of this crematorium are 7 m X 6 m, 6.8m X 6m, 23m X 20m, 12X 4 m respectively. The crematorium is accessible through the 2-3 no stairs and is at same level of existing embankment. Community and gram panchayat concurrence shall be obtained prior to demolition and reconstruction of crematoriums. Location for crematorium shall be decided in consultation with the local people and gram panchayat Crematorium shall be constructed at the decided location prior dismantling Crematorium to be constructed should have proper and safe access and covered shed Cost for construction of the crematorium shall be included in the DPR Necessary safety and protection work shall be undertaken by the contractor Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 	KLDC	SPIU
	Shifting of CPR:	<ul style="list-style-type: none"> Two Temples i.e. Bahari Dev located at 13230 and Bap dev located at 13770 	KLDC/Gram	SPIU

	Temples-2 nos	<p>to 13800 m chain age are present on the landward side of the embankment and will be affected.</p> <ul style="list-style-type: none"> • Bahari Dev temple located at chainage 13230 can be saved as embankment between chainage 13230 and 13380 m is proposed to be straightened • Concurrence should be obtained from gram Panchayat and the villagers prior to shifting of temples • Locations for shifting of the temples shall be decided in consultation with the gram panchayat and villagers • Necessary safety and protection work shall be undertaken by the contractor • Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 	panchayat	
	Shifting of CPR: Shed-3 nos	<ul style="list-style-type: none"> • 3 nos of passenger shed are located on the embankment at chainages 2990, 3280 and between 1980 to 2040 chainage. Shed between 1980 to 2040 chainage is RCC shed and have dimension of 15 m X 10 m • These sheds will be affected and thus shall be relocated at alternate location in consultation with the gram panchayat and local people • Concurrence will have to be obtained from gram Panchayat and the villagers prior to shifting of sheds. All conditions given in the concurrence letter shall be followed • Necessary safety and protection work shall be undertaken by the contractor • Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 	KLDC	SPIU
	Shifting of CPR: School (1 no)	<ul style="list-style-type: none"> • One school is present at chain age 13230 along the creek side of the embankment which will be affected. • This school will not be affected as in this section embankment is proposed to be straightened • However, access to this school may get disturbed so temporary access should be provided for the school • Cost for provision of alternate access and steel barricading in front of school shall be considered and included in DPR 	KLDC/Gram panchayat	SPIU

		<ul style="list-style-type: none"> • Necessary safety and protection work shall be undertaken by the contractor • Additional safety measure like steel barricading shall be provided near the school to ensure safety of children • Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 		
	Shifting of Well (1 no), Ottas (5 nos), community toilet (4 no) and road	<ul style="list-style-type: none"> • Five Ottas are present on creek side of the embankment site. • A road exists near village Vithalwadi and this will also be impacted due to proposed renovation works • Temporary arrangement shall be made for fish drying till the Ottas are reconstructed in consultation with the community. Arrangement shall also be made for access to Vithalwadi village during construction phase till the road is constructed again • One well of RCC (15*10) is located at chainage 1910 m on the embankment and 4 community toilets exists at 3 different chainages (1980-2040, 2910-2940 and 2970) • Locations for shifting of the well shall be decided in consultation with the gram panchayat and villagers • Cost provision for shifting of the well & community toilets and reconstruction of Ottas and road shall be considered and included in the DPR • Necessary safety and protection work shall be undertaken by the contractor • Contractor shall ensure adequate signage and safety measure including installation of display, signage and diversion boards 	KLDC/Gram panchayat	SPIU
	Impact on the Private land and private Properties (19 no pakka houses, 11 no kachha houses, 3 toilets and 24 fish ponds)	<ul style="list-style-type: none"> • Private land to be taken for the project shall be as per the consent given by the land owners. Contractor shall stop the work in case of any conflict with land owners and shall contact to Kharland Development Circle. Work shall be resumed only after resolution of the conflict • There are total 19 pakka houses on the embankment however only 16 may be affected due to straightening of embankment between 13230 and 13380. Other than this 11 kachha houses/jhopdi, 3 private toilets and 24 fish ponds will be affected due to renovation works. 	Contractor	SPIU/Kharland Department/Third Party Supervision and monitoring Agency (if appointed)

		<ul style="list-style-type: none"> • Alignment is proposed to be straighten between 13230 to 13380 so all the structures within this section should be protected • Community is consulted and concurrence is obtained from community to demolish these private structures and pay off the cost for these structures • Compensation shall be given to people whose private property (houses, huts and ponds) will get affected as per the valuation estimation (in line with SIA, R & R Act, 2013 and WB policy) and agreement with the owners • Budget for compensation for structures/private property shall be included in the project cost. • No other structure shall be affected due to the proposed project. • Grievance readdress mechanism shall be provided at Kharland office so as community can lodge the complaint if any. • Information shall be given to the people about this grievance readdress mechanism through consultation and appropriate media. 		
	Impact on Access to – Private Properties (School/Vithhalvadi village and other private properties) and Provision of Improved Access to Private Properties	<ul style="list-style-type: none"> • Road access to the Vithalwadi village will get affected at the chain age 2910 to 2970 m. Alternate access arrangement shall be provided for Vithhal vadi village as the road to vithavadi will get impacted. • Access to the school located at chainage 13230 will also get affected and alternate access shall be provided for school • In case access to any of the private property/house/structure gets impacted then alternate access should be provided during construction phase. 	Contractor	SPIU/Kharland Department/Third Party Supervision and monitoring Agency (if appointed)
	Impact on Trees	<ul style="list-style-type: none"> • Total of 42 trees (anwala-1; bhend-30; sevga-2; Nariyal-2; Neem-3; Suvabal-1; Sitaphal-1; Kaju-1; Siras-1) of different girth and height are present all along the stretch of the embankment. All the trees are present on the embankment and are anticipated to be cut for embankment construction. However, one tree exists between chainage 13230 to 13380 and efforts can be made to save the tree as the alignment is proposed to be straightened in this section • Efforts shall be made to save these trees through design changes. However, 	KLDC/ District Collector/Forest Department	SPIU

		<p>during embankment construction measures shall be taken to retain the trees as much as possible. All efforts shall be made to preserve the trees including any minor adjustment in the design to save the trees</p> <ul style="list-style-type: none"> • A joint visit shall be conducted by the KLDC along with the environment expert of Contractor to ascertain the tree saving and requirement of tree cutting • Permission shall be taken from the District Collector for cutting the trees as per NGT order • If any trees need to be removed from proposed right way before commencement of work it shall be done by obtaining Permission from the District Collector for cutting the trees as per NGT order • Identified trees (as per joint visit of KLDC & contractor and tree cutting permission) for cutting should be cut. Cut logs should be managed as per the condition given in tree cutting permission • No other flora should be harmed other than identified and marked vegetation and trees • Stacking, transport and storage of wood shall be done as per prevailing norms of the state forest department • Vegetation (bushes, weeds etc) at the site shall be removed in presence of Environmental Expert of Contractor and KLDC • Scraped vegetation waste shall be collected and shall be disposed of at the debris disposal site • Compensatory afforestation for every tree cuts shall be planned in the ratio of 1:10. Area for plantation shall be identified with the help of Forest Department and Kharland Development Circle (KLDC) and SPIU shall be requested to transfer the fund to Forest Department, based on the estimate from Forest Department. 		
	Construction plan and communication with community	<ul style="list-style-type: none"> • Share the project information to public using appropriate mode (display, pamphlet distribution) at least 15 days in advance. 	Contractor	Kharland Department, Third Party Supervision and monitoring

				Agency (after appointment) and SPIU/ PMC
	Monitoring	<ul style="list-style-type: none">• Kharland department shall monitor the appropriate access to crematorium, access road to private properties and shifting of electrical poles and that no services are disturbed during the construction phase.	Kharland Department	Kharland Department

6.8. Periodic Physical Progress checks by KLDC and SPIU

KLDC is to undertake on the spot verification of the progress of the construction and other activities under SMP and maintain record of the progress on monthly basis. It shall also record the issues related to social safeguards and any concerns to be reported immediately to SPIU. SPIU to monitor the reports received from KLDC and address the social issues, if any. These issues may of the nature of delays, issues with contractors, if any, etc., and immediately inform the delays from any quarter to SPIU.

6.9. Social Monitoring and Supervision

Social monitoring is to be undertaken by SPIU which shall undertake following activities:

- a. Monitoring compliance with social safeguards and ESMF provisions
- b. Monitoring and supervision of social issues at project level.
- c. Ensuring quality of activities under social management plan which shall be directly related to bills that are to be paid to contractor.

The Third-Party Quality Audit (TPQA) an independent audit team appointed by SPIU or its (SPIU) representative shall undertake visits to the sites and study the compliance to the ESMF provisions.

6.10. Social Monitoring:

- Supervision of the works will be done by the existing staff of the Kharland Development Circle, Thane.
- The work of monitoring of the project shall be done by the existing staff of the Kharland Development Circle.
- The quality control & assurance of the project shall be done by the existing staff of the Kharland Development Circle, Thane. Besides, testing of work samples will be done by the contractors, for which provision has been made in the rate analysis of the respective items.
- The provisions for price escalation are made in the cost estimate @ 10% of the construction costs. The provision for royalties, taxes, etc. has been made in the rate analysis of the respective items. Accordingly, provision for the same is not made in the cost Estimate.
- The professional service of co-ordination cell is not sought for implementation of the project, which will be done by the existing staff of the Kharland Development Circle, Thane.

6.11. Grievance Redressal Mechanism

Contractor and KDC shall establish a grievance redressal mechanism to receive the concerns and issues being faced by community in the project area during project implementation and operation phase. The Executive Engineer, Kharland S&I Division, Pen, Dist. Raigad shall also have representative deputed by District Collector who shall participate in the redressal mechanism and facilitate the early disposal of the grievance. Through this mechanism, community is free to lodge their concerns and submit their suggestions and those shall be received by contractor and KDC Raigad. The grievance mechanism shall be scaled to the risks

and adverse impacts of the project. It shall address concerns promptly, using an understandable and transparent process that is culturally appropriate and readily accessible to all segments of the affected communities, and at no cost and without retribution. The mechanism shall not impede access to judicial or administrative remedies. Contractor and KLDC, Raigad will inform the affected communities about the mechanism. Grievance redress system which shall include provision of a box at construction site, material storage and labour camp site labelled as Grievance Redress Box. Grievances can be dropped by aggrieved into this box. Also, a register for grievance shall be maintained at the site where aggrieved can register his/her complaint along with his/her details like name, contact number and can take the reference complaint number. Grievance Redress Box or register shall be reviewed every week and first response to the grievance to the aggrieved shall be given within 10 to 15 days of grievance submitted, depending on the nature of grievance submitted. The Contractor's environmental and social expert team shall ensure that the grievances letters etc are passed on to designated person from its line department/KLDC.

In efforts to develop an effective two-way communication a Grievance Redress Mechanism shall be developed. The broad outline of the mechanism is as follows. Suggested structure for flow of information for grievance redressal mechanism is given in **Figure 6.1** below.

- Grievance received by contractor shall be communicated to KLDC Raigad grievance redress cell
- Possible or likely potential grievances may emerge mainly during construction phase such as discomfort and inconvenience due to, dust emerging, inaccessibility to residential structures, road accesses, restoration quality, material transport, etc.
 - Complaints can also be received on-line by KLDC on its website and also through drop boxes at easily accessible public places and at work sites for general public.
 - A joint visit shall be made to aggrieved and concerned location to identify the root cause
 - Report shall be prepared on the same and solution should be formulated by the KLDC. The same shall be submitted to WRD, Konkan Region within 15 days of receiving the grievance and settling of the same.
 - The decision on the grievance would be communicated to the aggrieved person by KLDC within a timeframe of two weeks once the grievance is heard at KLDC GRC.
 - The aggrieved parties (aggrieved and contractor) shall be called for sharing their grievance, if need be or a mechanism need to be put in place to inform the aggrieved parties about outcome of the complaint. The progress of redressal grievances needs to be made public by giving information on KLDC website and in the local newspapers.
 - There should be a single point of contact between the community and KLDC for the addressing the grievance.
 - All grievances should be documented and indexed for future reference. The proceeding and actions against each of the grievance should be documented and should also carry this index number for easy traceability.
 - If required, the aggrieved community member can also be made a part of the Redressal process, so he/she is able to place his/her point of view.

- The Grievance Redressal committee should meet at regular interval (say every 10 days) and discuss on the grievances and take necessary action on priority.
- The grievances which are not addressed at the level of KDC, Raigad due to its scale or nature is to be shared with SPIU GRM Cell, which is to be set up as a part of GRM under the NCRMP II. (The R and R Department shall take out a GR informing public about setting up of GRM cell and type of grievances it shall hear under NCRMP II.
- Grievances which are of different scale and nature which cannot be heard at or which could not be decided at KDC, Raigad shall only be entertained at SPIU GRM Cell. Social Expert SPIU shall coordinate the day to day functioning of the Cell.
- SPIU shall complete the hearing of compliant/grievance received within a month and inform of its redressed solution to the aggrieved party/parties within one month.

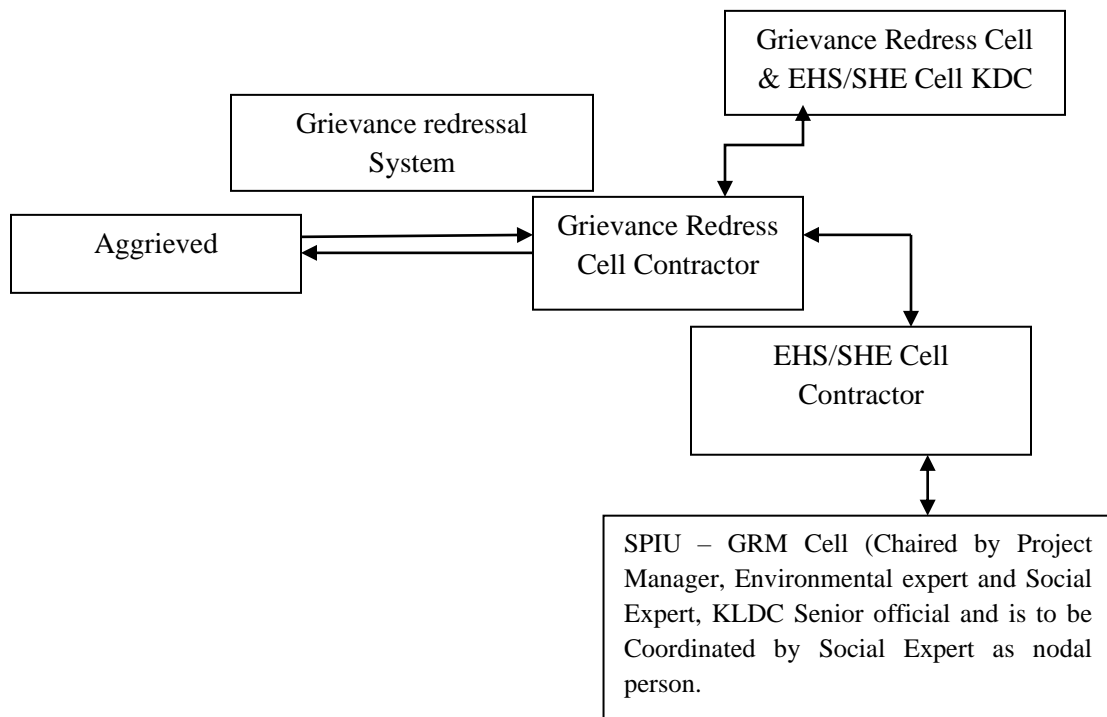


Figure 6.1 : Grievance Redressal Cell

The aggrieved person shall always have the legal options available which, however should be avoided by using GRM within the project.

6.12. Conclusions

1. Implementation arrangements including implementing agencies, organizations, their roles and responsibilities, monitoring mechanism are aligned with the EMP implementation. Please refer to EIA and EMP report.
2. Grievance Redressal Mechanism is also aligned with EIA and EMP Report in conformity with guidelines provided in the ESMF.

7. ANALYSIS OF ALTERNATIVES

7.1. General

An analysis of alternatives has been carried out prior to arriving at the technically best solutions with minimal environmental and social impacts. The main issues along the Corridor of Impact (CoI) along embankment alignment are the physical obstacles such as agricultural land, trees, existing public utilities infrastructures i.e. existing water pipeline and electrical poles, crematorium, etc. The social issues which arise due to saline embankment project work are mainly due to private agricultural lands, electrical poles, pakka houses, jetties, fish ponds, electricity service line, kachha houses, toilets etc. which are seen along the defined alignment.

Existing 16.44 km long earthen embankment for protection of inland settlements and properties of villages located in its vicinity and for control of saline water ingress was constructed in 1952 by Kharland Development Board. Saline embankment has now become undersection at various location over the period and thus requires renovation by repairing and strengthening.

Being more than 66-year-old and after having withstood the onslaught of devastating cyclones in 1994 and 2009, the embankment has outlived its useful life because of overtopping of the earthen section which has drastically washed away or reduced to undersize with top level of bund reduced to lower than the high tide levels and inland areas being inundated. Meandering of the river further eroded the bank and the earthen embankment is washed out. C.D. works are in a dilapidated condition due to daily tidal fluctuations resulting from toe-erosion of foundations causing collapse of the structures. Therefore, immediate renovation of the existing embankment by increasing its height and bottom width in conformity with upstream and downstream side slopes and providing stone/rip rap pithing on slopes is vehemently and urgently required to obviate any unfortunate situation of the sudden failure by washing of the substantial length of embankment causing colossal loss of public life and properties.

Existing embankment has now become undersection at various location and mangroves are grown in certain sections of embankment (in slope area of embankment in creek side and in patches in land side and along the channels in the benefited area). In these sections, construction is not possible as mangroves are not allowed to be removed for any purpose as per High Court Notification dated 06.10.2005.

Also, people have constructed some structures on the existing saline embankment and some of those are of cultural importance also. If these structures are impacted, it will lead to social issues. Thus, the embankment alignment is modified to avoid the social and environmental issues. The entire alignment has been shifted to the land side and no mangrove is to be removed for proposed embankment. Shifting of embankment has saved mangrove vegetation substantially. Only agriculture fields exist on the land side of the embankment and people are voluntarily willing to give off their land for the project but not more than 1-2 m as per consultation. However, KLDC has modified the design of the embankment to reduce the land requirement also and minimize impact on the farmers giving the land. In one section, i.e. chainage between 13230 and 13380 is straightened to save the school and other structures on

the land side. Thus, alignment has been modified to minimize the social and environmental impacts of the project.

However, some of the structures exists on the embankment will be impacted due to the project as they cannot be avoided. Facilities/utilities which will be impacted includes 42 trees, 10 electricity poles, 16 pakka houses, 8 jetties, 24 fish ponds, 1 electricity service line, 11 kachha houses, 7 nos of toilets (community and private toilets), 5 solar lights, 5 fish drying platforms, 3 shed, 4 crematorium, 1 shed, 2 temples, 1 well and road. Details of the structures to be impacted as **Annexure 4**. None of the tree to cut falls in Maharashtra Tree Felling Act, 1964. Permission for tree cutting will be required from District Collector as per NGT Order dated 8th Jan 2016 – case no 11/2015 (WZ).

Kharland Development Circle (KLDC) has conveyed to all the concerned departments for requirement of shifting of utilities and have requested the relocation plan to minimize impact on people due to relocation of these facilities. KLDC has kept cost provision in BOQ for shifting and reconstruction of these facilities.

7.2. With or without project Scenario:

7.2.1. Without Project Scenario:

Narvel Benavale embankment area, in Pen Tehsil falls in coastal area and is prone to cyclones. Cyclones are accompanied with heavy winds & rainfall and the storm surge. Also, area falls under the seismic zone IV as per BIS classification which indicates high earthquake risk. Due to the cyclone and heavy rainfall (i.e. 2000 mm to 4000 mm), settlement are getting effected every year and damage to a great extent due to continuous erosive action of tides. Further workers and animals have been using the earthen Embankment as a road which caused damage. Meandering of the river further eroded the bank and the earthen embankment is washed out. C.D. Work also is in a dilapidated condition due to daily tidal fluctuations due to removal of soil from foundations causing collapse of the structure. A significant amount of economic losses and additional revenue is being spent every year to restore the disrupted infrastructure. So, in this scenario of “without” project, disruptions would continue in the event of cyclones or such hydro-metrological conditions in these coastal areas.

