DECENTRALISED MICRO PLANNING FOR COASTAL FISHING VILLAGES IN INDIA

Integrated Social Sciences and Economics Division [ISE]

National Centre for Sustainable Coastal Management
Ministry of Environment, Forest and Climate Change, Government of India
Anna University Campus, Chennai
INDIA
# Background of Planning for Fishing Coastal Villages

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The present work of the Guidelines on “Decentralised Micro Planning in Coastal Fishing Villages” is one of our prestigious assignments that bridges coastal fisheries to Decentralisation practices. I am greatly indebted to all the institutions involved since the beginning of the task. The guideline could not have been completed but for the participation and assistance rendered by innumerable practitioners.

It is my pleasure to place on record my best regards to the Integrated Social Sciences and Economics [ISE] Division for their meticulous and invaluable role in completion of the mission. The guideline will help coastal fishermen to participate and develop a more responsible stakeholdership in taking critical decisions regarding coastal ecosystems towards their own development.

Further, decentralisation practices will enable the fisherfolk community to realise the importance of coastal resource zone management. As the CRZ notification, 2011 entrusts the fisherfolk community to prepare coastal zone management plans, I am sure this resource manual guidebook, will be a great support.

DR R RAMESH
Director,
NCSCM
Coastal community habitats close to seashores, estuaries, and backwaters are most vulnerable to coastal hazards. To protect the lives and livelihoods of fishing communities, the Coastal Regulation Zone (CRZ) 2011 Notification guides coastal states to prepare local level plans. However, there are no standard guidelines available for developing such coastal fishing village planning, though it is required for implementation of Panchayat Raj institutional mechanisms. To provide knowledge support to implement such requirement under the CRZ Notification, the National Centre for Sustainable Coastal Management (NCSCM) has prepared this guideline and resource manual for exercising decentralised planning in fishing villages.

The guideline has been prepared after various consultative meetings, case studies and validation studies. Many fishermen and field experts contributed inputs towards this effort. Thanks are due to the fishing community members who participated in various meeting and workshops and provided their knowledge, comments and suggestions to construct this guideline. I thank Dr R Ramesh, Director, NCSCM who has been a source of inspiration and guidance throughout the task. Deeply thankful to him for the support in organising the meetings and sanctioning a project to the of Social Work Roshni Nilaya (SSWRN), Mangalore who collaborated with NCSCM to test the guideline and resource manual.

I am also thankful to Dr Purvaja Ramachandran for the constant encouragement and support. We thank Dr A Senthil Vel, Advisor, Ministry of Environment, Forest and Climate (MoEF & CC) for his valuable comments and suggestions. We appreciate the support extended by Mr. Alexander, President, Melamanakkudi village panchayat, Kanyakumari district and Mr. Kuppan, Vice- President of Kottivakkam village panchayat, Kancheepuram district in conducting the research for case studies which supported in developing the guideline and resource manual.
We acknowledge the experts Shri Mr. Paul. D. Patric, Sr. State Consultant, SIRD, Dr. J. D. Sophia, Principal Scientist, MSSRF, Mr. S. Jude Armstrong, Joint Director Fisheries, Mr. R. John Manoharan, Assistant Exe. Engineer & Assistant Conservator of Forests, Dr. S. Raja Samuel, Scientist, Madras School of Social Work, Dr.K.Sivasubramaniyan, Madras Institute of Development Studies, Mr. E. Vivekanandan, Former Director, CMFRI, Dr. M. Thamilarasan, University of Madras, Dr. V. Rengarajan, Sr. Consultant, Madras School of Development Studies and Mr. Muraleedharan, FAO Consultant, for their participation in meetings and workshops and providing their viewpoints that added value to the guideline. We also duly recognise the Principal, staff and students of the School of Social Work Roshni Nilaya, Mangalore for validating the guideline at Nana Layaja village, Gulf of Kutch, Gujarat. Thanks are due to the Director, State Project Management Unit (SPMU) Gujarat who supported the testing of the guideline in Nana Layaja village. Special mention of Shri. Lomesh Brahmbhatt, Manager (Field) – GEC, SPMU and Shri. Attavar Kishore, Project Investigator, School of Social Work, Roshni Nilaya, should be made for their noteworthy efforts to test the guideline at Nana Layaja village, Gulf of Kutch.

Fellow Scientists, Dr. Priya Rajeev, Dr. Bindu, Mr. Karthi and other scientists who worked towards the development of the guideline deserve special mention here. Finally, thanks to Dr. Mrs. Sarumathy, Prof. (Rtd.) National Institute of Rural Development and Panchayat Raj, Hyderabad who invested her expertise in editing and finalising the guideline for publishing.

I am sure, this guideline and resource manual shall support the fishermen, local level planners, elected representatives, and officials involved in district-level planning and coastal zone plan preparation.

