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EXECUTIVE SUMMARY

1. The Water Resources Department (WRD), Government of Orissa would be executing the saline embankments sub-project (10 Nos. measuring 61 km in length) under National Cyclone Risk Mitigation Project (NCRMP) spread in six Districts namely, Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Puri & Ganjam with World Bank (WB) assistance. The investment program covers raising 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.
2. This Resettlement Action Plan (RAP) has been prepared for Sasanpeta Saline Embankment sub-project as part of project components A and B under the overall NCRMP. It has been prepared based on the alignment plan and as per the Detailed Project Report (DPR) prepared by the technical consultant.
3. Raising and strengthening of saline embankment requires additional land as the available (existing) right of way (ROW) is not enough for proposed work. Additional land width is required throughout the stretch. A total of 109 private land plots from Keutajanga revenue village under R. I. Circle Bangurigram will be affected. As per the design a minimum of 30 m land width is required. The existing land area available is 3.79 ha [9.36 acres comprising 55.8% govt. land and 44.2% private land). Additional land area required for the proposed improvements works out to be 3.86 ha (9.53 acres). The additional land requirement includes both private and government land. Private land comprises 49.9% (1.92 ha) of the total land requirements. The remaining land area about 50.1% (1.93 ha) is the government land. Private land area likely to be affected is agricultural land plot. Additional land area required for the proposed work shall be obtained through voluntary donation without any claim for compensation by the land owners. Pallisava (Gram Panchayat meetings) have been conducted by the WRD and land owners have agreed to donate land voluntarily. Land owners have agreed to give individual consent to this effect. No structures are likely to be affected by the proposed work. There will be no physical displacement of any person by the project. Further, no common property resource is likely to be affected.
4. Public consultation meetings (called Pallisabha/ Gram Sabha) were held by adopting the established procedure in the state. People unanimously welcomed the proposed improvement work as they felt it will save lives and properties of villagers in many villages and help improve their socio-economic conditions.
5. The ESMF has been developed based on national laws: The Land Acquisition Act, 1894 (LAA, amended in 1984), National Resettlement and Rehabilitation Policy (NRRP), 2007, Orissa Resettlement and Rehabilitation Policy, 2006, World Bank OP 4.12 and in consultation with stakeholders. It provides guiding principles, eligibility for entitlements, institutional arrangements for implementation of RAP.
6. The Water Resources Department (WRD), Government of Orissa is the executing agency responsible for overall technical supervision and execution of the saline embankment sub-project. The institutional arrangements provides for constitution of State Steering Committee and Project Implementation Unit (PIU) for coordinating the day to day activities



with the relevant line departments. The Project Implementation Unit (PIU) in the state would have functional and management teams comprising of the Project Manager, Engineers, Procurement specialists, Financial specialists, Environment & Social specialists and support staff. The Environmental & Social Officer shall oversee the implementation of ESMF as well as any other environmental and social provisions as deemed fit for project implementation as per the regulations of the World Bank and the Government of India. The ESMF provides detailed mechanism for grievance redressal for project affected persons. Further, Non-Governmental Organisation (NGO) would be engaged for community mobilization, preparation, and implementation of resettlement action plan in accordance with the agreed ESMF.

7. A lump sum amount of Rs. 3 lakhs (Three lakhs) per affected village shall be kept for providing some kind of community facility within the budget limit. It will be provided in each affected village from where land owners have donated land for the construction of the embankment. Community facility required by the villagers shall be discussed in the Gram Sabha/ Palli Sabha meeting and a resolution will be passed in this direction. Based on the decision of the Gram Sabha/ Palli Sabha, community facility will be provided in the concerned village.



1.0 PROJECT DESCRIPTION

1.1 Introduction

The Ministry of Home Affairs, Government of India drew up the National Cyclone Risk Mitigation Project (NCRMP) with a view to reducing the vulnerability of the coastal areas to cyclones. This project was later transferred to the National Disaster Management Authority (NDMA) with assistance from the World Bank. In this context, the Orissa State Disaster Management Authority (OSDMA) has submitted Investment Proposal (IP) to NDMA. The Investment proposal for the State of Orissa under NCRMP included three major sub-components namely:

- Construction of 50 multipurpose cyclone shelters (MCS)
- Connectivity to proposed and existing cyclone shelters
- Raising and strengthening of saline embankments- 157.57 km in 23 packages

The Water Resources Department (WRD), Government of Orissa would be executing the saline embankments sub-project (23 No. measuring 157.57 km) under National Cyclone Risk Mitigation Project (NCRMP) spread in six Districts namely, Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Puri & Ganjam. The investment program covers raising 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 proposed works under the project is likely to be taken up with World Bank assistance. The World Bank has agreed to support the project provided the implementation conforms to environmental and social safeguard policies of the World Bank and the legal framework of the country.

The proposed project would help to protect people, property, livestock and agricultural fields from saline water inundation. In the time of cyclonic gale these are of extreme importance to life and livelihood and help in sustainable agricultural production. Hence, there is a need to protect vulnerable areas by renovating the existing embankments. Implementation of this project will reduce variability of crop production and improve productivity in the coastal saline belts. Construction of Saline Embankment and coastal canals are required to stop saline ingress to coastal land.

Improvements of saline embankments, de-silting of the mouths of channels and rivers and additional ventage 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.

Orissa has an existing saline embankment of 1518 km. Out of these; approximately 158 km of saline embankments were selected for improvements by the WRD based on the frequency of occurrence of cyclones, vulnerability, size of population and existing institutional mechanism for disaster management in the area.

The sub-project requires clearances from World Bank and State Coastal Zone Management Authority as per Coastal Regulation Zone Notification, MoEF dated 6th January, 2011 before the construction work can proceed. Saline embankments are not covered by or fall under the preview of EIA Notification 2006, amended in 2009 and 2011. As it is existing embankment, land requirement is limited to small quantities at discrete locations from both public and private sources.



Land acquisition is not proposed as land owners have volunteered to donate land whatever is required for constructing the embankment.

1.2 Description of Sub-project (NCRMP – NMPD – 02)

The present report pertains to Keutajanga Saline Embankment in Puri District of Orissa State (**Fig. 1**). It is one of the 10 embankments which have been taken up for raising and strengthening. The embankment forms part of the 76.23 km length of saline embankment under Kakatpur Irrigation Sub-division of Nimapara Irrigation Division, Puri. The length of the existing saline embankment is 4.115 km (RD 0.00 km to RD 4.115 km including extension from RD 2.800 km to RD 4.115 km on left side of Kadua river and right side of Prachi river). Keutajanga is an island village which is surrounded by rivers Kadua and Prachi. The Bay of Bengal is about a km from the existing saline embankment. As regards the geographical location of the embankment, it lies between 19° 54' 18" to 19° 54' 44" North Latitudes and 86° 13' 27" to 86° 14' 17" East Longitudes. It traverses through the boundaries of two revenue villages namely, Keutajanga and Belanga under RI Circles Bangurigram and Astaranga respectively. Upgrading (raising and strengthening) of embankment will protect 16 villages under five Gram Panchayats having an area of 1458 ha with a population of 5855 from 1253 households of Astaranga and Kakatpur Blocks, District Puri.

Fig. 1 - Location of Saline Embankment



The existing profile of the embankment is not upto the requirements both from hydraulic and structural points of view. The top level of the existing embankment is varying from RL 1.00 m to RL 1.50 m which is quite inadequate to withstand the tidal surge (observed HTL of 4.00 m). Further, the profile is neither regular in shape nor motorable. Thus these areas remain inaccessible during the disasters. The extension of embankment from RD 2.800 to RD 4.115 will protect the island village and also facilitate communication during natural disasters.



1.3 Proposed Improvements

The existing embankments were constructed more than three decades back to protect the agricultural land from saline ingress with consent from the concerned landowners. It is being maintained till date to meet the public requirements and there has been no public resistance with regard to private land given for the construction of embankments.

