DETAILED PROJECT REPORT

Multipurpose Cyclone Shelter

Under

ICZMP

Main document
(October 2009)

OSDMA

Orissa State Disaster Management Authority

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PART A: Detailed Project Report

N.B. - SITE WISE DETAILS WITH ESTIMATES ANNEXED IN SEPARATE BOOKLETS (1-14)

Executive Summary

The State of Orissa is prone to multiple and recurring natural disasters. Its location and geo-climatic conditions make it one of the most vulnerable States for frequent natural disasters. Most part of the State experiences one or other type of disasters like flood, cyclone, saline ingress or drought every year. Even some parts of the State face multiple disasters in the same year. Although the State has not yet experienced earthquake, a large part of it come under Zone II & III of vulnerability. Of late, particularly after December 2004, the threat of tsunami in the east coast of India has been reaffirmed. Each earthquake in Indonesia creates a fear of the killer wave and the Indian mainland shivers for it. Besides, the Burma tectonic plate is predicted by Geologists to be weak. If any major earthquake takes place in it, then Orissa and Bengal coast will be very severely affected by the resultant tsunami waves. This apprehension increases our vulnerability. Besides, the impact of recurring disasters has negated the effect of developmental process considerably and put the coping mechanism of the people into severe strain.

MCS at Prabhakarpur, Kendrapara

The coastal districts of Orissa are prone to frequent cyclonic storms and concurrent flood hazards causing considerable loss of human lives, domestic animals, agriculture and other properties. The worst disaster of the 20th century hit the coastal Orissa in the form of super cyclone on 29th & 30th October 1999 inflicting severe damages in 14 districts of the State. Thousands of lives perished due to non-availability of protected shelters, particularly in the areas prone to storm surge. In the aftermath of the Super Cyclone, the State Government decided to build elevated

structures, which can withstand very high wind speeds and protect human and animal lives from flooding and saline inundation. Though the Government of Orissa has already constructed some Multipurpose Cyclone Shelters (MCS) within 10 KM of the coast with assistance from the World Bank and the Chief Minister's Relief Fund (CMRF) with the objective to protect life during cyclone and to strengthen community based disaster preparedness, still there is further requirement of cyclone shelters to be constructed in villages within 10 K.M. of the seacoast, which are highly vulnerable to cyclones and storm surges.

Construction of cyclone shelters is an important component of the State Disaster Management Policy. Actual needs for cyclone shelters basing on vulnerability of the population and socio-economic condition of the locality have been assessed by independent and impartial studies conducted through a reputed institution like IIT, Kharagpur.

Project Area Description

Under this project, two stretches of Coastal Region has been identified as project area on the basis of their vulnerability to disasters.

i. Gopalpur- Chilika(including habitat Islands of Chilika lake)
ii. Dhamara- Paradeep

The **locations for cyclone shelters have been identified within 2-3 km of the coast**, because within this part of the coast line effect of saline ingress and tsunami is expected to be maximum.

As per the guidelines given by the Nodal Officers, State Project Preparation Cell, the Cyclone Shelters are to be constructed away the coast line of Paradeep – Dhamra and Gopalpur- Chilika (including habitant islands of Chilika within 2 KM of Coast line). These areas are most vulnerable to cyclone, storms surge as well as surge due to earth quake.

In these areas, very poor fishermen mostly occupy and there is almost no pucca building (Cyclone & Storm surge resistant) available.

The areas are not connected with all weather roads as a result communication facilities during flood and cyclone are not there. As such preference is given to

lake under this programme as detailed below. Land particulars and coordinates have been furnished in **Annexure-I**

Sl No	Name of District	Name of the block	Name of GP	Name of the village	Location school	Built up area
	Dhamara to Paradeep					
1	Kendrapara	Rajnagar	Brahmansahi	Pentha	U.P.School	2000
2	Kendrapara	Rajnagar	Talachua	Manjuapalli	U.P.School	2000
3	Kendrapara	Mahakalpada	Barakanda	Petachhela	U.P.School	2000
4	Kendrapara	Mahakalpada	Batighar	Badatubi	U.P.School.	2000
	Gopalpur to Chilika					
5	Ganjam	Khallikote	Kanaka	Samalanasi	Side of High School, Samalnasi	2000
6	Ganjam	Ganjam	Sana Ramachandrapur	Madhurchuan	U.P. School, Madhurchuan	2000
7	Puri	Krushnaprasad	Alanda	Jamuna	U.P. School, Jamuna	2000
8	Puri	Krushnaprasad	Titipa	Titipa	Women's College, Titipa	2000
9	Puri	Krushnaprasad	Alanda	Alanda	High School, Alanda	2000
10	Puri	Krushnaprasad	Badajhad	Jharkota	M.E. School, Jharkota	2000
11	Puri	Krushnaprasad	Badajhad	Khirisahi	U.P. School, Khirisahi	2000
12	Puri	Krushnaprasad	Satapada	Baghamunda	Gadibrahma Primary School	2000
13	Puri	Krushnaprasad	Badanala	Khatiakudi	U.P. School, Khatiakudi	2000
14	Puri	Krushnaprasad	Nuapada	Gurubai	Panchayat M.E. School, Gurubai	2000
						28000

Site-specific detailed assessment has been furnished in separately bound booklets. Capacity of the shelter buildings have been decided as per the Survey report of IIT, Kharagpur and funds allocated in this scheme. Actual requirement of shelters is much more as per the present population. Hence 15% growth of population has not been considered at present. Additional requirement of shelters at the locations suggested will be taken care of by OSDMA from other funds later on.

Project Phasing and Finance

Programme of implementation of the project

1st year –Survey, Soil exploration, Social mobilization and site selection	6 months
Invitation of bid and finalisation of tender, Drawal of agreement and issue of work order	3 months
2nd year – Construction of approach road, cyclone shelters up to ground floor roof	3 months 2 years
3rd year Completion of the project and capacity building activities	

PART-1- FEASIBILITY REPORT

A- Physical features

Orissa has a long coastline of 480 kms along the Bay of Bengal. It is situated in the East Coast of India between 17^0 49'N to 22^0 36'N Latitude and 81^0 36'E to 87^0 18'E Longitude. The state is intercepted by peninsular river systems like Subarnarekha, Budhabalang, Brahmani, Baitarani, Mahanadi, Rushikulya and Vansadhara, apart from a number of tributaries and distributaries. Out of total 480 Kms the project area covers two stretches of coast that is (1) Gopalpur to Chilika (including habitant islands of Chilika) and (2) Paradeep to Dhamara. These two stretches cover 94 Kms and 98 Kms respectively.

Chilika is the biggest lagoon along the east coast of India, situated between latitudes 19 ^{0} 28 'and 19 ^{0} 54 ' "N " and longitude 85 ^{0} 38 " "E ". It covers Puri, Khurda, Nayagarh and Ganjam districts of Orissa, separated from Bay of Bengal by a sand bar, whose width varies from 100 meters to 1.5 Kms. Chilika has an area of 900 SqKm in Summer and 1100 SqKm in Rainy Season. This implies that the average tidal flood over run on the coast could be very small, the coast line being more than 150 Kms. A 32 Km long narrow outer channel connects the main lagoon to the Bay of Bengal near village Arakhakuda. The lagoon is pear shaped with a linear maximum length of 64.3 Kms and the mean width during Summer and monsoon being 14.08 Kms and 18.10 Kms respectively.

The tides in this region is semidiurnal based on the predicted tide levels for Paradeep. At open sea, the average spring tidal range is about 2.39 m and neap tidal range is about 0.85 m. The measured tide inside the lagoon at Datapada, shows that the tides, in this region are characterized by a mixed type which is predominantly semidiurnal. The tide range at Satapada was neap tides. The measurements however showed that the mean water level increased from 0.125 m to 0.415 m between neap and spring tides.

There are a number of islands inside the Chilika lagoon. Besides a number of villages are sandwiched between two big water bodies that is the lake and the Bay of Bengal. Hence the vulnerability of the area to different disasters increases due to geographical and physical features

B- Economic Features

Nearly 85% of Orissa's population (3,12,10,602) live in the rural areas and depend mostly on agriculture for their livelihood. Another major avenue for livelihood in this coastal area is fishing. People depend on sea and rivers for fishing.

The State has abundant mineral resources including precious and semi-precious stones. It has also plentiful water resources. Planned exploitation and optimum utilization of rich natural resources like mineral, land, water and other including human resources holds the key to rapid economic development of the State.

The Gross State Domestic Product (GSDP) at constant prices (1993-94) of Orissa has increased from Rs. 18,536.66 crore in 1993-94 to Rs. 25,539.01 crore (quick estimate) in 2002-03, registering an annual compound growth rate of 3.62 percent over the period. Similarly, the Net State Domestic Product (NSDP) commonly known as State Income increased from Rs. 16,184.88 crore in 1993-94 to Rs. 21,861.91 crore (quick estimate) in 2002-03 at 1993-94 at 1993-94 prices. The per capita income at constant prices (1993-94) has been estimated at Rs. 5,836.00 in 2002-03 against Rs. 4,896.00 in 1993-94. At constant (1993-94) price, GSDP at factor cost is likely to attain a level of Rs. 28,254.89 crore during 2003-04 as compared to Rs. 25,539.01 crore (quick estimate) during 2002-03. As against the Tenth Plan target growth rate of 6.2%, the growth rates during 2002-03 and 2003-04 were respectively 0.52 percent and 10.63 percent.

The state has a high concentration of Scheduled Caste (16.20%) and Scheduled Tribe (22.21%) population (38.41%) as per 1991 Census. Besides, 48.01 % of population in rural areas and 42.83% in urban areas live below the Poverty Line.

People living in the project area are mostly dependent on agriculture, fishing and allied activities. They earn their livelihood only from these sources. However frequent and recurring disasters affect their economic condition adversely.

C- Existing Services Status

As the economic condition on the people of the locality is very poor most of the population are having only temporary houses such as mud-wall with sloped roof is their with thatching or tiled which are very highly prone to cyclonic disasters. Nominal permanent structure of assist rule are available in this area and during any cyclonic disasters most of the villages don't have a safe space of shelter and as such the construction of the cyclone shelter is very much essential so as to save their lives. Since these areas are located within 2-3 km from the coastline these are most vulnerable and to the cyclone and the minimum requirement of these villages are provision of safe shelter building to save their lives. As per the 1991 sinces about 80% of houses in these areas made of mud house, bamboo, thatch, grass and leaf which are under high damage this group. As the area is very coast the coast line RCC structure with raised platform of atleast 3-5 m above the existing ground level is essential to save lies of the villages from cyclonic disasters.

As such construction of such cyclone shelter is therefore very much essential in this coastal belt to at least save the life of the villagers. In this area even facilities of drinking water and electric supply etc. are almost not available and the shelters which will have this facilities may also be utilized during the normal period by this poor villages.

D- Planning aspects

- **Feasible Alternative Plans**

Availability of such shelter space is not their in these locality only some single story permanent structure available but these will not be safe for occupation during heavy cyclone when the water level will be much high thus there is no other alternative plan than to construct such new cyclone shelters to save the lives of the people in the locality. Considering the population of the existing village and 1-2 neighboring villages within a distance of 2.25kms (travel time) is to be design. No other alternative arrangement is feasible to save the lives of the people.

- **Broad Economic Analysis and Financial Impacts**

Besides estimation of the housing damage risk, the other socio economic vulnerability factors also need attention from the disaster managers. It is seen that the people below poverty line, the fisherman families who are mostly coastal inhabitants, the primary workers, single women families, disabled persons, the children in the age group of 0-6 years and the aged are some of the most vulnerable population to be affected by cyclones. They have neither the minimum capacities to withstand the damage nor they have the economic support to recover from the losses incurred in the hazards and come to normalcy as far as the securities of the basic living needs are concerned. Similarly the other economic and institutional vulnerability remains with the grass root level institutional infrastructure done at the community and panchayat level such as dispensaries, primary schools, village road, orchards and plantation areas, standing kharif crops which constitute the backbone of the rural economy and community support system. Very often the village road networks get affected which deprive the communities isolated from the supply and linkage network. The limited community and panchayat level resources can hardly be sufficient for restoration and the problem continues as a vicious cycle.

These cyclone shelters will function as socio-economic hubs at the village level. During normal time these shelters can be used as community halls, training centers, schools etc. The cyclone shelter as well as the all weather approach road will cater the economic need of the community, by providing connectivity to the nearest market place.

The project aims at constructing 28,000 SqFt of safe shelter space with a total cost of Rs.13.89 crore only. It aims at saving lives of around 14,000 people @ 2 SqFt standing space per person during disasters. Human life is precious. Actual cost of saving 1 life can not be evaluated monetarily.

Since the buildings will be located close to the sea, these will have exposure to saline conditions. Hence continuous maintenance is a factor to be concerned with. However, care has been taken to use corrosion resistant steel, slag cement and considering the design of severe condition. All RCC structures will be designed considering severe condition as per BIS Specification. Hence maintenance cost will be minimum. The shelter will be put to economic uses

during normal times by the community and nominal earnings from the activities can be used for normal maintenance.

- **Environmental and Social screening of the project:**

Social and environmental screening as per the World Bank format was done for each proposed site. CRZ mapping along with field verification has been done to ascertain if any of the project sites is coming under CRZ restrictions. Environmental and social issues will be identified through the screening process and if any potential issue is identified, the same will be suitably addressed in site specific Environmental Management Plans (EMP) and Social Management Plans (SMP).

- **Environmental Screening**

Implementation of the project will not have any bearing on ecology and environment of the locality. Since the buildings will be constructed in vacant government lands it will not involve any displacement of people or disruption of any economic activity. All the shelters will be constructed outside the Coastal Regulation Zone and ecological sensitive area. The project area is not included in any proposed developed area. The design and constructions will be consistence with the surrounding landscape. The construction activity will involve only minor building foundation excavation which will be filled up with sand after the construction. The project will not also influence the flora or fauna of the locality in any way.

Since the project involve the construction of cyclone shelters and the same will be used as schools during normal times, it will not involve any hazardous activities, storage or use of any harmful substances or any waste emission. The detail of environment impact assessment study has been attached herewith as **Annexure- II**

- **No Environmental Pollution:**

The project activities under the ICZMP will not generate any pollutant which will cause air, water or land/ environmental pollution. Since the project does not involve any activity

- ***Land acquisition and Impact on existing or proposed land use***

The proposed Cyclone Shelters are on Govt./ community lands and are inside the existing school premises. There is no land acquisition as such involved

The connecting Roads to Cyclone Shelters proposed in ICZMP are not new constructions but only involve raising and strengthening of the existing roads. As such, there is no land acquisition involved. While proposing the development of these roads, adequate attention is being paid to the natural flow of water and drainage. There is no scope for change in land-use pattern.

The Saline Embankments proposed in ICZMP are not new constructions but only raising/ strengthening and gap filling of the existing saline embankments. Provision for adequate number of sluices has been made to regulate the ingress and drain out surplus inland water. No land acquisition is involved. Hence the land use pattern in the locality will not change.

- ***Impact on existing biodiversity***

The CRZ mapping is being done to ascertain if any of the project sites is coming under these protected zones with reference to bio-diversity. After the screening, the project activities will be taken up with sufficient precautions, so that these doesn't affect the biodiversity of the locality.

- ***Impact on existing infrastructure***

The Cyclone Shelters will create a network of disaster infrastructure. The connecting roads with a standard of all-weather connections will provide access ot these Safe Shelters during emergencies and will act as arterial roads leading to betterment of infrastructure conditions in the localities during normal times. The top of the proposed embankments had been designed as communication roads in these remote areas.

Thus, the project instead of adversely affecting the infrastructure will actually create a network of improved infrastructure.

- **Sanitation and waste management**

Provision of adequate number of latrines with septic tanks facilities is being made in the cyclone shelters. Utmost care will be taken to maintain sanitation during the shelter of the people. Adequate steps will be taken for sanitation purposes for the labour during construction period.

- ***Problems related to leachate***

Drinking water facilities will be provided to the cyclone shelters by digging deep tube-wells. During digging of the tube-wells the ground water will be tested in the laboratory as regards the problems related to leachate. If any problem is identified sufficient corrective steps will taken to maintain purity of the drinking water.

- ***Effective utilization of natural resources like water, soil etc.***

Through the provision of the saline embankments, the project aims at controlling the saline water ingress into the agricultural lands, so that the top soil fertility of the land is not reduced. During construction works, no wastage of water will be ensured.

- **Impact on water availability or water quality**

Since the project sites are in coastal areas, potable water is available in plenty. Neither the construction process not the infrastructure created through the project will affect the availability or the quality of the water in the locality.

- **Noise levels**

The project involves normal construction of building, road and embankment works. The construction process will not create noises beyond the permissible decibel levels.

- **Removal of top soils/ soil erosion**

The project will not result in any soil erosion. Construction of cyclone shelters has no scope for resulting in erosion of top soil. Construction of saline embankments will not result in soil erosion, rather it will protect the area from saline ingress. Conversely this will protect top soil fertility of the agriculture land and soil erosion.

- **Use of hazardous/ toxic raw material**

Since the normal construction practice will be followed for cyclone shelters, roads and embankment no hazardous and toxic raw material will be used.

- **Open dumping of construction debris**

No construction debris will be left at the construction site. All the waste and debris materials will be utilized for leveling and site development purposes.

- **Inflow/ migration of labour**

The construction process will not involve any large scale inflow or migration of labour. The requirement of labour can mostly be met from the locality itself.

- **Aesthetic beauty of the site**

Aesthetic beauty of the proposed site will not be affected due to the project. In state steps will be taken to develop the surrounding of the cyclone shelter site through plantation to be taken up by the community based Cyclone Shelter Management and Maintenance Committee.

- **No over utilization of water**

Since all the projects will be taken up in the costal districts where potable water is available in abundance, water will not be over utilized during the process of construction.