7.2.2. With Project Scenario:

In line “with” the project scenario the saline embankment project will provide direct and indirect benefits to the people of Narvel Benavale of Pen Taluka, Raigad District, where more than vulnerable population of 12544 lives and their property to the tune of Rs. 1222.50 Lakhs will be protected from Cyclone and tsunami. Further, besides improving livelihood opportunities for the people living there. The length of the embankment is 16.44 km having chainage 0 to 16440 m. Also, sluices (CD works) are proposed at suitable locations after determining the area required to drain the peak flood discharge from the field in to the creek in the form of rectangular openings.

Some of the prominent benefits of the saline embankment development project are as follows:

- The saline embankment development is resilient to cyclonic conditions hence safe for public lives, private and public properties, livelihoods assets of the coastal communities. The system becomes resilient to the natural disasters.
- **Safeguard to Coastal Dwellers:** 12544 lives can be saved from the devastating dangers of cyclone and tsunamis.
- **Safety to livestock/housing:** Protection of 815 houses costing about 1222.50 lacs.
- **Other Benefits:**
 - ✓ There shall be an improvement in the microclimate and soil productivity and thus, agriculture production can also be enhanced significantly, with the available livestock. Agricultural fields will be protected from saline water inundation and the sustainable agricultural production could be ensured. This component will help in stopping of the salinity ingress in the agricultural lands, improving sweet water recharge in the agricultural lands and controlling runoff water.
 - ✓ The water ponds and ground water recharge shall be free from salination making ground water potable. Irrigation can be achieved after construction of earthen embankment, on the rain waters stored in natural lakes. After the rainy season the sweet water stored can be used for irrigation of Kharland in Rabi paddy.
 - ✓ The saline embankment shall act as a barrier between the creek & the coastal lands, thereby protecting the coastal lands from getting washed away during floods & daily tidal fluctuations.
 - ✓ During the construction earthen embankment provides employment opportunities to the poor people residing in villages as well as its maintenance work in future

Thus, it can be inferred that in “With” project scenario, the resilience to cyclonic conditions shall be improved. Hence it shall be safe for public lives, private and public properties, livelihoods assets of the coastal communities with greater efficiency to avoid disruption of the area. This shall also reduce the maintenance costs and help improve the local economy and hence the economy in the vicinity. This shall increase the safety of necessary infrastructure in turn increasing the economy and livelihood opportunities for the local people. Also, it will increase agricultural land to 1388 ha from 1010 ha.

7.3. Alternate Embankment Routes

Proposed saline embankment development alignment is preferably kept similar to existing system. But due to rising of height and widening of embankment, few social sensitive areas including crematorium, water pipelines, water tank, access road, residential areas, etc. could be impacted. However alternative options and mitigation plan is prepared wherever, sensitive locations are intercepted in existing route. Adoption of such alternative options and mitigation plan shall reduce/minimize the impact of the proposed saline embankment project on these sensitive features.

Any route alternatives, without considering optimal embankment height and width, relocation, shifting requirement of utilities, minimum diversion of local commuters and, etc may cause disruption to daily routine life of people and the project implementation process.

7.4. Conclusion & Incorporation of the Alternatives in Project Design:

Above defined project components are mentioned on the basis of these selected alternatives. The selected alternatives are inclusion of the project design and planning. The assessments were carried out in tandem with preparation of detailed project report and from the analysis of alternatives, it is found that the proposed saline embankment is cyclone and earthquake resilient and due to design improvement, livelihood opportunity shall be significantly improved. Thus, the proposed renovation and strengthening of saline embankment is found to be a better initiative. Thus, renovation of alignment is recommended for development of project due to minimal impact on sensitive receptors.

8. PUBLIC CONSULTATION AND DISCLOSURE

8.1. Purpose

The purpose of the public consultation is to inform the community, stakeholders and Government officials on the socio-economic impacts in the project areas and to assess the positive and adverse impacts using collaborative consultations and walk through exercises. The Consultation is conducted with community, stakeholders, Government Officials – line departments with two-fold purposes – firstly to convey the anticipated temporary and permanent (positive and negative) social and economic impacts of the project and secondly to understand suggestions and opinions of general public on mitigation measures, Alternatives to assess and check the negative impacts of the project on the socio-economy and take appropriate measures accordingly.

8.2. Objective of Public Consultation

The public consultations were conducted with the following objectives:

- To create awareness and generate understanding about the project among stakeholders, and to collect their opinion, suggestions for planning and designing of the project
- To assess positive as well as adverse socio-economic impacts in the area through participatory methods such as one to one discussion and focus group discussions.
- To identify the need and concern of the public
- To assess cultural patterns and behaviour of local communities towards the project
- To understand social issues associated with the project through discussions
- To disclose the social sensitive issues and form a consensus for such issues amongst public, for example voluntary land donation and consent of farmers for such donation for the project
- To understand suggestions and opinions of the community and Government officials on mitigation measures to counter and check the adverse and negative impact that threaten the socio-economic environment in the area.
- To understand the satisfaction level of people with proposed mitigation and management measures proposed for the project

8.3. Methodology

1. Public Consultation took place at four levels (a) one to one discussions with the public commuting and residing along the route of the saline embankment (b) Focus Group discussions with people (c) Discussions with line departments such as gram Panchayat, local administration, and Kharland Development Authority etc. (d) Public Consultation at large for public participation

2. During transact walk, subsequent field surveys for screening studies and strip mapping the Consultants team identified active and influential stakeholders in the saline embankment project in Narvel Benavale.
3. The Consultant team communicated all concerned through Kharland Development Circle/SPIU Officials using various communication methods well in advance. The time, date and venue of the stakeholder consultations, community consultation was informed through announcement.
4. During Consultation, the team used checklists (given in **Annexure 1, 2**). Check list for screening studies was also used. The team ensured participation of all stakeholders and were given time to express their views.
5. Before beginning of consultation, the team inquired with stakeholders whether they were aware of the saline embankment project in their village. With support of KLDC/SPIU representative, the Consultant team elaborated purpose, work plans and methods to be used in execution of the saline embankment works in the project area.
6. Documentation and evidence creation for participatory consultations including attendance, reports, etc was done in all meetings.
7. Consultant team held consultation with competent authorities, stakeholders and client. At every step of consultation a participatory process was adopted to ensure that the anticipated purpose of the consultation is met with.

During initial survey in the project area, the EQMS identified the following active and influential stakeholders in the project area.

Table 8.1 : Details of Public consultation

<u>Sl. No.</u>	<u>Name of Stakeholders</u>	<u>Period of Consultation</u>	<u>Outcome of Discussion</u>
1.	Kharland Development Circle (KLDC)	28 Aug, 2016	Preliminary meeting was carried out with the KLDC and visit was made to the site and general discussion were carried out with people of Narvel Benavale during the visit. All people were found aware about the project and are in favour of the project
2.	People of Kaleshri and Vithalvadi	01/09/2016	Detailed survey and discussion were carried out with the different group of people of villages regarding the project and the additional land requirement. People

	<p>Cooperative Society of Bhal Vithawadi (Fisherman)</p> <p>18/09/2016</p> <p>People of Kaleshri (Ramesh Shankar Patil, Mrs Jyoti Narendra Patil, Nikhil A Thakur, Jayesh Pandurang Mhatre and Sharad Vasant Patil and Vilas Mhatre: 9922966249) and Bahiram Kotak</p> <p>19/09/2016</p> <p>People of Narvel and Benavale (Shri Ganesh Shivram Mokal, Atmaram Ganu Mokal, Yashwant Narayan Mhatre, Lakshman Bandu Mokal, Janardan Javarya Mokal, Narayan Padam Thakur, Narayan Padam Thakur, Bhal Vithalwadi, Ambaji Maya Mhatre, Anant Laxman Mhatre, Vilas Shantaram Mhatre, Nandkumar Narayan Mhatre, Parashuram Shantaram Mhatre, Amarchand Kamalakar Mhate, Bahiram Kotak, Chandra Joma Patil, Sanchin Lakshman Patil, Mahadev Joma Langi, Kashinath Krishna Patil, Ganapat Nagu Mali, Lakshman Ramdas Mali)</p> <p>24/09/2016</p> <p>People of Mothebhal</p>		<p>asked for the proposed alignment, timeline of start and completion of the project, insisted to move towards creek side for expansion. Importance of mangroves were explained to people and they understood and were agreeing to allow construction of embankment to some extent in their land. The embankment provides accessibility to them</p> <p>People of vithalvadi complained that due to breach of embankment, water enter their houses during floods. Embankment is getting impacted/damaged due to crabs and rodents. Approx. 100 ha of land in Vithhalvadi is affected due to saline water ingress. People repair the embankment on their own to prevent entry of saline water inside.</p> <p>In Kaleshri also approx. 10 ha of the land is damaged due to entry of saline water</p> <p>As per KLDC, land is Government land and no private land is required and as per survey and discussion with people, it was found that the land of embankment and additional land required both are private properties.</p> <p>People also suggested to construct walls in the weak section to prevent breach of embankment due to wave action. Also people insisted on providing stone pitching on the both sides to prevent damage by crabs and rodents.</p> <p>Also, people suggested that height of the embankment should be increased as sometime water during high tide enters inside the fields landward side which affect the soil quality of their fields. This is also considered in design. Overall height of embankment is increased and it is kept as</p>
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		26/09/2016	1.5 m higher than the highest creek level.
3.	Kharland Development Circle (KLDC) and SPIU	Sep-Oct, 2016	SPIU was informed about the land issue and SPIU directed Kharland to verify the issue with revenue department.
4.	RDC, DDMO, Kharland Development Circle (KLDC)	03/12/2016	It was clarified with RDC and DDMO that the land under the saline embankment is private land
5.	People of Vithhalvadi and Mothe Bhal	22/04/2017	<p>Visit was made to the site to discuss about the project and their will to donate the land for the proposed embankment construction and people agreed to donate the land but they said they can not donate large area as people have small land holdings. If embankment is to be moved by 1-2 m inside their land then they can donate the land. Thus the embankment design is modified so as the bottom width requirement has been reduced which will minimize the land requirement on the field side.</p> <p>Also land owners agreed for donating the land but demanded for compensation of the structures built by them which may get affected due to renovation of embankment. Also they demanded that all the utilities which will be affected due to the project should be shifted or reconstructed for them prior dismantling</p>
6.	People of Kaleshri, Kanoba, Waskand, Bahiram Kotak, Ghoda Bhandar	June-Oct, 2018	A survey was made at the site to assess the structures which will be impacted and for the additional land required. Details of the people losing the land and details of the PAPs whose structures will be affected is provided in Annexure 4 .

A large-scale consultation was also carried out by Kharland Development Circle (KLDC) with local people and Patwari (Talathi as called locally) to inform people about the project and to obtain their consent for using their land for strengthening of embankment. People have agreed to give off their land voluntarily for such construction of embankment and have signed the consent letters.

The EQMS team had discussion with all the above-mentioned stakeholders using one to one interviews and focus group discussion. These discussions helped to convey the project elements, activities and likely impact on the ground to all concerned. The suggestions made during these interactions were noted and included in the design and environment management plan.

Design of the embankment has been improved in terms of the land requirement for embankment. Bottom width is reduced to minimize the land requirement. Height of the embankment is also increased. Other things considered in design after the survey and consultation are provision of stone pitching on the land side also and mangroves line should be kept as the creek side boundary of the proposed embankment to minimize the impact on mangroves. Public consultation and site surveys has helped significantly to improve the project design and social acceptability of the project

8.4. Conclusion:

Based on the discussion with local people, it was observed that people were happy and welcomed the project as it shall increase the safety of necessary infrastructure in turn increasing the economy and livelihood opportunities for the local people. People understand that the saline embankment development is resilient to cyclonic conditions hence safe for public lives, private and public properties, livelihoods assets of the coastal communities. The system becomes resilient to the natural disasters.

9. BUDGET PROVISIONS AND INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION OF RAP

9.1. Introduction

Like any other development / infrastructure project for the public purpose, land (Public and Private) invariably is to be acquired by the appropriate government either for its own use or for a requiring body, as the case may be. The total private land required for renovation of Narvel Benavale Khar Land Scheme is 4.8963 ha which is spread over 08 villages in Pen Taluka of District Raigad, Maharashtra. Though the renovation of Saline Embankment project has been conceived with the sole objective of minimal displacement of people because of their property in the project affected area, the acquisition of land and other for public purpose has been necessitated. The acquisition of the land shall be in consonance with “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013”, (RFCTLARRA 2013) which has come into force from 1-1-2014, notified by Government of India.

9.2. Compensation for Land Owners

All provisions of the RFCTLARRA, 2013 related to the determination of compensation shall apply. The project proponent shall have to move to the appropriate government along with the details for the land to be acquired for causing publication of preliminary notification as warranted under Chapter 4 (Section 11) of the Act. After hearing of the objection under Section 15. The administrator for Rehabilitation and Resettlement shall prepare a draft Rehabilitation & Resettlement Scheme for the review of the Commissioner Rehabilitation.

The Collector based on the following criteria shall determine the market value of land:

- d. The market value, if any, specified in the India Stamp Act, 1899 (2 of 1899) for the registration of sale deeds or agreements to sell as the case may be, in the area, where the land is situated; or
- e. The average sale price for similar type of land situated in the nearest village or nearest vicinity area; or
- f. Consented amount of compensation as agreed upon under sub-section (2) of section 2 in case of acquisition of lands for private companies or for public private partnership projects, whichever is higher:

Provided that the date of determination of market value shall be the date on which the notification has been issued under section 11. The market value shall be calculated as per above shall be multiplied by a factor to be specified in first schedule.

The First Schedule

[See section 31(2)]

The following components shall constitute the minimum compensation package to be given to those

whose land is acquired and to tenants referred to in clause (c) of Section 3 in a proportion to be decided by the appropriate Government.

S.N.	Component of compensation package in respect of land acquired under the Act	Manner of determination of value
1	Market value of land	To be determined as provided under section 26.
2	Factor by which the market value is to be multiplied in the case of rural areas	1.00 (one) to 2.00 (Two) based on the distance of project from urban area, as may be notified by the appropriate Government
3	Factor by which the market value is to be multiplied in the case of urban areas	1 (One)
4	Value of assets attached to land or building	To be determined as provided under section 29
5	Solatum	Equivalent to one hundred per cent of the market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 for rural areas plus value of assets attached to land or building against serial number 4 under column (2)
6	Final award in rural areas	Market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 2 plus value of assets attached to land or building mentioned against serial number 4 under column (2) plus solatium mentioned against serial number 5 under column (2).
7	Final award in urban areas	Market value of land mentioned against serial number 1 multiplied by the factor specified against serial number 3 plus value of assets attached to land or building mentioned against serial number 4 under column (2) plus solatium mentioned against serial number 5 under column (2).
8	Other component, if any, to be included	

9.3. Elements of Rehabilitation and Resettlement Entitlement for Affected Families

Under Chapter V Section 31, the collector has been empowered to pass the Rehabilitation and Resettlement award for each affected family in terms of entitlement provided in the Second Schedule.

The Second Schedule

[See section 31(2)]

Elements of Rehabilitation and Resettlement entitlements for all the affected families (both land owners and the families whose livelihood is primarily dependent on land acquired) in addition to those provided in the first schedule.

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
1.	Provisions of housing units in case of displacement	<p>If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq. m in plinth area.</p> <p>The benefits listed above shall also be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area and which has been involuntarily displaced from such area:</p> <p>Provided that any such family in urban areas which opts not to take the house offered, shall get a onetime financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees:</p> <p>Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house:</p> <p>Provided also that no family affected by acquisition shall be given more than one house under the provisions of this Act.</p> <p>Explanation- The houses in urban areas may, if necessary, be provided in multi-storied building complexes.</p>
2.	Land for Land	<p>In the case of irrigation project, as far as possible and in lieu of compensation to be paid for the land acquired, each affected family owning agricultural land in the affected area and whose land has been acquired or lost, or who has, as a consequence of the acquisition or loss of land, been reduced to the status of a marginal farmer or landless, shall be allotted, in the name of each person included in the records of rights with regard to the affected family, a minimum of one acre of land in the command area of the project for which the land is acquired:</p> <p>Provided that in every project those persons losing land and belonging to the Scheduled Castes or the Scheduled Tribes will be provided land equivalent to land acquired or two and a one-half acre, whichever is lower.</p>
3	Offer for Developed Land	<p>In case the land is acquired for urbanization purposes, twenty per cent of the developed land will be reserved and offered to land owning project affected families, in proportion to the area of their land acquired and at a price equal to the cost of acquisition and the cost of development.</p> <p>Provided that in case the land-owning project affected family wishes to avail of this offer, an equivalent amount will be deducted from the land</p>

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
		acquisition compensation package payable to it.
4	Choice of Annuity or Employment	<p>The appropriate Government shall ensure that the affected families are provided with the following options:</p> <p>(d) Where jobs are created through the project, after providing suitable training and skill development in the required field, make provision for employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or</p> <p>(e) One-time payment of 5 lakh rupees per affected family; or</p> <p>(f) Annuity policies that shall pay not less than 2000 rupees per month per family for 20 years, with appropriate indexation to the consumer price index for agricultural labourers</p>
5	Subsistence grant for displaced families for a period of one year	<p>Each affected family, which is displacing from the land acquired shall be given a monthly subsistence allowance equivalent to 3000 rupees per month for a period of one year from the date of award.</p> <p>In addition to this amount, the schedule castes and the scheduled tribes displaced from scheduled areas shall receive an amount equivalent to 50000 rupees.</p> <p>In cases of displacement from the scheduled areas, as far as possible, the affected families shall be relocated in a similar ecological zone, to preserve the economic opportunities, language, culture and community life of the tribal communities.</p>
6	Transportation cost for displaced families	Each affected family which is displaced shall get a one-time financial assistance of 50000 rupees as transportation cost for shifting of the family, building materials, belongings and cattle.
7	Cattle shed / Petty shops cost	Each affected family having cattle or having a petty shop shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of 25000 rupees for construction of cattle shed or petty shop as the case may be.
8	One-time grant to artisan, small traders and certain others	Each affected family of an artisan, small traders or self-employed person or an affected family which owned non-agricultural land or commercial, industrial or institutional structure in the affected area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of 25000 rupees

.N.	Elements of Rehabilitation and Resettlement Entitlements	Entitlement/ provision
9	Fishing rights	In cases of irrigation or hydel projects, the affected families may be allowed fishing rights in the reservoirs, in such manner as may be prescribed by the appropriate Government
10	One-time Resettlement Allowance	Each affected family shall be given a onetime “Resettlement Allowance” of 50000 rupees only
11	Stamp duty and registration fee	(4) The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body. (5) The land for house allotted to the affected families shall be free from all encumbrances. (6) The land or house allotted may be in the joint names of wife and husband of the affected family.

9.3.1. Compensation for Houses and Other Properties

The compensation for a housing unit has been determined as substitution/replacement cost based on the rates prescribed for ‘Pucca’ and ‘kutchra’ units without consideration of any depreciation on cost has been worked out in **Table 9.1**. Besides this, a few public properties which fall within the R-O-W of modified alignment shall have to be dismantled for clearing construction site for enabling laying of new section of embankment. For relocation of these budgetary provision has been made in **Table 9.2**.

Table 9.1 : Compensation due to Acquisition of Houses

S.N.	Particular	Qty	Unit	Rate (Rs lakh)	Amount (Rs lakh)
1	Compensation for Pucca houses	16	No.	15.00	240.00
2	Compensation for Kuchha houses/Jhopdi	11		3.0	33.00
3	Compensation for toilet	3	No.	0.15	0.45
4	Wells (unlined)	01	No.	2.0	2.00
5	Trees	42	No.	0.03	1.26
6	Compensation for fish pond	24	No.	3.00	72.00
Total					348.71

Table 9.2 : Compensation due to Acquisition of Community Properties

S.N.	Particular	Qty	Unit	Rate (Rs lakh)	Amount (Rs lakh)
1	Relocation of road	0.500	km	30.00	15.00
2	Shifting of electrical poles	10	No.	0.500	5.00
3	Cost for relocation of jetties	8	No.	9.00	72.00
4	Compensation for drying fish platform	05	No.	5.00	25.00
5	Relocation cost of crematorium	04	No.	6.50	26.00
6	Relocation cost of Temples	02	No.	2.00	4.00
7	Shifting of solar lights	05	No.	0.02	0.10
8	Relocation of passengers shed	03	No.	6.00	18.00
Total					165.10

9.3.2. Land Acquisition

As elucidated in **Table 6.1**, the total private land requirement for the project is 4.8963 ha. It is also stated here that the stakeholders have consented in writing to give /donate their additional land without any compensation for the renovation of embankment. The stakeholders opined that there would be no problem in implementing the project as the land under the scheme is already in acquisition. Appropriate procedure was evolved to ensure that all donations are voluntary and freely given; that the donor is the legitimate owner of the land; and that the donor is fully informed of the nature of the project, the implications of donating the land. For acquisition/transfer of Government land for embankment due procedure is being followed. Transfer of immovable property by way of gift/donation must be affected by a registered and stamped instrument signed by the donor and attested by at least two witnesses.