The proposed improvements envisage raising and strengthening of the existing saline embankment for a length of 4.115 km and construction of four (4) sluices

- Height of embankment / Reduced Level (R. L.) to 5.20 m encompassing a free board of 1.20 m above the observed HTL (4.00 m).
- Provision of four (4 No.) sluices to facilitate drainage (2 new sluices and remodeling of 2 existing sluices).
- Top width of 6.00 m with a side slope of 1:2 (1V:2H).
- Carriageway width has been fixed to 3.66 m of 20 mm premix carpet over Moorum and Sand admixture sub-base of 150 mm thick,
- Turning circles have been proposed at an interval of approximately 500 m with top width of 6.0 m to facilitate the movement of double land traffic,
- Dub grass turfing throughout on the country side and Granite boulder packing (0.60 m thick for full slope length) on the Sea/ River side.

Summary of improvements proposed is as under:

Items		
Length of Embankment	:	4.115 km
No. of sluices	:	4
HHTL Surge Level	:	4.00 m R.L.
T.B.L. (top bank level)	:	5.20 m R.L.
Free Board	:	1.20 m
Top width	:	6.00 m
Road carriageway	:	3.66 m
Side slope (V:H)	:	1:2

1.4 Likely Positive Impacts



Raising and strengthening of saline embankment will provide benefits to a population of 78069 and 98878 (Census 2001) of Astaranga and Kakatpur blocks respectively in District Puri. Upgrading of saline embankment will improve the socio-economic condition of villagers. It will protect life, property, agricultural land and other resources. Further, it will facilitate improved access to nearest school building or cyclone shelter at the time of flood and cyclone. The cumulative likely positive impacts of the project will be multi-faceted i.e., safety and security to life and property, improved socio-economic conditions, improved accessibility and communication, employment generation during construction work, and better economic integration of the area with urban/market centres.

2.0 OBJECTIVES, APPROACH AND METHODOLOGY

2.1 Objectives of Resettlement Action Plan

The prime objective of the RAP is to assist the project affected persons (PAPs) in getting their entitlements (compensation - for affected land, structure and other properties and assets and R&R assistances) and enable them in improving or at least restoring their living standards and income earning capacity. In order to achieve this objective, the following key tasks would be performed:

- Collect information regarding project impacts in order to facilitate the design of various components of the Resettlement Action Plan (RAP);
- Differentiate the properties by type and identify possible categories of entitlement;
- Estimate the extent of loss of properties (land, structure and others) of individual as well as that of community and loss of livelihood
- Set up a cut-off date in order to monitor any influx of new people;
- Ensure timely payment of compensation for loss of land, structure and assets prior to taking over the possession;
- Ensuring delivery of assistance and support during the transition period for which they are entitled;
- Conduct meaningful consultations with displaced and affected families in particular and local community in general and also provide opportunities for participation in planning and implementation of RAP;
- Provide a baseline for any further information needed to monitor and evaluate Entitled Persons (EPs) in the future.

2.2 Approach and Methodology

The approach for the study covered site visits and direct interactions with PAPs using both quantitative and qualitative study methods. The various activities carried out as part of the study are as under:

2.2.1 Right of Way (ROW)

The practice of constructing saline embankments on private land has been followed through voluntary donation of land in the state. As such there is no official record of right of way. Availability of existing land width was ascertained from site visit. On an average 10-12 m of land width is available all along the embankment.



The alignment and land plans prepared by the technical consultant were collected from the OSDMA for the study. It helped in broadly assessing the magnitude of impacts and accordingly plan for surveys in terms of logistics.

2.2.2 Identification of Land Plots

Land plots and structures likely to be affected within the corridor of impact (land width required i.e., approx. 15 m on either side of the embankment) were identified by superimposing the proposed alignment on the land revenue maps by the technical consultant. Ownership details were collected from land records.

2.2.3 Socio Economic Survey

To understand the socio-economic conditions of project affected persons, baseline survey was conducted by engaging a team of trained surveyors using a detailed structured questionnaire (**Annex 1**). The survey was conducted under the overall supervision of named key staff. The socio-economic survey questionnaire was administered to head of the household, preferably otherwise to an adult member of the household.

The socio-economic questionnaire was developed keeping in view the aims and objectives and baseline data needed for assessing the socio-economic conditions of project affected persons with specific concern to vulnerable sections of the society

2.2.4 Consultations

Informal Consultations with potential affected persons and local people were conducted during socio-economic surveys. The main objective of consultations were to promote public understanding and find out meaningful solutions of developmental problems such as local needs and problems, compensation, loss of livelihoods, impact on common property resources, etc.

2.2.5 Public Consultation Meeting (PCM)

Public consultation meetings (Gramsabha/ Pallasabha) were conducted following established procedures of the state. Following activities were carried out for conducting the consultation meetings:

- Leaflet providing brief description of the project (**Annex 2**), its objectives and importance of public consultation meeting was prepared in local language (Oriya) to disseminate information among villagers. The leaflet was submitted to OSDMA for suggestions, modifications and approval. After approval from the OSDMA, the leaflet was printed for distribution among villagers.
- A time schedule for holding PCMs was prepared and submitted to OSDMA for information & finalization.
- After finalization of the time schedule OSDMA issued letter addressing concerned Collectors, Tehsildars, BDOs, Executive Engineers (Irrigation Dept.), M/s Orbital, M/s Survey Aid for their cooperation and necessary action for conducting Gram Sabha



under their jurisdiction. Teams were mobilized by CES comprising local persons to the concerned blocks for collection of block notice to conduct Gram Sabhas. Simultaneously team visited Gram Panchayat offices for establishing contacts with respective village heads/ Panchayat Raj representatives for holding Public Consultation Meeting i.e., Gram Sabha/Palli Sabha Meeting.

- Accordingly local gram panchayat convened Gram Sabha meetings as per the existing procedure and practice.
- Printed leaflets were distributed among villagers during the time of invitation keeping in view that villagers would discuss about the proposed sub-project among themselves and prepares themselves for Gram Sabha Meeting.
- The Gram Sabha meetings were presided over by the local Sarpanch, BDO, Tehsildar, Revenue Inspector, officer and staff members from concerned departments, Ward Member, Gram Panchayat Executive Officer; Gram Rojgar Sevak; Engineers from Irrigation Department, Engineers M/S Orbital, ASHA & Anganwadi workers, members of SHG groups and Social and Environment Expert of Consultant (CES) engaged by OSDMA apart from the villagers. It was ensured that women too participated in the consultations.
- On the day of Gram Sabha Meeting, once again leaflets were distributed among the member present for dissemination of information so as to ensure that all present at the meeting were aware of the agenda about to be discussed. Social and Environment Expert of CES described the overview of the project, its objectives and importance of consultations to villagers and then initiate the public discussion. Villagers were then requested to talk freely about their concerns, issues, opinions, suggestions, etc. one by one so that each one's view can be properly recorded.
- After the detailed discussion was over, a resolution was prepared highlighting the issues by the villagers and other present members. The resolution was then signed by the Sarpanch, Ward Member, Gram Panchayat Executive Officer, and others concerned. The copy of the resolution was collected for record.

2.2.6 Minimizing Adverse Impacts

Efforts were made to minimize the adverse impacts on land by the technical consultants by wherever feasible.

3.0 PROJECT INFLUENCE AREA

3.1 Orissa at a Glance

Orissa is located between the parallels of $17^{\circ} 49'$ to $22^{\circ} 34'$ North Latitudes and $81^{\circ} 27'$ to $87^{\circ} 29'$ East Longitudes. It is bounded by the Bay of Bengal on the east; Chhattisgarh on the west and Andhra Pradesh on the south. It has a coast line of about 450 kms. It extends over an area of 155,707 square





kms. Orissa is the ninth largest state by area and the eleventh largest by population. Orissa accounts for about 4.87% of the total area of India.

According to the 2011 census of India, the total population of Orissa is 41947358 of which 50.5% are males and 49.4% are females. Population of Orissa increased by 13.9% during the decade 2001 to 2011. In terms of population Orissa stands eleventh among all the States and Union territories of India. The population density is 269 per km. There are 978 females per 1000 males (Provisional Orissa Handbook 2011). The Sex Ratio in the State is 972 (as compared to 933 for the country).