- **No alteration of drainage pattern**

Care has been taken to select the project sites in such a manner that it does not affect the natural flow of water or the drainage pattern of the locality. In respect of construction or rural roads and saline embankment sufficient number of vintages has been provided to ensure the normal drainage pattern in the locality.

- **Social Screening:**

Implementation of the project will not have any bearing on ecology and environment of the locality. Since the buildings will be constructed in vacant government lands it will not involve any displacement of people or disruption of any economic activity. The project will not also influence the flora or fauna of the locality in any way.

Since the project involve the construction of cyclone shelters and the same will be used as schools during normal times, it will not involve any hazardous activities, storage or use of any harmful substances or any waste emission. Social Screening as per the World Bank format will be conducted in the locality to assess the impact of the project. Grama sabhas (village community meetings) were organized on following dates for community consultation:

1. Baghamunda of Puri District – 04.05.2009
2. Jamuna of Puri District – 14.05.2009
3. Alanda of Puri District – 14.05.2009
4. Samalpasi of Ganjam District – 14.05.2009

The local community has overwhelmingly participated in the consultation process and was unanimous about non existence of any adverse impact. The detail of social impact assessment study has been attached herewith in a separate booklet.

- **Over view of institutional issues and capacity building required**

Management and Maintenance of cyclone shelters: OSDMA experience

OSDMA has constructed 114 cyclone shelters in the six coastal districts of the State, out of which 40 are from the World Bank funding. To ensure community ownership of the building and public participation in its management and maintenance, all the buildings have been handed over to the community based Cyclone Shelter Management and Maintenance Committees (CSMMC). The practice will be followed in all the proposed shelters under the project.

Salient features

1. Cyclone shelters are handed over to community based CSMMCs.
2. CSMMCs are registered under the Societies Registration Act, 1860.
3. Buildings are used for school and other community purposes during normal time
4. Buildings are put to economic uses and user's fee is collected by CSMMC.
5. All the funds are placed in Joint Accounts opened for the purpose in a Nationalized Bank.
6. A number of shelter equipment are supplied to the Cyclone shelters.
7. Task forces are constituted at shelter level for different tasks.
8. All the members of CSMMC and Task Forces are imparted training on disaster management techniques.

Constitution of CSMMC:

The CSMMC is constituted through a Gram Sabha (Community meeting) convened at the instances of OSDMA by the local BDO. The meeting is held in presence of representative of OSDMA and the local BDO and other officers. The CSMMC consists of both government and private members. Local Block Development Officer, Tahasildar, Medical Officer, Revenue Inspector, ANM, Anganwadi worker, Head master of the school in the campus of which the MCS has been constructed, Junior engineer / Asst Engineer of the block/ RD

related to relief, rehabilitation and reconstruction will be the Ex- officio members of the society. The private member will be selected/ nominated by the General Body i.e.two representatives each from the shelter village, served villages and hamlets, NGOs, SC & ST / Women representatives, Disaster Management Teams and SHG representatives etc.Total strength of the CSMMC including government members is ideally twenty.

Objectives:

The main objectives of the CSMMC are

1. To manage and maintain the Multipurpose Cyclone Shelter (MCS) constructed by Orissa State Disaster Mitigation Authority (OSDMA) as a caretaker to the community asset on behalf of OSDMA and the community.
2. To ensure safe custody of the building and the equipment supplied/ to be supplied from time to time.
3. To keep the building in readiness for use as shelters by the evacuated persons during the disaster, to facilitate its use as shelter during the disaster and to vacate the same after disaster.
4. To ensure lawful use of the building during normal time, to put it on income generating use and collect funds for maintenance and to carry out actual minor repair work as per the rule out of the fund and maintain the records as per rules.
5. To ensure participation of the vulnerable community including the shelter village and served villages in disaster preparedness activities and in management and maintenance of the MCS.
6. To organize community based capacity building activities like workshops, seminars, training programme on disaster related skills, padayatra etc to sensitize, involve and to strengthen the community.
7. To develop a spirit of voluntarism among the youth of the community and to organize them into different task forces, strengthen their capacity and ensure their participation in disaster management.
8. To disseminate disaster warning and preparedness safety tips in the

9. To establish and maintain relation with field level officials of different departments of Govt., VDMC members and NGOs for better preparedness and management of activities during disaster.

Executives of the CSMMC

1. Block Development Officer of the concerned block will function as the Ex-officio President of the CSMMC.
2. Sarapanch of the Gram Panchayat of Shelter Village will function as the Ex-officio Vice-President of the CSMMC.
3. One representative of the vulnerable community, selected by General Body or in case of urgency nominated by the President, will function as the Secretary of the CSMMC.

Use of the Building

The cyclone shelters will be used to provide shelter to the vulnerable people during disasters like cyclone/ flood etc. Most of the multipurpose cyclone shelters have been constructed in school premises, so that the buildings can be used as class rooms during normal time. The Multipurpose cyclone shelters will also be used as a hub of social activities in the local community like a Community hall for socio- cultural gatherings. Besides, the CSMMCs have been instructed to put the buildings to economic uses and collect user fees at the nominal rates decided by the CSMMC. The user fees so collected will be deposited in the joint account and will be spent for the day to day maintenance of the building. However, the building cannot be used anti-social, anti-national, communal or political activities. Similarly, the building cannot be given on rent for permanent or longer period. As providing shelter to vulnerable people during disasters is the first priority, any contract for use of the building for any other purposes including economic uses stands cancelled suo motu the moment a disaster warning is received and the building will be vacated immediately.

Financial Guidelines

1. The CSMMC will be registered under the Societies Registration Act 1860.
2. A joint Account in the name of the Secretary and President of the CSMMC will be opened in the local Nationalized Bank

3. Funds provided from Govt. sources for maintenance of multi purpose cyclone shelters and funds generated by the maintenance committee will be deposited in the joint account of the CSMMC and will be spent for the purpose as per the guideline of the funding source with approval of the President and supported by the Resolution of the Committee. Secretary of the CSMMC can keep up to Rs.500/- cash in hand for day to day maintenance/ cleaning etc. works.
4. For minor repair works Secretary of CSMMC with prior approval of the committee will propose individual repair item with an expenditure not exceeding Rs. 1000/-. The work can be taken up with approval of president of the committee.
5. The repair / maintenance works could be taken up either departmentally or by engagement of contractors with active cooperation of members of the committee and local public. Members of CSMMC will be required to supervise the repair works to ensure its quality.
6. All payments more than Rs. 500 will be made through Cheques. Cheques will be issued with the joint signature of secretary and president of the CSMMC.
7. The committee will prepare a tentative budget of income and expenditure on probable repair works for the cyclone shelter in the month of January/February.

Income generation activities by CSMMC

1 The meeting of CSMMC will sit at least once in a month to ascertain physical and financial position of the building. The committee will prepare a tentative budget for the entire financial year in the month of January/February of the preceding year keeping in view the possible income and repair works to be undertaken.

2 The committee will decide the rate of hire charges of the building for different purposes as a matter of principle once in a year before the start of the financial year.

3 The committee can accept donations from individuals and organizations for maintenance and improvement of the shelter only through cheques/demand drafts drawn in favour of the committee for which money receipt will be given under the signature of the secretary. The amounts will be entered in a register and the money will be deposited in the joint account of the committee.

Shelter Equipment:

A number of shelter equipment have been provided to the cyclone shelters constructed by OSDMA. The equipment include generator sets, inflatable tower lights for night time disaster management, power saws, search and rescue equipment, First-Aid kit, free kitchen utensils, totaling more than 40 items. List attached as **Annexure- IV.**

Task force:

Task Forces on Search & Rescue and First Aid have been formed in the cyclone shelters and training on the techniques has been imparted to the volunteers through Civil Defense Organization and St John Ambulance respectively.

Corpus fund for maintenance:

CSMMCs will be entrusted with maintenance of MCS. The committee will collect suitable maintenance fees from the users by putting them to use for social functions and community based cultural activities. The CSMMC will not need assistance for 1st 5 years. After 5 years the Committee will be self sufficient to maintain the building.

For sustainable maintenance of the shelter buildings, it is proposed that a Corpus Fund for Rs.200000/- for each shelter will be created and the money will be deposited in the name of the CSMMC in a fixed deposit scheme with a LOCK-IN system. Only the interest accrued from it on annual basis will be spent for the purpose of maintenance. The committee cannot withdraw the principal amount for a minimum period of 10 years and without prior permission of OSDMA. They can only utilize the annual interest accrued on the deposit and can spend along with the users fees collected towards maintenance of the MCS.

Capacity building

Capacity building of the officials involved in construction, management and maintenance of the cyclone shelter will be required at two levels.

1) For the officials involved in construction-one workshop at the state level.

2) For the members of Cyclone Shelter Management and Maintenance Committees (CSMMCs) and disaster management teams- several rounds of training programmes will be organized.

Part II-DETAILED PROJECT REPORT

A. Designs

The shelters will be designed to withstand wind velocity of 300 KM per hour and **roof live load of 500 Kg. per square meter as per IS: 875.** It will be designed as **earthquake resistant** also. The foundation will be normally with under **reamed pile and the pile cap will be below the ground level** so that the piles will be free from scouring. The piles will be designed as per **IS : 2911**. The foundation depth will depend on the type of soil and accordingly soil exploration will be taken up before finalizing the foundation design. The super structure will be of RCC frame and interior and exterior walls including the toilet sickroom etc. will be with **K.B. Brick walls painted with waterproof cement paint.** The **design of the RCC column and beams will be as per IS code 456/2000** considering "severe condition" as these shelters will be located in the coastal belt with saline influence.

Slag cement and corrosion resistant steel will be used to resist the saline action. All RCC works will be with M30 concrete with adequate cover as per "severe condition". Plastering etc. will be with **cement mortar 1:4 mix**. Grading Plaster with water proofing compound over **2 coats of polimer paint** will be provided over RCC roof. Mild slope in the roof will be done for proper drainage of the rainwater.

All weather connectivity to the shelter- The shelters will be connected with all weather roads.

Standard drawings of 2000 capacity shelter building is placed below:

B. Project Cost, Cost Tables, Estimate & Bill of Quantities

Bill of Quantities					
Construction of Multi-Purpose Cyclone Shelter Building under World Bank funding Package No._____ Electrical Works					
Sl. No.	**Description of Work**	**Unit**	**Quan-tity**	**Rate in Rs.**	**Amount in Rs.**
1	**Wiring**				
1.1	Wiring to light, exhaust fan, ceiling fan & 5 A plug points with 1.5sqmm PVC insulated 1100 volt grade multistranded copper conductor wire for phase, neutral & earth continuity conductor and loop earth to fitting & fixture run inside 2mm thick PVC conduit pipe recessed in wall/ column/ ceiling of the building including supply of materials such as flush type switches, sheet metal switch board with bakelite cover, wire, ceiling rose, angle / batten holder, junction box etc complete with making good the damages caused as required and as per direction of Engineer-in-charge.				
(a)	Single light point controlled by one 5A switch or first light point of group control.	Nos	46.0		
(b)	Subsequent light point in group control.	Nos	18.0		
(c)	Ceiling fan point with supply & fixing of ceiling fan hook made of 10mm steel round bar. (Space shall be provided for installation of electronics type stepped fan regulator)	Nos	14.0		
(d)	Exhaust fan point	Nos	2.0		
(e)	5A plug on same board	Nos	12.0		
(f)	5A plug on separate board	Nos	5.0		
1.2	Supply, delivery, installation & testing of 5/15 A plug boards consisting of a 15 amp flush type switch and plug socket fixed on sheet metal switch board including interconnections and making good the damages caused complete as required and as per direction of Engineer-in-charge.	Nos	1.0		

1.3	Wiring for **circuits & submain** with following number & sizes of PVC insulated 1100 volt grade multistranded copper conductor wire run inside 2mm thick PVC conduit pipe recessed in ceiling/ column/ walls of building including supply of all materials such as wires, conduit, junction box & pull box etc complete with making good the damages caused as required and as per direction of Engineer-in-charge.				
(a)	2 numbers single core 2.5 sqmm copper wire for phase & neutral and 1 number single core 1.5 sqmm copper wire for earth continuity conductor.	Metre	200.0		
(b)	2 numbers single core 4.0 sqmm copper wire for phases & neutral and 1 number single core 2.5 sqmm copper wire for earth continuity conductor.	Metre	5.0		
1.4	Supply & fixing of telephone outlet boards containing a flush type telephone cord outlet fixed on sheet steel box including laying of PVC conduit pipes only and making good the damages caused complete as required and as per direction of Engineer-in-charge.	Nos	1.0		
1.5	Supply & fixing of TV antenna socket outlet boards containing a flush type type TV antenna socket fixed on shet steel box including laying of PVC conduit pipes only and making good the damages caused complete as required and as per direction of Engineer-in-charge.	Nos	1.0		
2	**Cable:-**				
2.1	Supply, laying & testing of following size of PVC insulated, PVC sheathed, round/strip armoured aluminium conductor power cable of 1100 volt grade clamped on surface of wall/ column/ existing RCC/ stone ware/ masonry cable trench/ cable trey/ through G.I. pipe/ hume pipe as the case may be, including cost of saddles/ clamps/ markers etc but excluding the cost of G. I. pipe/ hume pipe and cable end termination compete with making good the damages caused and returning the balance unused cables to stores as required and as per direction of Engineer-in-charge.				

(a)	2 core x 6 sqmm AYWY (For power supply to Pump)	Metre	40.0		
2.2	Supply of materials and making end termination with brass double compression cable glands and bi-metallic crimping type cable lugs for PVC insulated & PVC sheathed aluminium conductor armoured power cable of 1100 volt grade of the following sizes complete as required and as per direction of Engineer-in-charge.				
(a)	2 core x 6 sqmm AYWY (For power supply to Pump)	Nos	2.0		
3	**Distribution Boards**				
3.1	Supply, delivery, installation, testing & commissioning of L.T. indoor wall mounted type meter boards made out of 1.6-mm thick CR sheet metal cubicle, duly acid treated for derusting, primered and painted with 2 coats of enamel paint of approved shade; having tamper proof locking and sealing arrangement; provision for cable/ conduit entry, earthing studs as per specification mentioned below duly factory wired conforming to the relevant ISS and as per special conditions of contract making good the damages caused complete as per the direction of Engineer-in-charge.				
(a)	**Meter Board:-**				
	1 No 10-40A three phase 4 wire 415 volt tested KWH meter in separate tamper-proof enclosure with 3 Nos.32A, 415V rewireable fuse for phases including meter loop connection to MDB complete in allrespect.	Set	1.0		
(b)	**Main Distribution Board (MDB):-**				
	Incoming: 1 No 32 Amp FP Change-Over switch followed by 1No.32A FP MCB				
	Busbar: 4 Nos 50A, 500V Electrolytic copper strips				
	Outgoing: 18 Nos 6-10A Amp SP MCB				
	1set: LED type R-Y-B phase indicating lamps with control fuses	Set	1.0		
4	**Earthing**				

4.1	Supply of materials and installation of pipe earth electrode made out of 50mm dia class B G.I. pipe of 3.0 metre long with arrangements for fitting/ termination of G.I. flat / wire with G. I. nut bolts & washers including cost of burnt wood charcoal, salt, foreign soil, water pouring arrangements, brick masonary enclosure on top with removable RCC cover complete with labour for excavation of pit in all kinds of soil & rock as required and as per direction of Engineer-in-charge.	Nos	2.0		
4.2	Supply of materials and laying under ground / floor / wall including making end termination and testing of 6 swg G.I. wire for loop earthing of equipments, switch boards & panels as required complete as per direction of Engineer-in-charge.	Metre	50.0		
5	**Fittings & Fixtures**				
5.1	Supply, delivery, installation and testing of following types of incandescent bulb fitting on wall/ ceiling/ column of building including supply of 60 watt GLS lamps, complete fitting and making connection from the suitable point outlet complete as required and as per the direction of Engineer-in-charge.				
(a)	Incandescent bulb of required wattage not exceeding 60 watt on existing angle holder/ batten holder	Nos	6.0		
(b)	Bulk head fitting complete with cast aluminium base plate, porcelain holder, glass cover, wire mesh guarding with locking arrangement suitable for use with 60 watt GLS lamp	Nos	12.0		
(c)	225mm dia ceiling flush fitting with 115 mm projection complete with milky glass drum, chromium plated/ anodised aluminium base plate of suitable size, bulb holder etc suitable for use with 60 watt GLS lamp similar to DECON Cat No 03AS or equivalent.	Nos	15.0		

5.2	Supply, delivery, installation and testing of following types of fluorescent tube fixtures directly on wall / ceiling of building with all accessories such as copper ballast, lamps, stove enamelled box, perpex sheet cover etc complete assembly including supply & fixing of teak wood round block and making connection from the suitable point outlet as per the direction of Engineer-in-charge.				
(a)	1 x 40 watt box type fitting similar to Philips Catalogue No - TMC 501/ 136 HPF	Nos	11.0		
5.3	Supply, delivery, installation & testing of all types of fluorescent tube fixtures to be suspended from the ceiling of building by providing 2 numbers 16 swg m.s. conduit down rods upto 600 mm long with wall sockets complete with all accessories such as copper ballast, glow starter, power factor improvement condensor and fluorescent tube lights, stove enamelled box, perpex sheet cover etc complete assembly including supply & fixing of m.s. conduit down rod, ball sockets, making connection from suitable point outlet, making good the damages caused complete as required and as per direction of Engineer-in-charge.				
(a)	1 x 40 watt box type fitting similar to Philips Catalogue No - TMC 501/ 136 HPF	Nos	20.0		
5.4	Supply, delivery, installation and testing of following sweeps of a.c. ceiling fan complete with fan blades, down rod, canopies, capacitor etc including supply of sundry materials, making connection from the suitable point outlet but excluding cost of fan regulator complete as required and as per the direction of Engineer-in-charge.				
(a)	1400 mm sweep	Nos	2.0		
(b)	1200 mm sweep	Nos	12.0		
5.5	Supply, delivery, installation & testing of 300W electronic type stepped fan regulator fixed on existing sheet metal switch board including interconnections and making good the damages caused complete as required and as per direction of Engineer-in-charge.	Nos	14.0		

5.6	Supply, delivery, installation & testing of 300mm sweep, 900 rpm exhaust fans suitable for operation at 250 volt, 50 Hz, a.c. supply complete with a set of propeller blade, tripod leg for mounting of motor, ring frame, blades, gravity louvre complete assembly including making hole of suitable size for housing of exhaust fan, making connection from suitable point outlet, making good the damages caused complete as required and as per direction of Engineer-in-charge.	Nos	2.0		
				Total in Rs:	

Cyclone Shelter Building under World Bank funding- Electrical Works

Sl. No.	Items in brief	Unit	Qty.	Rate in Rs.	Amount in Rs.
1	Wiring to light point	Rm			
2	Wiring to fan point	Rm			
3	Wiring to exaust fan point	Rm			
4	Wiring to plug point	Rm			
5	Tube light	Nos			
6	Ceiling Fan	Nos			
7	Exaust fan	Nos			
8	angle holder	Nos			
9	D.P. Main switch	Nos			
10	T.P.N. Main switch	Nos			
11	T.P.N. Main switch	Nos			
12	S.V. Lamp	Nos			
13	Earthing	Rm			
14	Wiring to sub-main 2 x 25	Rm			
15	Wiring to sub-main-2 x 4	Rm			
16	Wiring to sub-main 2 x 10	Rm			
17	B.D.B.				
18	Service connection	Rm			

C. Economic and Financial Analysis

These cyclone shelters will function as socio-economic hubs at the village level. During normal time these shelters can be used as community halls, training centers, schools etc. The cyclone shelter as well as the all weather approach road will cater the economic need of the community, by providing connectivity to the nearest market place.