Dr Asir Ramesh D
Scientist/Integrated Socio- Economic Division
NCSCM
AIBP - Accelerated Irrigation Benefits Programme
ANM - Auxiliary Nurse Midwife
ARWSP - Accelerated Rural Water Supply Programme
AWW- Anganwadi Workers
CBO - Community based Organisations
CCRF - Code of Conduct for Responsible Fisheries
CMFP - Comprehensive Marine Fishing Policy
CMFRI - Central Marine Fisheries Research Institute.
COFI - Committee on Fisheries
CPDAC - Coastal Protection and Development Advisory Committee
CPRs - Common Property Resources
CRZ - Coastal Regulation Zone
CSO - Central Statistical organization
CSS - Coastal Security Scheme
CVCA - Critical Vulnerable Coastal Areas
CZIS - Coastal Zone Information System
CZM - Coastal Zone Management
CZMP - Coastal Zone Management Plan
DAHD&F - Department of Animal Husbandry, Dairying and Fisheries
DCZMA - District Coastal Zone Monitoring Authority
DCZMC - District Coastal Zone Monitoring Committees
DDC - District Development Council
DDMA- District Disaster Management Authority
DHM - District Health Mission
DLR - Department of Land Resources
DMA - Disaster Management Authority
DPCs - District Planning Committees
DRD - Department of Development
DRRP - District Rural Road Plan
DWSP- District Water Security Plan
EBBs - Educationally Backward Blocks
EEZ - Exclusive Economic Zone
EIA - Environmental Impact Assessment
EOC - Emergency Operation Centres
FAO - Food and Agriculture Organisation
FHs - Fish Harbours
FLCs - Fish Landing Centres
GAIS - Group Accident Insurance Scheme
GIM - Mission for Green India
GIS - Geographical Information System
HUDCO- Housing and Urban Development Corporation
IAY - Indira Awaas Yojana
ICDS - Integrated Child Development Services
ICG - Indian Coast Guard
ICMAM - Integrated Coastal and Marine Area Management
ICZMP - Integrated Coastal Zone Management Project
IDA - International Development Association
IHSDP - Integrated Housing and Slum Development Programme
ILO - International Labour Organization
IMBL - Indian Maritime Boundary Limit
IMO - International Maritime Organization
IMP - Integrated Management Plan
IOM - Institute for Ocean Management
IPOA - International Action Plans
IRDA - Insurance Regulatory and Development Authority
IRDP - Integrated Rural Development Programme
JFM - Joint Forest Management
JNNURM - Jawaharlal Nehru National Urban Renewal Mission
JNNURM - Jawaharlal Nehru National Urban Renewal Mission
LHV - Lady Health Worker
LPG - Liquefied Petroleum Gas
LUC - Land Utilisation Zone
MDM - Mid-Day Meals Programme
MFC - Marine Fisheries Census
MFIs - Micro Finance Institutions
MFPI - Ministry of Food Processing Industries
MFS - Manual on fishery statistics
MGNREGS - Mahatma Gandhi National Rural Employment Guarantee Scheme
MHRD - Ministry of Human Resources Development
MIR - Micro Insurance Regulations
MNICs - Multi-Purpose National Identity Card
MNICS - National Identity Card Scheme
MoCI - Ministry of Commerce and Industry
MoD - Ministry of Defence
MoEF&CC - Ministry of Environment, Forest and Climate Change
MoES - Ministry of Earth Sciences
MoFPI - Ministry of Food Processing Industries
MoPR - Ministry of Panchayati Raj
MoRD - Ministry of Rural Development
MS - Mahila Samakhya
MWCD - Ministry of Women and Child Development
NABARD - National Bank for Agriculture and Rural Development
NCMP - National Common Minimum Programme
NCSCM - National Centre for Sustainable Coastal Management
NCZMA - National Coastal Zone Management Authority
NCZMA - National Coastal Zone Management Authority
NDZ - No Development Zone
NEP - National Environment Policy
NFDB - National Fisheries Development Board
NHB - National Housing Bank
NHP - National Housing Policy
NITI- National Institution for Transforming India
NLRMP - National Land Records Modernisation Programme
NMFC- National Marine Fisheries Census
NNRMS - National Natural Resources Management System
NPE - National Police on Education
NPMF - National Policy on Marine Fisheries
NRDP - National Rural Drinking Water Development Programme
NRDWNP - National Rural Drinking Water Programme
NREGAP - National Rural Employment Guarantee Programme
NRHM - Annapurna National Rural Health Mission
NSAP - National Social Assistance Programme
NSSO - National Sample Survey Office
NSWF - National Scheme for Welfare of Fishermen
PHC - Primary Health centre
PMAYG - Pradhan Mantri Awaas Yojana - Gramin
PMGSY - Pradhan Mantri Gram Sadak Yojana
PMS - Para-Medical Staff
PRA - Participatory Rural Appraisal
PRF - Portfolio Risk Fund
PRIs - Panchayat Raj Institutions
RAY - Rajiv Awaas Yojana
RBI - Reserve Bank of India
REDB - Rural Electricity Distribution Backbone
RGGVY - Rajiv Gandhi Grameen Vidyautikaran Yojana
RGI - Registrar General of India
RMSA - Rashtriya Madhyamik Shiksha Abhiyan
RRB - Regional Rural Bank
RSBY - Rashtriya Swasthya Bina Yojana
RTE - Right of Children to Free and Compulsory Education
RUSA - Rashtriya Uchchatar Shiksha Abhiyan
RWS - Rural Drinking water and Sanitation
SAC - Space Application Centre
SAF - Society for Assistance of Fisherwomen
SAC - Space Application Centre
SAF - Society for Assistance of Fisherwomen
SAMRITA - Sarva Shiksha Abhiyan
SBM - Swatch Bharat Mission
SCZMA - State Coastal Zone Management Authority
SECC - Socio Economic Caste Census
SGWA - State Ground Water Authority
SICOM - Society of Integrated Coastal Management
SIRD - State Institute of Rural Development
SSA - Sarva Shiksha Abhiyan
TBA - Trained Birth Attendants
TSD - Trailing Suction Hopper Dredger
UDPFI - Urban Development Plans Formulation and Implementation
UIDSSMT - Urban Infrastructure Development Scheme for Small and Medium Towns
ULBs - Urban Local Bodies
UN - United Nations
UNCED - United Nations Conference on environment Development
UTCZMA - Union Territory Coastal Zone Management Authority
VAS - Value Added Services
VEI - Village Electrification Infrastructure
VHG - Village Health Guides
VMS - Vessel Monitoring System
WRDA - Warehouse Regulatory and Development Authority
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Executive Summary