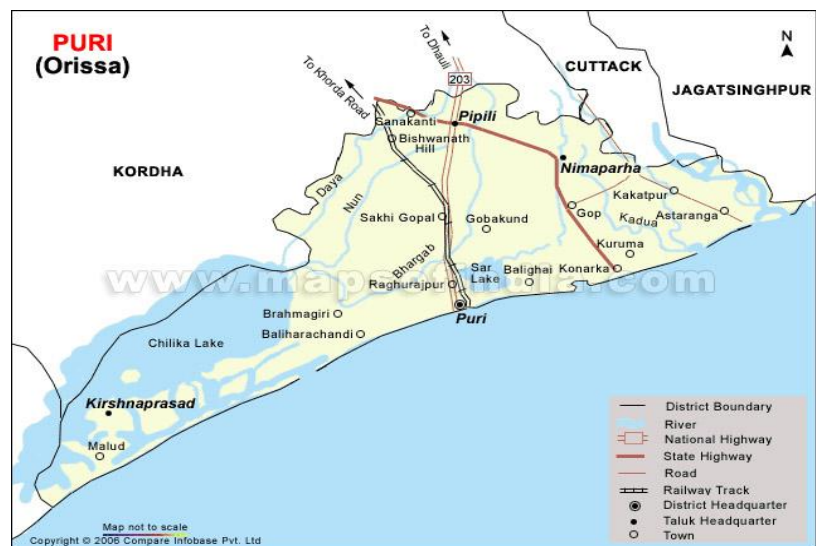
The literacy rate in Orissa has increased from 63.08 percent in 2001 to 73.45 percent in 2011, implying an increase of 10.37 percent during the decade. Orissa has been able to considerably reduce its gender disparity in literacy rates. In 2001, the male and female literacy rates in Orissa were 75.35 percent and 50.51 percent respectively, showing a difference of 24.84 percent. In 2011, however, the gender wise literacy rates were 82.40 percent (male) and 64.36 percent (female), implying a reduced gender disparity of 18.04 percent.

As per the Planning Commission figures, in 2004-05, 57.2% of the population lived below poverty line in Orissa. For rural and urban areas, the poverty levels were 60.8% and 37.6% respectively. These poverty ratios are much higher than in India as a whole, the ratios stand at 41.8 percent (rural), 25.7 percent (urban) and 37.2 percent (overall). Some of the important poverty alleviation programmes in Orissa to generate livelihood, create employment opportunities and cater to the basic needs of the poor for inclusive growth include Swarnajayanti Grameen Swarozgar Yojana (SGSY), Indira Awas Yojana (IAY), Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), Food Security and Public Distribution System.

3.2 Project District

Situated between 19° 28' to 26° 35' North Latitudes and 84° 29' to 86° 25' East Longitudes and covering an area of 3051 sq.km, Puri is one of the developed districts of Orissa. Known worldwide for the Jagannath temple and the Sun temple of Konark, Puri is famous for historic antiquities, religious sanctuaries and seascape beauty alike. It has the Chilika Lake, the largest brackish water lakes in India that holds a picturesque sea-scape beauty.

Puri District is surrounded by Jagatsinghpur and Khordha Districts on north and north-west and by the Bay of Bengal on the east and south-eastern part of the district. The coastline covers approximately 151 km stretching from Nuagan to Chhatrapur. District Headquarters of Puri is located at Puri which is 70 km from the State headquarters.





Due to its geographical location and proximity to the sea, Puri enjoys an equitable climate throughout the year. The temperature varies between minimum of 13.9°C to a maximum of 37°C. The period from June to September marks the South West Monsoon and 70% of annual precipitation is received during this period. May is the hottest month. The relative humidity is high throughout the year especially in coastal areas. Winds are fairly strong particularly in coastal regions in summer and monsoon months.

The total population of the district is 1697983 of which males and females constitute 50.95% and 49.052% respectively as per census 2011. In 2001 census, Puri had a population of 1502682 of which males constituted 50.80% and 49.20% females. The population density works out to be 557 persons per sq. km. The percentage of rural and urban population was 86.42% and 13.58% as per Census 2001. The decennial growth of the population during 2001-11 decreased to 13% from 15.12% during 1991-2001. The sex ratio in the district has been in favour of males with 968 and 963 females per 1000 males during Census 2001 and 2011 respectively. However, the sex ratio of the district is much better than the average national sex ratio of 940, as per Census 2011. SC and ST population comprise 18.2% and 0.30% of the total population as per census 2001.

Overall literacy rate of Puri were 85.4% in Census 2011 as compared to 78% in Census 2001. If things are looked out at gender wise, male and female literacy were 92% and 79% respectively. For 2001 census, same figures stood at 88% and 66% in Puri District.

The total working population of the district is 29.98% of the total population. Women workers constitute 12.6% of the total workers of the district. Workers are divided into main workers and marginal workers. Among main workers, women workers comprise 7.3% indicating dominance of men workers among the main workers. Workers are further classified into four broad categories viz., cultivation, agriculture, household, and others. Cultivation and agriculture together constitute 58% of the main workers clearly indicating that majority of population still continues to depend for their livelihood on agriculture and agriculture related activities. Household workers constitute merely 2.6% indicating absence of household economic activities. Marginal workers constitute 17% of the workers indicating lack of employment opportunities round the year. However, among marginal workers share of men and women workers are more or less same. Among marginal workers also 69% are occupied in cultivation and agriculture.

Most of the industrial activities in and around Puri are associated with arts, crafts and handicrafts. As such the district is predominantly covered with cottage industries that practice handicraft making although there are other activities like sea food processing and rice milling as well. The small scale industrial units of Puri include agro based ones that are involved in making snacks, molasses, coir, cashew processing, sauce, ice cream, squash, pickles, jams and jellies and the like. The marine based small scale industries are widely engaged in the processing of prawn pickles and dry fish. The Puri small scale units also manufacture leather based products, such as shoes, bags and belts. The forest based industries of Puri are involved in bee keeping and manufacture of wooden furniture, beedi, ethyle, sisal rope, sal seed oil and bamboo sticks. Owing to the coastal location of Puri, fishing industry is very developed. Fishing, processing and packaging various sea fishes, crabs, shrimps and prawn are common small scale industries. Overall the economy of the area is dependent on primary sector of which agriculture is the main occupation.



4.0 SOCIAL IMPACT ASSESSMENT

4.1 Socio-Economic Profile of PAHs

The following sections present socio-economic profile of the households likely to be affected by the proposed raising and strengthening of the saline embankment. The socio-economic baseline survey was carried out in the month of September and October, December from 29/9/2010 to 10/10/2010 and 17/12/2010 to 19/12/2010 by the consultant engaging local persons under the overall supervision of concerned expert. A questionnaire was used to collect information on: demographic details of project affected household (age, sex, education, occupation, etc), land holding, ownership of land and structure affected, household income, sources of earning, availability of basic facilities, availability of consumer durables, livestock holding, ownership of other assets, and information on gender, health, resettlement and rehabilitation issues etc. Households likely to lose land, structure and other properties were visited by the surveyors for conducting survey.

The data base provides broad understanding of social and economic conditions of project affected households and the likely impacts that people would experience due to proposed upgrading. A selected set of socio-economic information is discussed in the following sections to establish the profile of the project affected persons. The data base generated through household socio-economic survey would be used by the monitoring and evaluation consultant for evaluating the resettlement plan objectives.

Households likely to lose land and other properties were covered as far as possible by the survey. Land owners not staying in villages could not be contacted for the survey.

Project affected persons generally belong to two broad categories, viz, titleholders and non-titleholders. Titleholders are the ones who have legal papers for property units in their name, whereas non-titleholders include encroachers, squatters, kiosks, tenants, etc. In case of saline embankment under consideration only title holders (land owners) are likely to be affected. Impacts on private land are limited to Keutajanga revenue village only. A total of 109 private land plots shall be affected in varying proportion. Besides, 64 government land plots from the same revenue village (Keutajanga) shall also be affected in various proportions. Socio-economic profile of the households likely to be affected is described below.

As per the survey, 319 persons comprising 193 males and 126 females from 23 households are likely to be affected by the proposed project. These households are likely to lose part of land area from 83 land plots out of 109 private land plots likely to be affected. The average size of the household works out to be 14, which is very high as compared to average size of the household in the district 5.22 (census 2011) . This is due to combined/joint ownership of land plots and or undivided ownership of land plots (i.e. ownership is still continuing in the name of father or fore fathers). In fact, in some of the households there are more than 20 members. However, all the household members are not staying in the village or same in the building. The sex ratio of PAPs works out to be very much in favour of males. There are 906 females for every 1000 males which are very less as compared to district average of 963 (Census 2011).