Component of compensation package in respect of land and other private assets to be acquired under the Act as contained in First Schedule is tabulated in **Table 9.3**.

Table 9.3 : Compensation for Land Acquisition

S.N.	Component of compensation package as per Act,2013	Quantity	Unit	Rate	Amount (Rs lakh)
1	Value of land (freely donated by PFA)	4.8963	ha	-	0.00
2	Factor by which the market value is to be multiplied in the case of rural areas		Rs	1.0	0.00
3	Factor by which the market value is to be multiplied in the case of urban areas	Not Applicable	-	-	0.00
4	Value of assets attached to land or building (as per Table 5.4)	-	-	-	348.71
5	Solatum @ 100% of sum of S.N.2 and S, N.4		Rs	100%	348.71
6	Final award in rural areas sum of S.N.2,4 and 5	-	-	-	697.42
7	Final award in urban areas	Not	-	-	0.00

		Applicable			
8	Interest for 6 months on compensation @ 12% as per section 23 of Land Acquisition Act,2013	348.71	Rs.	12%/yr.	20.93
9	Crop Compensation for standing crop	0.0	Rs lakh	15000	0.00
10	Stamp Duty and registration charges.	100	Rs lakh	5%	5.00
Total (S.N.6+S.N.8+S.N.9+S.N.10)					723.35

9.4. Budget for R&R Benefits

Budget for R&R benefits has been prepared keeping in view the numbers of project affected families losing houses and need to be resettled. The elements of rehabilitation and resettlement entitlement as elaborated in Second Schedule has been followed as shown in **Table 9.4**.

Table 9.4 : Budget for various R&R benefits

Clause No.	Provision as per “New LA, R&R Act, 2013”	No. of Eligible nuclear families / persons	Rate as per Act/Notification	Cost (in Rs lac.)
Rehabilitation & Resettlement package for affected families (as per RFCTLARR Act, 2013)				
1	Provisions of housing units in case of displacement (in rural areas as per PMGAY @ Rs 120000.00 +Rs 12000 for toilet).	26	Rs 132000	34.32
2	Choice of Annuity or employment	26	Rs. 5 lakhs per affected family (Option b)	130.00
3	Subsistence grant for displaced families for a period of one year	26	Rs. 3000/- per month per family for one year from date of award + Rs. 50000/- in addition to the above amount i.e. 86000 per person for S.C. and S.T.	9.36
4	Transportation Cost for displaced families	26	Rs. 50000	13.00
5	Cattle shed / petty shops cost	0	Rs. 25000	0.00
6	One-time grant to artisan, small traders and certain others	0	Rs 25000	0.00
7	One – time Resettlement Allowance	26	Rs. 50000	13.00
8	Fishing Rights (Provision has been made for ensuring fishing rights of fisherman in the reservoir by way of Fisheries Development Plan	-	-	-
Total				199.68

9.5. Infrastructure Facility Proposed in Resettlement Area

As the displaced PAF shall have to be resettled at a new resettlement colony, the new colony shall be provided with minimum facilities infrastructure amenities/ facilities as contained in Schedule 3 or the RFCTLARR Act, 2013. The land for R&R site shall be revenue land and shall be identified and allocated at suitable location by the district administration and thus its cost shall not be debited to the project cost. The cost of providing infra structure amenities has been worked out in **Table 9.5**.

Table 9.5 : Budget for Infra-Structure Amenities in R&R Site

Sl. No.	Infra structure amenities	Amount (Rs. lakh)
1	Roads within the resettled villages and all – weather road link to the nearest pucca road. Passages and easement rights for all the resettled families be adequately arranged	20.00
2	Proper drainage as well as sanitation plans executed before physical resettlement	10.00
3	One or More assured sources of safe drinking water for each family as per the norms prescribed by the Government of India	15.00
4	Provision of Drinking water for Cattle	5.00
5	Grazing Land as per proportion on acceptable in the State (shall be provided in the nearby forest)	0.00
6	A reasonable number of fair price shops (host village facility shall be used).	0.00
7	Panchayat Gahrs, as appropriate (host village facility shall be used).	0.00
8	Village level Post Office, as appropriate, with facility if needed (the host village VPO or nearby VPO shall serve the R&R site.)	0.00
9	Appropriate seed-cum-fertilizer storage facility if needed	3.00
10	Efforts must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families if not form the irrigation project, then by developing a cooperative or under some Government Scheme or special assistance. (It shall be provided under minor irrigation scheme by the PP)	0.00
11	All new villages established for resettlement of the displaced persons shall be provided with suitable transport facility which must include public transport facilities through local bus services with the nearby grow the centers/urban localities. (State transport Department shall take care of)	0.00
12	Burial or cremation ground, depending on the caste communities at the site and their practices (host village facility shall be used)	0.00
13	Facilities for sanitation, including individual toilet points.	3.00
14	Individual single electric connections (or connection through non-conventional sources of energy like solar energy), for each household and for public lighting.	12.00
15	Anganwadi's providing child and mother supplemental nutritional services (host village facility shall be used).	0.00
16	School as per the provisions of the Right of Children to Free and Compulsory Education Act, 2009 (35 of 2009);	12.00
17	Sub-health center within two-kilometer range. (sub-center of host village shall be used)	0.00
18	Primary Health Centre as prescribed by the Government of India (facility available at nearest PHC shall be used).	0.00
19	Playground for children.	2.00
20	One community center for every hundred families	18.00

Sl. No.	Infra structure amenities	Amount (Rs. lakh)
21	Places of worship and chowpal/tree platform for every fifty families for community assembly, of numbers and dimensions consonant with the affected area (host village facility shall be used).	0.00
22	Separate land must be earmarked for traditional tribal institutions. (host village facility shall be used)	0.00
23	The forest dweller families must be provided, where possible, with their forest rights on non-timber forest produce and common property resources, if available close to the new place of settlement and, in case any such family can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their earlier rights to the aforesaid sources of livelihood	0.00
24	Appropriate security arrangements must be provided for the settlement, if needed.	0.00
25	Veterinary service center as per norms(host village facility shall be used)..	0.00
Total		100.00

9.6. Compensation Disbursement

All the compensation related to land, property, infrastructure development should be made transparent for which a suitable mechanism may be worked out in consultation with district administration and preferably all the payments should be made through bank drafts.

9.7. Dispute Redressal Mechanism

For ensuring the implementation of rehabilitation and resettlement scheme and compliance under the agreed policy, during the implementation of the scheme and thereafter monitoring and evaluation shall be carried out by departmental and monitoring committee. The appropriate Govt., for implementing the rehabilitation and resettlement scheme and monitoring and review of the progress thereof and conducting social audit by Rehabilitation & Resettlement Administration, where it has been so designated and where it has not been designated, in that scenario, shall constitute a committee to be called as resettlement & rehabilitation committee under Chairmanship of a Senior Government Officer.

The Resettlement & Rehabilitation Committee constituted as above besides the officers of Maharashtra Govt. shall *inter-alia* include as one of its members:

- a) A representative of women residing in the affected zone;
- b) A representative, each from of the Scheduled Castes and Scheduled Tribes residing in the affected zone;
- c) A representative from a voluntary organization;
- d) A representative of the lead bank.
- e) A representative of the land acquisition officer;
- f) Chairman or his nominee from Panchayat Raj Institutions located in the affected zone
- g) MPs/MLAs of the area included in the affected zone.
- h) Representative for Project Proponent.

9.8. Appointment of Ombudsman

For Timely Redressal of Grievances/Complaints touching and arising within the framework of this policy, the Govt. of Maharashtra shall appoint an ombudsman.

9.9. Institutional Arrangements for Implementation Monitoring:

9.9.1. Project Administration and Management for NCRMP II

The state government has constituted Project Steering Committee (PSC) to oversee the overall implementation of the NCRMP II and ensure the progress as per the agreed terms. The State Project Implementation Unit is primarily set up to ensure the implementation of the project through designated Line Departments supported through its sector experts and Project Management Consultants – PMC).

In the case of Saline Embankment, the designated implementation line agency is KLDC. Environmental and Social management plan shall be implemented by EHS Cell of contractor (Comprising of Environment, Social and Safety Officers) and supervision for implementation shall be done by KLDC-SPIU. Safety Cell officer shall be given additional responsibility of environment and social management plan implementation. These officials shall also be given required training for discharging additional responsibility of environmental and social management. The organizational structure of Line Department for this project is given at **Figure 9.1**. Roles and Responsibility of the key staff are defined in sections below:

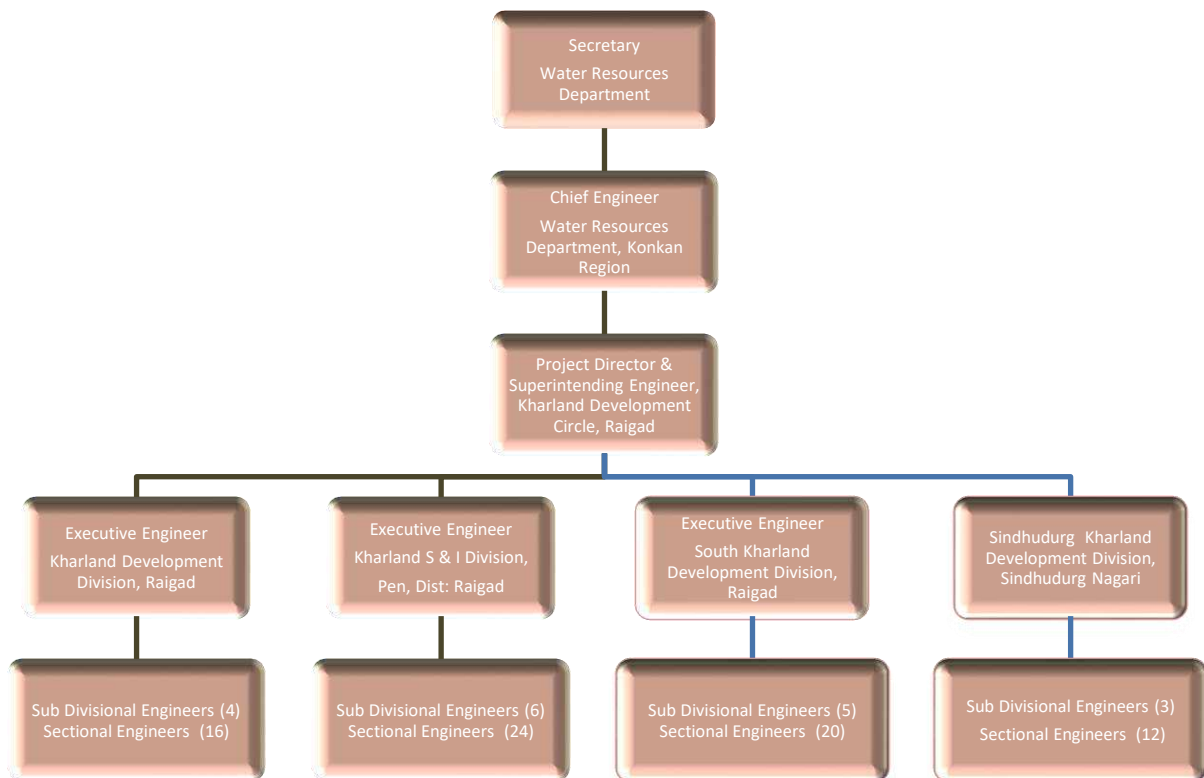


Figure 9.1 : Organization Structure of Line Department for Saline Embankment

Implementation arrangements of SMP/RAP such as agencies, their roles and responsibilities, monitoring mechanism are to be in line and together with the provisions and plans described in the

EMP. The sub section on Institutional arrangements may please be referred in EIA – Intuitional Arrangement for implementation of EMP.

9.10. Summary of Cost

The cost because of implementing Rehabilitation and Resettlement Plan including the cost of land acquisition, R&R entitlement and the cost of infra-structure works out to Rs. **1188.00 lakh** and is presented in **Table 9.6**.

Table 9.6 : Total Cost under R&R Plan

S.N.	Particular	Amount (Rs lakh)	Reference
1	Compensation due to Acquisition of Community Properties	165.10	Table 5.5
2	Compensation package in respect of land and other private assets	723.35	Table 5.6
3	R&R Grants	199.68	Table 5.7
4	Cost of Infra-Structure Development in R&R site	100.00	Table 5.8
Total		1188.13	
Say		1188.00	

Conclusion:

The Adequate resources are allocated under the project to ensure social safeguards which shall be part of construction and operational costs. The cost because of implementing Rehabilitation and Resettlement Plan including the cost of land acquisition, R&R entitlement and the cost of infra-structure works out to Rs. 1188.00. No land acquisition cost shall be included as land has been acquired by voluntary donation.

ANNEXURE 1: INVENTORY OF HOT SPOTS, CRITICAL AND SENSITIVE LOCATIONS

Saline Embankment

Narvel Beavale Project Area

Package: _____

Data Sheet No.

Date

Time:

Name of Enumerator:

1. Location

Section (Km)		Name of Village/ Urban Ward	
Chainage in m		City / urban area	
Taluka		District	
Block		Landmark	
Location (Distance in M from center of saline embankment alignment)		GPS Coordinates	
Left side	Right Side	Lat	Lon
Informant details			
Name	Address	Contact No	Occupation

2. Inventory of anticipated impacts

2.1 Traffic Congestion observed / projected

Location details	Present	During Construction	After construction

2.2 Inventory of physical assets located in the corridor likely to be affected

Location details -	Private Assets- Utility	Public Assets- Utility	Community Property Resources - Utility

2.3 Probable impact on assets

Who will be affected most	Temporary – shifting	Permanent – Displacement	Inaccessibility (to shop etc.)
Private Assets			
Public Assets			
CPR			

2.4 Likely inconvenience to public due to project (frequent visitors to the location)

Description of inconvenience	Temporary	Permanent	Who will be affected most

2.5 Likely uncomfortable conditions for people (Inhabitants aside the locations)			
Description of uncomfortable conditions	Temporary	Permanent	Who will be affected most
2.6 Likely impacts on accessibility to Livelihood resources– shops, business, individuals, households and others			
Description of livelihood accessibility to resources	Temporary	Permanent	Who will be affected most
2.7 Impact on archaeological and cultural /tourist spots			
2.8 Loss of Trees			
Location and ownership – public, private	Species	Density	Area
2.9 Likely impact on movement / Transit corridors of cattle, wildlife			
Location,	Type of cattle	Likely impact permanent	Likely impact – temporary
2.10 Likely impact on Air / Noise pollution			
Location	Air	Noise	Cumulative Impact
2.11 Land Acquisition requirements if any			

Location	Area in ha	No of Project Affected Households	LA amounts to displacement of households
2.12 Any other Specify -			

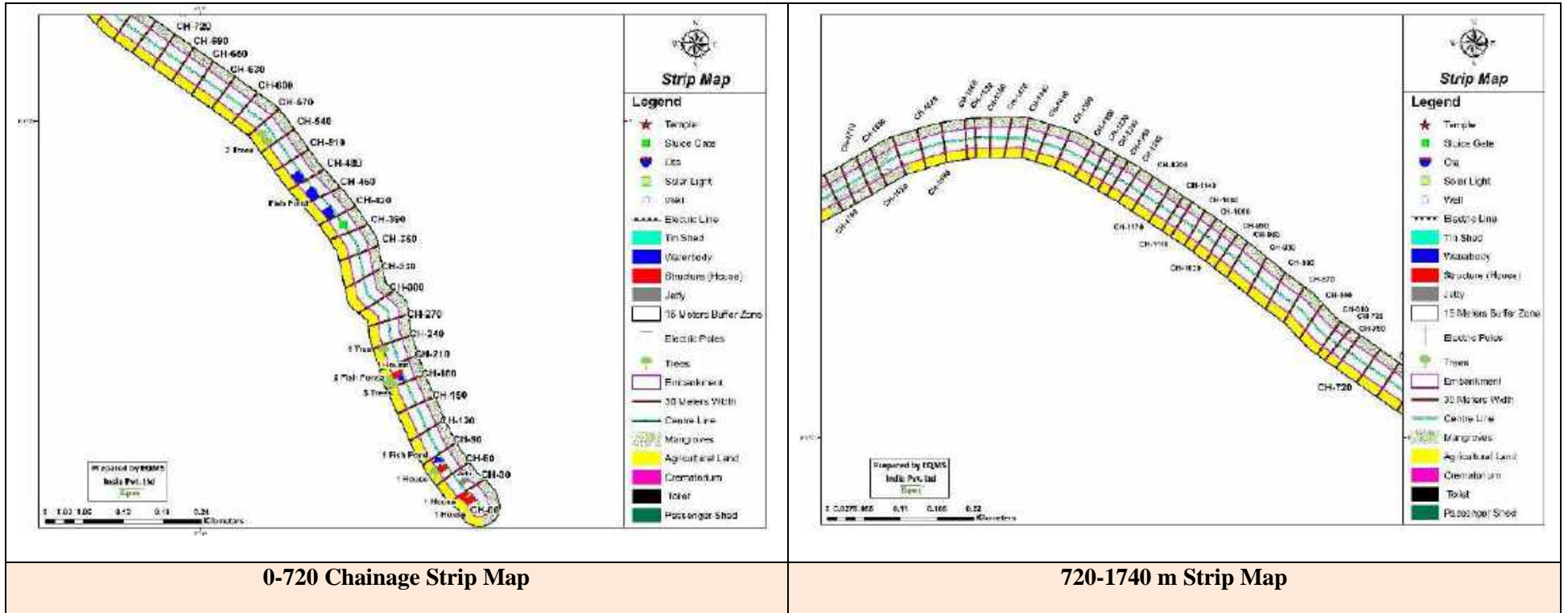
Name

Signature

ANNEXURE 2: FORMAT FOR CONDUCTING CENSUS

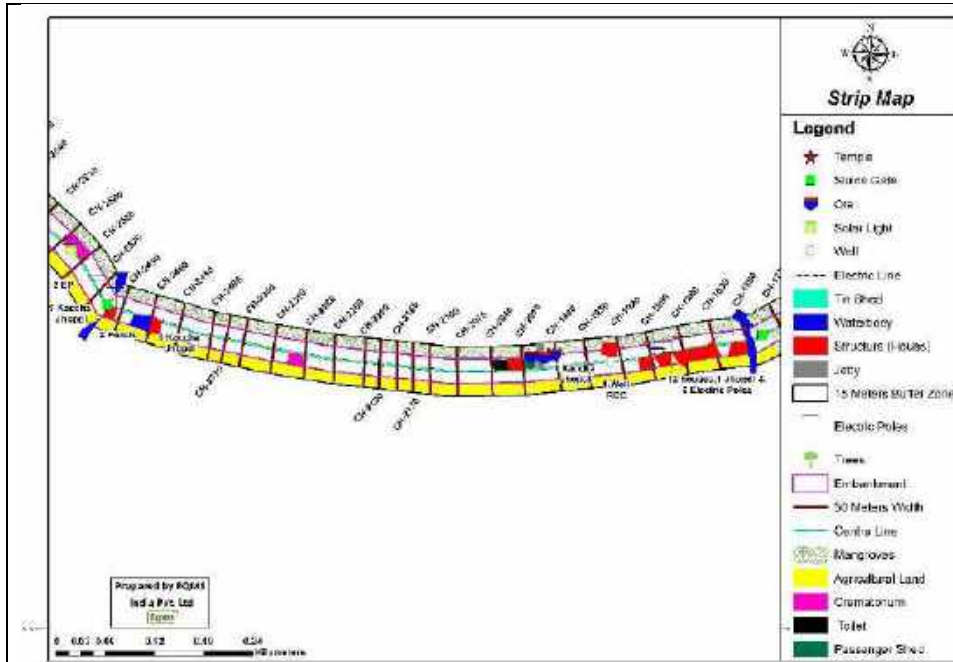
Name of Village / Ward No.	
Household	:
Date	
Name	
Sex	
Age	
Relation to Household	
Head (HH)	
Primary Occupation	
Secondary Occupation	
Number of HH Members Disaggregated by Sex	
Property Ownership with Estimated Value	
<ul style="list-style-type: none">• Structures• Land and Type• Other: Wells, Trees, Livestock	
Highest Level of Education	
Income	
<ul style="list-style-type: none">• Farm-based• Off-farm labor• Informal Sector Activities• Other: Remittances	
Name and Signature of Surveyor	Name and Signature of Informant