1. Introduction
As required by their profession, the fishermen habitats are close to water bodies, estuaries, backwaters, coastal areas and Islands which are mostly away from the normal bounds of civic amenities. Coastal and marine fishermen are always among the most vulnerable population due to coastal hazards. The hazards have influenced over the livelihood opportunities encompasses loss of life and properties. It is necessary to protect the coastal and marine natural resources which are the livelihoods of the fishermen and coastal communities. The National Environmental Policy, 2006 have recommended the protection of livelihood of communities and endorsed decentralisation to empower public. Panchayat Raj institutional mechanism also emphasised the local bodies to develop plans which covers fishermen villages. In the integrated exercise of planning for social and economic development, elected leaders of three-tier structure of local government, the administrators and the local population participate in the development of the micro plan.

2. Coastal Zone Management Plan (CZMP)
Annexure I (II) (7), recommends the preparation of Coastal Zone Management Plan (CZMP). The CRZ, 2011 Notification directs “In the CRZ areas, the fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated on the cadastral scale maps. States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of the expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness”.

3. Participatory Village Level Decentralised Plan
However, there is no resource manual or guidelines available in India to prepare participatory village level decentralised plans especially for coastal fishing village. Since, National Centre for Sustainable Coastal Management (NCSCM) has been established for providing knowledge to practice Integrated Coastal Zone Management (ICZM) and to support the Ministry of Environment and Forests and Climate Change in coastal zone regulation activities, the preparation of guideline and resource manual has been undertaken by Integrated Social Sciences and Economic Division of NCSCM as an important assignment.
The guideline aims to provide a practical approach to institutions and the coastal communities/people on the preparation of the CZMP. The ultimate goals of this guideline are to trigger a multiplier effect in people taking ownership of the guidelines and to advocate to economic and social justice. It is a tool aimed at generating dialogue and debate among different stakeholders and governments, and at demanding the implementation and compliance of the guidelines in the district and state governance.

Community based action remains a powerful and essential vehicle for self-development. Similarly, participation is the involvement of people in planning and controlling a significant amount of their own work activities, with sufficient knowledge and power to influence both processes and outcomes in order to achieve desirable goals. The tools used for participatory planning in the guidelines are commonly derived but addressed specifically to coastal needs.

The guideline included a brief note on various development policies and programmes that are presently under implementation in various Departments and Ministries. This attempt is to provide the information as ready reference for the facilitators.

The draft guideline was tested in May, 2017 in three coastal fishing villages such as Nana Layaja, Gujarat, Melamanakudi and Kottivakkam, Tamil Nadu. Whereas Nana Layaja and Melamanakudi lies in CRZ-III and Kottivakkam is located in CRZ-II. Some of the participatory tools were applied for the preparation of the micro-plan in these three coastal villages.

Lessons drawn from two case studies of Tamil Nadu show that the coastal fishing villages still lack facilities that are essential for their fishing profession such as petrol and diesel bunk, ice-plants, cold storage building, marketing and action hall, multi-purpose cyclone shelter, communication and networking units, net drying area and net mending area. The other basic amenities were: housing, dispensaries, libraries, burial ground, play-ground and community park. Both Melamanakudi and Kottivakkam designed land use planning.

Nana Layja village plan is exclusively designed to the needs of Vagher community mostly demanded socio-economic issues such as school education, better housing and alternative livelihood income generating activities.
4. Activities to prepare fishing village plan

As per the guideline, the local level fishing village planning shall have the following steps;

A. Create a planning environment in fishing village

The decentralised, integrated micro level fishing village planning and implementation shall be practised through the participation of all individuals of the fishing community, stakeholders, and adjacent habitats and villages of the fishing village. Participatory planning for the fishing village shall create a strong sense of ownership, share, control and responsibility of common resources. Hence, Participatory Rural Appraisal (PRA) methods shall be used for fishing village planning and implementation exercises.

Get collective decision for planning & implementation exercise, resource requirements & contributions, roles & responsibilities of individuals (or) families (or) groups, time frame, reporting, monitoring & management mechanisms. Groups and sub groups can be formed to execute various activities during planning and implementation stage.

B. Developing an enabling mechanism to prepare fishing village plans and maps

Through PRA meetings, collectively discussed and nominate an educated individual of the fishing village to facilitate (or) act as a nodal person for executing the planning and implementation process. The nominated person shall have skills in PRA and good public relations and communication records. If the nominated person does not have experience and skills in PRA methods and other requirements, training may be arranged. If such a candidate is not available in the same village, find a suitable facilitator (or) coordinator to assist the fishing village for planning and implementation exercises. Financial resources to appoint such an external person may be from various contribution sources of the fishing village.

C. Prepare Socio-economic planning

Socio-economic development plan must be formulated through participation of all members and stakeholders of the fishing village. It is especially important to ensure participation of women and youth. Fishing women are important stakeholders in marketing and allied activities in the fisheries hence, their participation to emphasize their needs, role and contribution in entire planning and implementation process shall be assured.

Conduct stock tacking exercise to understand the present status of the fishing village. Various resources including private and common properties, uses, issues, management and government interventions of the fishing village shall be collected. Information about the fishing village available within the community and village panchayat shall be collected.
Information about the fishing village is available within the community and village panchayat shall be collected. Public information, databases of different departments, Governments, organisations shall be referred to collect such data. Information of the village shall be tabulated as a data card to conduct need assessment and reporting the present status of the village. If, year wise comparative information available trend of the parameters of the fishing village shall be studied. PRA meetings shall be conducted to verify the data collected from different sources by the facilitator.