PAPs likely to be affected have been classified in three age groups viz., less than 14 years, 15 to 59 years and more than 59 years. There 28 (8.7%) persons who are less than equal to 14 years of age. 75.5% (241) of the PAPs are in the age group of 15 to 59 which is prime age of working. Persons in the age group of 59 years and above constitute 15.7% of the PAPs.

Educational level of PAPs is presented in **table 1**. It may be observed that illiterate and just literate together comprise a little more than one third of the total persons likely to be affected. Majority of the PAPs are literate. Almost 34% of the PAPs have obtained middle and secondary level education followed by primary level education. PAPs having obtained Intermediate and Graduate/Post Graduate level education constitute about 8% of the total PAPs. Overall the educational level of PAPs is very good which would help PAPs in making meaningful choices with regard to alternative livelihoods, if required.

Table 1 – Educational Level of PAPs

Educational level	PAPs	
	No.	%
Illiterate	65	20.38
Just literate	41	12.85
Primary	79	24.76
Middle	88	27.59
Secondary	20	6.27
Intermediate	7	2.19
Graduate/ Post Graduate	17	5.33
Others	2	0.63
Total	319	100.00

Occupational profile of the household members is presented in **table 2**. Occupations of project affected persons are limited. Agriculture and allied activities is the occupation of about 10% of the total persons (319) for whom information has been collected. Household work is primarily carried out by the women members of the households. As is evident from the data, 34% of the total persons are occupied with household work and all of them are in the age group of 15-59 years and above. This is followed by trade and business and service, both private and government. All those involved in trade and business and service cover 33% which indicates that these persons are not staying in the concerned village but their names have been included by the respondent of the households. One of the reasons for migration from the village could be the regular disruption of lives and properties by the disasters. Overall the economy of these households is broadly dependent on tertiary activities. Cyclonic storms and tidal surges devastate economy of the village from time to time, one of the reasons for out migration of people to nearby areas. Lack of industrial development, lack of good connectivity, shortage of power, yearly flooding of the area has obstructed the diversification of local economy.



Table 2 - Occupational profile of household members

Occupation	Members	
	No.	%
Agriculture	6	1.88
Agricultural labour	13	4.08
Allied agriculture	10	3.13
Household work	109	34.17
Non-school going children	2	0.63
School going children	31	9.72
College going student	3	0.94
Govt. Service	2	0.63
Private Service	50	15.67
Household Industries	2	0.63
Trade and business	54	16.93
Old	24	7.52
Retired	4	1.25
Handicapped	1	0.31
Others	8	2.51
Total	319	100.00

Respondents were also asked to provide indicative household's monthly income and accordingly data were captured in the questionnaire survey. For the purpose of analysis the income groups to which the households belong to are discussed below. There are 138 persons out of 319 who are productively employed and contributing to the household income. Though, the combined income of household varies from a minimum of Rs. 5000/- per month to a maximum of Rs. 55000/- per month. The minimum and maximum earning members vary from 2 to 13. Average number of earning numbers per household works out to be six whereas the average monthly income is Rs. 3627/- based on the income indicated against earning members. Majority (60%) of the household members earn less than equal to Rs. 3000/- per month. Out of the total earning members, only four members earn more than Rs. 10000/- per month and a maximum of Rs. 20000/- per month. Majority (21) of the households possess BPL ration card. None of the households is headed by women.

4.2 Project Impacts

As mentioned earlier, the proposed project involves widening, raising, strengthening and extension of existing saline embankment. The project impact is limited to land only. No structures, common property resources, and other properties and assets are likely to be affected. Land plots likely to be affected have been worked out based on the design prepared by the technical consultant (M/s Orbital Consultants). Land plots likely to be affected were marked by superimposing the design on the village revenue maps. Land owners list were provided by the technical, consultants. The socio-economic survey was conducted as per the land owners list.



Additional land area required for upgrading and strengthening of saline embankment have been worked out by the technical consultant. As per the design a minimum of 30 m land width is required. The existing land area available is 3.79 ha [comprising 55.8% government land and 44.2% private land]. Additional land area required for the proposed improvement works out to be 3.86 ha (9.53 acres). It includes both private and government land. Private land comprises 49.9% (1.92 ha) of the total land requirements. The remaining land area i.e., 50.1% (1.93 ha) is government land, which includes Abadjogya Anabadi (presently vacant but meant for residential purposes) and Rakshita Anabadi (gramya jungle, nala, etc). The government land shall be transferred by inter departmental arrangements. Private land area likely to be affected is mainly agricultural land plot. It forms part of only one revenue village called Keutajanga under RI Bangurigram. Land plots likely to be affected (private & govt.), their owners and other details has been provided in **Annex 3**.

Percentage of land area likely to be affected from each land plot is presented in **table 3**. It may be observed that less than equal to 10% of the land area will be affected in case of 17.4% of the land plots. There will be loss of 11 to 20% of the land area in 26.6% of the land plots. In case of 51 land plots (46.3%), substantial portion (more than 20%) of the land area will be affected. Similarly, in case of 9 land plots more than 50% of the land area will be affected. It can be seen that almost all the land plots (105) are very small in size (less than 0.5 ha), a criteria for consideration as marginal farmer¹ (un-irrigated land holding upto one hectare or irrigated land holding upto half hectare). Requirement of private land area for the construction of saline embankment is not likely to affect livelihood of majority of land owners rather construction of embankment will help consolidate their properties and assets.

Table 3 – Land plots likely to be affected

Land area affected (%)	Land plots affected	
	No.	%
Less than equal to 10	19	17.4
11 to 20	29	26.6
21 to 50	51	46.8
More than 50	9	8.3
Total	109	100.0

No squatter has been found during the survey. No households will be displaced by the project. Further, no common property resource is likely to be affected.

5.0 CONSULTATIONS

Public consultations are an important medium where participants raise various issues that need attention in reference to any project that would most likely touch upon their lives directly or indirectly, positively or negatively.

¹ Marginal farmer – refers to a cultivator with an un-irrigated land holding upto 1 ha or irrigated land holding upto 0.5 ha.



The aim of conducting both formal and informal public consultations was to involve all types of participants/stakeholders and consider their views related to the project and take actions wherever possible. Concerns expressed by participants during these consultations meetings included compensation at prevailing market rate, additional requirement of sluices, extension or diversion of proposed saline embankment, requirement for approach road and cyclone shelter wherever required and other issues. Mitigation measures were also suggested by the participants during these meetings. Concerns and mitigation measures suggested by participants have been presented in a tabular form covering issues under each major head. This has been shared with the design team so that the concerns expressed by the people are integrated into the design wherever feasible within the technical and financial limitations of the project.

Public consultation meeting was held in at Keutajanga village under Sisua Gram Panchayat. Minutes of the public consultation meeting is as under:

District	:	Puri
Block	:	Astaranga
Irrigation Division	:	Nimapara Irrigation Division
Village	:	Keutajanga
Gram Panchayat	:	Sisua

Gram Sabha meeting was held at Keutajanga under Sisua Gram Panchayat, on 27/12/2011 at 11 AM. The Gram Sabha was held in presence of the following:

- Sarpanch - Ashok Kumar Biswal
- Executive officer - Kanhei Charan Pradhan
- Asstt. Engineer, Orital- N.C.Khatua
- Ex- Sarpanch- Purna Chandra Swain
- Ward Member(7)- Ram Chandra Biswal
- CES personnel, and villagers

➤ The Sarpanch informed that Keutajanga is a small village about a km away from the Bay of Bengal on the eastern side of the village. It was also informed that West, North and South sides of the village are occupied by Prachi, Karap and Nora rivers respectively. Villagers have witnessed natural disasters like floods and cyclones time and again. Lives and properties have been devastated during each disaster. The impacts of natural disasters have long term impacts on the economic conditions of the villagers. Sarpanch as well as villagers emphasized the urgent need for upgrading the existing saline embankment in order to save their lives and properties as a long term solution.