The project aims at constructing 28,000 SqFt of safe shelter space with a total cost of Rs.13.89 crore only. It aims at saving lives of around 14,000 people @ 2 SqFt standing space per person during disasters. Human life is precious. Actual cost of saving 1 life can not be evaluated monetarily.

For every loss of life in a disaster Rs. 1.00 lakh is normally paid as ex-gratia to the next of the kin of the deceased. At a conservative estimate, cost of ex-gratia for 14,000 people whose lives are likely to be saved comes to-

14,000 x 1,00,000=140.00 core per year

The average life span of a building is about 100 years. So the total economic benefit involved in it goes up to several thousand crores.

D. Environmental & Social Assessments

The implementation project will not have any bearing on ecology and environment of the locality. Since the buildings will be constructed in vacant government lands it will not involve any displacement of people or disruption of any economic activity. All the shelters will be constructed outside the Coastal Regulation Zone and ecological sensitive area. The project area is not included in any proposed developed area. The design and constructions will be consistence with the surrounding landscape. The construction activity will involve only minor building foundation excavation which will be filled up with sand after the construction. The project will not also influence the flora or fauna of the locality in any way.

Since the project involve the construction of cyclone shelters and the same will be used as schools during normal times, it will not involve any hazardous activities, storage or use of any harmful substances or any waste

emission. The detail of environment impact assessment study has been given at **page-11 to 14.**

Social Assessments

Since the project does not involve any land acquisition of private land and any displacement of any men and material no R & R Plan, land acquisition plan and schedule will be required. The detail of social impact assessment study has been given at **page-11 to 14.**

Details of community consultations and agreements

No community consultation or agreement is to be made because the project does not involve any acquisition of private and community property. The location of the shelter building will be within the premises of existing school buildings. During normal times the building will be used for school activities.

E. Implementation Arrangement & Schedule

i) Proposed implementation management process

The Project will be implemented by the Orissa State Disaster Mitigation Authority under the overall supervision of the Project Steering Committee in close coordination with the Government Departments concerned and the Collectors of the coastal districts. The Executive Engineer of Line Department / PSUS Govt. of Orissa will function as "Engineer". He, as well as his technical staff will look to the day-to-day supervision of the quality and quantity, as was done for the World Bank funded OWRCP works. Necessary field tests as per the specification are to be conducted by the contractor and entered in the register. The supervising staff of line department will check the register and they may also conduct some of the tests themselves to satisfy about the correctness.

ii) Quality control procedure**s**, third party checking requirements, need for hiring consultants

Quality Monitoring Consultants will be engaged by the OSDMA, who will be senior Engineers having experience in such type of work. These consultants

will visit the site and check the quality themselves from time to time. They will also test check themselves the materials, compaction etc. with the help of the technical assistants provided to them. Engineers and consultants of OSDMA will function as the 3rd audit check. Before any payment is released on the works measured, quality is to be ascertained through consultants of OSDMA. Managing Director, OSDMA will sanction any deviation, extra items etc. if required. The National Council for Cement and Building Materials may be engaged to have further check wherever is felt necessary by M.D., OSDMA.

The arrangement followed earlier for the World Bank funded cyclone reconstruction project shall be adopted for this project.

iii) Implementing Agencies- Roles and Responsibilities

The site engineers of OSDMA will be looking after the day today works at site including maintenance of Site Registers Quality Control Registers etc. The Executive Engineers of Works Department working in OSDMA will supervise the construction works and ensure that proper quality is maintained and required tests are conducted in the field and some times they will conduct field tests at site to verify and satisfy themselves that the works are qualitative The Executive Director (Projects) OSDMA will function as 'Engineer' as per the contract He will also inspect the works and check the quality. The Engineering Consultants of OSDMA will inspect the sites and check the quality of the works and the field test Registers etc He will also conduct field tests to satisfy himself about good quality works. He may also suggest any deviation required as per site condition to the 'Engineer' The Managing Director OSDMA will be 'Employer' as per the contract, approve deviations, payment etc.

Measurements of all works will be taken and recorded by the site engineers, which will be check measured by the General Managers(Executive Engineers of Works Deptt.). The bills will be prepared by the Site Engineers and checked by the General Managers (Executive Engineers of Works Deptt.), before submission to the Executive Director (Projects). The Executive Director (Projects), before transmission to the finance division, obtain quality certificate

from the Engineering Consultant OSDMA (3rd party Quality audit). In the finance wing, bills will be checked by the auditors and then by the Accounts officer / Sr Accountant and finally by the Financial Advisor, of OSDMA and passed by the Employer. Further Internal Audit, Statutory Audit as well as External Audit are done regularly in OSDMA.

iv) Staffing Plan-

OSDMA has its own set of officers in all categories i.e. Administrative, engineering, financial and other ministerial staff. One shelter Coordinator has also been engaged to coordinate and facilitate site selection, social mobilization, formation of **Cyclone Shelter Management and Maintenance Committees (CSMMC)** and handing over and functioning of the shelter. The salaries and other administrative expenses will be charged from the project to the tune of the 5% of the project cost.

v) Procurement and implementation plans

All procurements will be done by inviting competitive bids as per the world bank norm. Qualification criteria of the bider will be fixed as per the type of agreement that is W1& W2. as per the requirement of each type of work. Bid evaluation committee will be formed in OSDMA for examination of the bids and bids will be accepted as per the recommendation of the evaluation committee.

vi) Implementation schedule

Selection of site, detail survey of site, preparation of site plan,	2 month
Soil exploration,	2 month
Finalisation of design	1 month
Preparation of detail estimate	1 month
Invitation of bid	1 month
finalisation of bid	1 month
Drawal of agreement	15 days
issue of work order	15 days

Construction of cyclone shelters up to ground floor roof and approach road,	2 years
Completion of the project and other miscellaneous activities including handing over	3 months
capacity building and IEC activities	3 years

F. O & M Planning

- **Operational Plans for assets designed**

Sustainable maintenance and management of MCS would be possible through community participation. Built along costal villages, MCS are likely to suffer more than the usual wear and tear due to their close proximity to the sea. Sustainable maintenance of these MCS can be ensured through active participation of the local communities in their management. Community-based management of MCS would strengthen people's sense of ownership necessary for sustainable management. Community participation in MCS management will also enable effective utilization of these facilities for community-based disaster preparedness activities. To ensure sustainable maintenance of these structures, community management teams will be formed and imparted managerial training. In this light, OSDMA has drawn its plans for formation and capacity building of community-based Cyclone Shelter Management and Maintenance Committees (CSMMCs).

- **Maintenance requirement & estimate of O & M costs**

Although these buildings are constructed near the coast line the damages will more due to saline action but the specification of construction have been strengthened by adopting principles of durable assets. There by the annual maintenance cost could be reduced to the minimum.

CSMMCs will be entrusted with maintenance of MCS. The committee will collect suitable maintenance fees from the users by putting them to use for social functions and community based cultural activities. Besides a Corpus Fund

@ 2.00 lakh per shelter will be provided to the CSMMCs to strengthen them for maintenance of the buildings. The CSMMC will not need assistance for 1st 5 years, after which they will be self sufficient to maintain the building. The Corpus Fund money will be deposited by OSDMA in fixed deposit schemes in the nearest Bank in the joint account of the CSMMC with a LOCK-IN system. The committee cannot withdraw the principal amount for a minimum period of 10 years and without prior permission of OSDMA. They can only utilize the annual interest accrued on the deposit and can spend along with the users fees collected towards maintenance of the MCS with proper accounting. A corpus fund of Rs.2.00 lakh per shelter has been provided in the project proposal.

The State Government/OSDMA will take up major repair & maintenance works as and when required. CSMMC will be entrusted with the duty of day to day normal maintenance. Detailed frame work etc. for O & M has been given at **page-15 to 20.**

- **Equipment & Tools**

A number of shelter equipment such as free kitchen utensil abstract about siren search and rescue kits etc. which will not equal any normal maintenance other equipments such as generator, submersible pump etc. which will required annual maintenance, will be covered under annual maintenance contract with the suppliers.

Skills to be built up, manpower to be hired, outsourcing contractors to be hired, systems to be established (MIS, accounting, asset management etc.)

OSDMA has experienced and expertise in constructing Cyclone Shelters. OSDMA has already constructed 97 Cyclone Shelters & is in process of constructing 41 more Shelters. Hence, no further skills to be built up. OSDMA will implement as well as maintain the assets with its existing technical manpower and the equipment will be maintained by the original suppliers as per the AMC (Annual maintenance contract).

The CSMMC will remaining charge of the management and maintenance of the building and equipment. The members of the committee will be trained on the accounting procedure, asset management who will furnish the reports to OSDMA and management information system will be maintained in OSDMA.

Financial Management Frame Work:– OSDMA has adopted a strong financial management system to account for and monitor the utilization of funds. An integrated computerized financial management system has been developed for the project. The tally double entry accounting system has been introduced w.e.f. 01.04.2003 in OSDMA. Further a detailed operation manual has been prepared which less down the ground rules for flow of fund, accounting including accounting for line departments, financial reporting standards & audit arrangement including the TOR of the auditors. This operation manual such as a guide to the accounting & operating staff.

Fund Flow and Disbursement Arrangement: - The funds flow directly from the funding agency to OSDMA. For all components the OSDMA does not

give any advances to the line departments. As per the procedure, on passing of the bills by the line departments, the line departments forward the necessary papers to OSDMA for release of payments through cheques. OSDMA prepares cheques in the name of Contractors & sends the cheques to the related line departments. The concerned line departments hand over the cheques to the contractors. The entire support for the payment is retained at OSDMA and these are subject to Audit.

Accounting Policies & Procedure :- The accounting system of OSDMA is maintained through Tally Accounting System which is entirely computerized. On the basics of the scrutiny & proposal by the project section headed by Executive Director (Project), the bills submitted are scrutinized by the Finance Branch. After that the Internal Auditor scrutinize the bills which are then recommended for payment. All the payments are released after the approval of Managing Director, OSDMA or competent authority.

The accounts are maintained through Tally Accounting System by computers. The cheques are generated after the entry of payment to the party. The cheques are signed by two Officers of OSDMA. The cheques are delivered to the parties or to the line departments after the receipt of the money receipt. Every payment is supported by the vouchers which are again scrutinized by the Internal Auditor.

Staffing and Capacity Building :- There are five persons in the Finance Branch of OSDMA, out of which there is One Deputy General Manger, (F&A), Two Accountant, One Junior Accounts Assistant and One Computer Operator. One Accountant maintains the entire computerized Tally Accounting System. The other Accountant scrutinizes the files for payment, maintains the stock register etc. The Accountant also scrutinizes the contract bills forwarded by line department and project section for payment. He is assisted by the Junior Accounts Assistance for scrutinize the bills. The computerized system & Tally accounting procedure help in the capacity building of the accounting procedures of OSDMA.

Financial Reporting :- The expenditures incurred under different projects are reported to the Govt. of India/ Financing Agency / Principals in regular interval. Further on the basis of the expenditure incurred under different projects the utilization certificates are submitted to Govt. of India / concerned Financing Agency. The progress report of the different works undertaken are also reported to Principal / Financial Agency in regular interval. The different financial activities and statements are reflected in the Annual Statutory Audit Report and also in the monthly Audit Report of Internal Auditor.

Internal Control Mechanisms: - The bills received from the line department are scrutinized by the project branch and finance branch of OSDMA before payment. The internal auditor scrutinizes the bills and examines whether the proposals for payment are according to the operation manual and guidelines. Further the expenditures are examined on monthly basis to see whether the expenditures are according to provisions or not.

Audit Arrangement: - OSDMA has got two types of Audit, namely, (i) financial audit, (ii) quality and procurement audits to verify that the activities financed under the component followed the eligibility criteria and are implemented in an efficient manner. These audit are conducted by independent auditors.

The statutory audits are completed by the statutory auditors appointed by OSDMA relating to a financial year. The objective of this audit of financial management system is to express a professional opinion on the financial position of OSDMA of the funds received and expenditure for the concerned accounting period as well as express an opinion on the Statement of Expenditure and give opinion that the books of accounts maintained reflect the financial transactions and provide the basis for preparation of financial statements of the OSDMA.

The internal auditors are appointed by OSDMA and they are involved in the day to day financial activities of OSDMA. The internal auditors scrutinize the bills proposed for sanction and see whether the proposals are according to the operational manual and guidelines or not. They also scrutinize the payment

vouchers after payment. They submit the monthly internal audit report of the financial activities of OSDMA.

The A.G. audit party conducts the annual audit of OSDMA in regular basis and submit the Preliminary Objection Memos (P.O.M.). The compliances to these P.O.M.s are submitted to the audit party and discussion of the objection are also taken up at the presence of the audit party. Further the OSDMA also submit compliances to A.G. audit report and Public Accounts Committee whenever it is required.

- **Cost of O & M, revenue recovery plans, proposed tariffs, subsidy levels :**

As indicated in O & M Plan above at point F above. The cost of operation maintains will be obtain corpus fund, users fund etc. The revenue so collected from the users fund should be take into account as per proper procedure and all expenditure on the maintenance will be maintain with the CSMMC and OSDMA will check their accounting procedure etc. The tariff for the use of the shelter for different purposes at different location will be fixed by the CSMMC as per the local conditions and approved in their resolution. The subsidy if any, declared by Government from time to time will be given effect to.

G. Service Level Monitoring

A service level monitoring will be done by OSDMA by deputing respective technical officers. This system is at present followed and we have so far managing more than 100 Cyclone Shelters successfully. The same practice will continue for this project also.

No further monitoring requirement will be necessary and this can be managed with our existing system and manpower.

H. Capacity Building Requirements

For Capacity Building, the Officers of OSDMA may be deputed to IIT, Rurkee, Financial Management Institution, Hyderabad, exposure visit to Gujarat, Andhra Pradesh.

PART III – BID DOCUMENTS

SECTION 1: INSTRUCTIONS TO BIDDERS

Table of Clauses

A- GENERAL

1. Scope of Bid

1.1 Executive Director(Projects), Orissa State Disaster Mitigation Authority (OSDMA), Bhubaneswar (referred to as Engineer in these documents) invites bids for the construction of works detailed in the table given in IFB. The bidders may submit bids for any or all of the works detailed in the table given in the IFB.

1.2 The scope of work prescribes the construction of Cyclone Shelter Buildings under ICZM, Package No._____/.

1.3 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.

2. Source of funds

2.1. Fund is to be met out of World Bank.

3. **Eligible Bidders**

3.1 This invitation for Bids is open to all bidders from the eligible contractors as defined under Orissa Contractors Registration Act of Works Department from time to time.

3.2 All bidders shall provide in Section 2, forms of Bid and Qualification I nformation, a statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the project or being proposed as Project Manager for the contract.

3.3 Deleted

3.4 Bidders shall not be under a declaration of ineligibility of corrupt and fraudulent practices issued by the Bank in accordance with sub-clause 37.1(C)

3.5 No preference is allowed to such bidders who claim to be Engineer Contractor, or S.C. /S.T. Contractor, Labour Contract Society etc.

4 Qualification of the Bidder

4.1 All the bidders shall provide in section 2. Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

4.2 Deleted

4.3 All bidders shall include the following information and documents with their bids in section2.

(a) Copies of original documents defining the construction or legal status, place of registration and principal place of business, written power of attorney of the signatory of the bids to commit the bidder.

(b) Total monetary value of construction work performed for each of the last five years.

(c) Experience in work of a similar nature and size for each of the last five years, and details of works under way or contractually committed and clients who may be contracted for further information on those contracts.

(d) Major items of constructions equipment proposed to carry out the Contract.

(e) Qualifications and experience of key site management and technical personnel proposed for the Contract.

(f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's report for the past five years. (2001-2 to 2005-2006).

(g) Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources).

(h) Authority to seek references from the Bidder's bankers.

(i) Information regarding any litigation or arbitration resulting from contracts executed by the bidders in the last 5 years or currently under execution. The information shall include the names of the

parties concerned, the disputed amount, cause of litigation and matter in disputes; and

(j) Proposals for subcontracting components of the works amounting to more than 20 percent of the Contract price (for which the qualification and experience of the identified sub-contractor in the relevant field should be annexed).