ANNEXURE 3: NARVEL BENAVALLE STRIP MAPPING

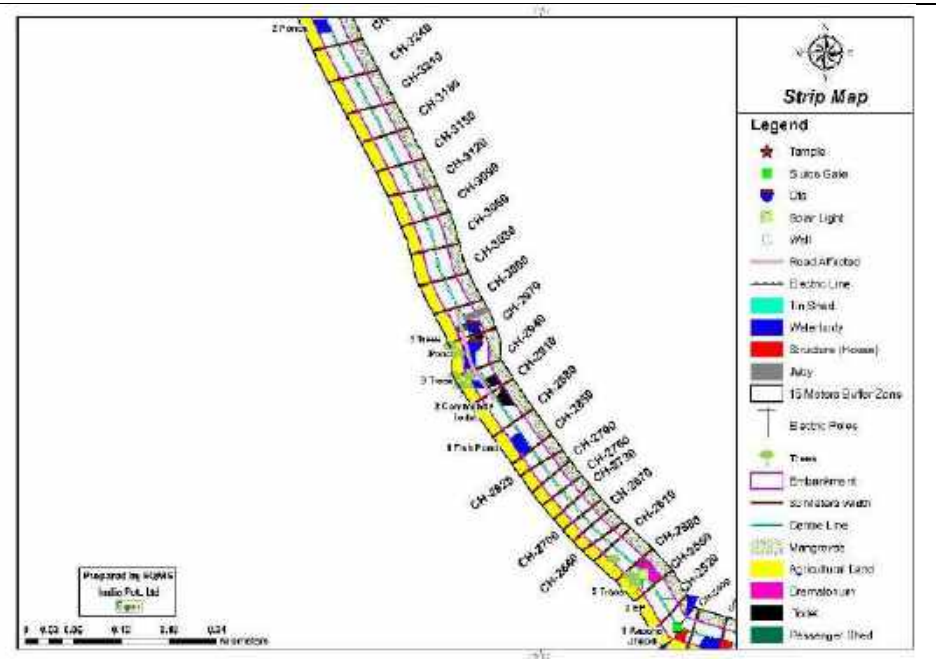


0-720 Chainage Strip Map

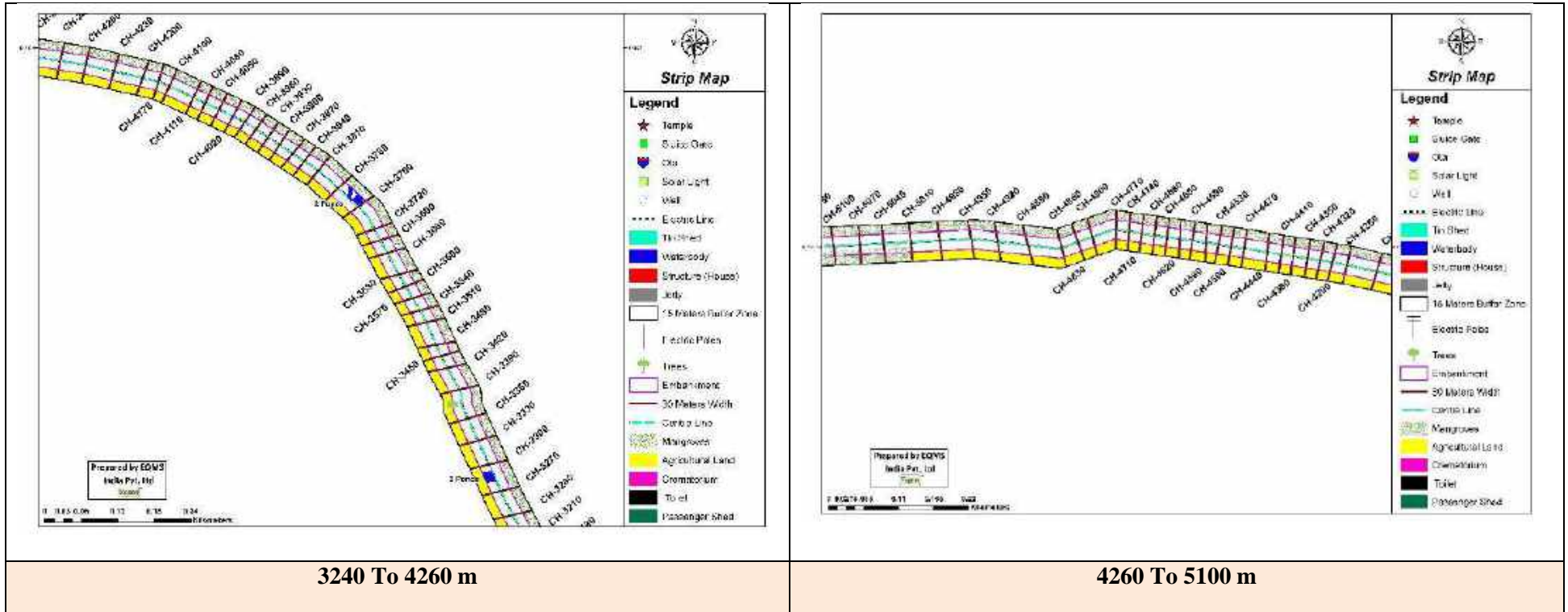
720-1740 m Strip Map



1740 to 2610 m



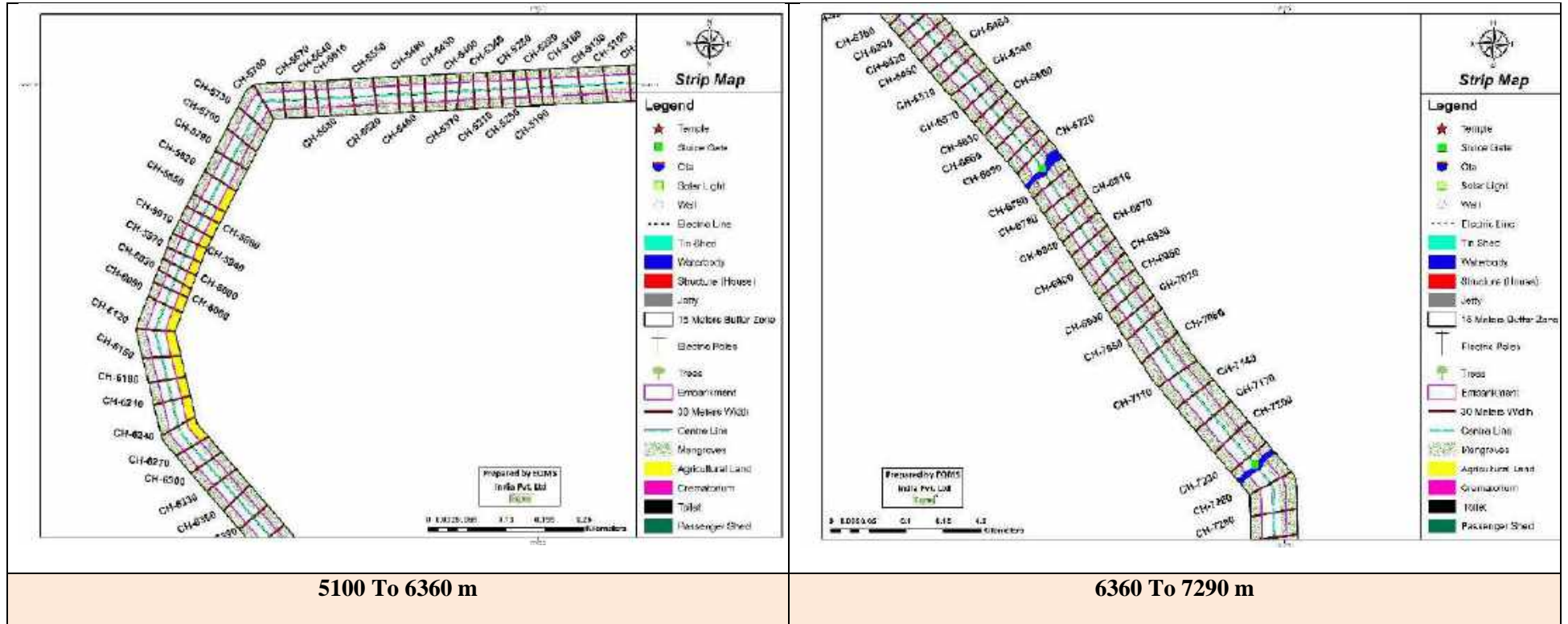
2610 to 1290 m

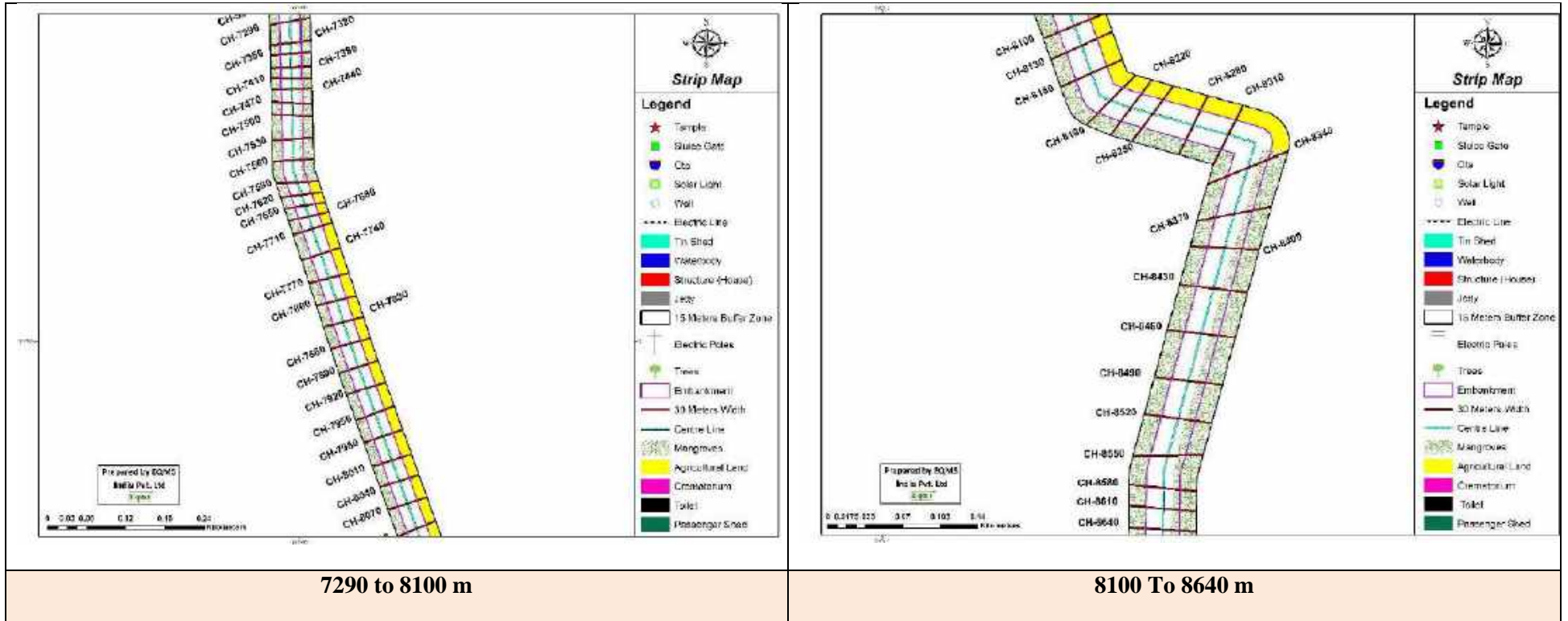


3240 To 4260 m

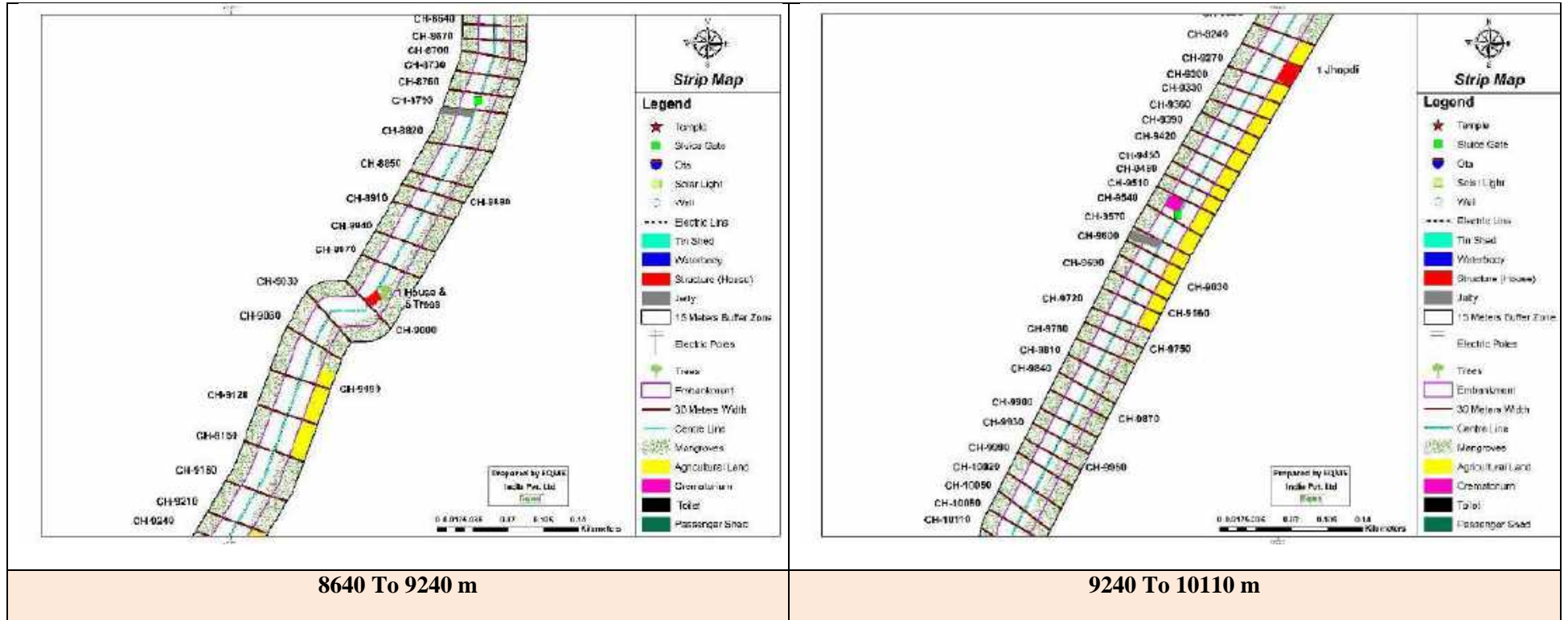
4260 To 5100 m

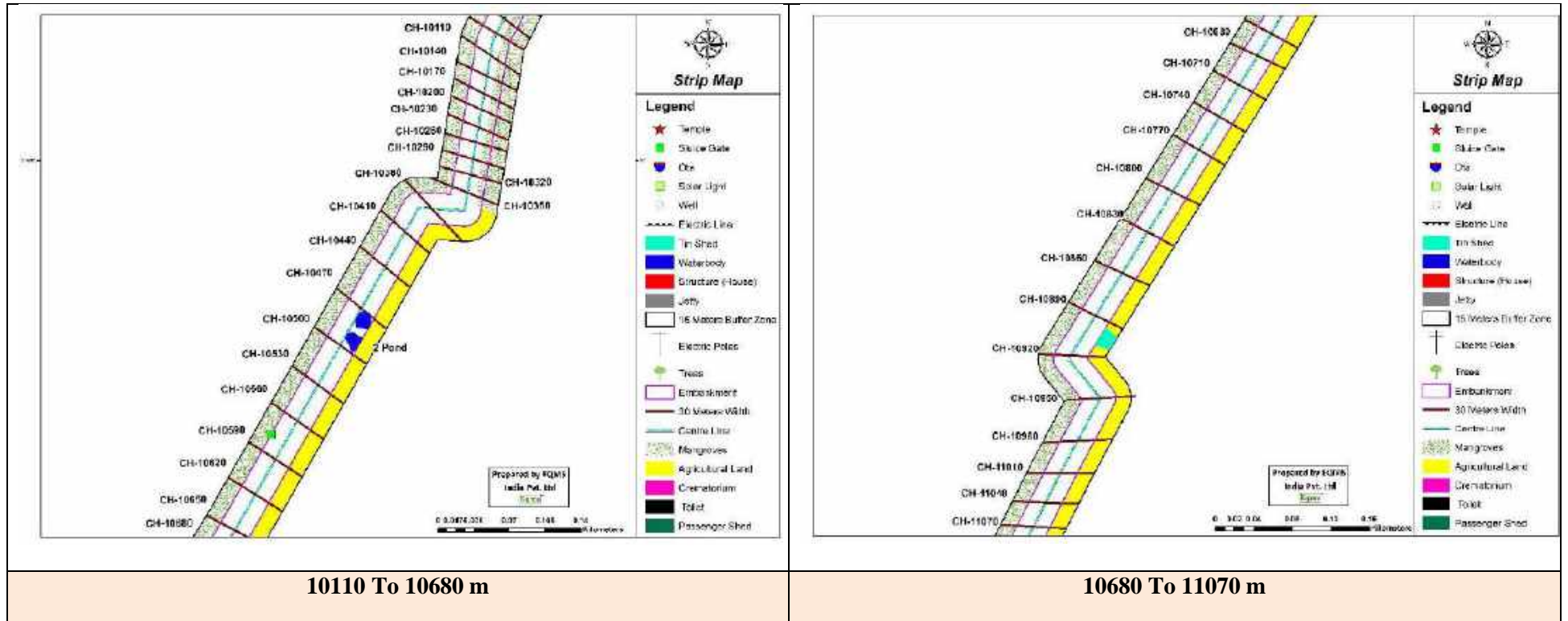
Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II