After the stock assessment, need assessment shall be conducted. Various infrastructure and welfare requirements of fishing village shall be identified through PRA methods. Several government interventions through schemes in the fishing village for the infrastructure and welfare shall be referred to village Panchayat. Village Panchayats can provide such details since there are many databases in operation under the Government to simplify the planning process such Plan Plus software.

There shall be different plans and proposals of the village by the village Panchayat, Union Panchayat, Zilla Panchayats, district authorities, State and Central Governments. These plans shall be collected to avoid duplication in the needs proposal of the fishing village. Common properties of fishing community including lands shall be identified. Suitable vacant land areas may be selected for the infrastructure and welfare development activities. Allocate fishing communities land resources for various regular fisheries related activities and proposed other infrastructure and welfare development activities. Locate suitable area for fishing harbour (or) Jetties (or) landing centres (or) any hard structures, if necessary (or) required. Use population growth and migration factors of the fishing village to propose population expansion. Verify the socio-economic plans are following legal guidelines including the provisions of CRZ 2011 Notification. The present status and needs shall be compiled and finalised as a report through PRA.

D. Land-use planning process

There shall be two land use maps viz (i) land use map explain about the present status of resources, and uses, CRZ classifications, shoreline change, HTL, hazard line and other lines (ii) land use map express the proposed infrastructure and development activities including the CRZ classifications shorelines, HTL, hazard line and other lines of the fishing village. The land use maps shall match with the CZMP prepared by the States and local level cadastral map prepared by the local bodies. These land use maps should be in cadastral scale and shall apply the Land Utilization Zone (LUZs) Classifications suggested by the Department of Land Resources, Ministry of Rural Development to support to master planning through uniformity all over India. The details of land use preparation methods have been explained in resource manual. Apply shoreline change map of the area, if hard structures proposed in the area. Though the land use map shall be prepared by the facilitator using market resources, the contents should be as decided in the socio-economic planning stock taking report and need assessment report. Conduct participatory mapping process (PRA) to elucidate the socio-economic plans in a draft cadastral scale map collected from revenue authorities of the village (or) District Land Records Department.
E. Preparation of local level disaster management plan of the fishing village

Coastal fishermen villages are the most vulnerable to natural hazards from the sea. Disaster management and applications vulnerability assessment shall be given priority in the decentralised planning of the fishing village. Hence, a local level disaster management plan shall be prepared for the fishing village. Hazard line and shoreline change maps prepared under CRZ 2011 shall be effectively utilised to protect the fishermen villages. The local level disaster management plan shall be linked and matched with the district disaster management plan prepared by district disaster management authority. Though the accidents and disasters of the fishermen and fishing crafts are occurring at sea, the rescue and recovery are mostly from the fishing village hence, the disaster management plan shall include the distress of fishermen in the sea.

F. Critical factors deserved to focus in fishing village planning

Some factors shall be focussed in the socio-economic planning of fishing villages they are; education, banking and credit facilities, application of micro insurance for craft and gears of fishermen, coastal security, communication networks, fisherwomen empowerment. The above critical factors shall be incorporated in socio-economic planning. Education levels of coastal fishermen are very poor compare to the National average. Further, the fishermen require credit facilities to support purchase of crafts and gears, processing and preparation of value added products, marketing facilities. Informal credit facilities which are exploitive in nature are influencing the development of fishermen. Efficient utilisation of security measures of the fishermen shall reduce the security issues of fishermen. The socio-economic plan shall develop linkages and incorporate the coastal security measures in the socio-economic plan shall reduce the security issues of the fishermen. In addition, communication between the shore and fishermen at sea during disasters, discuss about the catch and market conditions are important role which shall also be incorporated. Coastal and marine fisherwomen have been involved in fish marketing and fishery related allied activities though, they are non-entities of community affairs of the fishing villages. Fisherwomen empowerment, gender mainstreaming and gender budgeting in fishing community is an important critical factor which shall be incorporated in the fishing village planning. Hence, many role, responsibilities and contributions during planning and implementation stage shall be given to fishing women.

G. Report preparation and plan implementation

Define the works, roles and responsibilities, individual and group to implement the plan through PRA methods. Finalise the socio-economic plan and land use plan of the area through group consultation and record the proceedings and report to the village panchayat, Panchayat Samiti, Zilla Parishad, administrative bodies and planning authorities of the district to converge the micro plan with macro plans of the district to implement various schemes in the fishing village. Monitor the micro level plan and revise it if required through PRA and inform the changes to the concern authorities of the district. The plans also shall be distributed to the District Coastal Zone Management Authorities, District Disaster Management Authorities, District Rural Development Authorities, Department of fisheries, District rural development agencies, and other relevant authorities and district authorities to consider incorporate in their plan. In additional village panchayat president and facilitator continuously monitor schemes and propose plans if relevant.
The guidelines and resource manual on fishing villages shall serve as a supportive document for the grama sabhas and panchayat raj institutions in the fishing villages to prepare participatory, decentralised fishing village plan preparation. It is hoped that this manual shall also be useful to administrators, planners and researchers for evolving new policies and developmental programs for the fisheries sector and adoption of the contents for any other local areas planning under Panchayat Raj institutions.
Guidelines

1. Background of Planning for Coastal Fishing Villages

2. Aims, Objectives, Recipients and Obligations

Reportage of the Guidelines

- Critical Aspects
- Provisions for welfare and Infrastructure Development
- Significant Factors
The best, quickest and most efficient way is to build up from the bottom..... Every village has to become a self-sufficient republic.