- Asstt. Engineer of M/s Orbital informed the villagers about the proposed work covering height, width, slope, boulder packing, turfing, etc. He also informed that the proposed



embankment will be 4.115 km long and there will be four (4) sluices for facilitating drainage purpose.

- Villagers were informed about the informed about the Environment and Social Management Framework by the CES personnel in detail and their implications thereof to the villagers for better understanding in local language.
- The villagers present in the meeting suggested for stone packing all along the embankment on the riverside which in their view would help restrict the water force of Prachi River.
- Women members present in the meeting demanded for better education, communication and drinking water system. They demanded that primary school should be upgraded upto standard VII.
- The villagers apprised that residential structures and the school are one side of embankment and on the other side is government land. Keeping in view the availability of government land villagers suggested utilizing government land as much as possible instead of impacting private lands.
- It was pointed out by some villagers at the time of construction of saline embankment (in 1971), assurance for payment of compensation was given by the concerned government department. However, no compensation was paid to any land owners for this purpose.
- Villagers from Belanga and Hariharbastia demanded extension of the existing embankment upto Belanga which will be approximately 2 km in length.
- The villagers unanimously welcomed the government's proposal for upgrading the existing saline embankment and also informed that there will be no adverse impacts of the proposed project on the surrounding environment.



Copy of Gram Sabha resolution along with block and Panchayat notices is given in **Annex 4**.

6.0 ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

6.1 Introduction

An Environment and Social Management Framework (ESMF) has been drawn up for National Cyclone Risk Mitigation Project (NCRMP) by the National Disaster Management Authority, Ministry of Home Affairs, Govt. of India (GoI) specific to components A² and B³ of the NCRMP, which is

² 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.

³ Construction of physical infrastructure for cyclone risk mitigation to be implemented by the States/UTs.



applicable to all activities proposed under the project. The ESMF has been prepared based on the likely impacts of various sub-project activities and provides for the indicative management measures required to effectively address the same i.e., prevention and / or mitigation of environment and social issues due to the implementation of the project activities in Orissa.

The ESMF describes the principles, objectives and approach to be followed to minimize or mitigate the adverse environmental and social impacts resulting from the implementation of the NCRMP project. Thus adverse impacts of sub-project activities related to components A and B would be addressed as per this framework. The ESMF has been disclosed for public viewing.

The key objectives of the ESMF are:

- Provide a framework for the integration of social and environmental aspects into the decision making process at all stages of planning, design, execution, operation & maintenance of various sub-projects.
- Identify, avoid or minimise adverse social and environmental impacts.
- Enhance positive social and environmental outcomes.
- Support and ensure compliance with applicable laws, regulations, and policies.

6.2 Laws, Rules, Regulations & Policies

The implementation of the proposed activities under the NCRMP shall be consistent with all applicable laws, rules, regulations and notifications and World Bank policies and guidelines. They are:

- The Land Acquisition Act (LA) of 1894 amended in 1984.
- The Land Acquisition (Amendment) Bill, 2007
- National Rehabilitation and Resettlement Policy, 2007.
- Involuntary Resettlement OP 4.12.
- Environment (Protection) Act, 1986 & EIA Notification S. O. 1533 DATED 14TH September 2006 and subsequent amendments
- Coastal Regulation Zone Notification (CRZ), 2011

Brief description of acts and policies as under:



<p>The Land Acquisition Act 1894</p>	<p>The 'eminent domain' i.e. the state can take away private property for public use or public interest against the consent of the owner of the property. The LA Act of 1894 enables the government agency to acquire private land for public purposes. The Act was amended in 1984 and some of its norms related to the time/amount and procedures of compensation were liberalized. However, the Act in essence remains unchanged and is applicable to the whole country except the State of Jammu and Kashmir. A few shortcomings of the LA Act of 1894 are as under:</p> <ul style="list-style-type: none"> • The Act only deals with compensation and not rehabilitation of people whose lands have been acquired; • The Act only considers payment of compensation to those individuals who have legal ownership rights; • Under the Act, no compensation is payable to landless labourers, forest-land cultivators, forest produce collectors, artisans and shifting cultivators because they do not have any land record in the record of rights. 	<p>The Act is not applicable as the land required for the saline embankment shall be obtained through voluntary donation.</p>
<p>The Land Acquisition (Amendment) Bill, 2007</p>	<p>A Bill (Bill No. 97 of 2007) further to amend the Land Acquisition Act, 1894 has been introduced in Lok Sabha. Some of the important amendments in this Bill are as under:</p> <ul style="list-style-type: none"> • Section 1A - Application of Rehabilitation and Resettlement Act, 2007 to persons affected due to land acquisition; • Section 3A - Mandatory social impact assessment prior to acquisition of land under this Act; • Section IIA - Establishment of Land Acquisition Compensation Disputes Settlement Authority; • Section 18 - Reference to court. 	<p>The Bill is not yet to be passed and therefore is not applicable.</p>
<p>National Rehabilitation and Resettlement Policy (NRRP), 2007</p>	<p>Provides benefits to affected family (an ex-gratia payment of not less than Rs. 20,000/- and in case land-holder becoming landless or small or marginal farmer in such cases other rehabilitation benefits as applicable.</p>	<p>Applicable</p>
<p>Orissa Resettlement</p>	<p>This policy is applicable to all projects for which acquisition of private land under Land Acquisition Act, 1894 or under</p>	<p>Applicable</p>



and Rehabilitation Policy, 2006	any other laws for the time being in force or proclamation inviting objections in case of Government land is notified.	
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.	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, 14th 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, Gol 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	<p>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.</p> <p>The main objectives of the Coastal Regulation Zone Notification, 2011 are:</p> <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 based on scientific principles, taking into account the dangers of natural hazards in the coastal areas and sea level rise due to global warming. <p>For regulating development activities, the coastal stretches within 500 meters of High Tide Line on the landward side are classified into four categories, namely CRZ-I, II, III and</p>	Applicable



	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.	
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6.3 Guiding Principles for Addressing Social Issues

6.3.1 Involuntary Resettlement

Location of facilities has to be planned so as to have least impact on the community. If a particular location is suitable for all factors except for limited resettlement, necessary compensatory measures as per the resettlement framework needs to be worked out. Resettlement impacts due to these interventions would be managed through appropriate compensation and rehabilitation measures as per the entitlements of the RAP. A resettlement action plan to this effect would be prepared to address the impacts. Compensation and rehabilitation measures will be carried out in accordance with the entitlement framework for the sub-project activity.

It needs to be ensured that all R&R activities are to be completed before the construction activity starts. If any resettlement is required for project intervention, resettlement sites required are to be taken up for construction prior to the contractor mobilization at site. Suitable locations for resettlement sites are to be identified in consultation with the PAPs to be relocated.

6.3.2 Eligibility for Benefits

Project Affected Persons (PAPs) are defined as persons whose livelihood or shelter is directly affected by the project activities due to **acquisition** of the land owned or used by them. PAPs deemed eligible for compensation are:

- Those who have formal legal rights to land, water resources or structures/buildings, including recognized customary and traditional rights;
- Those who do not have such formal legal rights but have a claim to usufruct rights rooted in customary law; and
- Those whose claim to land and water resources or building/structures do not fall within (a) and (b) above, are eligible to resettlement assistance to restore their livelihood.

6.3.3 Entitlement Matrix

Table below presents the Entitlement Framework for the proposed project. However, these entitlements will not apply for cases of voluntary donation. Resettlement assistance will be as per Orissa R&R Policy, 2006 & NRRP, 2007.