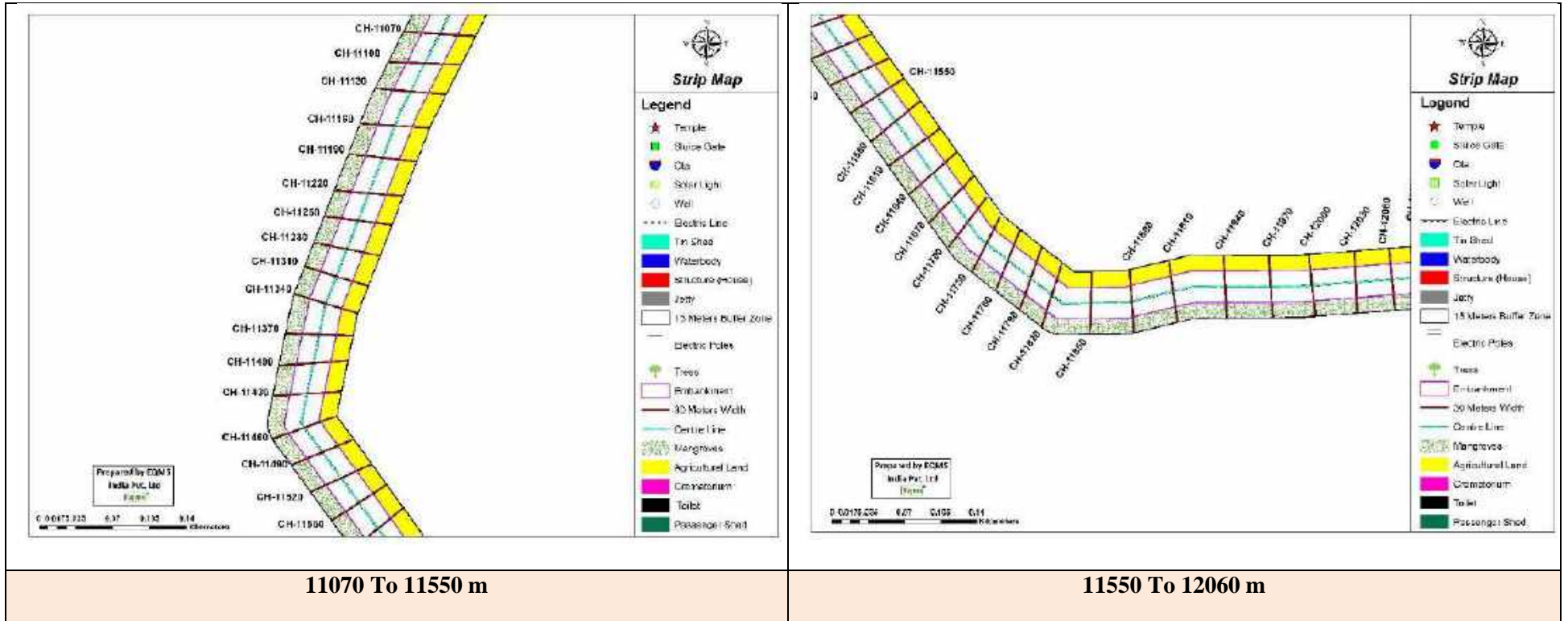


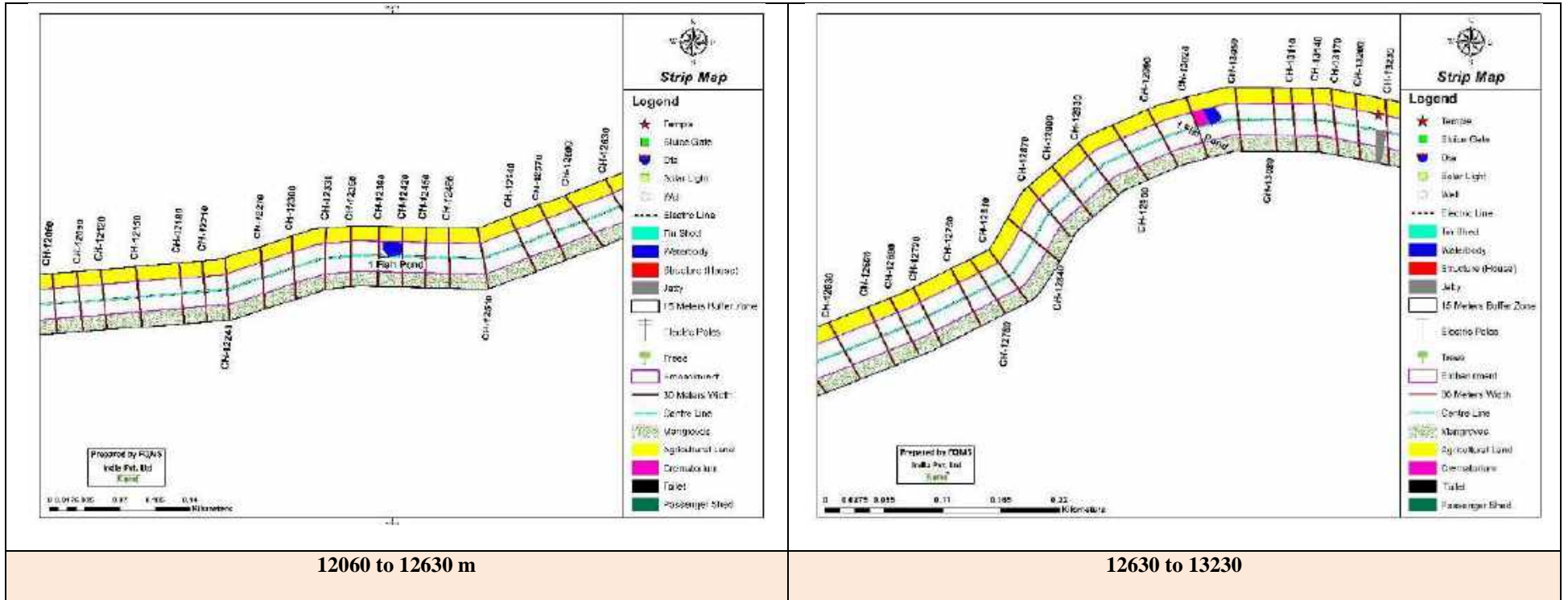


Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II

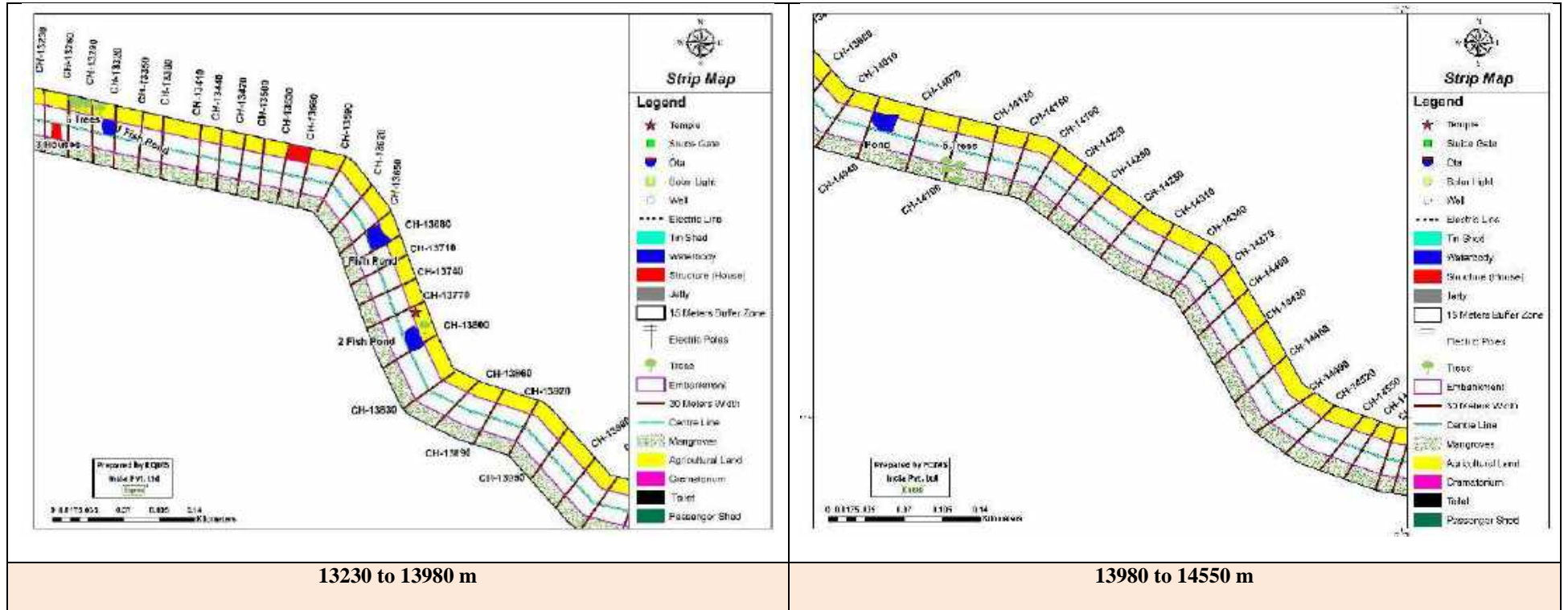


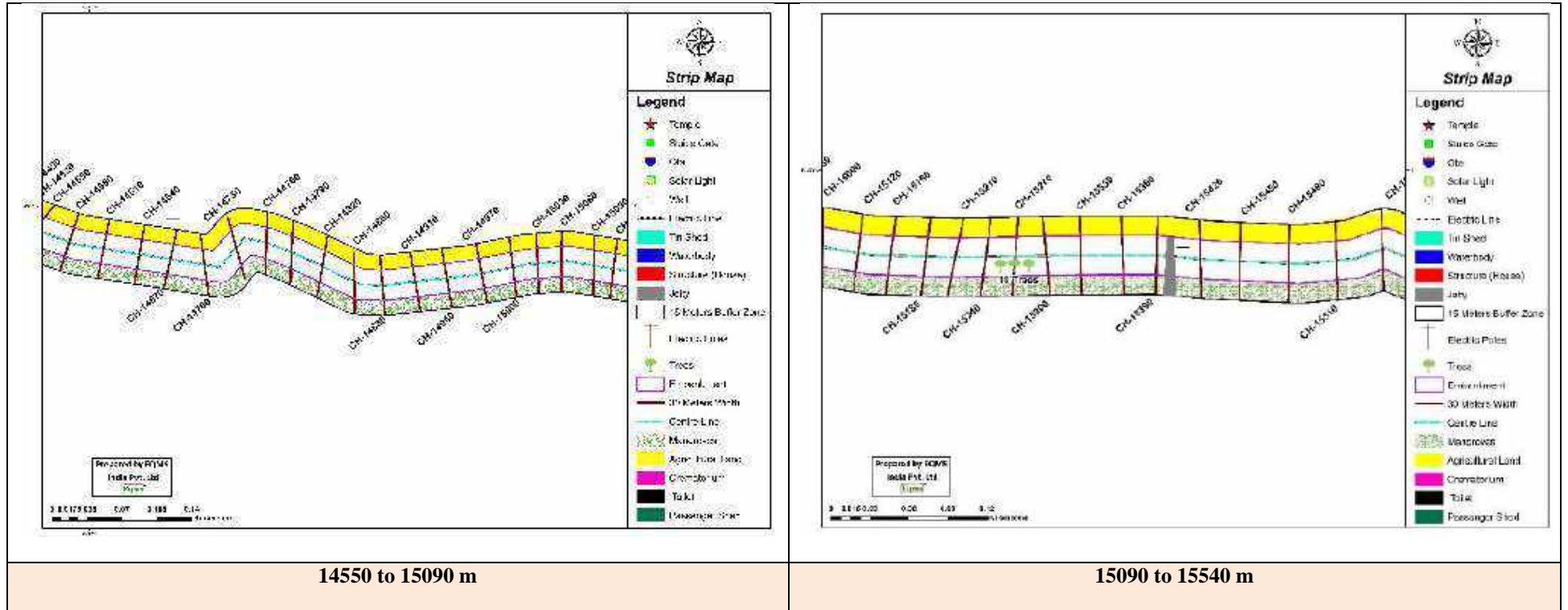


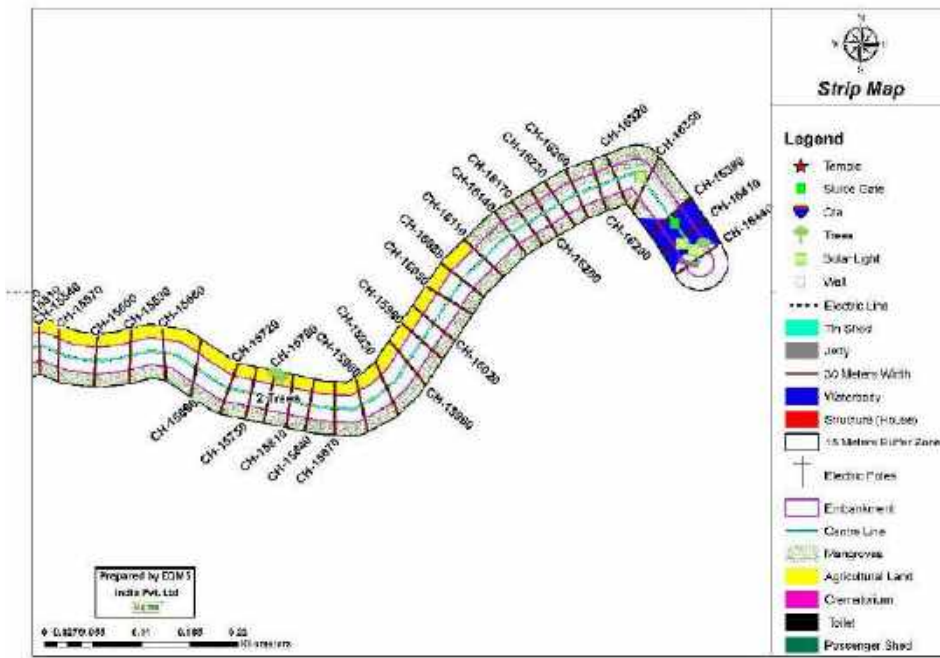




Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II







15540 to 16440 m

ANNEXURE 4: LOCATION OF AFFECTED STRUCTURE / EXISTING UTILITIES

<u>Sl.No</u>	<u>Description of Affected Structure</u>	<u>Type of Structure</u> <u>(Temporary/ Permanent)</u>	<u>Area/ Road Name</u>	<u>Land Mark Chainage</u>	<u>Lat/Long</u>	<u>Property Owner</u>	<u>Agree/ Disagree to sell the plot</u>	<u>Remarks (if any)</u>
1.	1 Electric Pole	Permanent	<u>In Kalshri</u>	5	18°46'41.13" N ,73° 2'13.37"E			
2.	1 House Pakka Ravikant Narayan Thakur(33*20 Feet) Room-3 Hall-1 Kitchen-1 Toiltet-1, Roof Lakdi	Permanent	<u>In Kalshri</u>	10	18°46'41.45" N, 73° 2'13.17"E	Ravikant Narayan Thakur	No	1 House Pakka
3.	1 House Pakka Mira Bai Narayan Thakur (31*14 Feet) Room-2 Hall-1 Kitchen-1 Toiltet-1, Roof Cement Patra	Permanent	<u>In Kalshri</u>	45	18°46'41.93" N 73° 2'12.53"E	Mira Bai Narayan Thakur	yes	1 House Pakka
4.	Jetty, 17 Mtr.+5 Mtr* 2.5 Mtr.) after 17 mtr. Mengru and 5 mtr. Extra jeeti	Permanent	<u>In Kalshri</u>	70	18°46'42.44" N 73° 2'12.52"E	Martian Board	Yes	Martian Board
5.	1 House Pakka Madan Sankar Patil	Permanent	<u>In Kalshri</u>	75	18°46'42.83" N 73°	Madan Sankar		1 House Pakka

	(29*23 Feet) Room-1 Hall-1 Kitchen-1 Toiltet-1, Roof Cement Patra and Iron Pipe (water Tank 11*8*5 RCC) 1 Fish Pond 33*33 Feet				2'11.95"E	Patil	yes	
6.	Service Electric Line - Madan sankar patil house to Sakar Murlidhar House	Permanent	<u>In Kalshri</u>	180	18°46'42.83" N 73° 2'11.95"E	House Pakka Sankar Murlidhar Mathre	yes	Service Electric Line
7.	1 House Pakka Sankar Murlidhar Mathre(24*18 Feet) Room-2 Hall-1 Kichan-1 Toiltet-1, Roof Lakdi, 2 Fish Pond (10*10 and 15*10 mtr.)	Permanent	<u>In Kalshri</u>	390	18°46'46.03" N 73° 2'10.50"E	Sankar Murlidhar Mathre	yes	1 House Pakka
8.	Sidi work, Ughadi (RCC 3.8*2.5) 1 Gate	Permanent	<u>In Kalshri</u>	420	18°46'52.41" N 73° 2'7.91"E	Kharland	yes	<u>Kharland</u>
9.	Pond	Permanent	<u>In Kalshri</u>	450	18°46'53.29" N 73° 2'7.18"E	<u>Padam Nilkhant Thakur</u>	yes	Near saline Imbickment

10.	Pond	Permanent	<u>In Kalshri</u>	480	18°46'54.10" N 73° 2'6.89"E	<u>Padam Nilkhant Thakur</u>	yes	Near saline Imbickment
11.	Pond	Permanent	<u>In Kalshri</u>	1770	18°46'54.66" N 73° 2'6.53"E	<u>Padam Nilkhant Thakur</u>	yes	Near saline Imbickment
12.	Sidi work at Band, Ughadi (RCC 3*2 Mtr.) 1 Gate	Permanent	<u>In Konoba</u>	1800	18°47'11.21" N 73° 1'30.95"E	<u>Kharland</u>	yes	Imbickment
13.	1 House Pakka Tai Chandrakant Thakur (33*23 Feet) Room-2 Hall-1, Kichan-1 Toiltet-1,	Permanent	<u>In Konoba</u>	1800 to 1850	18°47'10.98" N 73° 1'30.47"E	Chandrakant Thakur	Yes	1 House Pakka
14.	1 House Ravikant Baburao Thakur (23*21 Feet) Room-1 Kitchen-1, Baramda-1, Toiltet-1,	permenent	<u>In Konoba</u>	1800 to 1850	18°47'10.97" N 73° 1'30.07"E	Ravikant Baburao Thakur	yes	<u>Pakka House</u>
15.	1 House kacha Ravikant Baburao Thakur (20*15 Feet)	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.82" N 73° 1'29.33"E	Ravikant Baburao Thakur	Yes	1 House kacha
16.	1 House 20*12 Kalpana Akash Mhatre (Room-1, Kitchen-1)	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.52" N ,73° 1'27.80"E	Kalpana Akash Mhatre	Yes	<u>Pakka House</u>

17.	1 House Pakka Tai Kamlakar Ganpat Bhoir(34*18 Feet) Room-2 Hall-1, Kitchen-1 Toiltet-1,	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.94" N 73° 1'27.92"E	Tai Kamlakar Ganpat Bhoir	yes	1 House Pakka
18.	1 House Kisna Bitthal Bhoir 20*15, Room-1, Kitchen-1, Hall-1 and 10*10 jhopdi	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.38" N 73° 1'27.20"E	Kisna Bitthal Bhoir	Yes	1 House
19.	1 House Datta BitthalBhoir 20*15, Room-1, Kitchen-1, Hall-1	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.28" N 73° 1'26.96"E	Datta BitthalBhoir	Yes	1 House
20.	1 House Mayaram Bhoir 40*15, Room-1, Kitchen-1, Hall-1 and 10*10 jhopdi	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.32" N 73° 1'26.70"E	Mayaram Bhoir	Yes	Affected Structure of Mayaram Bhoir
21.	1 Jhopad Vijay Maya Bhoir 15*10 Feet	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.69" N 73° 1'26.63"E	Vijay Maya Bhoir	<u>Yes</u>	
22.	1 House Anantram Bhoir 40*15, Room-1, Kitchen-1, Hall-1	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.38" N ,73° 1'26.86"E	Anantram Bhoir	<u>Yes</u>	
23.	3 Toilet (Anantrama,Mayara	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.62" N ,73°	Anantrama,May arama and	<u>Yes</u>	

	ma and Pandurang)				1'26.49"E	Pandurang		
24.	1 House Pandurang Dama 40*15, Room-1, Kitchen-1, Hall-1	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.59" N 73° 1'26.69"E	Pandurang Dama	<u>Yes</u>	
25.	1 Jhopadi Vinayak Pandura Bhoir 15*10 Feet	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.59" N 73° 1'26.69"E	Vinayak Pandura Bhoir	<u>Yes</u>	
26.	1 Jhopdi Nani Bai Ganpat Bhir 15*15, Room-1, Kitchen-1, Hall-1	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.38" N 73° 1'26.20"E	Nani Bai Ganpat Bhir	<u>Yes</u>	
27.	1 Jhopdi, Ranjna parasuram Bhoir 20*20 Kachha, chat patra	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.58" N 73° 1'26.10"E	Ranjna parasuram Bhoir	<u>Yes</u>	
28.	1 House Parasuram 34*20	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'10.44" N 73° 1'26.08"E	Parasuram Bhoir		
29.	5 Electrical Pole	Permanent	<u>In Konoba</u>	1800 to 1890	18°47'11.10" N 73° 1'30.05"E To 18°47'10.42" N 73° 1'25.11"E	MSEDCL		Affected Structure of MSEDCL
30.	1 House Padmakar narayan Bhoir,	Permanent	<u>In Konoba</u>	1800 to	18°47'10.37" N 73°	Padmakar		

	Room-1, Kitchen-1			1890	1'25.75"E	narayan Bhoir		
31.	1 House Dasarath Padmakar, Room-2, Kitchen-1, Hall-1	Permanent	<u>In Konoba</u>		18°47'10.38" N 73° 1'25.54"E	Dasarath Padmakar Bhior		
32.	1 Well RCC	Permanent	<u>In Konoba</u>	1910	18°47'10.10" N 73° 1'25.17"E	G P		Affected Structure of Grampanchayat
33.	KacchaJhopdi 10*10 sankar Bhiva mhatre	<u>Temporary</u>	<u>In Konoba</u>	1930	18°47'10.44" N 73° 1'24.66"E	sankar Bhiva mhatre		Kaccha Zopadi
34.	Jetty, RCC 40*3	Permanent	<u>In Konoba</u>	1980 to 2040	18°47'10.38" N, 73° 1'24.49"E	Maharashtra Maritain Board		Affected Structure of Maharashtra Maritain Board
35.	Shed 15*10 RCC	Permanent	<u>In Konoba</u>	1980 to 2040	18°47'10.46" N ,73° 1'24.36"E	Maharashtra Maritain Board		Affected Structure of Maharashtra Maritain Board
36.	3 Ota, 40*40 feet-1 and 2 small	Permanent	<u>In Konoba</u>	1980 to 2040	18°47'10.18" N 73° 1'23.47"E			Affected Structure of Harder Department
37.	Community Toilet -2 (3 Seat + 4 seat)	Permanent		1980 to 2040	18°47'10.18" N 73° 1'23.26"E	G P		Affected Structure of Grampanchayat