— Mahatma Gandhi
1.1 Introduction

Fishing is a traditional economic activity practiced for generations by the fisher communities in India. The fisheries sector continues to be a source of income to millions of people around the world. Traditionally, socio-economics of the fisherfolk community are generally poor and fishing has been considered as a low profession\(^1\). The fisher community in India can be termed as the poorest of the poor. Living in inaccessible and remote coastal areas or along the riparian tracts and reservoir catchment area, the fisher communities are largely deprived of the schemes/programmes of the government aimed at uplifting the socioeconomic conditions of the poor rural communities\(^2\). In general, fisheries sector in India is closely associated with poor, under livelihood and illiterate.

According to Marine Fisheries Census (MFC) 2010, 3432 coastal fishing villages are present on the 7516.6 km long coastline of India. Thus, a coastal fisherfolk village is present on an average at every 2.19 km (avg.) stretch of India’s coast line. The distance between these villages can vary vastly across the country as can be seen in Odisha where the villages are closely distributed at an average of 0.58 km while such fisherfolk villages are located at an average of 4.91 km in Gujarat. In total 8,74,749 fishermen families are living in the coastal fishing villages of India with a population of 40,56,212 (Avg. 4.6/family). According to CMFRI (2010) analysis, sixty-five percent of the fisherfolk reside in *pucca* houses while the rest live in *kuccha* houses. Ministry of Statistics has defined, fishing village and fishing community as, “Located on the periphery of the water system and professional fishing parties/fishermen who are engaged in fishing operations either on full time or part time basis reside there” (Central Statistical Organisation 2011). The Marine Fisheries Census, 2010 has defined

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\(^1\) S C Agarwal., (2006) *History of Indian Fishery*, Daya Publishing House, New Delhi,
fishing village is an assemblage of houses / dwelling places where marine fishermen live, which is recognized by the state fisheries department. A settlement of households which comes under a separate village panchayat is a hamlet.

One of the most significant characteristic of the Indian fisheries sector is its small-scale nature. The fishers can be broadly classified as (1) inland fishers, (2) marine fishers and (3) fish farmers. As per the Indian Livestock Census, 2003, 14.49 million people were engaged in various fisheries related activities. About 75 percent of the fishers are engaged in inland fisheries activities and about 25 percent in marine fisheries activities. The number of people involved in marine fisheries related activities include nearly 0.2 million in fish marketing, 0.1 million in repairs of fisheries requisites, around 0.2 million in fish processing and 0.1 million in other ancillary activities. In all, an estimated 3.51 million people depend on marine fisheries for their livelihoods in India. Compared with the previous National Marine Fisheries Census (NMFC) undertaken in 1980, it is seen that marine fisher population has nearly doubled from 1.87 million in 1980 to 3.51 million in 2005. In NMFC 2010, the fishermen population has increased to 4,744,226, comprising of 4,056,212 fisher folk population and 6,88,014 engaged in fisheries allied activities. Therefore, within five years the fisher folk population has increased by 1.23 million. An average of 255 households is present in 3,432 fisherfolk villages / hamlets of India.

The fisherfolk habitats are close to water bodies, estuaries, backwaters, coastal areas and islands and usually away from the normal bounds of civic amenities. The fisherfolk hamlets are often cited as the ‘last mile’, as can be seen by the fact that many schemes/ programmes of the Government either fail to reach these communities located in remote localities or their implementation remains as a symbolic gesture.

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Although there is lack of comprehensive studies on the socio-economic aspects of small-scale fishers in the country, the available information does point towards a very low base with respect to most of the vital human development indices, such as education, health, economic well-being, etc. Further, occupational safety and health aspects of small-scale fishers are extremely poor and there are very few efforts to address the problems on a county-wide basis. The hygiene and sanitation conditions on board fishing vessels and at shore are pathetic and need considerable improvements. Fisherfolk communities are among the most vulnerable population due to coastal hazards as they are the most affected by tsunami, flooding, erosion, shoreline changes, sea level rise and manmade construction onshore and near shore area. The natural hazards influence their livelihood opportunities and result in loss of life and properties. Though the risk cannot be altered, vulnerability can be minimized by proper planning. It is necessary to protect the coastal and marine natural resources not just for inherent conservation sake but also because they form the base for livelihoods for the vast population of the fisherfolk and coastal communities.

1.2. International Recognition for Responsible Fisheries

The Food and Agriculture Organisation of the United Nations (FAO) Committee on Fisheries (COFI), at its nineteenth session in 1992 in Mexico, provided an important back up for the formulation global Code of Conduct for Responsible Fisheries (CCRF) which established principles and standards applicable to the conservation, management and development of all fisheries. The Code, was unanimously adopted on 31 October 1995 in the twenty-eight session. The COFI, recognised that small fishing communities are faced with an array of serious problems. These issues include rapid population growth, migration of populations,

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over exploitation of resources, lack of alternative sources of employment, displacement in coastal areas due to industrial development and tourism, pollution and environment degradation. Article 10 of the CCRF of FAO sets out principles and standards for the integration of fisheries in coastal management.

Article 10 - Integration of Fisheries into Coastal Area Management

10.1.1. “States should ensure that an appropriate policy, legal and institutional framework is adopted to achieve the sustainable and integrated use of coastal resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural resources, and the needs of coastal communities.”

10.1.2. In view of the multiple uses of the coastal area, States should ensure that representatives of the fisheries sector and fishing communities are consulted in the decision-making processes and involved in other activities related to coastal area management planning and development.

10.1.3 States should develop, as appropriate, institutional and legal frameworks in order to determine the possible uses of coastal resources and to govern access to them taking into account the rights of coastal fishing communities and their customary practices to the extent compatible with sustainable development.

While establishing institutional mechanism under Article 10.1, Article 10.2, COFI emphasizes awareness and participation of fishers in the process of management.

The Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of all stakeholders of the fishing and aquaculture industries. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users. A variety of instruments have been established within the framework of the Code to assist fishers, industry and governments in taking the necessary practical steps to implement the various facets of the Code, providing the broad framework within which FAO implements its programme of work in fisheries and aquaculture. Two out of the four International Action Plans (IPOA) are related to fishing capacity (IPOA-capacity) and to unrelated and unrecognised fishing (IPOA-IUU).

The IPOA-capacity provides measures to prevent or eliminate excess fishing capacity and talks about ensures the levels of fishing effort that are to be commensurate with sustainable use if fishery resource. The IPOA-capacity also speaks about the modern fisheries governance that has to be a systematic concept relating to the exercise of economic, political and administrative authority. Fisheries governance has international, national and local dimensions. It includes legally binding rules, such as national policies and legislation or international treaties as well as customary social arrangements. It is multiscale, covering long-term, strategic, planning as well as short-term operational management and local fisheries as well as whole ecosystems. It has public, private, and hybrid components that interact in ensuring administration and

1.3. National Level Policy Framework Initiatives

The international law as a global treaty was an instrument for the enforcement of management measures that are to be adapted by the regions for sustainable coastal fisheries.

1.3.1. Comprehensive Marine Fishing Policy (CMFP) 2004

India is not alone in facing policy challenges, either within South Asia or worldwide. While focusing on compliance with the United Nations CCRF Pitcher highlights the performance of national fisheries policy and fisheries management systems. Table-1 reflects the diversity of fisheries sector and policy performance.

Table-1 Fisheries Management Performance Score

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual landings (tonnes)</th>
<th>World ranking for landings</th>
<th>Compliance with the CCRF Article 7 (fisheries management) (B)</th>
<th>Fisheries management performance score</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>2,776,067</td>
<td>8</td>
<td>low</td>
<td>2/6</td>
</tr>
</tbody>
</table>


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In recognition of the problem, the government of India pronounced a Comprehensive Marine Fishing Policy (CMFP) in 2004. The CMFP offered a top priority to ensure social security and economic wellbeing of coastal and marine fishermen of India. In addition to the above guidelines, para 6 has been devoted to fishermen welfare. Noticeably, para 6.4 stated that

**BOX**

6.4 Greater participation of cooperatives, NGOs and local self-governments would be sought in implementation of welfare schemes for fishermen, thereby reducing the direct role of Central and State Governments in the process.

Further, para 6.8 says that “fishermen housing scheme of various descriptions would be unified and implemented as a master plan through a national agency”. Moreover, para 8 guided that “development of infrastructure for marine fisheries is of vital importance and should have an integrated approach. The facilities would inter alia include jetties, landing centers, provision for fuel, water, ice, repairs to vessels and gear”. Thus, CMFP, 2004 enabled a legal framework for the fisheries fraternity. Having laid the foundation, the government has to initiate a broad-based development relating to environment envisaging the international law of UNEP.

**1.3.2. National Environmental Policy, 2006**

Towards addressing the international law of United Nations Environment Programme (UNEP), the national policy on environment, 2006 was enacted by the government of India. The NEP, 2006 emphasized the necessity of conservation of environmental resources which is indispensable to secure livelihoods and well-being of all. Mostly, the conservation is to ensure that people dependent on particular resources obtain better livelihoods from conservation, rather than from the
degradation of resources. Further, it has been observed that environmental challenges that the country faces relate to the nexus of environmental degradation with poverty in its multi dimensions, and economic growth. Principle X of NEP, 2006 endorsed\(^8\) that:

**BOX**

“Decentralisation involves ceding or transfer of power from central authority to state and local authorities, in order to empower public authorities having jurisdiction at the spatial level at which particular environmental issues are salient, to address these issues”.

The National Natural Resources Management System (NNRMS) was set up in 1983 for optimally managing the natural resources and environment of the country using an optimal mix of remote sensing and conventional techniques. Remote Sensing and data, both satellite and aerial, is being used extensively in the country for mapping and managing the natural resources and environment, over the past three decades\(^9\). One of the principle objectives of NEP is on environmental governance emphasising the concept of good governance (transparency, rationality, accountability, reduction in time and costs, participation, and regulatory independence) to the management and regulation of use of environmental resources\(^10\). The NEP further emphasises the importance of local government\(^11\) as:

**BOX**

Institutions of local self-government have an important role in management of the environment and natural resources. The 73 and 74 Constitutional amendments provide the framework for their empowerment.

\(^9\) Ibid., 47.
\(^10\) Ibid., p8.
\(^11\) Ibid., pp.48
The Ministry of Environment and Forests (MoEF), Government of India issued ‘environmental guideline for development of beaches’ in 1983 to prepare master plans for the development of the coastal stretches for each state. Under the environment protection act 1986, MoEF declared coastal stretches as Coastal Regulation Zones (CRZ), regulating all activities within this area. The NEP,2006 regulated all development activities in the coastal areas by means of the Coastal Regulation Zone notifications and Integrated Coastal Zone Management Project (ICZMP). The coastal states and union territories are empowered to enact the provisions of the CRZ Notification.

1.3.3. The Coastal Regulation Zones,2011 Notification

As per the notification, the central government has declared the landward part of the coastal stretches of open sea, bays, estuaries and any tidal water bodies up to 500 m from High Water Line (HTL) and the land (beach) between the HTL and Low Water Line (LTL) as the CRZ. HTL and LTL as used in the CRZ Notification are synonymous to the High Water Line (HWL) and Low Water Line (LWL). CRZ has been classified into four categories such as CRZ-I ecological area, CRZ-II built up area, CRZ III Rural areas and CRZ IV water area. A detailed description might be viewed from the notification in Annex-1. However, CRZ Notification 2011 brought a uniform regulation for the entire coastline.
The CRZ notification 2011 enshrines the concept of a Coastal Zone Management Plan (CZMP), which will be prepared with the active involvement and participation of local communities. Section 5 of CRZ notification, 2011 specifies:

**BOX**

The ICZMPs may be prepared by the coastal state government or union territory by engaging reputed and experienced scientific institution(s).