Sl. No.	Category	Type of loss	Entitlement	Compensation
1A	Private property	Land and assets (non agricultural)	Compensation at "replacement	Compensation <ul style="list-style-type: none">• Cash compensation for the land and structure at replacement



Sl. No.	Category	Type of loss	Entitlement	Compensation
			cost” or “actual market value”.	<p>cost shall be given to the titleholder as decided by the Competent Authority.</p> <ul style="list-style-type: none"> • If the replacement cost is more than the compensation (at “market price” as determined by the land acquisition authority), then the difference is to be paid by the ‘requiring body’ in the form of “assistance”. • Stamp duty and other fees payable for registration shall be borne by ‘requiring body’. • In the case of loss of house, a house may also be offered in lieu of the acquired house¹. • In case of linear acquisitions, an ex-grata amount will be paid as decided by the competent authority at the time of acquisition² <p>Assistance</p> <ul style="list-style-type: none"> • Each PAF shall get financial assistance as transportation cost for shifting of building materials, belongings etc³. • For partially affected structures, compensation at replacement cost for loss of affected area shall be provided. PAF whose structures are partially affected shall be eligible for assistance for repairing/ strengthening cost of remaining structure. • A 2 months notice shall be given for the removal of structures. The owner/tenant (in cases where a tenant occupies the structure) shall be given the right to salvage material from the structure.
1B	Private property	Agricultural land and any standing	Compensation at “replacement	<p>Compensation</p> <ul style="list-style-type: none"> • The compensation for the land shall be given to the titleholder



Sl. No.	Category	Type of loss	Entitlement	Compensation
		crops/trees etc on it	cost” or “actual market value”.	<p>as decided by the Competent Authority. If the value is not updated/less than the prevailing market value (for the year of payment of compensation), then it should be increased by the prevailing inflation rate for each year up-to the year of acquisition. For delayed payments, an additional interest (as per the bank interest rate of the year) shall be paid.</p> <ul style="list-style-type: none"> • If the replacement cost is more than the compensation (at “market price” as determined by the land acquisition authority), then the difference is to be paid by the project in the form of “assistance”. • In case of partial acquisition of land or severance, where the farmer becomes a marginal or small farmer due to the acquisition, then an additional grant shall be given⁴. • Stamp duty and other fees payable for registration shall be borne by the ‘requiring body’. • In case of linear acquisitions, an ex-gratia amount will be paid as decided by the competent authority at the time of acquisition² <p>Assistance</p> <ul style="list-style-type: none"> • Each PAF shall get financial assistance as transportation cost for shifting of building materials, belongings etc⁵. • A four months advance notice shall be given to salvage crops.
1C	Landless	Not having homestead land, agricultural land or either of them (but	Provision for house	<p>Assistance</p> <ul style="list-style-type: none"> • A house may be offered in lieu of the house being removed⁶



Sl. No.	Category	Type of loss	Entitlement	Compensation
		residing continuously for a period of not less than three years in the affected area preceding the date of declaration of the affected area)		<ul style="list-style-type: none"> Affected families which opt not to take the house offered shall get a suitable one-time financial assistance for house construction, and the amount shall not be less than what is given under any program of house construction by the Government of India.
2A	Livelihood	Wage earning	Income restoration	Assistance <ul style="list-style-type: none"> Financial assistance for loss of livelihood. If affected person is an agricultural labourer (not applicable if the labourer is a family member) he/she shall get a monthly subsistence allowance equivalent to 20 days minimum agricultural wages per month for a reasonable period not less than six months.
3A	Non title holders	Encroachers/squatters	Assistance/rehabilitation	<ul style="list-style-type: none"> Will receive no compensation for land but one time financial assistance for shifting assets to the vulnerable groups (SC, ST, Women Headed Households and poor). Such assistance shall be given only to residential and commercial properties; Encroachers will be notified a time in which to remove their assets; Right to salvage materials from the demolished structure.
4C	Special category	Vulnerable/S C/ST/Tribal communities	Assistance	<ul style="list-style-type: none"> Additional assistance for vulnerable groups will be provided as per the provisions of State R&R policy

6.3.4 Cultural Property Resource (CPR)



All utilities and common property resources likely to be affected due to the project will be relocated with prior approval of the concerned agencies before start of construction. Similarly, cultural properties whose structure is likely to get affected, will be relocated at suitable locations, as desired by the community before construction starts. Local community need to be contacted and discuss relocation aspects, siting 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. No work shall spillover to these properties, premises and precincts.

6.3.5 Acquisition of Land and Payment of Compensation

6.3.5.1 Voluntary land donation

Land acquisition is likely to take place through a combination of several methods. Identification of available vacant government lands will be the most preferred method. In addition, the lands belonging to temples trusts, Gram Panchayats, etc. will also be explored. In some cases the land owners or Gram Panchayats or temples may come forward for voluntary donation of lands.

Individuals may also elect to voluntarily contribute land or assets, provided the persons making such contributions do so willingly and are informed that they have the right to refuse such contributions. Procedures will be 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 property, and his entitlements as provided for in the land acquisition and resettlement policy being adopted by the project.. The following measures will have to be applied in dealing with land donations, based on their relevance to the cases being encountered:

- i. An assessment that the affected person does not suffer a substantial loss affecting his/her economic viability as a result of the donation;
- ii. Proof of meeting 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.
- iii. Certification from the government body that the land is free of claims or encroachments from any third party;
- iv. Deed of donation to the proponent concerned, as witnessed by the government officials, duly registered and Declaration of ownership with waiver of claims for affected assets;
- v. Waiver of rights/quit claim (for plants, trees, houses, structures claimed by tenants, informal settlers)

6.3.5.2 Land Acquisition/Private Purchase



The private land acquisition will be made through private negotiations or using the land acquisition process. Based on the above support principles, the individual entitlements will be proposed and included in the RP. In case of acquisition of private lands, the compensation rates will be decided by the Land Acquisition Officer in accordance with the prevailing market rates.

In case of losses to structures, the compensation will be determined in accordance with the Public Works Department's current Schedule of Rates for new construction of similar quality without depreciation.

6.3.6 Consultation and Information Disclosure Proposed

The ESMF provides involvement of all the stakeholders' at each stage of the project planning and implementation. The PIU/state level nodal agency will 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.

6.3.6.1 Planning

Dissemination of project information to the community and relevant stakeholders is to be carried out by the PIU 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.

6.3.6.2 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.

6.3.7 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) brochures (including project information, land acquisition and details of entitlements including compensation and assistance to be 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 PIU to acquaint the PAPs of the following:

- Timeline and progress of the project;
- Information on compensation and entitlements;
- Information on land acquisition and market valuations of property;
- Time line for acquisition.

Also, opinion and consensus of the community needs to be sought for common and cultural property relocation.

6.3.8 Grievance Redressal

In the NCRM project all efforts will be made so that the compensation package for PAF's is decided in consultation with the community so as to avoid any dispute. In case of a potential dispute the matter will be brought to the notice of local tehsildar/Sub Divisional Magistrate (SDM). He shall hear the case in presence of (a) the affected party, (b) the in-charge of line department who is acquiring the land/ in-charge of the subproject activity and (c) sarpanch of the village where the sub-project is being implemented. He will try to reach an amicable solution to the issue.

However, in case of non-satisfactory solution, the matter will be brought to the notice of the District Collector and he is the final authority to decide the case. The hearing will be attended by all members present for hearing with the SDM as well as the Social Management Specialist of the PIU. The Social Management Specialist will be responsible for maintaining a record of the proceedings and the final decisions.

6.3.9 Sub-project Approval

In the event that a subproject involves land acquisition against compensation or loss of livelihood or shelter, the implementing agency shall:

- Not approve the subproject until a satisfactory RP has been prepared and shared with the affected person and the local community; and
- Not allow works to start until the compensation and assistance has been made available in accordance with the framework.

6.3.10 Identification of Impacts through Social Screening

Though it is envisaged that the subproject activities will have very generic social issues that are manageable through standards and codes of practice, there might be some sub-project activities proposed in due course, that carry a higher risk social disruptions and/or impacts. The possibility of such an issue arising in the subproject site will be identified during the screening process. The screening check list for the NCRMP (Annexure 3, Chapter 3 of ESMF) has been designed to identify sub-projects with potential social issues that may need to be addressed at the project planning stage.