(k) The proposed methodology of construction based with their, construction equipments planning & development, duly supported with broad calculation and quality control procedures proposed to be adopted, justifying their capability of achieving the completion of work as per milestones specified within the stipulated period of completion.

(l) Furnish valid, ITCC & STCC from competent authorities.

4.4 Deleted.

4.5.A. To qualify for award of the contract, each bidder in its name should have in the last five years. i.e. (2001-02 to 2005-2006)

(a) Achieved in at least two financial years a minimum annual financial turnover (in all case of Civil Engineering Construction works only) of Rs. _____.

(b) Satisfactorily completed (not less than 90% of contract value) as a prime contractor of at least one similar work of value not less than Rs. _____. (Pile, Brick masonry, R.C.C.)

(c) Executed in any one year, the following minimum quantities of work;

- Pile
- Brickwork
- R.C.C.

(d) The contractor or his identified sub-contractor should possess required valid electrical license for executing the building electrification works and should have executed similar electrical works totaling Rupees _____ in any one year.

(e) The contactor or his identified sub-contractor should possess required valid license for executing the water supply sanitary engineering works and should have executed similar water supply / sanitary engineering works totaling Rupees _____ in any one year.

@ at 2005-2006 price level, financial turnover and cost of completed works of previous year shall be given weight of 10 % per year based on rupees value to bring them to 2005-2006 price level.

4.5.B. Each bidder should further demonstrate:

(a) Availability (either owned or leased or by procurement against mobilization advances) of the following key and critical equipment for this work:

1. Truck / Trippers - 10T Capacity -
2. Concrete Mixture -
3. Concrete vibrator -
4. Power Road Roller -
5. Water Tanker -
6. Pump - 5 HP -
7. Vibratory roller -

Based on the studies, carried out by the Engineer the minimum suggested major equipments to attain the completion of works in accordance with the prescribed construction schedule are shown in the above lists.

The bidders should however, undertake their own studies and furnish with their bid, a detailed construction planning and

methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 4.3(k) above the allow the Engineer to review their proposals, The numbers, types and capacities of each equipment shall be shown in the proposals along with the cycle time for each operation for the given production to match the requirements.

(b) Availability of this work of a Project manager with not less than five years experience in construction of similar civil engineering works and other key personnel with adequate experience as required; and

(c) Liquid assets and / or Credit facilities of not less than **Rs. _____/**

(Credit lines / letter of credit/ solvency certificates from scheduled Banks for meeting the funds requirement etc.)

4.5 C. To qualify for a package of contract made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.6 Sub- contractor's experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria, except to the extent stated in Clause 4.5 (A) above

4.7 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under.

Assessed Available Capacity = (A*N*1.5-B)

Where

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to 2006-2007 level) taking into account the completed as well as works in progress)

N = Number of year prescribed for completion of the works for which bids are invited.

B = Value at 2006-2007 price level, of existing commitments and on-going works to be completed during the next 5/6 years (12 months)

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in Charge, not below the rank of an Executive Engineer or equivalent.

4.8 Even though the bidders meet the above qualifying criteria, they are subjected to be disqualified if they have:

- Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and /or
- record of poor performance such as abandon the works, not properly completing the contract, inordinate delays in completion, litigation history, financial failures etc and /or
- Participated in the previous bidding for the same work and had quoted unreasonable high bid prices and could not furnish rational justification to the Engineer.

5. One Bid per Bidder

5.1 Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one bid will cause all the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding

6.1 The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Engineer will in no case be responsible and liable for those costs.

7. Site Visit

7.1 The bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the works Any doubt regarding the bid document if it does not fulfill the site condition may be brought to the notice of Engineer in the pre bid meeting. The costs of visiting the site shall be at the Bidder's own expense.

B. Bidding Documents

8. Content of Bidding Documents.

8.1 The set of bidding documents comprises the documents listed in the table below and addenda issued in accordance with clause 10:

Section	Invitations for Bids
1.	Instructions to Bidders
2.	Forms of Bid and qualification information
3.	Conditions of Contract
4.	Contract Data
5.	Technical Specifications
6.	Drawings
7.	Bill of Quantities
8.	Forms of Securities

8.2 Of the three sets of the bidding documents supplied, two sets should be completed and returned the bid.

9. Clarification of Bidding Documents

9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Engineer in writing or by cable (herein after "cable" includes telex and facsimile) at the Engineer's address indicated in the invitation to bid. The Engineer will respond to any request for clarification, which he received earlier than 7 days prior to

the deadline for submission of bids. Copies of the Engineer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

9.2 Pre-bid meeting

9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at office of Orissa State Disaster Mitigation Authority, Rajiv Bhawan, Bhubaneswar on 07.02.2007 at 11.00 A.M.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that state.

9.2.3 The bidder is requested to submit any questions in writing or by cable to reach the Employer not later than five days before the meeting.

9.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in Sub-clause 8.1, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusive through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

9.2.5 Non- attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, the Engineer may modify the bidding document by issuing addenda.

10.2 Any Addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by, cable to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by cable to the Engineer.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Engineers shall extend as necessary the deadline for submission of bids, in accordance with the sub-clause 20.2 below.

C. Preparation of Bids

11. Language of the Bid

11.1 All documents relating to the bid shall be in the English language.

12. Documents comprising the Bids

12.1 The Bid submitted by the bidder shall comprise the following:

(a) The Bid (in the format indicated in Section 2)

(b) Bid Security

(c) Priced Bill of Quantities

(d) Qualification Information form and Documents

And any other materials required to be completed and submitted by bidders in accordance with these instructions. The documents listed under section 2,4 and 7 of Sub-Clause 8.1 shall be filled in without exception.

12.2 Bidders bidding for this contract together with other contracts stated in the IFB to form a package will so indicate in the bid together with any document offered for the award of more than one contract.

13. Bid Prices

13.1. The contract shall be for the whole works as described in Sub-Clause 1.1 based on the prices in the Bill of Quantities submitted by the Bidder.

13.2. The bidder shall fill in rates and prices and line item total (both in figure & words) for all items of the works described in the Bill of Quantities along with the total bid price (both in figure & words). Items for which no rate or price is entered by the bidder will not be paid for by the Engineer when executed and shall be deemed

covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.

13.3. All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid price submitted by the Bidder.

13.4. The rates and prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

14. Currencies of Bid and payment

14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

15. Bid Validity

15.1 Bids shall remain valid for a period not less than ninety days after deadline date after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Engineer as non-responsive.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Engineer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided as in 15.3 hereinafter. But will be required to extend the validity of his bid security for a period of the extension and compliance with clause 16 in all respects.

15.3 In the case of contracts in which the Contract price is fixed (not subject to price adjustment) in the event that the purchaser request and the Bidder agree to an extension of the validity period,

the contract price, if the Bidder is selected for award shall be the bid price.

15.4 Bid evaluation will be based on the bid prices without taking into consideration the above correction.

16. Bid Security

16.1 The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column 4 of the table of IFB for his particular work. This bid security shall be in favour of the **Orissa State Disaster Mitigation Authority and may be in one of the following forms which shall be valid up to 90 days from the date of opening of the bid .**

Bank Guarantee (In the prescribed format) **/ Bnaker's Cheque / Bank Draft** in favour of the Orissa State Disaster Mitigation Authority payable at Bhubaneswar in any Nationalised Bank / SBI or its associates.

. 16.2 Any bid not accompanied by an acceptable Bid security and not secured as indicated in Sub-clause 16.1 shall be rejected by the Engineer as non-responsive.

16.3 The Bid Security of unsuccessful bidders will be returned within 28 days from the acceptance of bid or end of the bid validity period specified in sub-clause 15.1 whichever is earlier.

16.2 The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required performance security.

16.3 The bid security may be forfeited.

(a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity

(b) If the bidder does not accept in the correction of the Bid price, pursuant to Clause 27; or

(c) In the case of successful Bidder, if the Bidder fails within the specified time limit to

(i) Sign the agreement; or

(ii) Furnish required performance security.

17. **Alternative Proposals by Bidders**

17.1. Bidders shall submit offer that comply with the requirements of the bidding documents, including the basic technical design as indicated in the drawing and specifications. Alternatives will not be considered.

18. **Format and Signing of Bid.**

18.1.1 The bidder shall prepare one original and one copy of the documents comprising the bid as described in Clause 12 of these instruction of Bidders, bound with the volume containing the form of Bid and clearly marked **"ORIGINAL"** and **"COPY"** as appropriate. In the event of discrepancy between them, the original shall prevail.

18.2 The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the bidder, pursuant to sub-clause 4.3. All pages of the bid where entries or amendments have been made shall be initialed by the person signing the bid.

18.3 The bid shall contain no alternations or additions, except those to comply with instructions issued by the Engineer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the persons signing the bid.

18.4 The bidder shall furnish information as described in the form of Bid on commissions or gratuities, if any paid or to be paid to agent relating to this Bid, and to contract execution if the Bidder is awarded the contract.

D. Submission of Bids.

19. Sealing and Marking of Bids.

19.1 The Bidder shall seal the original and copy of the Bid in separate envelopes, duly marking the envelopes as " ORIGINAL" and "COPY". These envelopes (called as inner envelopes) shall then be put inside one outer envelope.

19.2 The inner and outer envelopes shall

(a) Be addressed to the Engineer at the following address:

Managing Director, OSDMA

(b) Bear the following identification:

- Bid for the work: Construction of Cyclone Shelter Building, under World Bank funding package no.
- **Bid reference No. 2**
- **DO NOT OPEN BEFORE ----------**
- (Time and date for bid opening, per Clause 23)

19.3 In addition to the identification required in Sub-Clause 19.2, the inner envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late, pursuant to Clause 21.

19.4 If the outer envelope is not sealed and marked as above the Engineer will assume no responsibility for the misplacement or premature opening of the bid.

20. Deadline for Submission of the Bids.

20.1. Bid must be received by the Engineer at the address specified above not later than _____. In the event of the specified date for the submission of bids declared a holiday for the Engineer, the Bids will be received up to the appointed time on the next working day.

20.2 The Engineer may extend the deadline for submission on bids by issuing an amendment in accordance with Clause-10, in which case

all rights and obligations of the Engineer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21 Late Bids

21.1 Any Bid received by the Engineer after the deadline prescribed in Clause 20 will be returned unopened to the bidder.

22 Modification and withdrawal of Bids.

22.1 Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in Clause 20.

22.2 Each Bidder's modification or withdrawal notice shall be prepared, sealed, marked and delivered in accordance with Clause 18 & 19 with the outer and inner envelopes additionally marked **'MODIFICATION'** or **'WITHDRAWAL'** as appropriate.

a. No bid may be modified after the deadline for submission of Bids.

b. Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.

E. Bid Opening and Evaluation

23 Bid Opening

The Engineer will open all the Bids received (except those received late) including modifications made pursuant to Clause 22, in the presence of the Bidders or their representatives who choose to attend at _____ hours on the date and the place specified in Clause 20. In the event of specified date of Bid opening being declared a holiday for the Engineer, the Bids will be opened at the appointed time and location on the next working day.

Envelopes marked **'WITHDRAWAL'** shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 22 shall not be opened.

The Bidders' names, the Bid prices, the total amount of each Bid and of any alternative Bid (if alternatives have been requested or permitted), any discounts, Bid modifications and withdrawals, the presence or absence of Bid security, and such other details as the Engineer may consider appropriate, will be announced by the Engineer at the opening. Bid (and modification) sent pursuant to Clause – 22 that are not opened and read out at the bid opening will not be considered for further evaluation regardless of the circumstances. Withdrawn bids will be returned un-opened to bidders.

The engineer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Sub-Clause 23.3.

24. Process to be confidential

24.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other person not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Engineer's processing of Bids or award decisions may result in the rejection of his Bid.

25. Clarification of Bids

25.1 To assist in the examination, evaluation, and comparison of Bids, the Engineer may, at his direction, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm and correction of arithmetic errors discovered by the Engineer in the evaluation of the Bids in accordance with Clause 27.

25.2 Subject to sub-clause 25.1 no Bidder shall contact the Engineer on any matter relating to its bid from the time of bidding to the time

the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Engineer, it should do so in writing.

26. Examination of Bids and determination of Responsiveness.

Prior to the detailed evaluation of Bids, the Engineer will determine whether each Bid (a) meets the eligibility criteria defined in clause 3; (b) has been properly signed; (c) is accompanied by the required securities and;(d) is substantially responsive to the requirements of the Bidding documents.

A substantially responsive Bid is one, which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation, or reservation. a material deviation or reservation is one.

(a) Which effects in any substantial way the scope, quality, or performance of the Works.

(b) Which limits in any substantial way, inconsistent with the Bidding documents, the Engineer's rights or the Bidder's obligations under the contract; or

(c) Whose rectification would effect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

27. Correction or Errors

Bids determined to be substantially responsive will be checked by the Engineer for any arithmetic errors. Errors will be corrected by the Engineers as follows:

The amount stated in the Bid will be adjusted by the Engineer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the bid will be rejected, and the Bid security may be forfeited in accordance with Sub-Clause 16.6(b).

28. Deleted

29. Evaluation and Comparison of Bids.

The Engineer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 26.

29.2. In evaluating the Bids, the Engineer will determine for each Bid the evaluated Bid Price by adjusting the Bid price as follows:

(a) Making any correction for errors pursuant to Clause –27; or

(b) Making an appropriate adjustments for any other acceptable variations, deviations' and

(c) Making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub-Clause 22.5.

29.3 The Engineer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Engineer shall not be taken into account in Bid evaluation.

29.4 The estimated effect of the price adjustment conditions under Clause 47 of the conditions of contract, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.

29.5 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Engineer may require the Bidder to produce detailed price analyses for any or all items of the Bill of quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Engineer may require that the amount of the performance security set forth in Clause –34 be increased at the expense of the successful Bidder to a level sufficient to protect the Engineer against financial loss in the event of default of the successful Bidder under the contract.

30. Deleted

F. Award of Contract

31 Award Criteria

31.1 Subject to Clause 32, the engineer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3, and (b) qualified in accordance with the provisions of Clause –4.

31.2 If, pursuant to Clause 12.2 this contract is being set on a "slice and package" basis, the lowest evaluated Bids Price will be determined when evaluating this contract in conjunction with other contracts to be awarded concurrently, taking into account any discounts offered by the bidders for the award of more than one contract.

32. Engineer's right to accept any Bid and to reject any or all Bids.

32.1 Notwithstanding Clause 31, the Engineer reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Engineer's action.

33. Notification of Award and Signing of Agreement.

33.1 The bidder whose Bid has been accepted will be notified of the award by the Engineer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the conditions of Contract called the "letter of Acceptance") will state the sum that the engineer will pay the Contractor in consideration of the execution, completion, and

maintenance of the Works by the contractor as prescribed by the Contract (hereinafter and in the Contract called the Contract Price")

33.2 The notification of award will constitute the formation of the contract; subject only too the furnishing of a performance security in accordance with the provisions of clause 34.

33.3 The Agreement will incorporate all agreements between the Engineer and the successful Bidder. It will be signed by the Engineer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt the successful Bidder will sign the Agreement and deliver it to the Engineer.

33.4 Upon the furnishing by the successful Bidder of the Performance Security, the Engineer will promptly notify the other Bidders that their Bids have been unsuccessful.

34. Performance Security.

34.1 Within 21 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Engineer a Performance Security in any of the forms given below for an amount equivalent to 5 % of the Contract price plus additional security for unbalanced Bids in accordance with clause 29.5 of ITB and Clause 52 of condition of Contract.

- Bank Guarantee (In the prescribed format) / Banker's Cheque / Bank draft in favour of Orissa State Disaster Mitigation Authority in any Nationalised Bank / SBI or its associates payable at Bhubaneswar.

34.2 If the performance security is provided by the successful Bidder in the form of a bank Guarantee, it shall be issued by a Nationalized/Scheduled Indian Bank located at Bhubaneswar.

34.3 Failure of the successful Bidder to comply with the requirements of Sub- clause 34.1.Shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

35. Corrupt or Fraudulent Practices.

35.1 The Govt. of Orissa through the Orissa Disaster Mitigation Authority observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy the Government :

(a) Defines, for the purposes of this provision, the terms set forth below as follows:

(i) "Corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

(ii) 'Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Govt. of Orissa, and a includes collusive practice among the Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Govt. of Orissa of the benefits of free and open competition.

(b) Will reject a proposal for award if it determines that the Bidders recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.

(c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded in any of the contract under the State Govt. if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the said contract.

35.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 23.2 and Sub-Clause 59.2 of the Conditions of Contract.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

(a) **Workmen Compensation act 1923:** The Act provides for compensation incase of injury by accident arising out of and during the course of employment.