Mapping of the hazard line shall be carried out in 1:25,000 scale for macro level planning and 1: 10,000 scale or cadastral scale for micro level mapping and the hazard line shall be taken into consideration while preparing the land use plan of the coastal areas;

The coastal states and union territory will prepare within a period of twenty four months from the date of issue this notification, draft CZMPs in 1: 25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guideline given in Annexure-I , involving public consultation;

Annexure I (II) (7), guideline for preparation of coastal zone management plan (CZMP) of CRZ 2011 notification directs:

**BOX**

“In the CRZ areas, the fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated on the cadastral scale maps. States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of the expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness”.
1.3.4. National Policy on Marine Fisheries, 2017

The overarching goal of the National Policy on Marine Fisheries, 2017 (NPMF, 2017) is to ensure the health and ecological integrity of the marine living resources of India’s Exclusive Economic Zone (EEZ) through sustainable harvests for the benefit of present and future generations of the nation. The overall strategy of the NPMF, 2017 is based on seven pillars, namely sustainable development, socio-economic upliftment of fishers, principle of subsidiarity, partnership, inter-generational equity, gender justice and precautionary approach. These seven pillars will guide the actions of various stakeholders in meeting the vision and mission set for the marine fisheries sector of the country. While fishers will be at the core of this Policy, actions will also be guided by the ‘Public Trust Doctrine’.

The NPMF, 2017 is expected to meet the multi-dimensional and growing needs of the marine fisheries sector for the next one decade. The Policy is holistic and adequately addresses the needs of all the segments of this diverse economic activity. The NPMF, 2017 will have an ‘Implementation Plan’ that will specify the action points under each recommendation contained in the Policy. These action points will be further elaborated with timelines for implementation, agencies responsible for the work and the likely sources of funds required for implementation.

The Implementation Plan will also have a ‘Monitoring and Evaluation’ section that will address the timeliness and efficacy of implementation. It is expected that through the implementation of this Policy, the marine fisheries sector in India will become a sustainable and well-managed entity, ensuring enhanced utilization of the harvest for human consumption; employment, gender equity and livelihoods; equity and equality; provision of food security and nutrition; and creation of wealth and prosperity in the sector\textsuperscript{13}.

1.3.5. Seventy Third and Seventy Fourth Amendment Acts

Article 243G of the Indian Constitution mandates preparation of plans for economic development and social justice by Panchayats and through this process Panchayats are expected to evolve into institutions of local self-governance. The 73rd and 74th Amendments (Annexure-2 & 3 of the Constitution mandated local planning at the village panchayat, intermediate panchayats and district panchayat levels as well as in urban local governments and their consolidation into a District Plan in each district. Fisheries is the fifth subject listed in the Eleventh Schedule of the Constitution. Based on the Constitutional instruction several states have enacted their Panchayati Raj Acts and implemented since 1993.

\begin{box_quote}
\textbf{Article 243 ZD-DPC}

“There shall be constituted in every State at the district level a District Planning Committee to consolidate the plans prepared by the Panchayats and the Municipalities in the district and to prepare a draft development plan for the district as a whole.”

- The Legislature of a State may, by law, make provision with respect to the composition of the District Planning Committees
- The manner in which the seats in such Committees shall be filled
\end{box_quote}

\textsuperscript{13} Ibid, pp.22.
The CRZ 2011 Notification and other legal requirements emphasised a micro level decentralised plan for coastal fishing villages for sustainable development. In the recent past Sansad Adarsh Gram Yojana (SAGY) mentioned the development of model villages by strengthening of local democracy through strong and transparent gram panchayats and active gram sabhas. SAGY guideline and training manual sketches a comprehensive exercise on decentralised planning for officials. Detailed activities for the formulation of village development plan has been spelled out in point 10 of the guideline.

**BOX**

A Village Development Plan would be prepared for every identified Gram Panchayat with special focus on enabling every poor household to come out of poverty.

Before the formal plan formulation starts, there has to be systematic environment creation and social mobilisation which will be spearheaded by the MP himself/herself. The Gram Panchayat should also be fully involved.

However, for the fishing villages where common property has been classified as CRZ areas, special attention is essentially required. Since the land use plan of the fishing village and abutting areas are specified under CZMP and CRZ, special knowledge on shoreline maps, hazard maps, sediment cell maps etc., will be necessary for the coastal fishing village planning exercise. In this context, there is a need for information and knowledge enhancement to contribute to the task of planning. Hence, this guideline and resource manual on coastal fishing villages has been prepared to serve as a supportive document to the fishermen and their community leaders, more so for those who will be involved in participatory planning and implementation.
1.3.6. The Disaster Management Act, 2005

Similarly, Section 31 of the Disaster Management Act, 2005 mandated preparation of a plan for disaster management for every district by the district authority, after consultation with the local authorities. Section 41 further explains functions of local authority in preparation of disaster management plan. Chapter 4 elaborates that the District Collector as the Chairperson of the District Disaster Management Committee. Model framework for District Disaster Management Plan (DDMP), 2014 pronounces the institutional arrangements in Chapter 3.

Institutions of local self-government have an important role in management of the environment and natural resources. The 73 and 74 Constitutional amendments provide the framework for their empowerment. Further policy and legislative changes are necessary to enable them to actually realize such a role, and participate in various partnerships in this context.