6.3.11 Preparation of Resettlement Plan



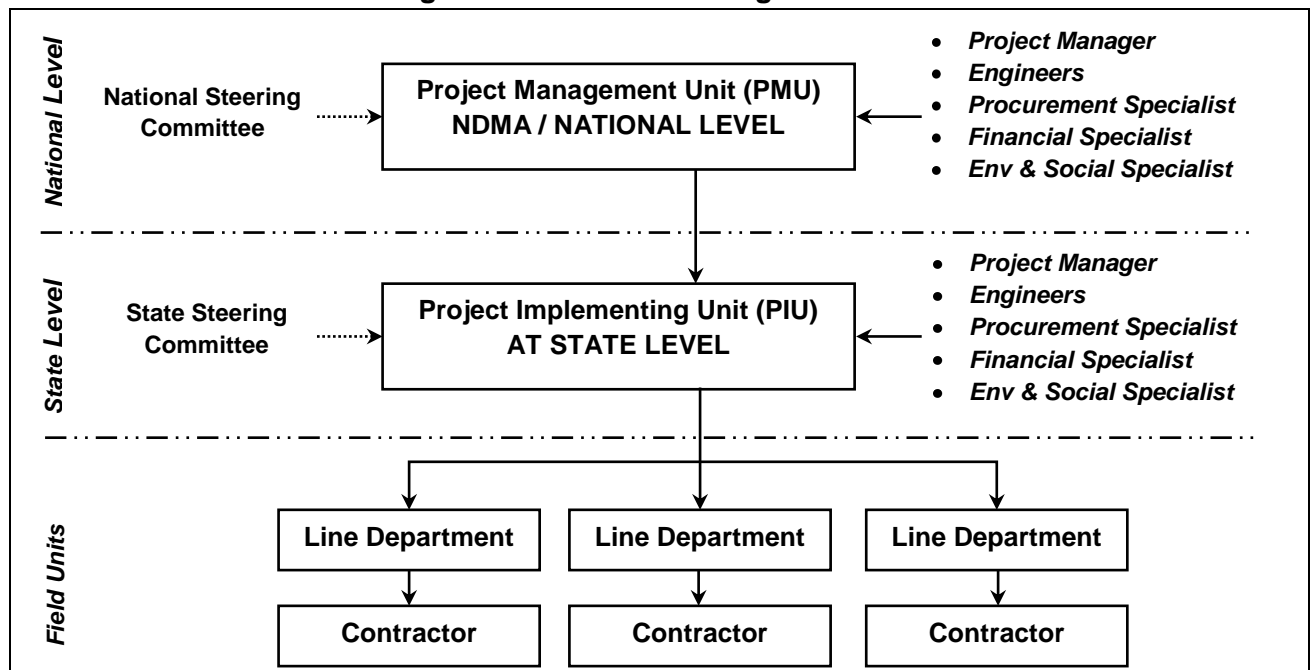
Having identified the potential impacts of the relevant sub-projects, the next step is to develop action plans to mitigate the impacts. The RPs provides a link between the impacts identified and proposed mitigation measures to realize the objectives of involuntary resettlement. The RPs will take into account magnitude of impacts and accordingly prepare a resettlement plan that is consistent with this framework for Bank approval before the sub-project is accepted for Bank financing.

- Sub-projects that will affect more than 200 people due to land acquisition and/or physical relocation would require an SIA and a full Resettlement Plan (RP).
- Sub-projects that will affect less than 200 people will require an abbreviated RP; such plans will be prepared as soon as the sub-project is finalized and cleared prior to approval of the bid documents.
- Projects that are not expected to have any land acquisition or any other significant adverse social impacts are exempted from any further social intervention.

7.0 IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

The ESMF includes institutional arrangements for the implementation of RAP. The Project management Unit (PMU) at the national level will be the executing agency whereas the overall project delivery of the NCRMP will be overseen by a National Steering Committee. NDMA shall check, modify and align with the institutional arrangements proposed for the project. The PMU will be established at the NDMA for active oversight on the different components in the state. At state level, there will be a Project Implementation Unit (PIU) for coordinating the day to day activities with the implementing agencies/ line departments overseen by the State Steering Committee. The overall institutional arrangement is depicted below in **Fig. 2**.

Fig. 2 – Institutional Arrangement



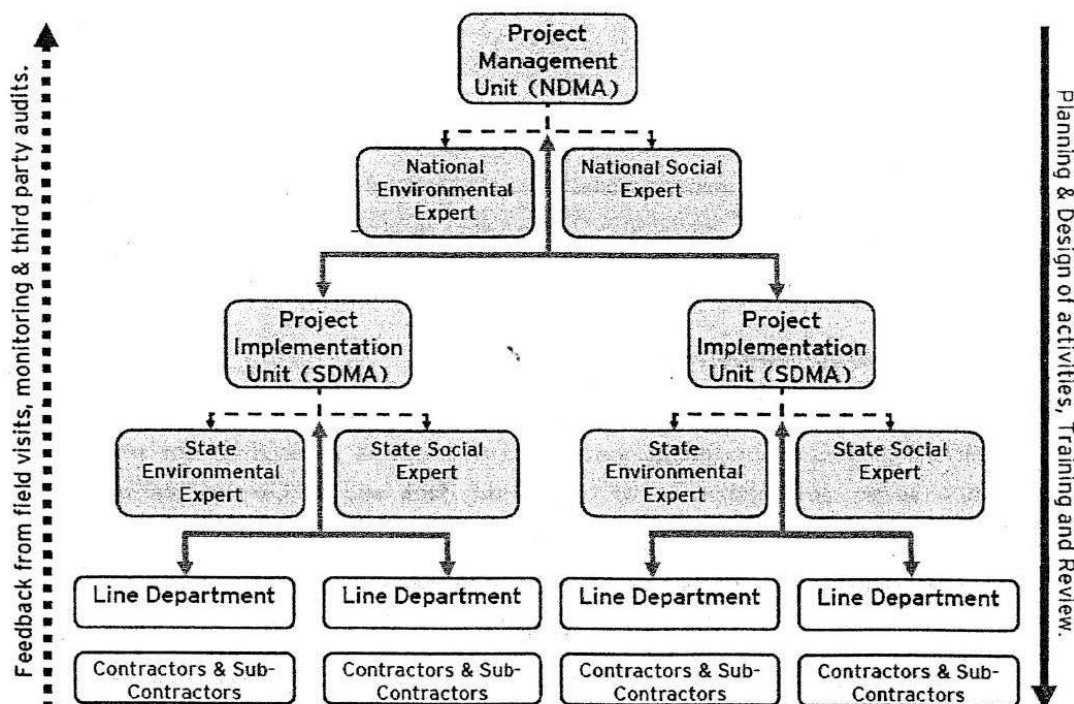
Both PIU and the PMU have functional and management teams comprising of the Project Managers, Engineers, Procurement specialist, Financial specialists, Environment & Social



specialist and support staff. The PIU shall implement the sub-project activities through the relevant line departments.

The environmental and social specialist at the state level shall provide feedback based on the field visits, monitoring activities undertaken and third party audits to the respective environmental and social expert at the national level. The environmental and social specialist at the national level will in turn provide technical assistance in planning and design of the activities (including sample field visits), trainings and review where applicable as depicted in **Fig. 3**.

Fig. 3 – Planning and Design of Activities



7.1 Project Management Unit (PMU)

Towards the implementation of the ESMF, two officers for managing the environment and social aspects will be designed as Environmental & Social specialist as well as any other environmental and social provisions deemed fit for project implementations as per the regulations of the World Bank Operation policies and the Government of India regulations. The role and responsibilities of the environmental and social specialists is indicated as follows:

7.1.1 PMU's Environmental and Social Specialist

The roles and responsibilities include:

- Preparation and updating of the ESMF Document
- Training and orientation of the PIU teams on the requirement and application of the ESMF



- Reviewing the monitoring reports submitted by the state for compliance with the EMP and the RAP from the state
- Visit a sample of environmentally sensitive sites to review compliance with the EMP and the RAP
- Provide guidance and inputs to the State PIU on environmental and social management aspects
- Act as a single point of contact for resolving queries related to environmental and social issues.

7.2 Project Implementation Unit (PIU)

The two officers designated as environmental & social specialist shall oversee the implementation of the ESMF as well as any other environmental and social provisions as deemed fit for project implementation as per the regulations of the World Bank and the Government of India.