(b) **Payment of Gratuity Act 1972**: Gratuity is payable to an employee under the Act on satisfaction of certain conditions of separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

(c) **Employees P.F. and Miscellaneous Provision Act 1952: <u>The Act Provides</u>** for monthly contributions by the Engineer plus workers @ 10 % or 8.33%. The benefits payable under the Act are:

i) Pension of family pension on retirement or death, as case may be

ii) Deposit linked insurance on the death in harness of the worker.

iii) Payment of P.F. accumulation on retirement / death etc.

d) **Maternity benefit Act 1951:** the Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

e) **Contract Labour (Regulation & abolition) Act 1970:** the Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to establishments or Contractor of Principal employer if they employ 20 or more contract labour.

f) **Minimum Wages Act 1948:** The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. construction of Buildings, Roads, Runways are scheduled employments.

g) **Payments of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and female workers and for not making discrimination against Female employee in the matters of transfers, training and promotions etc.

i) **Payment of Bonus Act 1965:** The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs. 3,500/- per month or less. The bonus to be paid to employees getting Rs. 2500/- per month or above up to Rs. 3500/- per month shall be worked out by taking wages as Rs. 2500/- per months only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

j) **Industrial Dispute Act 1947:** The act lays down the machinery and procedure for regulation of industrial dispute, in what situation a strike or lock-out becomes illegal and what are the requirement for laying of or retrenching the employees or closing down the establishment.

k) **Industrial employment (Standing Orders) Act 1946:** It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.

l) **Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities

m) **Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other

occupations and processes. Employment of Child Labour is prohibited in Building and Construction industry.

n) **Inter-State Migrant workmen's (Regulation of Employment & conditions of Service) Act 1979:** The Act is applicable to an establishment, which employs 5 or more inter-state migrant workmen through an intermediary (Who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

o) **The building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay Cess at the rate not exceeding 2 % of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

p) **Factories Act 1948:** The Act lays down the procedure for approval of plans before setting up a factory, heath and safety provisions, welfare provision, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. it is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

3. SUB – CONTRACTING (GCC CLAUSE –7)

Please add the following as Clause 7.2

The Contractor shall not be required to obtain any consent from the Engineer for:

a) The sub-contracting of any part of the Works for which the sub-contractor's names are in the contract:

b) The provision of labour;

c) The purchase of materials, which are in accordance with standards specified in the Contract.

Beyond this if the contractor proposes sub-contracting any part of the work during execution of works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, the Engineer will consider the following before according approval.

- The contractor shall not sub-contract the whole of the works
- The contractor shall not sub-contract any part of the work without prior consent of the Engineer. Any such consent shall not relieve the contractor from any liability or obligations under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents or workmen.
- The Engineer should satisfy whether (a) the circumstances warrant such sub-contracting; and (b) the sub contractors so proposed for the work possess the experience, qualifications and equipment necessary for the job proposed to be entrusted to them in proportion to the quantum of work to be sub-contracted.
- If payments are proposed to be made directly to that sub-contractor, this should be subject to specified authorization by the prime contractor so that this arrangement does not alter the contractor's liability obligations under the contract.

4. ARBITRATION (GCC Clause – 25.3)

The procedure for arbitration will be as follows :

If over the works any dispute arises between the two parties relating to any aspects of this agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation and if it fails, an Arbitrator out of the panel of names

approved by OSDMA shall settle the dispute or difference. The dispute shall be settled in accordance with the Arbitration and conciliation Act 1996.

5. PROTECTION OF ENVIRONMENT

Add the following as GCC Clause 16.2

The contractor shall take all reasonable steps to protect the environment on and off the site and the avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his method of operation.

During continuance of the contract, the contractor shall abide at all times by all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye –laws, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

Salient features of some of the major laws that are applicable are given below.

The water (Prevention and Control of Pollution) Act, 1974. This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety or to domestic, commercial, industrial agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981. This provides for prevention, control and abatement of air pollution, Air Pollution means the presence in the atmosphere of any 'air pollutant' which means any solid, liquid or gaseous substance(including noise) present in the

atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The Environment (Protection) Act, 1986. This provides for the protection and improvement of environment and for matters connected therewith and the prevention of hazards to human beings, other living creatures. Plants and property. Environment includes water, air and land and the inter-relationship which exists among and between water, air and land and human beings, other living creatures, plants, Micro-organism and property.

The public liability Insurance Act,1991. This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental there to. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

Environmental impacts mitigation measures in the sole responsibility of the contractor as per action printed detailed in the annexure-6 (A) attached herewith.

6. INCOME TAX.

The contractor's staff personnel and labour will be liable to pay personal income taxes in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force and contractor shall perform such duties in regards to such deductions thereof as may be imposed on him by such laws and regulations.

7. VAT CLEARANCE CERTIFICATE

7.1 If the contractor is a VAT assessee, he should produce valid VAT clearance Certificate before the payment of final bill or otherwise the final payment to the contractor will be withheld.

PART IV

ANNEXURES & MAPS

ANNEXURE -I

DETAILS OF PROPOSED SITES FOR CONSTRUCTION OF CYCLONE SHELTERS UNDER ICZM.

Sl. No.	Name of the block	Name of GP	Name of the village	Area of land available	Location	Khata No.	Plot No.	Kisam	Geographic Coordinates	
									Latitude	Longitude
1	**Puri District**									
2	Krushnaprasad	Alanda	Jamuna	Ac.0.	U.P. School, Jamuna	3	459	Gochar, Anabadi	19°35'35.2"N	85°19'15.0"E
3	Krushnaprasad	Titipa	Titipa	Ac.0.200	Women's College, Titipa	404	231	Gochar	19°37'08.5"N	85°20'40.0"E
4	Krushnaprasad	Alanda	Alanda	Ac.0.146	High School, Alanda	143	1535	Anabadi	19°36'5.3"N	85°18'55.2"E
	Krushnaprasad	Badajhad	Jharkota	Ac.0.200	M.E. School, Jharkota	88	384	Godanda	19° 38' 00" N	85° 23' 12" E
5	Krushnaprasad	Badajhad	Khirisahi	Ac.0.200	U.P. School, Khirisahi	39	38	Puratan patita	19° 37' 43" N	85° 23' 53" E
6	Krushnaprasad	Badajhad	Baghamunda	Ac.0.465	Gadibrahma Primary School, Baghamunda	327	1530	Anabadi	19° 40' 36" N	85° 29' 14" E
7	Krushnaprasad	Badajhad	Khatiakudi	Ac.0.200	U.P. School, Khatiakudi	151	408	Gochar	19° 37' 47" N	85° 15' 16" E
8	Krushnaprasad	Nuapada	Gurubai	Ac.0.200	Panchayat M.E. School, Gurubai	231	224	Puratan patita	190 40' 26"N	850 24' 10"E
	Kendrapara District									
9	Rajnagar	Brahmansahi	Pentha	Ac.0.230	UP School	181 (R)	458	Rakhita	20° 32' 53" N	86° 46' 56" E
10	Rajnagar	Talchua	Manjuapalli	Ac.0.300	UP School	120 (R)	209	Rakhita	20° 44' 48" N	85° 57' 55" E
11	Mahakalpada	Barakanda	Patachhela	Ac.2.550	Near School.	206	804/ 1551	Patita	20° 22' 54" N	86° 39' 55" E
12	Mahakalpada	Batighar	Badatubi	Ac.5.120 Ac.2.150	Near School.	49	125 (P) 125 (P) 339	Gochar	20° 20' 03" N	86° 41' 16" E
	Ganjam District									
13	Khallikote	Kanaka	Samalanasi	Ac.1.000	Side of High School, Samalnasi	319	16	Bagayat	19° 34' 09.0"N	85°08'29.1"E
14	Ganjam	Sana Ramachandrapur	Madhurchuan	Ac.0.200	U.P. School, Madhurchuan	379	626	Gramakantha	19°30'02.6"N	85°07'9.6"E

ANNEXURE -II

ENVIRONMENTAL AND SOCIAL ASSESSMENT CHECKLIST

Features likely to be affected	Positive impact		Negative Impact		No Impact	Mitigation measures required or not
	Yes	Likely	Yes	Likely		
Forestry/Vegetation					✓	
Birds					✓	
Fisheries					✓	
Other wildlife/animals					✓	
Air quality					✓	
Noise environment					✓	
Water quality					✓	
Water availability					✓	
Soil quality					✓	
Landuse and topography					✓	
Drainage patterns					✓	
Sedimentation/erosion					✓	
Agriculture					✓	
Food production					✓	
Climate					✓	
Groundwater table					✓	
Industrialization					✓	
Housing (involuntary resettlement)					✓	
Employment/training					✓	
Income and livelihood					✓	
Other socio-economic activities					✓	
Health and safety					✓	
Communications					✓	
Historical/cultural monuments					✓	
Scenic views and vistas					✓	
Tourism					✓	

√ in appropriate column

1.1.2	Enclose a village map making the land proposed to be covered under the		Will be furnished after detailed Survey
1.2	Furnish land schedule of the surrounding plots.(in the proforma given under 1.1.1		Furnished separately in Annexure-I
1.3.1	Whether the required land is vacant		Within the School premises
1.3.2	If so, the type and extent of occupancy to be described		Not occupied
1.3.3	If there is any human settlement of the land or part of the land, if so the type of people residing their housed to be described.		No
1.3.4	Whether the project has a human resettlement plan for rehabilitation of the people occupying the area proposed to be covered, supply.		No
1.3.5	Whether the land or part of the land proposed to be covered is used for any economic activity or any other activity. Indicate the extent of such use and manner of compensation proposed, in the event of displacement of the people from the land.		No
2	Extent of fulfillment of Coastal Regulation Zone (as defined in the MEF notification dated 19th February,1991)		Not required as the cyclone shelters will be constructed away from CRZ
2.1	Whether there is any CRZ Management plan for Orissa.		Yes, Approved vide MoEF letter No. J-17011/11/92-IA-III dated 27th Sept,1996
2.1.1	If the proposed project is among the permissible activities under CRZ notification		No
2.1.2	If yes, quote the provisions of the CRZ notification		Does not arise
2.2	Whether the proposed project is located within ecologically sensitive and important area as defined in CRZ (Category-I) if so which		No
	Existing or proposed Marine parks		
	Existing or proposed Marine parks		
	Existing or proposed National parks		
	Existing or proposed Sanctuaries		
	Existing or proposed Reserve Forest		
	Existing or proposed Wild life habitat		
	Existing or proposed Mangrove Coral Reefs		

2.3	Whether the proposed project is located close to any of the following as defined in CRZ-1 (Category-I)		No
2.3.1	Breeding and spawning grounds of other marine life, if so the distance.		No
2.3.3	Historical heritage, if so the distance.		No
2.3.4	Area rich in genetic diversity, if so the distance		No
2.3.5	Area of outstanding natural beauty, if so the distance		No
2.3.6	Area likely to be inundated due to rise in sea lev3el consequent up to global warning declared by Central Government or concerned authorities of State Government		No such
2.4	Whether the proposed project comes under developed Area & classified as CRZII (Category) as defined in CRZ notification which includes areas that have already been developed up to or close to the shore line		No
2.4.1	Whether any building is proposed on the sea-ward side of the existing or proposed roads or seaward side of the existing structures.		No
2.4.2	Whether building on the landward side of the existing and proposed roads & existing authorized structures are in accordance with existing local town and country planning regulations. Give details.		No
2.4.3	Whether the project envisages reconstruction of the authorized building. If so whether it is in accordance with the existing FSI/FAR norm. Give details		No
2.4.4	Whether the design and construction are consistent with the surrounding landscape. Furnish details		Yes. Furnished inside.
2.5	Whether proposed project comes under CRZ-III(Category-III) of CRZ. Notification which includes areas which are relatively undistributed & which do not fall in Category I& II like Coastal zone in rural area developed & underdeveloped) and also areas within municipal limits or other legally designated urban areas which are not substantially built up. Describe.		No

2.5.1	Whether the project is located in coastal stretches of sea, boys estuaries, creeks which are influenced by tidal action (in the landward side) Give description and enclose a sketch on the coastal stretch locating the project.		No
2.5.2	Whether there is any proposed construction or excavation envisaged in the project in the land between LTL&HTL. List out such constructions/excavation indication the quantity of work & purpose.		No
2.5.3	Whether there is any proposed construction or excavation envisaged in the project within 200m. of HTL on the landward side. List out such construction/excavation indicating quantity of works and purpose.		No
2.5.4	Whether there is any proposed construction or excavation envisaged in the project in the land between 200m &500m of HFL on th3e land ward side. List out such construction /excavation indicating quantity of work and purpose.		No
2.5.5	Whether the project envisages construction /excavation activity in the land beyond 500m of HTL on the land ward side. List out such construction /excavation indicating quantity of work and purpose.		Foundation excavation, to be filled by R.C.C and sand etc.
3.	PROJECT DESCRIPTION		
3.1	Overall aim of the project		To provide safe shelter to the villagers at time any natural calamities.
3.2	The necessity for the project		-do-
3.3	Whether there is any alternative to the project which can serve the project's aim. If yes, give details, if so give reasons.		No.
3.4	Project period		Three years.
3.5	Details of the project including construction excavation etc. and the annual phases in which these have to be completed.		Given inside.
4.1	Total cost of the project		13.89 Crore
4.2	Source of funding		World Bank
4.3	Implementing agency		OSDMA
5.	Describe the activities of each component when the project is fully completed		The cyclone shelters will be utilized for accommodating the villagers as well as animals during flood storm surge.
	Landing & Approach Jetty		

	Auction & Packing hall		
	Workshop		
	Net mending shed		
	Road		Approach road from nearest existing road to the Cyclone Shelter
6.	What are the expected economic impacts of the project in the region and the extent of such impact		Socio-Economic growth in the locality
6.1	Direct impact		Prevent loss of life & property
6.2	Indirect impact		Economic Growth
7.	What are the anticipated beneficial social impacts or the project in the region and the extent of such impact?		Hub of social activities, also can be used as School
7.1	Direct impact		School Building for education of the nearby villagers
7.2	Indirect impact		Economic & social grouping
7.3	The target community which would benefit most from the project		Villagers
8.	What are the adverse environmental impacts of the project?		Nil
8.1	Whether the activates at the project would have any effect on ec-sensitive and important areas as defined in CRZ(Category-I). If so the extent of such effect is to be spelt out.		No
8.2	Whether the activities at the project would have any effect on (a) breeding &spawning ground of fish or other marine life or cause & determent to any near by historical heritage and areas of outstanding natural beauty. If so the extent of such effect is to be spelt out		No
8.3	Whether the activities would produce any waste matter. The nature and volume of emissions of such waste matter per day.		No
	Solid		
	Semi-solid		
	Liquid		
	Gas		
	Rate of emission		
	Volume of emission per day.		
8.4	Whether there are any harmful substances present in the waste emissions. If so the nature of the harmful substances and the level of their concentration in emission		No
	Type of emission		
	Name of harmful substances		

	Level of concentration in the emission		
8.5	Likely effect of the wasted emissions on the outside plant and animal life.		Nil
8.5.1	Direct effect		
8.5.2	Indirect effect		
8.6	Manner of disposal of the waste emissions		Not required
8.7	Whether there is any provision for treatment of the waste emission before release into external environment. Give details in plan		Not required
8.8	Whether there is provision in the project for Environment Monitoring. If so, give details		Not required
8.9	Cost of Environmental monitoring plan		Nil

Executive Director (Projects)

ANNEXURE –III

Minutes of Discussion in the Gram Sabha held on 14.05.2009 at Primary School campus in village Alanda.

Below is the **TRANSLATED DOCUMENT** followed by the **SCANNED ORIGINAL** in the local Oriya language along with the signatures.

A community meeting (Gram sabha) was held on 14.05.2009 at 3.00 P.M. in the High School premises of village Alanda under the Chairmanship of local Ward Member to discuss about the construction of the Cyclone Shelter proposed under Integrated Coastal Zone Management Programme (ICZMP). Representatives of OSDMA and the villagers attended the meeting. In the meeting, the following decisions were taken.

1. The proposed Cyclone Shelter if constructed in the selected site, the villagers of Alanda and nearby villages will take shelter at the time of disaster.
2. Construction of the Cyclone Shelter will have no adverse impact on environment, historical sites, archeological site /monuments nearby.
3. There will be no adverse impact on life and livelihood of local inhabitants in any way, if the Cyclone Shelter and the connecting roads are constructed/ strengthened/ widened.
4. There will be no need for any land acquisition for this sub-project.
5. The selected site is free from encumbrances.
6. The villagers decided to extend all cooperation for construction of the shelter building and for management and maintenance of the shelter building.