38.	1 crematorium 23*20	Permanent		2280	18°47'10.14" N 73° 1'16.35"E	GP		Affected Structure of Grampanchayat
39.	1 Pond (Santosh Maruti Mhatre Gat No.-59)	Permanent	<u>Vitthal Wadi</u>	2340	18°47'11.31" N 73° 1'10.09"E	Santosh Maruti Mhatre		
40.	1 Jhopdi kaccha 10*10	Permanent	<u>Vitthal Wadi</u>	2460	18°47'11.17" N 73° 1'9.08"E	Santosh Maruti Mhatre		
41.	1 Pond (in Govt land Gat No.-63)	Permanent	<u>Vitthal Wadi</u>	2470	18°47'11.57" N 73° 1'8.27"E			
42.	1 Jhopdi 20*15 Pakka	Permanent	<u>Vitthal Wadi</u>	2480 to 2500	18°47'11.83" N73° 1'7.29"E			
43.	1 Electrical pole	Permanent	<u>Vitthal Wadi</u>	2480 to 2500	18°47'12.16" N 73° 1'7.00"E	MSEDCL		Affected Structure of MSEDCL
44.	1 Sidi work 3.7*2.3 mtr. RCC 1 Gate	Permanent	<u>Vitthal Wadi</u>	2490	18°47'12.22" N 73° 1'6.70"E			
45.	1 electrical Pole	Permanent	<u>Vitthal Wadi</u>	2520	18°47'12.43" N 73° 1'6.38"E	MSEDCL		Affected Structure of MSEDCL

46.	1 Solar Light	Permanent	<u>Vitthal Wadi</u>	2550 - 2580	18°47'13.03" N 73° 1'5.08"E	Grampanchyet		Grampanchyet
47.	1 Electrical Pole	Permanent	<u>Vitthal Wadi</u>	2550 - 2580	18°47'13.25" N 73° 1'5.27"E	MSEDCL		Affected Structure of MSEDCL
48.	1 crematorium, Siting Sed 12*4 mtr. RCC+ Chhat Tin, + 8.5*6.5 ShamsanGhat Tin, + 8.5*6.5 6 gatar	Permanent	<u>Vitthal Wadi</u>	2550 - 2580	18°47'13.32" N 73° 1'5.50"E	G P		Affected Structure of Grampanchayat
49.	1 Fish Pond (Kiran Patil)	Permanent	<u>Vitthal Wadi</u>	2850	18°47'18.72" N 73° 1'0.05"E	Kiran Patil		
50.	Road Effectted	Permanent	<u>Vitthal Wadi</u>	2910- 2970	18.789266°- 73.016265° to 18.790084°- 73.015875	Grampanchyet		Affected Structure of Grampanchyet
51.	1 Toilet 4 Seat (Community)	Permanent	<u>Vitthal Wadi</u>	2910- 2940	18°47'21.36" N 73° 0'58.55"E	Grampanchyet		Affected Structure of Grampanchyet
52.	1 Toilet 4 Seat (Community)	Permanent	<u>Vitthal Wadi</u>	2910- 2940	18°47'21.37" N 73° 0'58.53"E	G P		Affected Structure of Grampanchyet

53.	1 Pond (Ratnakar Krushna Mhatre gat No.-417)	Permanent	<u>Vitthal Wadi</u>	2940	18°47'21.89" N 73° 0'58.06"E	Ratnakar Krushna Mhatre		
54.	1 Pond (RamchnadraNagaji Mhatre gat No.-416)	Permanent	<u>Vitthal Wadi</u>	2945	18°47'22.69" N 73° 0'57.43"E	RamchnadraNagaji Mhatre		
55.	1 Ota (16*8 Mtr)	Permanent	<u>Vitthal Wadi</u>	2950-2970	18°47'22.87" N 73° 0'57.38"E	Harber Department		Affected Structure of Harber Department
56.	1 Toilet 4 Seat (Community)	Permanent	<u>Vitthal Wadi</u>	2970	18°47'23.45" N 73° 0'57.40"E	Grampanchyet		Affected Structure of Grampanchyet
57.	1 Ota (8*6 Mtr)	Permanent	<u>Vitthal Wadi</u>	2985	18°47'24.08" N 73° 0'57.27"E	Harber Department		Affected Structure of Harber Department
58.	1 Passenger Sed 6.5*4 Mtr. RCC	Permanent	<u>Vitthal Wadi</u>	2990	18°47'24.33" N 73° 0'57.02"E	Maharashtra Maritain Board		Affected Structure of Maharashtra Maritain Board
59.	1 Jetty (4*8.8+17+10)	Permanent	<u>Vitthal Wadi</u>	2990	18°47'24.23" N 73° 0'57.12"E	Maharashtra Maritain Board		Affected Structure of Maharashtra Maritain Board

60.	2 Pond (0.8 htr.+0.2 htr.) Sibhas tanaji mhatre and Rancho rTanaji mhatre (in rent)+ 1 Shed 11*4 mtr.tin Gat No-402	Permanent	<u>Vitthal Wadi</u>	3280	18°47'35.29" N 73° 0'52.05"E	Sibhas tanaji mhatre and Rancho rTanaji mhatr		
61.	2 Pond Yasbant Ambaji Mahatre, Amarchand Ganpat Mhatre, santosh Maruti Mhatre, toSashankThakre (Rent) Gat no. 387, 379, 378	Permanent	<u>Vitthal Wadi</u>	3780	18°47'51.55" N 73° 0'44.01"E	Ambaji Mahatre, Amarchand Ganpat Mhatre, santosh Maruti Mhatre, toSashankThakre		
62.	Sluice Gate (RCC, 4.5*3 Mtr., Gate-2), 50*3 mtr. RCC	Permanent	<u>Vitthal Wadi</u>	6750	18°47'30.27" N 72°59'49.32" E	Kharland Dep		Affected Structure of Kharland Dep
63.	Sluice Gate (RCC, 6*2.3 Mtr., Gate-2)	Permanent	<u>Vitthal Wadi</u>	7230	18°47'17.94" N 72°59'59.16" E	Kharland Dep		Affected Structure of Kharland Dep
64.	Sluice Gate, 1+1, 4.5*28, 4*2 Mr. RCC	Permanent	<u>Janavali</u>	8760	18°46'32.42" N 73° 0'7.72"E	Kharland Dep		Affected Structure of Kharland Dep
65.	Jetty-2.5 Breadth	Permanent	<u>Janavali</u>	8790	18°46'31.06"	Maharashtra		Affected

					N 73° 0'7.01"E	Maritain Board		Structure of Maharashtra Maritain Board
66.	Balaram house, 21*14 feet, pakka,	Permanent	<u>Janavali</u>	9000	18°46'23.93" N73° 0'2.13"E	Balaram		
67.	1 sluice Gate 4*1.3, RCC , gate-1	Permanent	<u>Ghoda Bander</u>	9555	18°46'11.24" N 72°59'55.97" E	Kharland Dep		Affected Structure of Kharland Dep
68.	1 Crematorium, 6.8*6 mtr. RCC, 6 Gatar	Permanent	<u>Ghoda Bander</u>	9555	18°46'11.41" N 72°59'56.02" E			Affected Structure of Grampanchayat
69.	1 Jetty, 2.7*145 mtr.	Permanent	<u>Ghoda Bander</u>	9585	18°46'10.10" N 72°59'55.22" E	Maritain Board	<u>Yes</u>	Affected Structure of Maharashtra Maritain Board
70.	2 Pond Amarchnd baliram mhatre Gat- 290/1	Permanent	<u>Bahiram Kotak</u>	10500	18°45'51.78" N 72°59'48.35" E	Amarchnd baliram mhatre		
71.	1 Fish Pond Jaiprakash kashinath Patil Gat No.-154	Permanent	<u>Bahiram Kotak</u>	12420	18°45'12.97" N 73° 0'0.91"E	Jaiprakash kashinath Patil		

72.	1 Fish Pond Kishor Ananat Mhatre	Permanent	<u>Bahiram Kotak</u>	13020	18°45'21.45" N 73° 0'17.99"E	Kishor Ananat Mhatre		
73.	1 crematorium, 7*6 mtr. RCC, Chat Iron Pipe Support and tin 6 Ghatar	Permanent	<u>Bahiram Kotak</u>	13030	18°45'21.68" N 73° 0'18.57"E	Grampanchayat		Affected Structure of Grampanchayat
74.	1 Temple (Bahari dev)	Permanent	<u>Bahiram Kotak</u>	13230	18°45'21.64" N 73° 0'23.44"E	People of Bahiram Kotak		
75.	1 Jeety, 3* 8+11+6 mtr.	Permanent	<u>Bahiram Kotak</u>	13230	18°45'21.29" N 73° 0'23.47"E	Maritain Board		Affected Structure of Maharashtra Maritain Board
76.	3 Houses Dharma Narayan Mali 9*6.5 Mtr. Room-1, Kichan-1, Hall-1, Vaishali Sankar mali 7.5*6.5 Mtr. Room-1, Kitchen-1, Hall-1 1 House Prakash Naryanmali 6.5*5 mtr. Room-1,	Permanent	<u>Bahiram Kotak</u>	13260	18°45'22.27" N 73° 0'26.13"E	Dharma Narayan Mali Vaishali Sankar mali Prakash Naryan mali	<u>Yes</u>	Seprat House

	Kitchen-1, Hall-1							
77.	1 Fish Pond Chandra Kant Ganpat patil	Permanent	<u>Bahiram Kotak</u>	13320	18°45'20.43" N 73° 0'27.95"E	Chandra Kant Ganpat patil		
78.	2 Fish Pond Jankai Laxman patil & Sandesh Laxman Patil	Permanent	<u>Benvale</u>	13680	18°45'16.78" N 73° 0'36.19"E	Jankai Laxman patil & Sandesh Laxman Patil		2 Ponds
79.	2 Fish Pond PanduramKrusna Patil (Gat No.12),	Permanent	<u>Benvale</u>	13770 to 13800	18°45'13.44" N 73° 0'37.52"E	PanduramKrus na Patil	<u>Yes</u>	
80.	1 Temple- Bap dev bhagwan	Permanent	<u>Benvale</u>	13770 to 13800	18°45'13.44" N 73° 0'37.52"E	prabhakar sankar thoi	<u>Yes</u>	Personal Temple
81.	1 Pond (prabhakar sankar thoi)	Permanent	<u>Benvale</u>	14040	18°45'8.73"N 73° 0'44.69"E	prabhakar sankar thoi	<u>Yes</u>	
82.	1 jetty 3.5*17+13+5	Permanent	Waskand, Washi	15420	18°44'57.85" N 73° 1'25.29"E	Maritain Board	<u>Yes</u>	Affected Structure of Maharashtra Maritain Board
83.	1 Electrical Pole	Permanent	Waskand,	16320-	18°45'4.73"N	MSEDCL	<u>Yes</u>	Affected

			Washi	16350	73° 1'51.94"E			Structure of MSEDCL
84.	1 Solar light	Permanent	Waskand, Washi	16320- 16350	18°45'4.73"N 73° 1'51.94"E	Maritain Board	<u>Yes</u>	Affected Structure of Maharashtra Maritain Board
85.	Sluice Gate, 2.5*4	Permanent	Waskand, Washi	16320- 16350	18°45'4.73"N 73° 1'51.94"E	Kharland	<u>Yes</u>	Affected Structure of Kharland
86.	1 Solar light	Permanent	Waskand, Washi	16350	18°45'4.10"N 73° 1'52.17"E	Maritain Board	<u>Yes</u>	Affected Structure of Maritain Board
87.	Sluice Gate, 2.8*15 mtr. 5 Gate lakdi RCC	Permanent	Waskand, Washi	16380	18°45'2.13"N 73° 1'53.71"E	Kharland	<u>Yes</u>	Affected Structure of Kharland
88.	2 Solar light	Permanent	Waskand, Washi	16410 to 16440	18°45'1.02"N 73° 1'54.19"E	Maritain Board		Affected Structure of Maharashtra Maritain Board
89.	Jetty RCC. 3.3*	Permanent	Waskand, Washi	16440	18°45'1.02"N 73° 1'54.19"E	Maritain Board		Affected Structure of Maritain Board

ANNEXURE 4: PICTURES TAKEN DURING SITE SURVEY



Temporary Houses on the Bund



Houses on the Bund Narvel Benvale Scheme



Visit to site along with officers



Stop on the Bund



Houses on the Bund

Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II



*Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II*



ANNEXURE 5: SOCIO ECONOMIC SURVEY FORMAT

सामाजिक आर्थिक सर्वेक्षण मुलाखत)
(वैयक्तिक मुलाखत)

दिनांक	प्रश्नावली क्रमांक			मुलाखत				
मुलाखत घेणाऱ्याचे नाव	श्री. राजेंद्र चं. पाटील			देणाऱ्याचे नाव	अरुण व. पाटील			
गावाचे नाव	कालेशी			घर क्रमांक	648			
कुटुंबाची माहिती								
अनु क्र.	कुटुंबातील सदस्याचे नाव	कुटुंब प्रमुखाची नाते	लिंग १.पु २.स्त्री	वय	शिक्षण	व्यवसाय	वार्षिक उत्पन्न	दिवांग/आजार
1	अरुण व. पाटील	स्वतः	पु	45	8वी	मेल मजुरी	15,000	
2	अरुण म. पाटील	पत्नी	स्त्री	42	7वी	-		
3	सुरेश म. पाटील	कुलगी	स्त्री	10	5वी			
4	पुंजा म. पाटील	मुलगी	पु.	8	3री			
सामाजिक स्थिती								
धर्म	हिंदू <input checked="" type="checkbox"/>	मुस्लीम						
सामाजिक वर्ग	जनरल <input checked="" type="checkbox"/>	इतर मागासवर्गीय <input checked="" type="checkbox"/>	एस सी					
धराची स्थिती	स्वताचे <input checked="" type="checkbox"/>	आड्याचे	इतर					
कुटुंबाचे रेशनकार्ड आहे का?	होय <input checked="" type="checkbox"/>	नाही	एपीएल	बीपीएल <input checked="" type="checkbox"/>				

जीवन दर्जा									
नीज	होय ✓				नाही इतर _____				
पिण्याच्या पाण्याची सोब	नळाचे पाणी	बोजरिंग	नदी/विहीर	इतर (स्पष्ट करा) □					
शाळासय	उद्योग्यावर	सार्वजनिक	घरी ✓						
स्वयंपाकासाठी साधने	लाकूड	एलपीजी ✓	टॉबेल्स	इतर _____					
घराचे बांधकाम	उत्पन्न	मिळ	जमीन	कंपाऊंड					
	लोखंडी/सिमेंट पत्रे ✓	विटा ✓	दगड	विटा					
	पेंढा/गवत/झावक्या	माती	सिमेंट ✓	काटेरी तार					
	प्लास्टिक	सिमेंट	लादया	झाडाचे कुंपण ✓					
	आरसीसी		शेण	कंपाऊंड नाही					
कालास		माती							
घरातील यंत्र	श्रीज	टीव्ही	केबल/डीटीएच	सायकल	तीन चाकी वाहन				
	दोन चाकी	मोबाईल/फोन	संगणक	शितार्ई मशीन	पंखा ✓				
	पाण्याचा पंप	मिक्सर	धुलाई मशीन	ट्रक्टर	चार चाकी				
	मळणी यंत्र	कुळब	फ्लारणी यंत्र						
जनावरे	बैल	गाय	म्हैस	रेडा	शेळी				
	मेंढी	कीबड्या	इतर						
उत्पन्नाची साधने	शेती	मासेमारी	नोकरी	व्यवसाय	दुकान	इतर मत्स्य			
उत्पन्न	15,000								
शेती/जमीन प्रकार	मालकीची जमीन	लागवड खालील क्षेत्र	पडीक	खारे पाण्यामुळे नापीक झालेली जमीन	मस्य तळ्याची जमीन	गायान	शेत सार कित्ती भरता		
क्षेत्र (एकर.गुंठा)	-	-	-	-	-	-	-		
खंड व वाटे पध्दत	खंडाने जमीन दिली आहे का			कारण	वाट्याने	भाडे पद्धतीने			
क्षेत्र	१. होय २. नाही ✓								
ओलिताची स्थिती	एकूण		खरीप (पावसाळी)	रब्बी(हिवाळी)	(उन्हाळी)				
क्षेत्र									
सिंचनाची व्यवस्था	अशी व्यवस्था आहे का?	मध्यम/मोठी पाटवधारे	तधु	पाझर तलाव	नदीवरील उपसा	विहीर	कुपनलिका		
स्त्रोत	१.होय २. नाही ✓								
कृषी विस्तार सेवा	अश्या संस्थेची मदत घेतली आहे का?		कारण	कोणती संस्था		समाधानी मागत का?			
	१.होय २. नाही ✓			सरकारी/खाजगी ई.		१.होय २. नाही			

गाव पातळीवर स्थानिक यंत्रणा/सामुदायिक कार्य	स्थानिक संस्थेचे सभासद आहेत का?	संस्थेचे नाव	गाव सुधारणा सामुदायिक कामात सहभाग घेतलात का	कोणत्या कामासाठी				
	१. होय २. नाही ✓		१. होय २. नाही	बंधिस्ती				
	शेत्यांना वमायी अदलाबदल केली आहे का?	गाव सुधारणा-आर्थिक मदत केली आहे का?	कोणत्या कामासाठी	बंधिस्ती, ११-११				
	१. होय २. नाही ✓	१. होय २. नाही						
अल्प/दीर्घ मुदतीचे कर्ज		निकाले आहे का?		१. होय २. नाही				
अनु क्र.	कर्ज देणाऱ्या संस्था	अल्प/दीर्घ	रक्कम	कारण	कालावधी	व्याज दर %	परतफेड	शिल्लक
१	राष्ट्रीयवृत बँक/व्यापारी बँक							
२	सहकारी बँक							
३	पत/कर्ज पुरवठादार संस्था							
४	सावकार							
५	नातेवाईक/मित्र							
६	बचत गट/स्वयंसेवी संस्था							
७	इतर							
खार भूमी/बंधिस्ती	तुमच्या घरापासून अंतर	शेतोपासून अंतर	तलावापासून अंतर	गावापासून अंतर	तुमचे झालेले नुकसान	परिणाम	कालावधी	कारण
	2 m	-	-	800m	पुराचे पाणी द्यात नाउज नुकसात	नाहिले	35 वर्ष.	पुराचे पाणी
इतर माहिती								

गाव पातळीवर स्थानिक संवर्णा/सामुदायिक कार्य	स्थानिक संस्थेचे सभासद आहेत का?	संस्थेचे नाव	गाव सुधारणा सामुदायिक कामात सहभाग घेतलात का	कोणत्या कामासाठी				
	१. होय २. नाही ✓		१. होय २. नाही	उंचीसाठी				
	शेजान्यांना श्रमाची अदलाबदल केली आहे का?	गाव सुधारणा-आर्थिक मदत केली आहे का?	कोणत्या कामासाठी	उंचीसाठी, रस्ता				
	१. होय २. नाही ✓	१. होय २. नाही						
अल्पदीर्घ मुदतीचे कर्ज मिळाले आहे का?		१. होय २. नाही						
अनु क्र.	कर्ज देणाऱ्या संस्था	अल्पदीर्घ	रक्कम	कारण	कालावधी	व्याज दर %	परतफेड	शिल्लक
१	राष्ट्रीयकृत बँक/व्यापारी बँक							
२	सहकारी बँक							
३	पत/कर्ज पुरवठादार संस्था							
४	सहकार							
५	जातेवाईक/मित्र							
६	बचत गट/स्वयंसेवी संस्था							
७	इतर							
खार भूमी/बंदिस्ती	तुमच्या घरापासून अंतर	शेतीपासून अंतर	तलावापासून अंतर	गावापासून अंतर	तुमचे झालेले नुकसान	परिणाम	कालावधी	कारण
	2 m	-	-	800m	पुराचे पाणी धात लाडूवे नुकसात	सहूलत	35 वर्ष.	पुराचे पाणी
इतर माहिती								

ANNEXURE 6: STAKEHOLDER CONSULTATION


गावकरी मिळून एक काम करू । निर्मल ग्राम करू

ग्रुप ग्रामपंचायत वढाव

ता.पेण, जि. रायगड. ४०२ १०७

वढाव, मोठेवढाव, मोठेभाल, भाला (विहळवडी), काळीबा, तुकारामवाडी, लासोले, ठाकूरवेडी

दुरधनी कार्यालय - ०२१४३ - २६६९७३


जा. क्र. :  दिनांक : ऑक्टोबर ५ दि. ३/१२/२०१४
ग्रुप ग्रामपंचायत वढाव-पेण


ग्रामसभा ठराव नकल

विषय : खारभूमी कामांबाबत (विहळवडी, मोठेभाल) ठराव क्र. २२/१९ दि. २६/११/१४ नुसार.