7.2.1 PIU's Social Specialist - Roles and responsibilities

The primary scope of work of the Social Development and Resettlement Specialist is to help the State Project Implementation Unit in preparing and implementing the approved social aspects of the Environmental and Social Management Framework (ESMF). Other duties/works include but not limited to the following:

- The consultant will assist the state level PIU's, their line departments, Implementing Agencies (IAs) and non-governmental organizations (NGOs) engaged in the project in community mobilization, preparation, and implementation of resettlement plans in accordance with the agreed ESMF;
- Assist the above stakeholders in the preparation and implementation of RAP for sub-projects which trigger adverse social concerns for the Project Affected People (PAPs);
- Carry out wherever required an initial poverty and social assessment, sample socio-economic survey, and detailed inventory of affected assets and losses and disclosure of the sub-project Resettlement Plan to the affected persons;
- Provide guidance to line departments/implementing NGOs in preparation of information materials related to resettlement, consultation with PAPs on resettlement/relocation options and finalization of individual entitlements, verification, and delivery of compensation and allowances,, house reconstruction (if required) prior to dispossession or displacement;
- Wherever land acquisition issues are involved, liaise with District Collectors and relevant authorities to expedite land acquisition process and assist in finalizing estimates of compensation, extend assistance to PIU and line departments in effectively addressing the grievances of the PAPs in consultation with Grievance Redressal mechanisms;
- Monitor all land acquisition and resettlement related activities;
- Prepare monthly progress reports highlighting implementation progress, issues/constraints that require decisions by the PIUs and other agencies involved.

7.3 Line Departments/Implementing Agencies



The line department shall be responsible for the execution of the contracted work either through the contractors or internally by the department staff.

8.0 IMPLEMENTATION ACTIVITIES

One of the most important aspects of implementation is handing over additional land to contractors. As per the standard conditions of civil contracts, land free from all encumbrances will be made available to the contractor. This implies that consent from individual land owners for voluntary donation must be obtained before mobilization of contractor at site. Advance notice of four months shall be served to all concerned persons by the executing agency with assistance from community mobiliser and by involving village panchayat. This will be done in order to ensure that standing crops are harvested/ salvaged by land owners in time without any damage. The notice will be served in writing to land owners and a copy of the same will also be given to village panchayat to be displayed at the notice board. Further, announcement will be made by loud speakers and beating of drums by the executing agency either directly or through village panchayat.

More than 80% of the land owners have given willing consent for voluntary donation of land for the construction of saline embankment without any kind of claim for compensation. Efforts are being made for obtaining the consent from the remaining landowners. It has been found that some of the landowners are staying away and occasionally visit their native place and also a few are out of country (absentee landlords). In order to obtain their consent the following activities will be carried out:

- The importance of obtaining consent from remaining landowners need to be discussed with village head specially and villagers in general;
- Request village head, neighbors, relatives and acquaintances to collect and or provide information about the land owners, their relatives/friends and or any other person who could provide information such as place of stay, phone/mobile number, email address, etc for remaining land owners;
- Based on the information collected the owners will be contacted by the WRD through village head or directly for obtaining the consent suitably;
- In case the land owners are out of country contact shall be established through email or any other suitable means. After establishing contact with the concerned person detailed information will be provided including the villagers willingness to voluntarily donate land for the construction of embankment and suitable arrangement will be made to obtain the consent from the concerned land owners;
- Certain individual consent forms will be kept with the village head so that in case of some land owners visiting the village, he/she can be approached and individual consent can be obtained taking advantage of the landowners' presence in the village. Simultaneously, concerned WRD office shall be informed about the availability of the land owner in the village and due process shall be followed for obtaining the individual consent with active co-operation from village head and villagers,



- The community mobiliser will maintain constant touch with the village head and villagers in each village with regard to absentee land owners from whom individual consent for voluntary land donation needs to be obtained;
- This will be a continuous process and every feasible effort will be made to obtain 100% willing consent from each land owner.

8.1 Community Mobiliser

Consultations with project affected persons and villagers will be organized by the community mobiliser at regular intervals with regard to update/ progress of works and also seek co-operation from the community/ villagers to any resolve any issues and problems that might arise during the time of construction of embankment.

The community mobiliser shall be engaged/ appointed by the OSDMA for a period of one year on contract basis initially. Later, if required depending upon the progress of the civil works of the embankment, continuation of extending the services of community mobiliser shall be assessed by OSDMA and may be extended by a maximum of another six (6) months. There will be one community mobiliser for each embankment. The roles and responsibilities of the community mobiliser shall include the following but not limited to:

- Maintain close links/contacts with villagers on a day to day basis in order to collect information on absentee landowners (remaining land owners) for the purpose of obtaining willing consent for donating land voluntarily,
- Inform concerned WRD officials and Social Specialist (PIU) about the as soon as information is received about any land owners;
- Maintain record of information received and transmitted to WRD and OSDMA,
- Help assist WRD in obtaining individual consent for voluntary land donation by land owners,
- Help assist WRD and villagers for demarcating the land for handing over to the contractor,
- Distribute advance notice to all land owners for harvesting the crops in consultation with village head and also notice is available on the notice board of village panchayat,
- Ensure villagers are informed by way of drum beating with regard to harvesting of crops in advance by pursuing the matter with concerned WRD officials,
- Conduct meeting with land owners and villagers (separately in each village) and update project work and document issues and concerns raised by villagers, if any;
- Be present at the site and help resolve any issues that might crop up during the project works,
- Inform Social Specialist at PIU and concerned WRD officials in case their intervention is required,
- Perform other relevant activities as instructed by the Social Specialist (PIU) from time to time for the smooth progress of the work, etc.



Qualification and Experience: A Bachelor/Master Degree in social sciences with at least two years of experience in community mobilization in the state. The person shall be from Odisha having hands on experience in projects funded by the WB and/or other multilateral agencies in India and the State (preferably). He/she must be fluent in local language (speaking and writing). Communication skills in other language English and Hindi shall be advantageous.

9.0 GRIEVANCE REDRESSAL

A grievance is an annoyance or resentment stemming from a feeling of having been wronged. Experience indicates that litigation causes unnecessary delays and cost overruns in many projects. As the land needed for the sub-project is likely to be obtained by voluntary donations, likelihood of any grievance is not foreseen. Pallisabhas have been conducted by the Water Resources Department in concerned villages for seeking villagers consent with regard to voluntary donation of land for the construction of saline embankment. Land owners have agreed to donate land voluntarily without asking for any kind of compensation whatsoever. As mentioned earlier, willing consent from more than 80% of the land owners have already been obtained in requisite format. For the remaining land owners efforts are being made to obtain the willing consent from the absentee land owners. The process of obtaining the willing consent shall till the time consent from every land owners is obtained.

The ESMF for NCRMP provides for establishing grievance redressal mechanism for resolving grievance related to resettlement and rehabilitation aspects consistent with Orissa Resettlement and Rehabilitation Policy, 2006 and NRRP 2007. Grievance of PAFs, if any will be addressed through the established mechanism as outlined in the ESMF.

The aggrieved person can approach the Grievance Redressal Officer to resolve the dispute through consultations. Grievance redressal mechanism shall be established at two levels. At the first level, Grievance Redressal Officer (Tehsildar/ SDM) shall hear the case in presence of the PAFs, in-charge of line department who is acquiring the land/ in-charge of the subproject activity, and Sarpanch (elected village head) of the village where the sub-project is being implemented. The officer will try to reach an amicable solution to the issue. However, in case of non-satisfactory solution, the matter will be brought to the notice of the District Collector and he is the final authority to decide the case. The hearing will be attended by all members present for hearing with the SDM as well as the Social Management Specialist of the PIU. The Social Management Specialist will be responsible for maintaining a record of the proceedings and the final decisions. However, it does not debar the project affected persons from taking recourse to court of law.

In view of the above, grievances are not foreseen. Nonetheless, the Grievance Redressal Officer will be designated within 15 days from the date of mobilization of the contractor at the site by an executive order by the Government of Orissa. Intervention of Grievance Redressal Officer shall be sought in case of any issues and concerns are raised by the villagers.

10.0 BUDGET

A lump sum amount of Rs. 3 lakhs (Three lakhs) per affected village shall be kept for providing some kind of community facility within the budget limit. It will be provided in each affected village from where land owners have donated land for the construction of the embankment. Community facility required by the villagers shall be discussed in the Gram Sabha/ Palli Sabha meeting and a



resolution will be passed in this direction. Based on the decision of the Gram Sabha/ Palli Sabha, community facility will be provided in the concerned village.