Sd/-

PRI Members
Villagers

Social Consultation: Proceeding of the Grama-Sabha at Alanda on 14.05.2009 in Oriya

ସାଧାରଣ ବୈଠକ,
ଗ୍ରାମସଭା ବିବରଣୀ,

ସ୍ଥାନ- ହାଇସ୍କୁଲ ଘର
ତା ୧୪।୫।୦୯
ସମୟ ୩ ଘଟିକା

Shelter Co-ordinator
Orissa State Disaster Mitigation Authority

ଏତଦ୍ୱାରା ଅଲନ୍ଦା ଗ୍ରାମ ମଧ୍ୟସ୍ଥରେ ଗ୍ରାମବାସୀମାନେ ଆଜ ତା ୧୪।୫।୦୯ ରିଖ ଅପରାହ୍ନ ୩ ଘଟିକା ସମୟରେ ହାଇସ୍କୁଲ ଘରଠାରେ ସମସ୍ତେ ଏକ ବୈଠକରେ ଏକତ୍ରିତ ହୋଇ ନିମ୍ନ ଲିଖିତ ପ୍ରସ୍ତାବମାନ ସର୍ବସମ୍ମତି କ୍ରମେ ଗୃହୀତ କରାଗଲା। ଏହି ବୈଠକରେ OSDMA ର ପ୍ରତିନିଧିମାନେ ଯୋଗଦେଇ ଆଲୋଚନାରେ ଅଂଶ ଗ୍ରହଣ କରିଥିଲେ।

ପ୍ରଥମ ପ୍ରସ୍ତାବ - ବାତ୍ୟା ଆଶ୍ରୟସ୍ଥଳ ନାହିଁ ଆମ ଗ୍ରାମରେ ନିର୍ମିତ ହେଲେ ଆଶ୍ରୟସ୍ଥଳ ନିର୍ମାଣ ହେଲେ, ଆମ ଗ୍ରାମ ଓ ଆଖପାଖ ଗ୍ରାମର ଲୋକମାନେ ବାତ୍ୟା ଓ ବନ୍ୟା ସମୟରେ ସମୁଦ୍ର ଆଶ୍ରୟ ନେଇପାରିବେ।

ଦ୍ୱିତୀୟ ପ୍ରସ୍ତାବ - ଏହି ଆଶ୍ରୟସ୍ଥଳ ନିର୍ମାଣ ହେଲେ ଆମ ଗ୍ରାମ ଓ ଆଖପାଖ ଗ୍ରାମର ପରିବେଶ, ପ୍ରାକୃତିକ ସ୍ଥିତି, ଜାତୀୟ ଉଦ୍ୟାନ ଏବଂ ସଂରକ୍ଷିତ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ସ୍ଥାନ ଉପରେ କୌଣସି ପ୍ରତିକୂଳ ପ୍ରଭାବ ପକାଇବ ନାହିଁ,

ତୃତୀୟ ପ୍ରସ୍ତାବ - ବାତ୍ୟା ଆଶ୍ରୟସ୍ଥଳ ନିର୍ମାଣ ଓ ଆଶ୍ରୟସ୍ଥଳକୁ ସଂଯୋଗ କରୁଥିବା ରାସ୍ତା ନିର୍ମାଣ କରାଗଲେ, ଏହି ଅଞ୍ଚଳର କୌଣସି ପରିବାର ବାସଚ୍ୟୁତ ହେବେ ନାହିଁ କିମ୍ବା ଲୋକଙ୍କ ଜୀବିକା ଉପରେ କୌଣସି ପ୍ରତିକୂଳ ପ୍ରଭାବ ପକାଇବ ନାହିଁ,

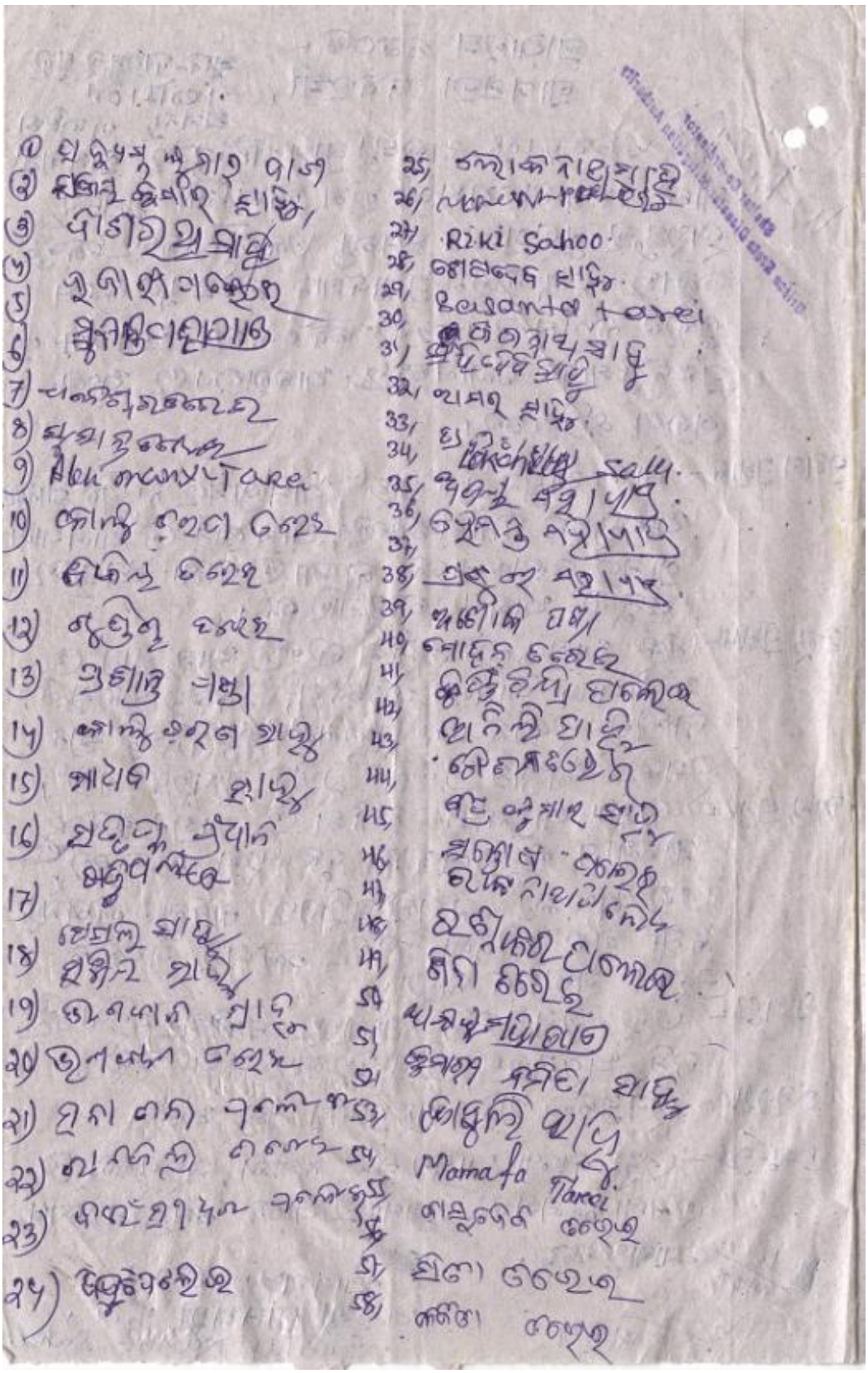
ଚତୁର୍ଥ ପ୍ରସ୍ତାବ - ଏହି ଉପପ୍ରକଳ୍ପ ନିର୍ମାଣରେ କୌଣସି ପରିବାରର ଜମି ଅଧିଗ୍ରହଣ କରିବା ଦରକାର ପଡ଼ିବ ନାହିଁ,

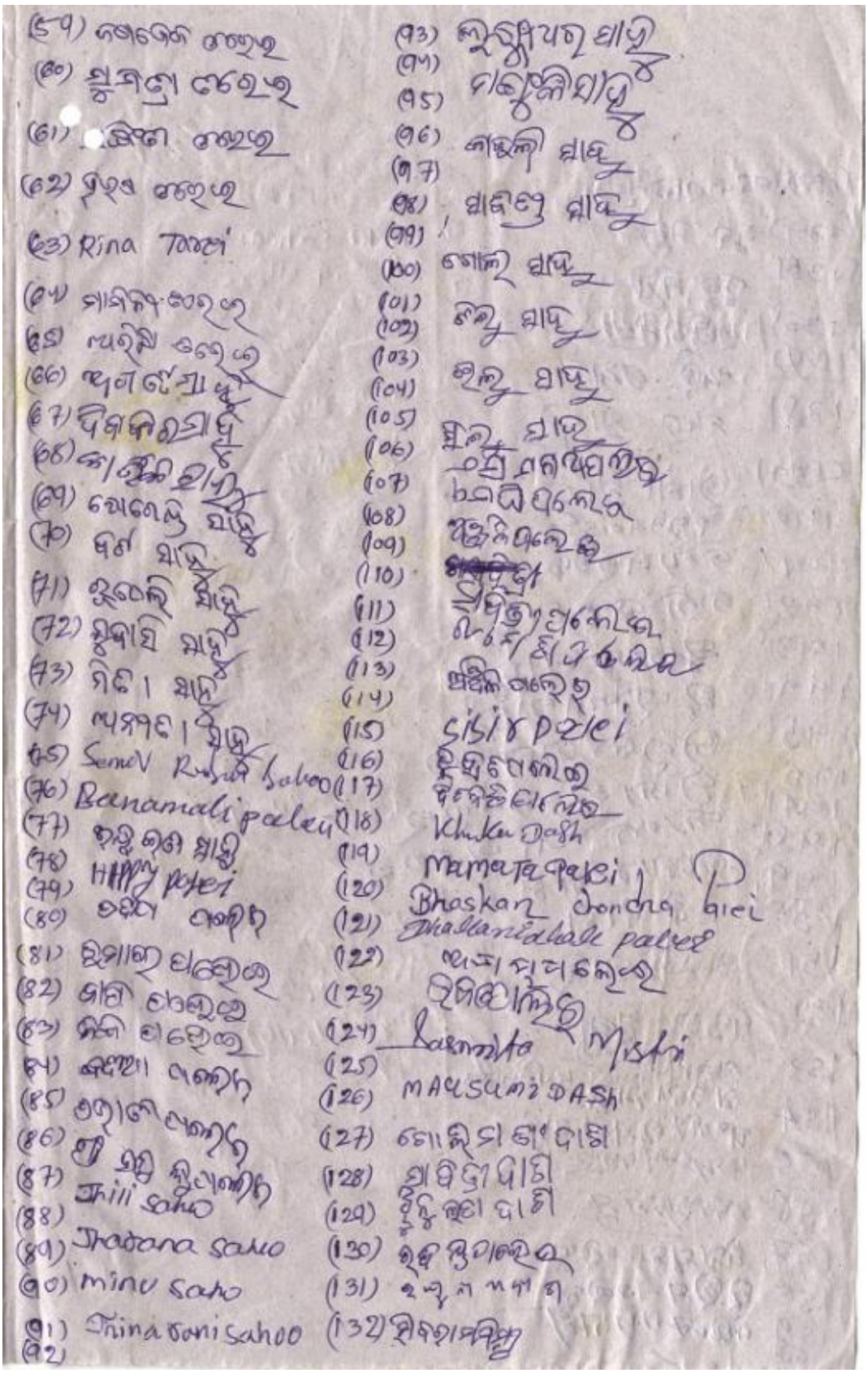
ପଞ୍ଚମ ପ୍ରସ୍ତାବ - ଉପପ୍ରକଳ୍ପ ସ୍ଥାନ ଅନୁପ୍ରବେଶ ମୁକ୍ତ ଅଟେ।

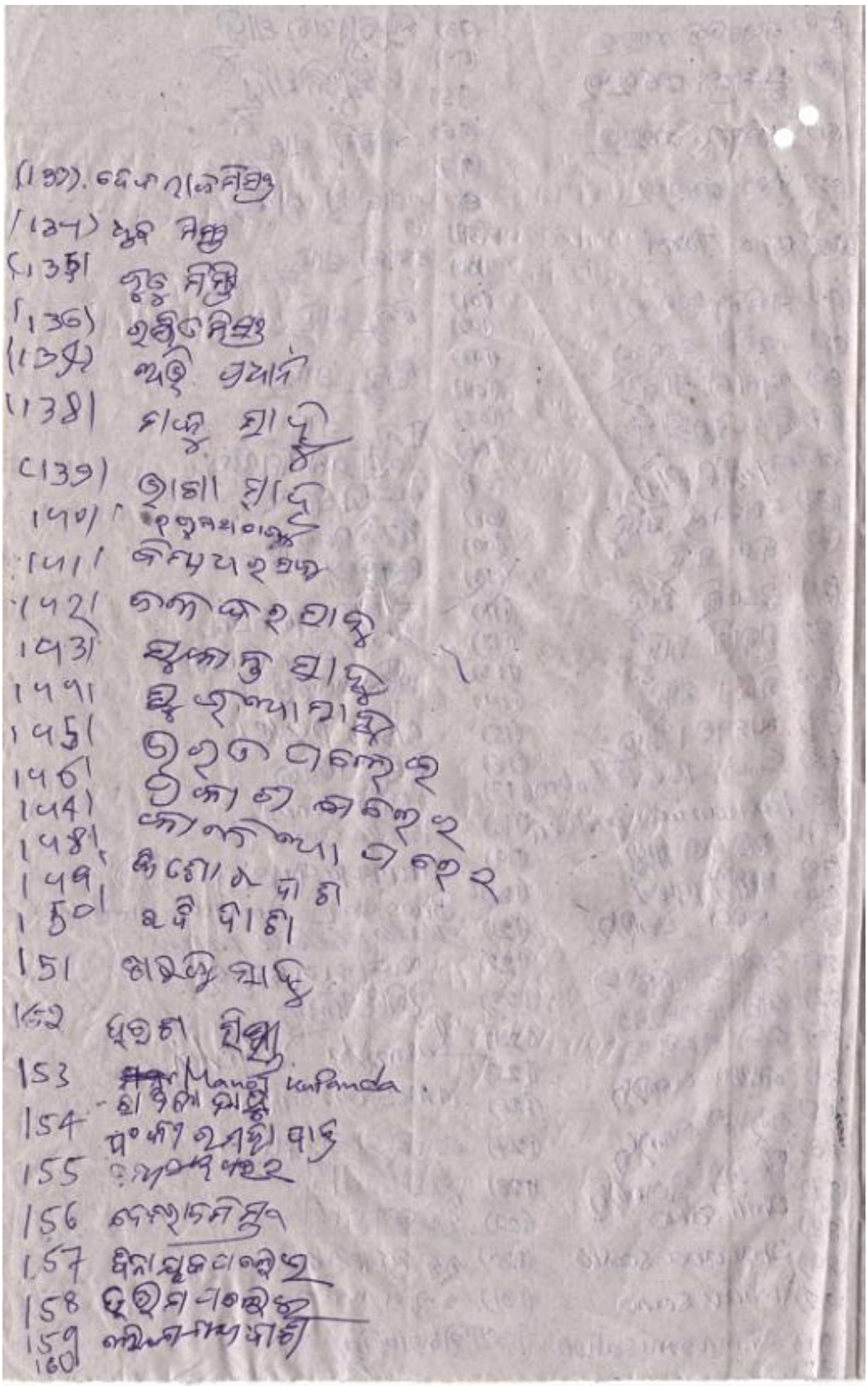
ଷଷ୍ଠ ପ୍ରସ୍ତାବ - ଏହି ବାତ୍ୟା ଆଶ୍ରୟସ୍ଥଳ ନିର୍ମାଣ, ପରିଚାଳନା ଓ ରକ୍ଷଣାବେକ୍ଷଣରେ ଗ୍ରାମବାସୀମାନେ ସମସ୍ତ ସହଯୋଗ ଯୋଗାଇ ଦେବେ।

ଇତି।
ଆପଣଙ୍କର ବିଶ୍ୱସ୍ତ
ଅଲନ୍ଦା ଗ୍ରାମବାସୀ ବୃନ୍ଦ,
Sudhir Kumar Sahoo

14/5/09







Minutes of Discussion in the Gram Sabha held on 14.05.2009 at U.P. School campus in village Jamuna.

Below is the **TRANSLATED DOCUMENT** followed by the **SCANNED ORIGINAL** in the local Oriya language along with the signatures.

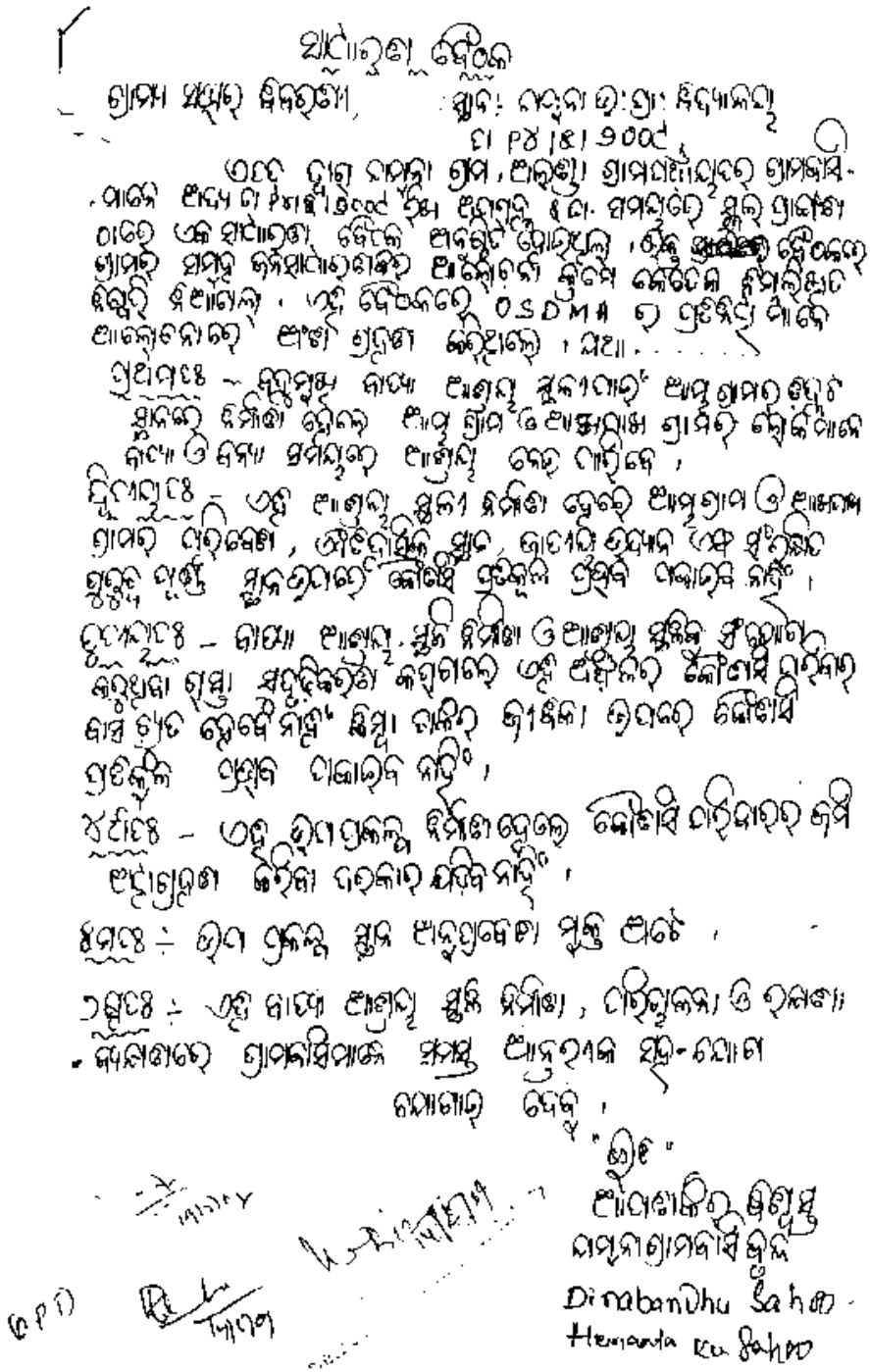
A community meeting (Gram sabha) was held on 14.05.2009 at 5.00 P.M. in the U.P. School premises of village Jamuna under the Chairmanship of local Ward Member to discuss about the construction of the Cyclone Shelter proposed under Integrated Coastal Zone Management Programme (ICZMP). Representatives of OSDMA and the villagers attended the meeting. In the meeting, the following decisions were taken.