सदर विधानान्वये सदर सभेत यथी करित झालेल्या वढाव ग्रुप ग्राम पंचायत सदस्यांनी मोठे विहळवडी येथील नारवेळ-वेणवळे येथील शार बंधिभूमी येथील मोठेभाल, विहळवडी येथील खारभूमी योजना, ता.पेण, जि.रायगड जि. योजना, केंद्रशासन व जागतिक बँकेच्या साहाय्यात बांधविणून येणाऱ्या राष्ट्रीय आपत्ती निवारण कक्षांतर्गत राष्ट्रीय उपक्रमाद्वारे निवारण प्रकल्पान्तर्गत समाविष्ट करणेने डाली आलेल्या कारिता बंधिभूमी पुनर्निवृत्ती व नविन उद्योगा बांधणे व त्या बांधावर खाडीपा वस्ता वनविणे इत्यादी कामे प्रस्तावित आलेले. सदर कामांबाबत कोणत्याही आवश्यक ती जमीन लाभधारकाकडून कोणत्याही वेळी मोबदल न घेता ग्रामपंच. व खार मोठे कामीली उपलब्ध करणे देणे या बाबत कोणत्याही शरपाई संबंधीत जागिन मालक मागवार नाली.

सुमकु :- रुबी रमकांत दातारुं मरु
मैर :- योगेशी प्रकाश वरु
ठराव जनशिकुं मरु


ग्रामविकास अधिकारी
ग्रुप ग्रामपंचायत, वढाव
ता. पेण, जि. रायगड


सरपंच ग्रुप
ग्रुप ग्रामपंचायत, वढाव
ता. पेण, जि. रायगड

स्थापना:- १९५८

१२६६५४२

ग्रुप ग्रामपंचायत बोर्ड

-: गावे :-
बोर्ड, काळेशी

मु. बोर्ड, ता. पेण, जि. रायगड. ४०२ ९०७

-: बाड्या :-
जयवलीबेडी, तामशी बंदर,
घोडा बंदर, ठाकूर बोर्ड

जावक क्र.

दिनांक : ०५/१२/२०१४

ठरावची नकाद

बोर्ड ग्रुप ग्राम पंचायत बांधकामाची ०५/१२/१४
ठराव क्र ३३७ ची नकाद

विषय - सा इच्छका वी योजने परकानेने झालेला वेळी गावे.

ठराव ३३७ - राखीव वसितीक विपरन प्रकल्पाबाबत.

बांधकामाची सुविधा मिळवण्याबाबत खालील विषय
अपेक्षित पत्रे व स्वतःच या परियोजनाचे वेळीकरीत झाले.
नारवेक वेळीकरीत झालेला नुसतकीकरीतले बांधकामाबाबत
विचारण प्रकल्पा झालेला प्रकल्पित आहे याबाबत बोर्ड ग्रामपंचायत
ठराविकीत लोकांलाबत वेळी अडथळास येऊन येऊन येऊन आहे.
ह्याच ग्रामपंचायतकरीत काळी हाक नाही. यका ठराव ठराव
नकाद आहे.

कुल - विजय वी बाळी

अनु-संस्था पत्रे वळी

ठराव दाखिलेने येऊ

विषयक झालेला ठरावची नकाद नकाद

ग्रामसचिव
ग्रुप ग्रामपंचायत, बोर्ड

सरपंच
ग्रुप ग्रामपंचायत, बोर्ड

पना:- १९६६

०२१४३-२६६५१५

ग्रुप ग्रामपंचायत दिव

ता. पेण, जि. रायगड, ४०२ १०७

जावक क्र.

दि. २० / ११ / २०१४

लाभ धारकांची यादी

क्र.कु.	लाभधारकाचे नाव	गाव
१)	श्री. रमेश नामदेव म्हात्रे	नारवेक
२)	लक्ष्मण शंकर पाटील	नारवेक
३)	जानू पदम पाटील	दोडाबंदर
४)	लक्ष्मण रामचंद्र पाटील	नारवेक
५)	एकनाथ महाडू म्हात्रे	मोड
६)	जगदीश विठोबा म्हात्रे	नारवेक
७)	सखानाम नारायण गडक	विठ्ठलनगर
८)	हरिभाऊ कामळ म्हात्रे	पेंडणकरवाडी
९)	कृष्णा लक्ष्मण म्हात्रे	नारवेक
१०)	दयानंद गंगाराम म्हात्रे	नारवेक
११)	राधभाऊ सखाराम म्हात्रे	मखेधरवाडी
१२)	विठोबा कामा भोईवे	जगवळी
१३)	विलास सिताराम म्हात्रे	पेंडणकरवाडी
१४)	परशुराम गणपत गडक	दिव
१५)	धर्मांतराम दिने पाटील	दोडाबंदर

P.T.O

पिन:- १९६६

02983-266494

ग्रुप ग्रामपंचायत दिव

ता. पेण, जि. रायगड, ४०२ १०७

जावक क्र.

दि. 20 / 99 / 2017

जावक क्र.	गाव	गाव
१६	श्री बाळ नामदेव म्हात्रे	घोडाबंदर
१७	श्री अनिल शांगदेव म्हात्रे	मळेधरवळी
१८	श्री धर्मजी पिस्कर म्हात्रे	—
१९	श्री कृष्णाजी नारायण म्हात्रे	—
२०	श्री गणेश भंबाजी कोशेर	घोडाबंदर
२१	श्री भंबाजी पांडुरंग पाटील	—
२२	श्री जगदीश दामोदर म्हात्रे	—
२३	श्री कमरुद्दीन कृष्णाजी म्हात्रे	मंजरीवैठी
२४	श्री मधुकर नागाजी कोशेर	घोडाबंदर
२५	श्री नारायण शंकर म्हात्रे	बहिरफकोटकु
२६	श्री शंकर नधुराम ठाकूर	ठाकूरवैठी
२७	श्री शंकर विठ्ठल म्हात्रे	मंजरीवैठी
२८	श्री शंकराच्य बाळ्या ठाकूर	विठ्ठलवा
२९	श्री जयवंत लखू पाटील	नारवैक
३०	श्री रमेश रामा पाटील	—
३१	श्री श्रीकांत जगन्नाथ म्हात्रे	दिव
३२	श्री जगन्नाथ बकरीराम मोकल	बेतवळी
३३	श्री जगदीश बकरीराम मोकल	—
३४	श्री दत्ताराम श्रीमंजरी म्हात्रे	दिव

P.T. 10

दिनांक:- १९६६

02983-266999

ग्रुप ग्रामपंचायत दिव

ता. पेण, जि. रायगड, ४०२ १०७

जावक क्र.

दि. २० / ११ / २०११

	लाभस्वल्परुपे गाव	गाव
३१	श्री. नागाजी शंकर म्हात्रे	धोगावदर
३२	र. अक्षय अनंत म्हात्रे	मलेधरवडी
३३	र. आत्माराम गणू मोकल	खेतवले
३४	र. कृष्णा मन्था मोकल	-
३५	र. नारायण पदम पाटील	-
३६	र. नामदेव पोखू म्हात्रे	नारवेल
३७	र. जगन्नाथ भसीदेव म्हात्रे	-
३८	र. परशुराम लखू पाटील	-
३९	र. पांडुरंग कृष्णा पाटील	बहिरकवडी
४०	र. शंकर रामा शवई	-
४१	र. गणेश शिवराज मोकल	खेतवले
४२	र. चंद्रकांत गणपत पाटील	बहिरकवडी
४३	र. बुजिळ शंकर पाटील	-
४४	र. परशुराम हिरादा माकी	-
४५	र. शांत मोरेश्वर पाटील	-
४६	र. गणेशुमाद बाळाजी पाटील	-
४७	र. अनंता काथोडी म्हात्रे	-
४८	र. अविनाश काशिनाथ पाटील	-
४९	र. माच्छीद नारायण पाटील	-
५०	र. गंगादा पोशा पाटील	नारवेल
५१	र. गणेश नमुराम पाटील	-

पाना:- १९६६

०२१४३-२६६५१५

ग्रुप ग्रामपंचायत दिव

ता. पेण, जि. रायगड, ४०२ १०७

जावक क्र. दि. २० / ११ / २०१४

क्र. क्र.	लाभधारकाचे नाव	गाव
५९	श्री रामचंद्र विठ्ठल म्हात्रे	मंतीवाडी
५७	नारायण रघुनाथ कोर्डे	जनवळी
५८	गणेश ब्रह्मर पाटील	-
५९	कमरुचंद बळिराम म्हात्रे	-
६०	रविंद्र पुकाराम पाटील	विडंबेड
६१	पांडुरंग पुकाराम म्हात्रे	मिथळवळी
६२	विश्वनाथ पुंडलीक म्हात्रे	-
६३	पांडुरंग गणपत पाटील	-
६४	राजदास गणपत पाटील	-
६५	एकनाथ रामा म्हात्रे	-
६६	छिरामण दामोदर म्हात्रे	-
६७	रामदाम शंकर पाटील	विडंबेड
६८	अशोक नागाजी पाटील	-
६९	वामन बाशिनाराय पाटील	-
५०	शंभुर् जोषी म्हात्रे	-
५१	बाळगि शंकर म्हात्रे	-

संपन्न
ग्रुप ग्रामपंचायत दिव
ता. पेण, जि. रायगड

ANNEXURE 7 : VILLAGE WISE LIST OF FARMERS DONATING PIECE OF LAND VOLUNTARILY FOR NARVEL BENA VALE SALINE EMBANKMENT RENOVATION.

Sr. No.	Name of the Land Owner/s	Survey Number/ Gut No	Type of Land / Classification of Land	Additional land area required for embankment
				(Area in Ha.)
	Kaleshrivadi			
1	Shri. Ganapati Dev Vahivatdar	210	PVT.	0.0058
2	Ravikant Narayan Thakur			
3	Arun Narayan Thakur			
4	Jayshree Narayan Thakur			
5	Shakuntala Narayan Thakur			
6	Rajashri Narayan Thakur			
7	Kishor Narayan Thakur			
8	Nirabai Narayan Thakur			
9	Ravikant Narayan Thakur	211	PVT.	0.0046
10	Arun Narayan Thakur			
11	Jayshree Narayan Thakur			
12	Shakuntala Narayan Thakur			
13	Rajashri Narayan Thakur			
14	Kishor Narayan Thakur			
15	Nirabai Narayan Thakur	190	PVT.	0.0759
16	Madan Shankar Patil			
17	Raman Shankar Patil			
18	Anjani Baburao Patil			
19	Rajani Shashikant mokal			
20	Rohini Shankar Patil			

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21	Muktabai Shankar Patil			
22	Tai Muralidhar Mhatre			
23	Shankar Muralidhar Mhatre	192	PVT	0.0175
24	Geeta Govardhan Patil			
25	Pramila Rohidas Patil			
26	Mumbai Vishesh Arthik kshetra company	189	PVT.	0.0321
27	Shri. Maruti Dev Vastavya Kaleshri	188	PVT.	0.0156
28	Pandurang Hasu Patil			
29	Sharad Vasant Patil			
30	Sunil Prabhakar Thakur	187	PVT.	0.0485
31	Suhas Prabhakar Thakur			
32	Hasu Shankar Mhatre	177	PVT.	0.0031
33	Motiram Shankar Mhatre			
34	Hashi Hiru Mhatre			
35	Vishnu Raghunath Mhatre			
36	Vasant Raghunath Mhatre			
37	Kamlakar Raghunath Mhatre			
38	Sitabai Vitthal Mhatre			
39	Taramati Harishchandra Mhatre			
40	Company S.E.Z	168/1	PVT.	0.1858
41	Company S.E.Z	168/2	PVT.	
42	Company S.E.Z	168/3	PVT.	
43	Arvind Nilkanth Thakur	168/4A	PVT.	
44	Kumar Nilkanth Thakur	168/4B	PVT.	
45	Company S.E.Z	168/5	PVT.	
46	Company S.E.Z	168/6	PVT.	0.0033
47	Shri. Maruti Dev Vastavya Kaleshri	158/1	PVT.	

48	Pandurang Hasu Patil			
49	Sharad Vasant Patil			
50	Shri. Maruti Dev Vastavya Kaleshri			
51	Pandurang Hasu Patil	158/2	PVT.	
52	Sharad Vasant Patil			
53	Shri. Maruti Dev Vastavya Kaleshri			
54	Pandurang Hasu Patil	158/3	PVT.	
55	Sharad Vasant Patil			
56	Shri. Maruti Dev Vastavya Kaleshri			
57	Pandurang Hasu Patil	158/4	PVT.	
58	Sharad Vasant Patil			
59	Sitabai Jayram Thakur			
60	Maharudra Jayram Thakur			
61	Pralhad Jayram Thakur			
62	Ramprasad Jayram Thakur			
63	Bhagyashri Dharmendra Mhatre			
64	Ganpat Lakshman Thakur			
65	Parshuram Lakshman Thakur			
66	Hausabai Lakshman Thakur	153	PVT.	0.0388
67	Sunita Lakshman Thakur			
68	Yashodha Yashwant Thakur			
69	Hanumant Yashwant Thakur			
70	Pandharinath Yashwant Thakur			
71	Hirabai Yashwant Thakur			
72	Bharati Yashwant Thakur			
73	Sudha Yashwant Thakur			
74	Shantabai Yashwant Thakur			

75	Gautam Yashwant Thakur			
76	Devta Yashwant Thakur			
77	Ravikant Baburao Thakur			
78	Mumbai Vishesh Arthik kshetra company	152	PVT.	0.0007
	Total			0.4317

Tukaramwadi (Kanoba)				
1	Ramabai Ramchandra Thakur	100	PVT	0.0041
2	Shridhar Ramchandra Thakur			
3	Janardan Ramchandra Thakur			
4	Gajanan Ramchandra Thakur			
5	Pravin Ramchandra Thakur			
6	Jayvanti Muralidhar Patil			
7	Sunanda Pandurang Mukadam			
8	Kaushalya Ramesh Patil			
9	Sunita Gajanan Mhatre			
10	Gunvanti Changdev Mhatre			
11	Vitthal Narayan Koli	103	PVT	0
12	Ganpat Rama Koli	102	PVT	0
13	Nagibai Ganpat Koli			
14	Parshuram Ganpat Koli			
15	Kamlakar Ganpat Koli			
16	Prabhakar Ganpat Koli			
17	Tai Ganpat Koli			
18	Devaji Krushna Mhatre	74	PVT	0.0045
19	Vasant Tukaram Mhatre	73	PVT	0.0147

20	Baliram Namdev Mhatre	72	PVT	0.007
21	Balaji Ragha Mhatre	71	PVT	0.0038
22	Hiribai Kamal Mhatre			
23	Ramdas Kamal Mhatre			
24	Raghupati Kamal Mhatre			
25	Krushna Kamal Mhatre			
26	Shravani Joma Mokal	70	PVT	0.0087
27	Dattaram Dhavaji Mokal			
28	Atmaram Dhavaji Mokal			
29	Parashuram Dhavaji Mokal			
30	Baliram Dhavaji Mokal			
31	Vijay Dhavaji Mokal			
32	Sumati Madhukar Mhatre			
33	Devkubai Dhavaji Mokal			
34	Chhaya Devichandra Patil	69	PVT	0.0353
35	Janardan Budhya Mhatre	68	PVT	0.0118
36	Shri Maruti Devaj Sthan Vahivat			
37	Gana Mahadu Mhatre			
38	Balaji Nama Mhatre	67	PVT	0.0463
39	Narayn Ramaji Mhatre	64	PVT	0.0385
40	Janardan & Balaji Budhya Mhatre			0.1747
	Total			

	Mothe bhal			
1	Anant Pandurang Mhatre	38	PVT	0.0541

2	Rama Joma Mhatre	39	PVT	0.0043
3	Mumbai Vishesh Arthik kshetra company	394	PVT	0.0009
	Total			0.0584

	Vitthalwadi			
1	Natha Vaman Mhatre	437	PVT	0.0224
2	Balkrushna Vaman Mhatre			
3	Ramdas Vaman Mhatre			
4	Bayobai Janardan Patil			
5	Bhagubai Baliram Patil			
6	Gangubai Aabaji Patil			
7	Annapurna Keshav Mhatre			
8	Mathura Bhaskar Patil			
9	Pandurang Shivaram Mhatre	436	PVT	0.0131
10	Shankuntala Shivaram Mhatre	432	PVT	0.0261
11	Kashinath Changa Mhatre			
12	Pandurang Shivaram Mhatre			
13	Nagibai Rama Mhatre			
14	Narhari Rama Mhatre			
15	Vasudev Rama Mhatre			
16	Vatsala Vasant Mhatre			
17	Vinayak Vasant Mhatre			
18	Minakshi Vasant Mhatre			
19	Vanita Pramod Mhatre			
20	Shankuntala Anant Mhatre			
21	Sandip Anant Mhatre			

22	Nitin Anant Mhatre			
23	Sanjivani Anant Mhatre			
24	Indumati Anant Mhatre			
25	Sindhu Shantaram Patil			
26	Shantibai Joma Kathod Mhatre	428	PVT	0.0233
27	Naga Changa Mhatre			
28	Ramachandra Changa Mhatre	427	PVT	0.01
29	Budhibai Joma Mhatre			
30	Barkubai Tukaram Patil			
31	Parvati Maruti Mhatre			
32	Sunanda Parshuram Patil			
33	Chandralekha Maruti Mhatre	426	PVT	0.0188
34	Lakshmi Bhau Patil			
35	Usha Maruti Mhatre			
36	Gulab Ambaji Patil			
37	Vaman Naga Mhatre			
38	Babibai Bacchu Patil	419	PVT	0.0252
39	Tai Balkrushna Mhatre			
40	Balu Ambu Mhatre			
41	Pandurang Balu Mhatre	418	PVT	0.0277
42	Surekha Subhash Patil			
43	Ratnakar Krushna Mhatre	417	PVT	0.0236
44	Ramchandra Nagaji Mhatre			
45	Namdev Nagaji Mhatre	416	PVT	0.0161
46	Manjula Chandrakant Mhatre			
47	Vijaya Dharmaji Mhatre	415	PVT	0.0005
48	Arjun Pandurang Mhatre	413/2	PVT	0.0221

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49	Lahu Shankar Mhatre	405	PVT	0
50	Raghupati Tanhu Mhatre	402	PVT	0
51	Muralidhar Tanhu Mhatre			
52	Randhir Tanhu Mhatre			
53	Subhash Tanhu Mhatre			
54	Girija Dharmaji Patil			
55	Nagubai Tanhu Mhatre			
56	Gauri Ganpat Mhatre	400	PVT	0
57	Dharmaji Ganpat Mhatre			
58	Nama Ganpat Mhatre			
59	Chandrabhaga Ramchandra Patil			
60	Tai Balaji Mhatre			
61	Nita Natha Mhatre			
62	Prashant Natha Mhatre			
63	Ashish Natha Mhatre			
64	Vandana Shashikant Patil			
65	Ranjana Shankar Patil			
66	Nayana Parag Sharma			
67	Sima Natha Mhatre			
68	Lakshman Hiru Mhatre	399	PVT	0
69	Janardan Lakshman Mhatre			
70	Vishvanath Lakshman Mhatre			
71	Rajaram Lakshman Mhatre			
72	Gangaram Changa Mhatre	393	PVT	0
73	Dharmaji Ganpat Mhatre			
74	Gauri Ganpat Mhatre	392	PVT	0.0025
75	Dharmaji Ganpat Mhatre			

76	Natha Ganpat Mhatre			
77	Vasant Ganpat Mhatre			
78	Chandrabhaga Ramchandra Patil			
79	Tai Balaji Mhatre			
80	Lina Nasha Mhatre			
81	Prashant Natha Mhatre			
82	Aatish Natha Mhatre			
83	Vandana Shashikant Patil			
84	Ranjana Shankar Patil			
85	Nayana Parag Sharma			
86	Sima Natha Mhatre			
87	Tulshidas Rama Mhatre	391	PVT	0
88	Barkubai Gana Mhatre			
89	Jaywant Gana Mhatre			
90	Balkrushna Gana Mhatre	390	PVT	0.0001
91	Shriram Gana Mhatre			
92	Anant Gana Mhatre			
93	Eknath Mahadu Mhatre	389	PVT	0.0007
94	Parvati Maruti Mhatre			
95	Sunanda Parshuram Patil			
96	Chandralekha Maruti Mhatre			
97	Lakshmi Bhau Patil			
98	Usha Maruti Mhatre	378	PVT	0.0002
99	Gulab Ambaji Patil			
100	Vijaya Namdev Mhatre			
101	Rajashri Maruti Mhatre			
102	Vandana Maruti Mhatre			