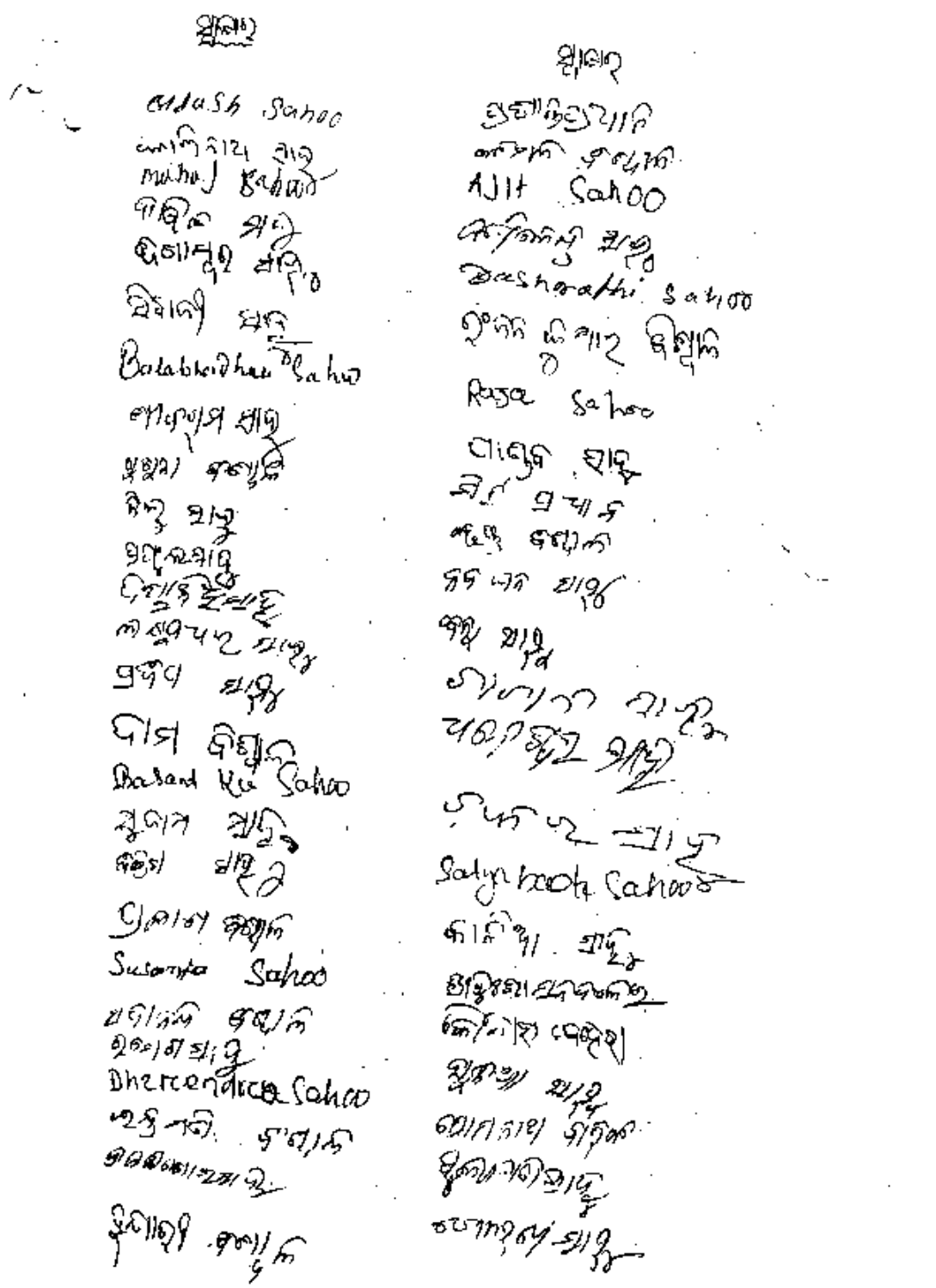
1. The proposed Cyclone Shelter if constructed in the selected site, the villagers of Alanda and nearby villages will take shelter at the time of disaster.
2. Construction of the Cyclone Shelter will have no adverse impact on environment, historical sites, archeological site /monuments nearby.
3. There will be no adverse impact on life and livelihood of local inhabitants in any way, if the Cyclone Shelter and the connecting roads are constructed/ strengthened/ widened.
4. There will be no need for any land acquisition for this sub-project.
5. The selected site is free from encumbrances.
6. The villagers decided to extend all cooperation for construction of the shelter building and for management and maintenance of the shelter building.

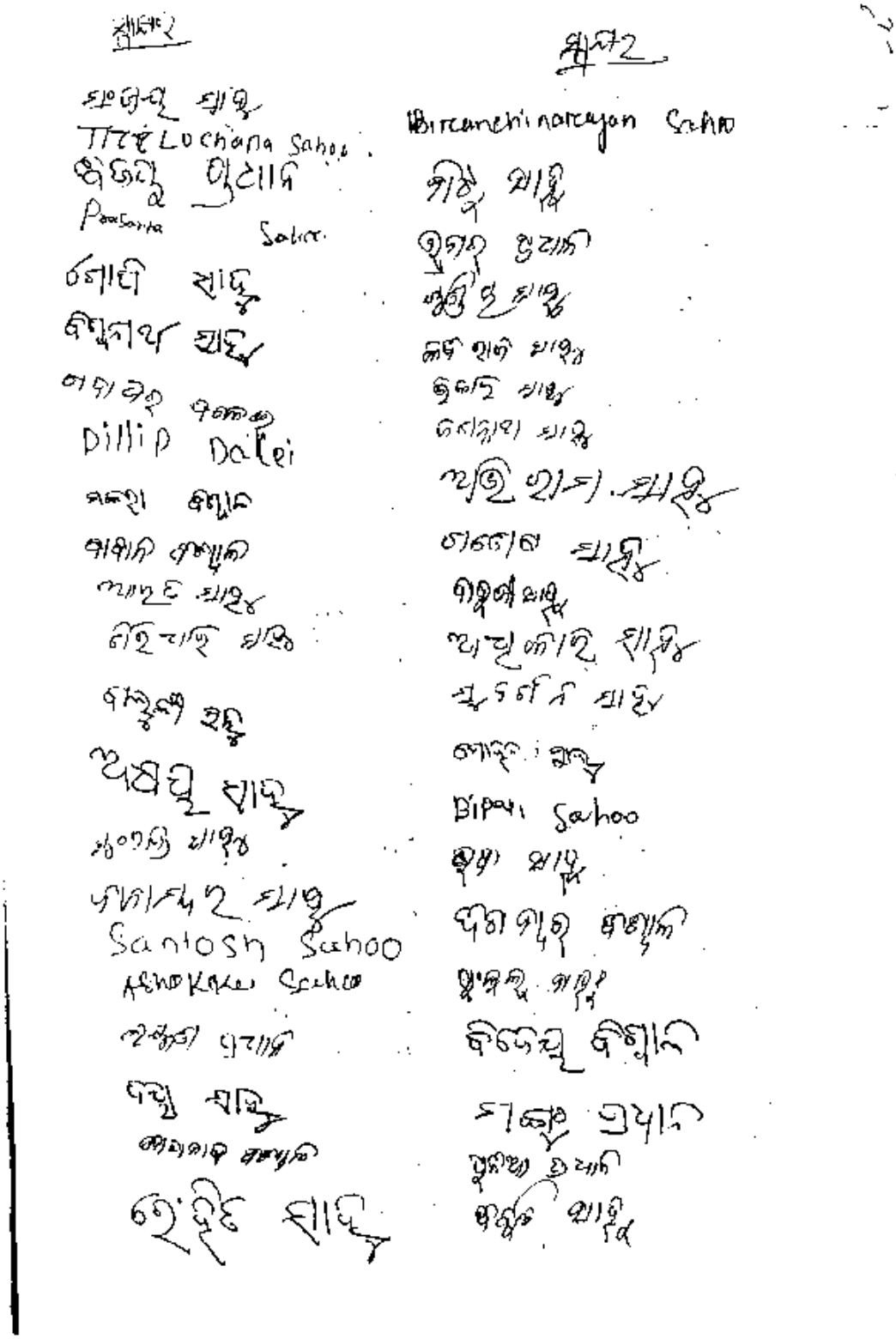
Sd/-

PRI Members
Villagers

Social Consultation: Proceeding of the Grama-Sabha at Jamuna on 14.05.2009 in Oriya







Minutes of Discussion in the Gram Sabha held on 14.05.2009 at U.P. School campus in village Samalanasi.

Below is the **TRANSLATED DOCUMENT** followed by the **SCANNED ORIGINAL** in the local Oriya language along with the signatures.

A community meeting (Gram sabha) was held on 14.05.2009 at 8.00 A.M. in the U.P. School premises of village Samalanasi under the Chairmanship of local Ward Member Sri Ananda Behera to discuss about the construction of the Cyclone Shelter proposed under Integrated Coastal Zone Management Programme (ICZMP). Representatives of OSDMA and the villagers attended the meeting. In the meeting, the following decisions were taken.

1. The proposed Cyclone Shelter if constructed in the selected site, the villagers of Alanda and nearby villages will take shelter at the time of disaster.
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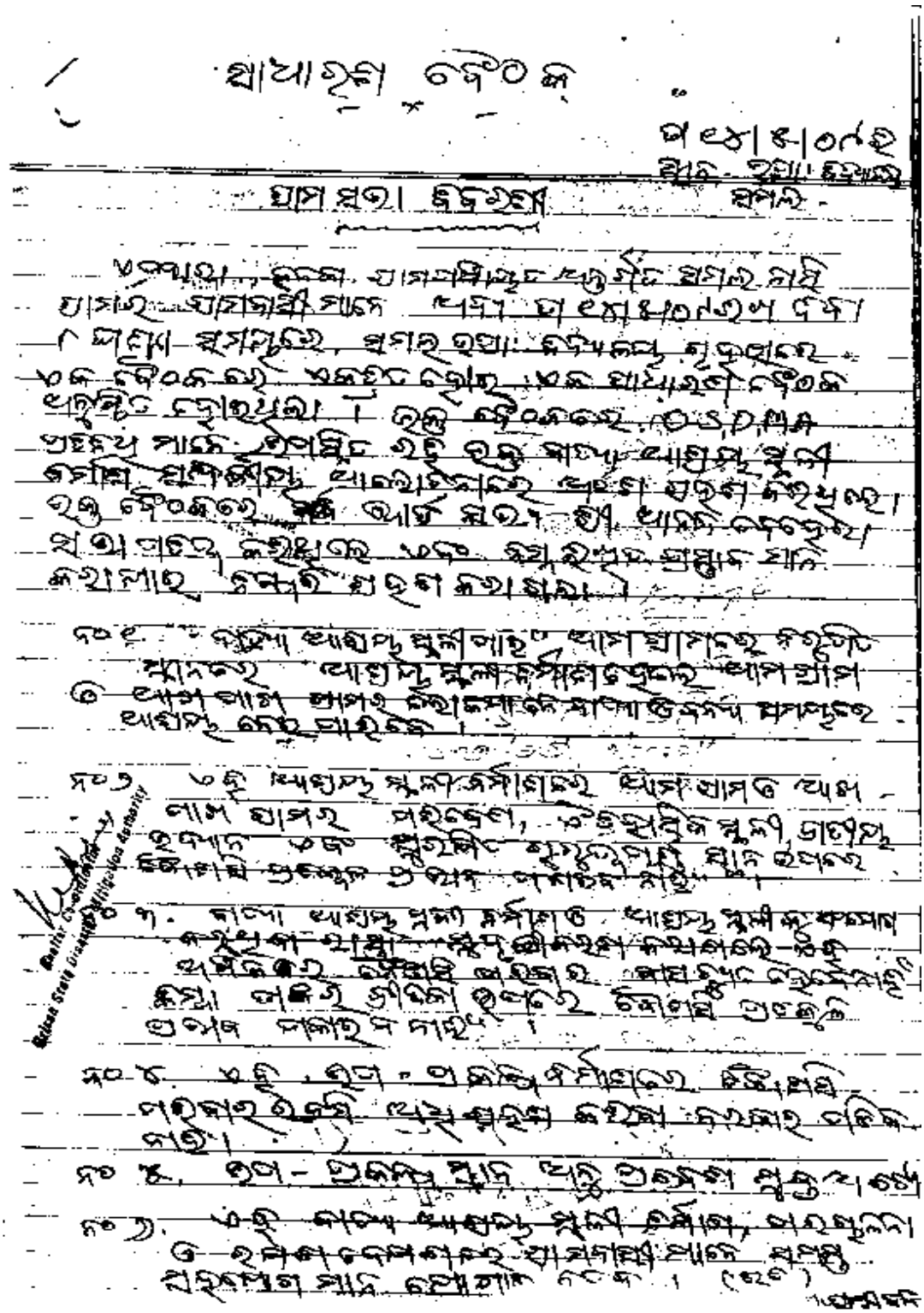
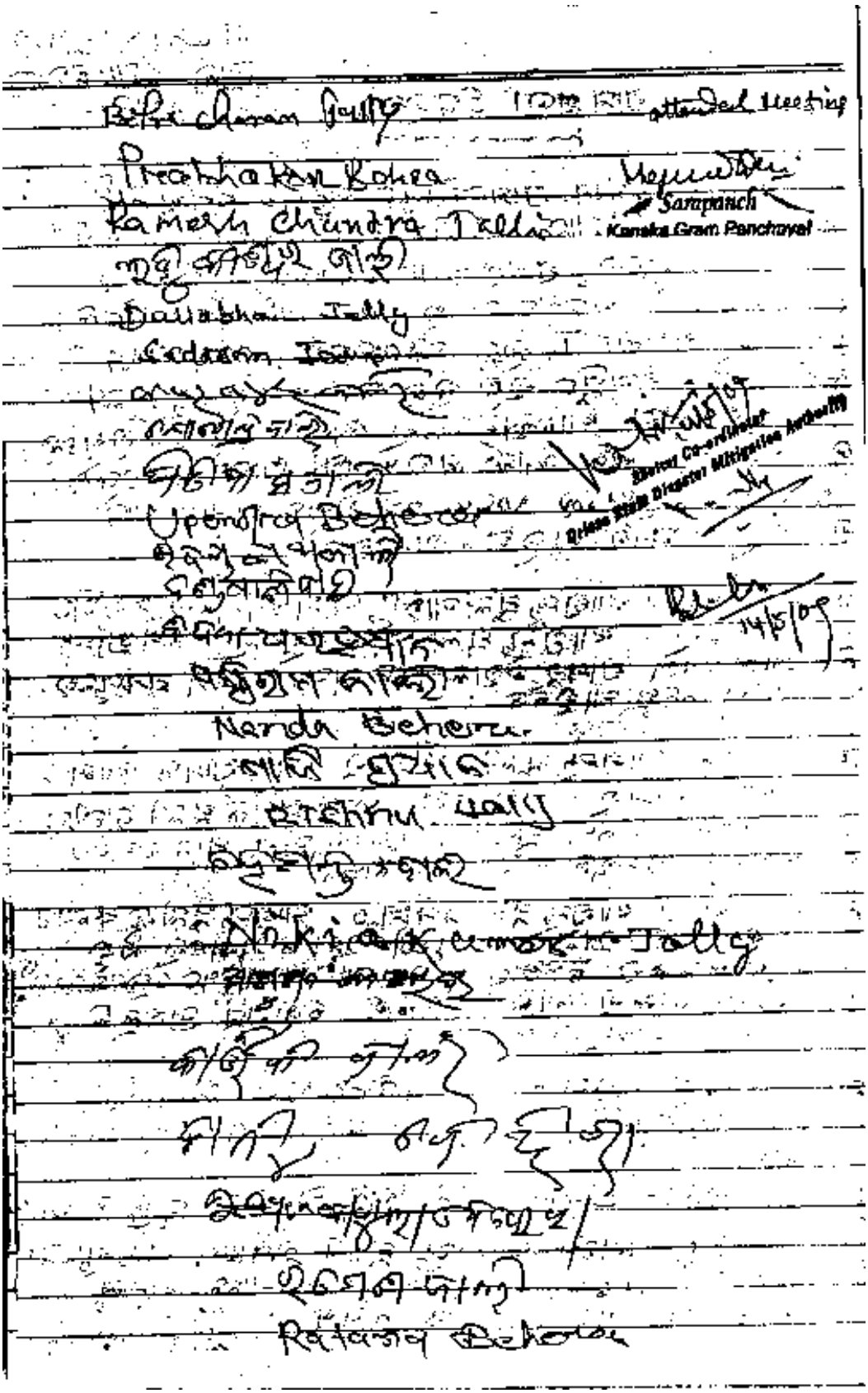
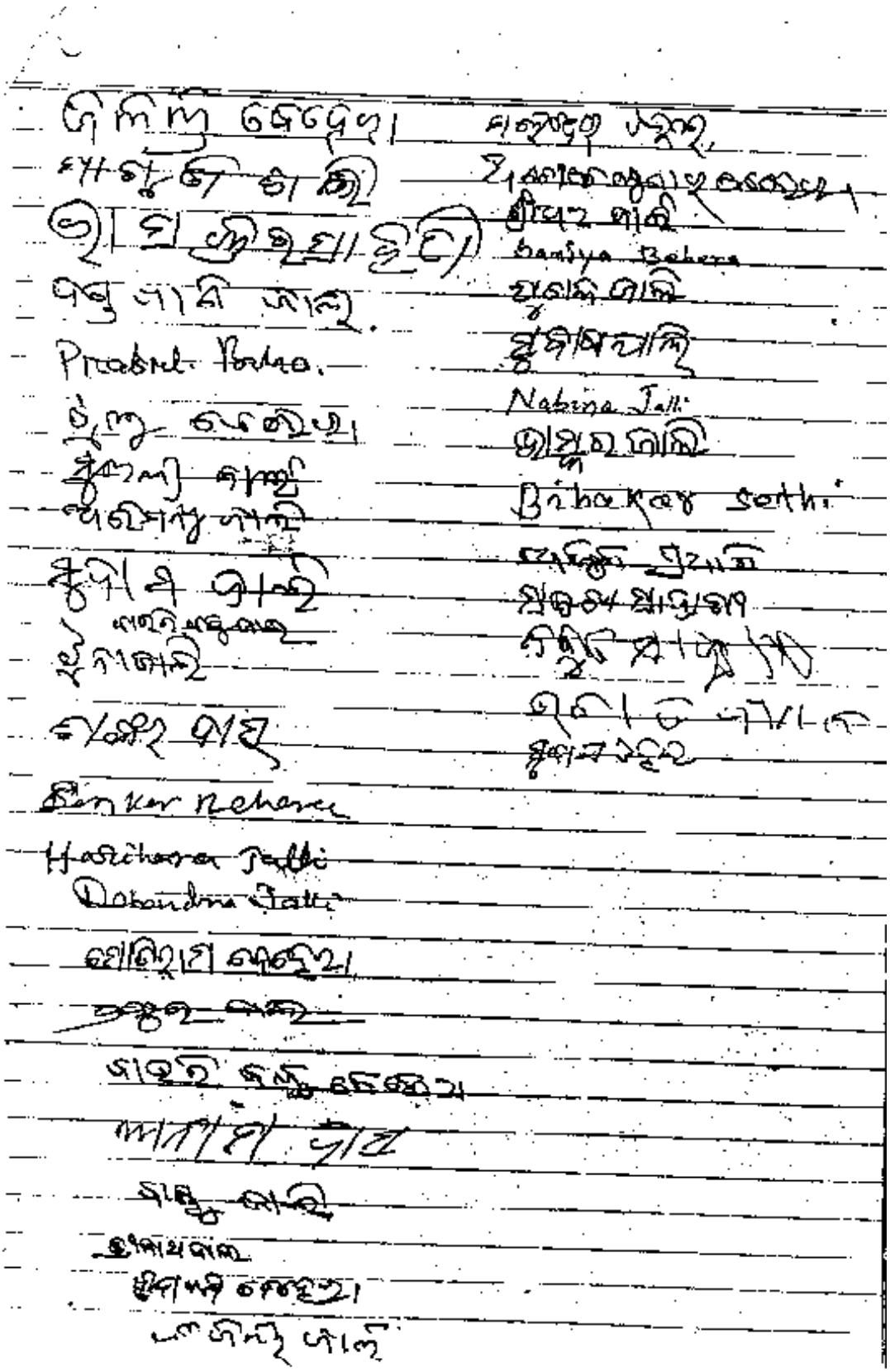
Sd/-

PRI Members
Villagers

Social Consultation: Proceeding of the Grama-Sabha at Samalanasi on 14.05.2009 in Oriya





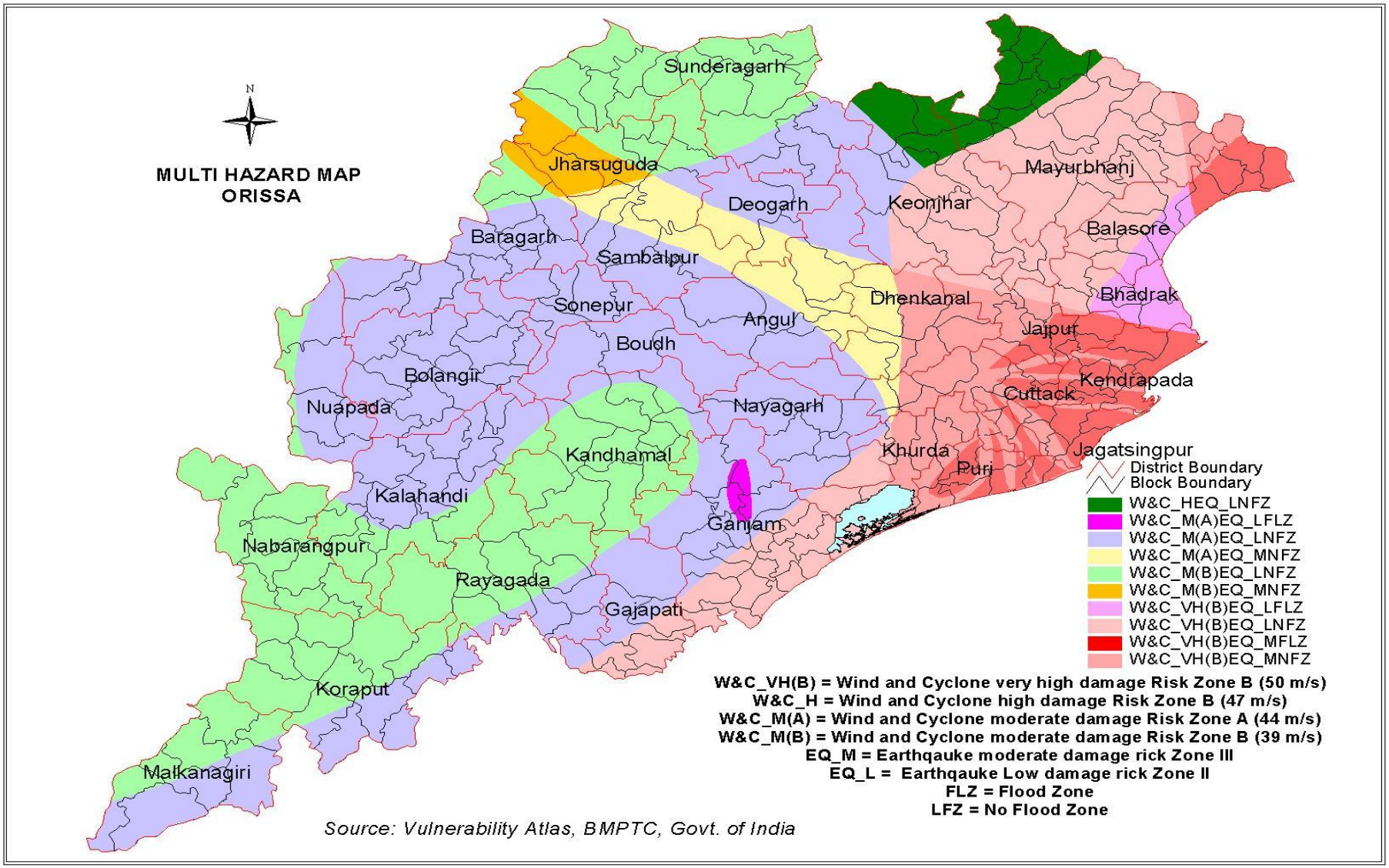


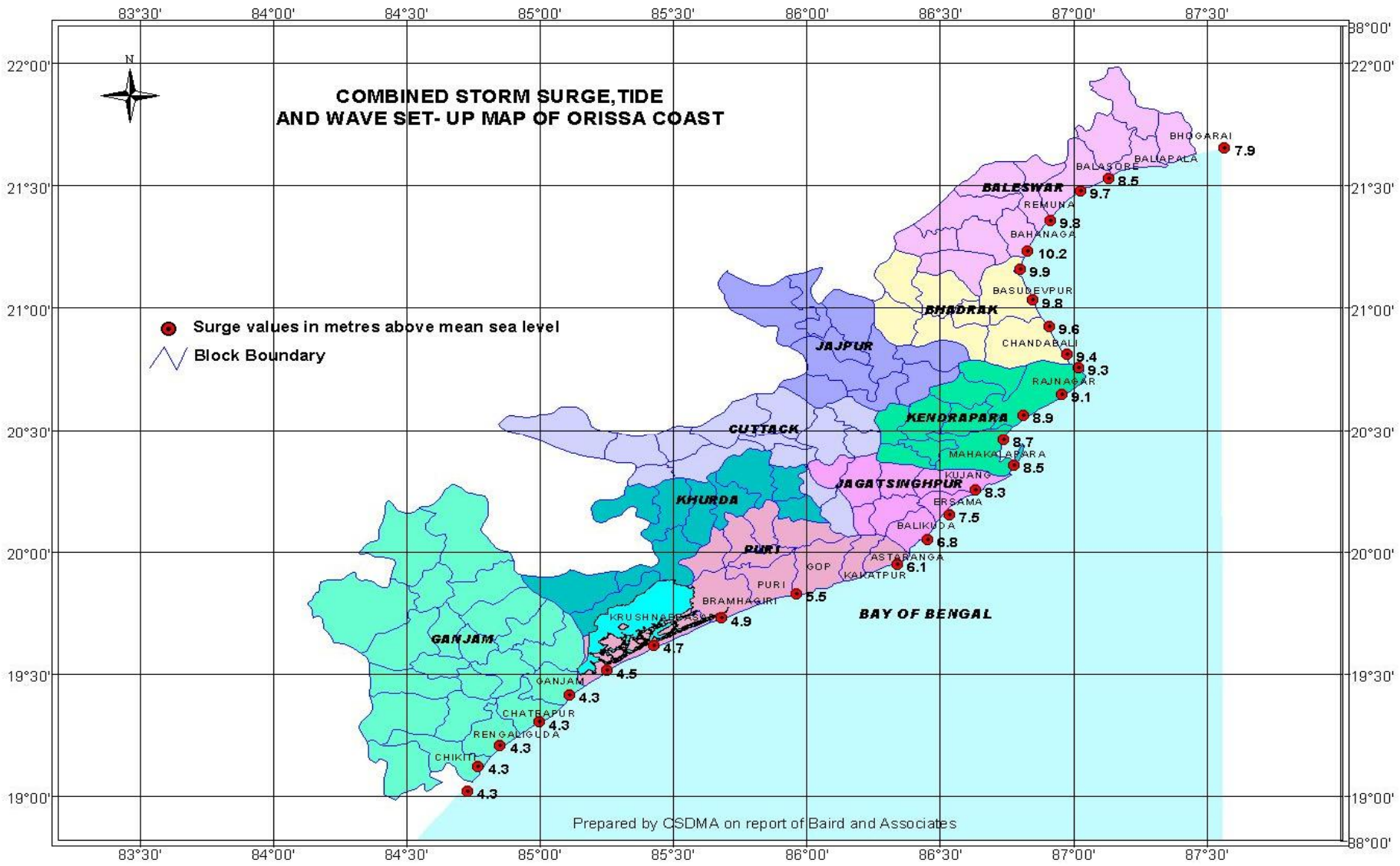
Annexure-IV

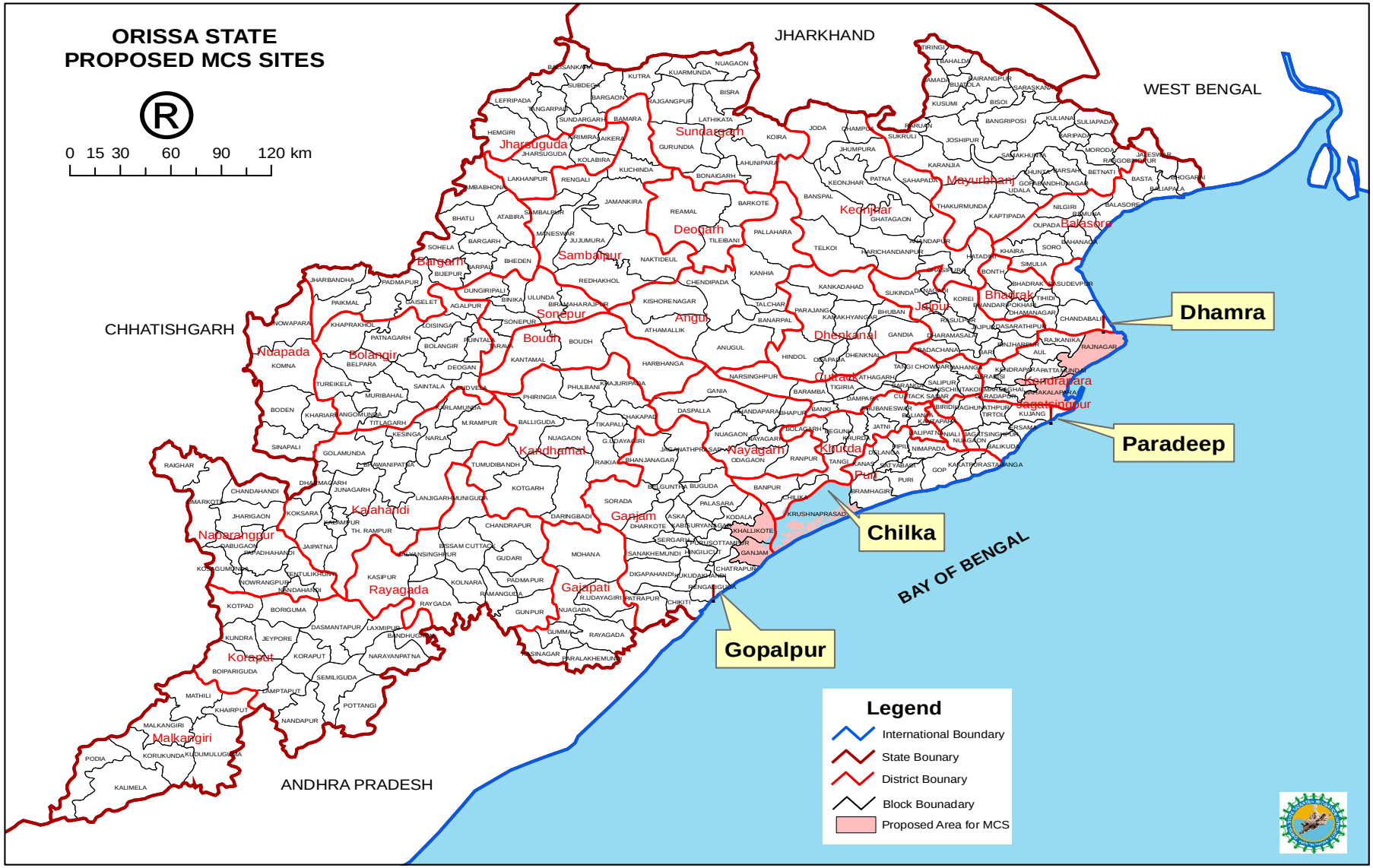
SHELTER EQUIPMENT LIST

Sl. No.	Items	Unit per Shelter	Supply status
1.	Generator Sets	1 No	Supplied
2.	Light & fans		Supplied
3.	Pulley Block	3 Nos.	Supplied
4.	Life Buoy	2 Nos.	Supplied
5.	Life Jacket	2 Nos.	Supplied
6.	Nylon Rope 12 mm dia-50 mtr	4 Nos.	Supplied
7.	Stretcher	1 No	Supplied
8.	Manila Rope 200 ft. 6 mm dia	1 No	Supplied
9.	Manila Rope 60 ft. 12 mm dia	6 Nos.	Supplied
10.	Sisal chord 60 mm dia 20 ft	25 Nos.	Supplied
11.	G.I.Trunk (Big Size)	1 No	Supplied
12.	Telescopic Aluminium Ladder	1 No	Supplied
13.	First Aid Box with two manuals	1 Box	Supplied
14.	Florescent jackets	50 nos	Supplied
15.	Free Kitchen utensils: Flat Handa, Kadai, Dekchi, Daba, Khanta, Paniki, Hemadasta, Korana, Bucket and other items	1 Set (22 items)	Supplied
16.	Notice Board with chicken net covering and locking	1 No	Supplied
17.	Dari	1 No	Supplied
18.	Black Board	1 No	Supplied
19.	Plastic chair (5 Nos. Nil Kamal)	1 No	Supplied
20.	Solar lantern (TATA BP)	1 No	Supplied
21.	Inflatable Tower Light	2 Nos.	Supplied
22.	Portable Power Saws	2 Nos	Supplied
23.	Siren	1 No	Supplied
24.	Hand Held Mega Phone	1 No	Supplied
25.	Flexi-water tank-200 lit. capacity	2 Nos.	Supplied
26.	Safety shoes (Gum Boot)	2 Pairs	Supplied
27.	Gloves	2 Pairs	Supplied
28.	Hand Held Search Light (Hi-Beam Rechargeable)	1 No	Supplied
29.	Foldable stretcher	2 Nos.	Supplied
30.	Free Power Radio (Philips)	1 No	Supplied
31.	Water Filter 26 lit. (Bajaj)	1 No	Supplied
32.	Foldable Stretcher	2 Nos.	Supplied
33.	Fire extinguisher with gloves 4.5 kg Co_2	2 nos.	Proposed
34.	Steel Almirah with open self	2 nos.	Proposed
35.	Rack	3 nos.	Proposed
36.	Mobile Phone	1 set.	Proposed
37.	Repair Kit (Shovel, Karani, Kadei, Hammer, Chisel etc.)	1 kit	Proposed

Sl. No.	Items	Unit per Shelter	Supply status
38.	Bicycle	1 no.	Proposed
39.	VHF Set with battery and antenna	1 set.	Proposed
40.	Rescue Kit	1 kit.	Proposed
41.	Gas Chula for free kitchen with set.	1 set.	Proposed
42.	Gas Cylinder	2 nos.	Proposed
43.	Television	1 set.	Proposed
44.	DVD	1 set.	Proposed
45.	Canopy of Generator	1 set.	Proposed
46.	Helmet	5 nos.	Proposed
47.	Rain coat	5 nos.	Proposed







PROPOSED SITES FOR MCS UNDER ICZM

CHILKA TO GOPALPUR AREA