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103	Santosh Maruti Mhatre			
104	Mrunali Bhau Patil			
105	Sonali Bhau Patil			
106	Tarabai Krushna Mhatre			
107	Sudhir Krushna Mhatre	377	PVT	0.0009
108	Prashant Krushna Mhatre			
109	Milind Krushna Mhatre			
110	Mahadev Lahu Mhatre	365	PVT	0
111	Namdev Lahu Mhatre			
112	Janardan Ambo Mhatre	362	PVT	0
113	Sadashiv Ambo Mhatre			
114	Raghunath Ambo Mhatre			
115	Ambibai Ambo Mhatre			
116	Rukmini Balu Mhatre	361	PVT	0
117	Balu Ambu Mhatre			
118	Surekha Subhash Patil			
119	Shantaram Vithu Mhatre	359	PVT	0.0047
120	Chandrabhaga Jayram Mhatre	358	PVT	0.0083
121	Mangesh Jayram Mhatre			
122	Gopal Shivaram Mhatre	357	PVT	0.0011
123	Anant Pandurang Mhatre	356	PVT	0
124	Hari Aalu Mhatre	355	PVT	0
125	Joma Kayor Patil	353	PVT	0.0006
126	Nitin Shantaram Mhatre	348	PVT	0.0003
127	Radhibai Br.Balaji Mhatre	341	PVT	0.0064
128	Vilas Shantaram Mhatre			
129	Lata Muralidhar Mhatre			

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130	Mumbai Vishesh Arthik kshetra company	488	PVT	0
131	Sadashiv Shivram Mhatre	487	PVT	0.0015
	Total			0.2921

	Lakhola			
1	Gajanan Ganpat Mhatre	487	PVT	0.0625
2	Ramkrushana Naga Mhatr	488	PVT	0.0308
3	Savita Vidyadhar Patil	489	PVT	0.033
4	Madhukar Marya Patil	491	PVT	0.0378
5	Sadashiv Vaman Mhatre	492	PVT	0.0231
6	Lakshman Krushna Mhatre	506	PVT	0.1734
7	Baliram Lakshman Mhatre			
8	Ashok Lakshman Mhatre			
9	Dnyaneshwar Lakshman Mhatre			
10	Gopinath Lakshman Mhatre			
11	Mumbai Vishesh Arthik kshetra company			
12	Arjun Kavlya Mhatre	520	PVT	0.01
13	Hlraman Kavlya Mhatre			
14	Sanjay Krushna Mhatre			
15	Sandesh Krushna Mhatre			
16	Sangita Krushna Mhatre			
17	Sarita Krushna Mhatre			
18	Jayshree Krushna Mhatre			
19	Bhau Kavlya Mhatre			
20	Yamuna Krushna Mhatre			
21	Vithabai Ganpat Patil			
22	Savitri Gajanan Patil			

23	Shivprasad Shankar Thakur			
24	Ujjwala Shankar Thakur			
25	Baghwan Ragho Mhatre			
26	Mumbai Vishesh Arthik kshetra company	521	PVT	0.0001
27	Dilip Rama Mhatre	522	PVT	0.0475
28	Vasant Sukaji Mhatre			
29	Mumbai Vishesh Arthik kshetra company	524	PVT	0.0457
30	Maruti Naga Mhatre	534	PVT	0.0645
31	T.M .State co-op branch, Pen			
32	Narayan Joma Mhatre	541	PVT	0.0678
33	Mumbai Vishesh Arthik kshetra company			
34	Rama Balya Mhatre			
35	Suryakant Rama Mhatre	540	PVT	0.0018
36	Mumbai Vishesh Arthik kshetra company			
37	Sitabai Sitaram Mhatre			
38	Dinanath Sitaram Mhatre	542	PVT	0.0574
39	Lalita Kashinath Thakur			
40	Mumbai Vishesh Arthik kshetra company			
41	Ramubai Padma Patil	543	PVT	0.0207
42	Mumbai Vishesh Arthik kshetra company			
43	Shakar Chahya Mhatre			
44	Mumbai Vishesh Arthik kshetra company	551	PVT	0.0055
45	Ashok Shankar Mhatre			
46	Mumbai Vishesh Arthik kshetra company	550	PVT	0.0739
47	Kashinath Hiru Mhatre			
48	Mumbai Vishesh Arthik kshetra company	549	PVT	0.026
49	Balaram Shankar Mhatre	548	PVT	0.0347

50	Joma Gaurya Mhatre	547	PVT	0.021
51	Devkubai Joma Mhatre			
52	Suresh Joma Mhatre			
53	Amrut Joma Mhatre			
54	Reshma Pandurang Bhoir			
55	Mumbai Vishesh Arthik kshetra company	555	PVT	0.0783
56	Shankar Dhau Mhatre			
57	Ankush Shankar Mhatre			
58	Mumbai Vishesh Arthik kshetra company			0.9155

	Borze			
1	Mumbai Vishesh Arthik kshetra company	693	PVT	0.0257
2	Mumbai Vishesh Arthik kshetra company	692	PVT	0.0136
3	Naga Kasha Thakur	691	PVT	0.0128
4	Indira Shankar Mhatre			
5	Chandra Hiranman Mhatre			
6	Baburao Mahadev Thakur			
7	Chandrakant Mahadev Thakur			
8	Suryakant Mahadev Thakur	690	PVT	0.0147
9	Anubai Lahu Patil			
10	Madhukar Lakshman Thakur			
11	Bamubai Ganpat Mhatre	689	PVT	0.0133
12	Parshuram Posha Patil			
13	Shanta Ambaji Mhatre			
14	Jomubai Baburao Patil			
15	Ramubai Narayan Mhatre			

16	Narayan Baburao Patil			
17	Bhimabai Motiram Mhatre			
18	Sakhubai Shantabai Patil			
19	Taibai Dhanaji Patil			
20	Shantabai Baburao Patil			
21	Yashoda Rambhau Patil			
22	Maruti Kundalik Thakur	688	PVT	0.0142
23	Sita Ganpat Mhatre			
24	Mumbai Vishesh Arthik kshetra company	687	PVT	0.0109
25	Mumbai Vishesh Arthik kshetra company	686	PVT	0.0102
26	Mumbai Vishesh Arthik kshetra company	685	PVT	0.0114
27	Naga Kasha Thakur			
28	Indira Shankar Mhatre			
29	Chandra Hiranman Mhatre			
30	Baburao Mahadev Thakur	684	PVT	0.0079
31	Chandrakant Mahadev Thakur			
32	Suryakant Mahadev Thakur			
33	Anubai Lahu Patil			
34	Ramkrushna Shankar Patil	683	PVT	0.0086
35	Government of Maharashtra	682	PVT	0.3421
36	Naga Kasha Thakur			
37	Indira Shankar Mhatre			
38	Chandra Hiranman Mhatre			
39	Baburao Mahadev Thakur	796	PVT	0.0119
40	Chandrakant Mahadev Thakur			
41	Suryakant Mahadev Thakur			
42	Anubai Lahu Patil			

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43	Suman Hiraman Mhatre	780	PVT	0.008
44	Krushnaji Vitthal Vadhavkar	768	PVT	0.0109
45	Mumbai Vishesh Arthik kshetra company	766	PVT	0.0095
46	Mumbai Vishesh Arthik kshetra company	897	PVT	0.012
47	Gangubai Namdev Thakur	896	PVT	0.0183
48	Vishvnath Namdev Thakur			
49	Janardan Namdev Thakur			
50	Ramchandra Namdev Thakur			
51	Janardan Vishwnath Patil	895	PVT	0.0188
52	Krushnaji Narayan Mhatre			
53	Dharma Dhau Thakur	894	PVT	0.0161
54	Mumbai Vishesh Arthik kshetra company	893	PVT	0.026
55	Shri. Mahadev Vastvya Janavali Vahivat	892	PVT	0.0502
56	Kalu Rama Mhatre			
57	Sakhubai Balaji Patil	891	PVT	0.0574
58	Kamalakar Balaji Patil			
59	Poshibai Hasu Mhatre			
60	Bhagubai Bamy Mhatre			
61	Deobai Damaji Mhatre			
62	Vachala Maruti Mhatre			
63	Gajanan Mahadu Patil	890	PVT	0.0181
64	Tulshidas Mahadu Patil			
65	Dilip Mahadu Patil			
66	Subhash Mahadu Patil			
67	Radhabai Sudam Patil			
68	Ajit Sudam Patil			
69	Nilesh Sudam Patil			

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70	Pramila Sandip Patil			
71	Jyoti Gajanan Patil			
72	Sadhana Ramesh Patil			
73	Nardas Krushna Patil	889	PVT	0.0115
74	Shantaram Nagu Patil			
75	Tukaram Nagu Patil			
76	Baliram Nagu Patil			
77	Rukhmini Nagu Patil			
78	Sandeep Haribhau Patil	888	PVT	0.0119
79	Jakhu Padam Patil			
80	Chandrakant Padam Patil			
81	Savitri Damaji Patil			
82	Jana Arun Thakur			
83	Janardan Balaji Patil	887	PVT	0.005
				0.771

1	Sakharam Narayan Thakur	169	PVT	0.0025
2	Gajanan Budhaji Patil	168	PVT	0.0014
3	Padam Budhya Patil			
4	Gajanan Hiru Patil	167	PVT	0
5	Dharma Ganu Patil	166	PVT	0
6	Shankar Arjun Mhatre			
7	Gajanan Shankar Mhatre			
8	Sharad Shankar Mhatre	348/1	PVT	0.0101
9	Subhash Shankar Mhatre			
10	Shivaji Shankar Mhatre			
11	Dattatray Shankar Mhatre			

12	Harishchandra Shankar Mhatre			
13	Krushnaji Shankar Mhatre			
14	Ratnamala Lalu Mhatre			
15	Sunanda Hanumant Patil			
16	Rekha Hanumant Patil			
17	Nathuram Narayan Mhatre	348/2	PVT	
18	Dnyandeo Rama Mhatre	348/3	PVT	
19	Janardhan Rama Mhatre	348/4	PVT	
20	Shridhar Govind Mhatre	348/5	PVT	
21	Jayram Kashinath Mhatre	348/6	PVT	
22	Damodar Bhoru Mhatre			
23	Gopinath Damodar Mhatre			
24	Pandurang Damodar Mhatre			
25	Hiraman Damodar Mhatre			
26	Mohan Damodar Mhatre	348/7	PVT	
27	Kusum Janardhan Patil			
28	Vimal Ramesh Mhatre			
29	Alka Ravindra Mhatre			
30	Lata Gajajnan Patil			
31	Raghunath Shankar Mhatre	348/8	PVT	
32	Tulshidas Shankar Mhatre			
33	Krushna Narayan Mhatre	348/9	PVT	
34	Sitaram Narayan Mhatre			
35	Ambaji Sitaram Mhatre			
36	Maruti Sitaram Mhatre	348/10	PVT	
37	Rajaram Sitaram Mhatre			
38	Madhukar Sitaram Mhatre			

39	Vandana Parshuram Patil	154/1	PVT	0.0185
40	Sanjay Parshuram Patil			
41	Anant Pandurang Patil	154/2	PVT	
42	Nathuram Narayan Mhatre	153	PVT	0.032
43	Eknath Ravya Mhatre	151	PVT	0.0079
44		467	PVT	0.0842
45	Bala Ganapat patil	466	PVT	0.0353
46	Vithoba Bama Bhoir	465/1	PVT	0.0213
47	Parvati Ramchandra Patil	465/2	PVT	
48	Dharma Pandu Patil	464	PVT	0
49	Kamal Balu Mhatre			
50	Bhaurao Kamal Mhatre			
51	Nardas Kamal Mhatre			
52	Ramesh Kamal Mhatre			
53	Budhibai Baburao Patil			
54	Sitabai Ramchandra Patil			
55	Vithabai kamal Patil			
56	Dharmubai Dharmaji Patil			
57	Sandip Dharmaji Patil			
58	Shashikant Dharmaji Patil			
59	Jayvanti Sadashiv Mhatre			
60	Shaila Haribhau Mhatre			
61	Sangita Dharmaji Mhatre			
62	Ishvar Pundalik Mhatre	463/1	PVT	0
63	Dnyaneshwar Pundalik Mhatre	463/2	PVT	
64	Vishwas Pundalik Mhatre	463/3	PVT	
65	Anil Pundalik Mhatre	463/4	PVT	

66	Sanatan Pundalik Mhatre	463/5	PVT	
67	Krushnibai Pruthviraj Patil	462/1	PVT	
68	Namdeo Kalu patil	462/2	PVT	0
69	Arjun Namdeo Patil			
70	Janardhan Namdeo Patil			
71	Samadhan Namdeo Patil			
72	Vinod Namdeo Patil			
73	Parvati Vishvanath Patil			
74	Savitri Ramkrushna Mali			
75	Government of Maharashtra (Parigh)	447	PVT	0.5676
76	Maruti Vetya Patil	449	PVT	0.0002
	Total			0.781

	Benavale (2)			
1	Janardan Javrya Mokal	481	PVT	0.2811
2	Prakash Pandurang Mhatre	446/A	PVT	0.1715
3	Prakash Pandurang Mhatre	446/B, C	PVT	
4	Ramdas Changa Mhatre	414	PVT	0
5	Ramchandra Kashinath Mhatre	413	PVT	0.0002
6	Nardas Kashinath Mhatre			
7	Anandi Gajanan Mhatre			
8	Mumbai Vishesh Arthik kshetra company	412	PVT	0.0055
9	Sadashiv Pavsha Patil	411	PVT	0
10	Ramdas Lakhu Thavai	373/A	PVT	0.0359
11	Ramdas Lakhu Thavai	373/B	PVT	
12	Devichand Gajanan Patil	372	PVT	0.0176
13	Jaywant Gajanan Patil			

14	Subhash Gajanan Patil			
15	Ganesh Gajanan Patil			
16	Lakshmibai Gajanan Patil			
17	Vimal Ramakant Mhatre			
18	Minakshi Chandrakant Mhatre			
19	Sharada Kishor Madhavi			
20	Narayan Maya Patil			
21	Mahadibai Maya Patil	371	PVT	0.0274
22	Anandibai Raghunath Patil			
23	Gaurubai Baliram Mhatre			
24	Kiran Baliram Mhatre	351/1	PVT	0.0678
25	Kumar Baliram Mhatre			
26	Kailas Baliram Mhatre			
27	Ramchandra Nathuram Mhatre	351/2		
28	Mumbai Vishesh Arthik kshetra company	350	PVT	0.0317
29	Devidas Rama Vartak			
30	Bayobai Kamalakar Thakur			
31	Shankuntala Jakhu Mhatre	349	PVT	0.0409
32	Chandrabhaga Raghunath Mhatre			
33	Sadashiv Pavsha Patil			
34	Kashinath Pavsha Patil			
35	Minal Madhukar Patil			
36	Gajanan Narayan Patil	347	PVT	0.0665
37	Shankuntala Narayan Patil			
38	Ratnaprabha Sunil Redkar			
39	Gopinath Kashinath Patil			
40	Dayaram Kashinath Patil			

*Renovation of Saline Embankment at Narvel - Benavale villages in Pen Taluka,
District Raigad under NCRMP II*

41	Sudam Pitkur Mokal	322	PVT	0.0081
42	Haribhau Dharmaji Mokal	321	PVT	0.0981
43	Prasad Haribhau Mokal			
44	Dipak Gajanan Mokal			
45	Sandeep Gajanan Mokal			
46	Pradeep Gajanan Mokal			
47	Sanjay Gajanan Mokal			
48	Subhash Pandurang Mokal			
49	Naresh Pandurang Mokal			
50	Satish Sadashiv Mokal			
51	Ninad Prasad Mokal			
52	Rutuja Prasad Mokal	320	PVT	0.0251
53	Shivram Kamal Patil			
54	Hirubai Shivram Patil			
55	Shankar Shivram Patil			
56	Vilas Shivram Patil			
57	Anandi Vasant Vartak	315/1	PVT	0.0372
58	Narayan Padam Thakur			
59	Balaji Santuram Patil			
60	Narendra Janardan Patil	315/2	PVT	0.0538
61	Mahadev Vitthal Mhatre	315/3	PVT	
62	Ravindra Krushnaji Mhatre	314	PVT	
63	Gajanan Phakir Mhatre	313	PVT	0.0463
64		A		0.0063
65	Lilabai Shivram Mhatre	180	PVT	0.0773
66	Ratnakar Shivram Mhatre			
67	Kesarinath Shivram Mhatre			

68	Ganesh Shivram Mhatre			
69	Jayshree Krushna Thakur			
70	Sunanda Vasant Patil			
71	Nilam Anil Mhatre			
72	Pratibha Ramesh Mhatre			
73	Jayram Ganu Mhatre			
74	Nandkishor Jayram Mhatre			
75	Nandkishor Jayram Mhatre			
76	Pradipchandra Jayram Mhatre			
77	Ashok Jayram Mhatre			
78	Vikas Jayram Mhatre			
79	Sambhaji Haribhau Mhatre	179	PVT	0.0264
80	Jagganath Haribahu Mhatre			
81	Rajendra Jagganath Mhatre			
82	Shrikant Jagganath Mhatre			
83	Indumati Jagganath Mhatre	172/2	PVT	0.0145
84	Surekha Jagdish Patil			
85	Kiran Hareshwar Patil			
86	Purushottam Haribahu Mhatre	172/3	PVT	
87	Haribhau Dharmaji Mokal			
88	Dharmaji Joma Mokal			
89	Lakshman Joma Patil			
90	Shantaram Joma Patil			
91	Sanjay Shankar Patil			
92	Sunil Shankar Patil			
93	Janaki Lakshman Patil			
94	Sachin Lakshman Patil	165	PVT	0.0215

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95	Satish Lakshman Patil			
96	Sima Lakshman Patil			
97	Suvarna Vasant Thakur			
98	Radhibai Lakhu Patil			
99	Parshuram Lakhu Patil			
100	Shantaram Lakhu Patil			
101	Pandurang Lakhu Patil			
102	Jaywant Lakhu Patil			
103	Sharada Vishwanath Thakur			
104	Gulab Raghunath Mhatre			
105	Madan Mahadev Mokal	156	PVT	0.0588
106	Government of Maharashtra	155	GOVT	0.0076
107	Janardan Javrya Mokal	153	PVT	0.041
108	Vithabai Naga Bapu Mokal	151	PVT	0.001
109	Rukmini Shivaram Mokal	150	PVT	0.0022
110	Harishchandra Kashinath Patil			
111	Vaman Kashinath Patil			
112	Vishnu Kashinath Patil			
113	Dattatray Kashinath Patil	100	PVT	0.0004
114	Parshuram Shankar Mhatre	99	PVT	0.0003
115	Krushna Shankar Mhatre			
116	Jaywant Anant Mhatre			
117	Ravikant Anant Mhatre			
118	Anubhav Anant Mhatre			
119	Pushplata Ramchandra Mhatre			
120	Rajashri Kamlakar Bhoir			
121	Sangeeta Anant Mhatre	98	PVT	0.001

122	Pushp Anant Mhatre			
123	Anju Anant Mhatre			
124	Kashibai Anant Mhatre			
125	Gaurubai Baliram Mhatre			
126	Kiran Baliram Mhatre	97/1	PVT	0.0003
127	Kumar Baliram Mhatre			
128	Kailas Baliram Mhatre			
129	Ramchandra Nathuram Mhatre			
130	Namdev Posu Mhatre			
131	Anant Posu Mhatre			
132	Atmaram Posu Mhatre	81	PVT	0.0003
133	Balaram Posu Mhatre			
134	Kasubai Janardan Mhatre			
135	Namubai Parshuram Kothekar			
136	Krushna Marya Thakur	80/1	PVT	
137	Nagibai Padam Thakur	80/2	PVT	0.0661
138	Hasuram Padam Thakur			
139	Narayan Padam Thakur			
140	Baburao Padam Thakur			
141	Ramkrushna Padam Thakur			
142	Vimal Ganesh Thakur			
143	Santosh Ganesh Thakur			
144	Sandip Ganesh Thakur			
145	Sangeeta Mahesh Mhatre			
146	Janki Lakshman Patil			
147	Jayshree Devaram Mhatre			
148	Kalpana Kamlakar Mhatre			

149	Mahadev Marya Thakur	80/3	PVT	
150	Ayatubai Maruti Patil			
151	Ashok Mahadev Thakur			
152	Kamalabai Mahadev Thakur			
153	Vandana Mahesh Marathe			
154	Vijay Mahadev Thakur			
155	Dhanvanti Jagganath Patil			
156	Mahadev Vitthal Mhatre	60	PVT	0.0113
157	Ravindra Krushnaji Mhatre	59	PVT	0.0512
158	Gajanan Phakir Mhatre			
	Total			1.476