**BOX**

Describes the organizational structure at the District, Block, Gram Panchayat, Municipality and community levels for DM.

District Disaster Management Authority (DDMA) may also identify functions of other institutions which they consider important such as Disaster Management Teams. Crisis Management Group / Incident Response System (IRS), Emergency Operation Centres (EOCs) and their operation, Site Operation Centres, Platforms such as inter-agency groups that would facilitate partnerships with NGOs, private sector, elected representatives, Community based Organisations (CBOs), other academic and technical institutions.
1.3.7. The Need for Comprehensive Plan in Coastal Regulation Zone

The impact of human activity in the coastal system is multi-faceted. Over the years, the technological development has not only increased the competition for the coastal resources causing conflicts between the resource users. Further, the CRZ notification directs that each state government shall ensure that all development and activities in CRZ areas take place within the framework of the approved Coastal Zone Management Plan. Violation shall be subject to the provisions of Environmental (Protection) Act, 1986 and other relevant laws. Clause xi. specifies each state or any authority so designated shall be responsible for the monitoring and enforcement of provisions of CRZ Notifications and CZMP. Approval of the CZMP would not imply approval of any proposed project such as roads, airports, jetties, ports and harbours, building etc.; indicated in the plan/map. The recently held thirty-three meeting of the National Coastal Zone Management Authority (NCZMA) on 24th May 2018 deliberated upon integration of Critically Vulnerable Coastal Areas (CVCA) under the provisions of CRZ Notification, 2011 with the CZMPs.

There is an urgent need for public participation in integrated management of coastal and marine areas should be interpreted as an on-going process that brings together the technical and policy makers with citizens in a particular initiative; especially if the latter are involved or interested in any way in these areas or in the coastal-marine ecosystems and their services. It is clear therefore that the integration policies that are promoting public participation relates to the inclusion of all people, organizations and associations should help in providing innovative solutions and knowledge for advancing towards a more integrated coastal management. The functions of government in the management process should be noted that participatory models are associated not only to the democratic country level, but also to its social and economic development.

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Aim, Objectives, Recipient and Obligations
2.1 Purpose, Aim and Structure

The purpose of the guideline is to support decentralised governance in all the fishing villages through participatory approach and thereby become self-governing coastal communities in India.

Coastal zones have not developed to their potential as a result of inadequate institutional and management capacity, lack of decentralization mechanisms and ignorance of the role of the community in implementing integrated coastal management. This calls for improvement at levels including ensuring participation of the fisherfolk communities and adequate capacity building to all stakeholders.

The guideline aims to provide a practical approach to institutions and the coastal communities/people on the preparation of the Coastal Zone Management Plan (CZMP). The local institutions constituted in the coastal areas have to prepare the draft plan in accordance to the guidelines in consultation with coastal communities who are marginalised to ensure social justices related to territory, land, water, fisheries and forests.

2.2. The Structure and Content

The guideline is designed to prepared long/short-term plans through participatory strategies and approaches. The ultimate goals of this guideline are to trigger a multiplier effect in people taking ownership of the guidelines and to advocate to economic and social justice.
2.3. The Methodology and Objectives

This guideline is a pedagogical and instructive guide, which aims to make it easier for the fishermen, peasant, fishing and local organisations, indigenous peoples, the landless, women and civil society as a whole. Our coastline has precious natural resources which are important economic assets. Therefore, there is a need for the guideline to be a robust progressive framework, so that it helps to regulate the coast with proper understanding. The use of the guideline to transform fisher folk communities as an instrument change for sustainable development. It is a tool aimed at generating dialogue and debate among different stakeholders and governments, and ensuring the implementation and compliance of the guideline in the district and state governance.

2.3.a. Objectives

The objectives broadly fall under three major parameters

- To develop fishing village as whole in terms of human and resource capital including culture.
- To increase living standards by involving strategies of poverty reduction.
- To empower rural youths, children and fishing women in terms of their psychology, skill, knowledge, attitude and other abilities of the fishing village.
- To improve infrastructure facilities of fishermen area.
- To strengthen institutional mechanism for service delivery such as panchayat, cooperatives, and banking.
- To identify financial resources to for fishermen, unskilled labour, small and big rural entrepreneurs (business) to increase local economy.
- To develop entertainment and recreational facility for fishing communities
- To promote leadership quality of the fishing communities.
- To enrich marketing facility of the fishing products.
To minimise gap between the urban and rural in terms of facilities availed to fishermen on land.

To bring convergence of various schemes implemented for the development of fishermen community.

2.4. The use of the Guideline as a tool:

- Promoting knowledge amongst the indigenous fishing communities on socio-economic planning.
- Enabling the fishing villages with mechanisms of good governance such as transparency, accountability and responsiveness.
- Creating a social movement in fishing villages which could critically ensure development promoting the concept of smart villages.

2.5. What can we do to implement the Guideline?

- Training on governance of natural resources such as water, land and marine resources;
- Arrange Mass awareness campaigns emphasising usage of tools given in the guidelines;
- Build a social movement which can support and strengthen the coastal area development;
- Organise workshops for familiarising to fisherfolk;
- to introduce and discuss the problems related to the use and the management of natural resources;
- Translate the guidelines into user friendly guide book;
- Create and broadcast programmes on community radios to introduce the guidelines and to have discussions on the issues they encompass.
  - Special programmes for youth and women and
  - workshops in schools within the framework of education

2.6. Important Policies/Acts/Amendments/Notification covered in the Guideline

- Amendment to the Ninth schedule of the Constitution in 1993 (Seventy Third and Seventy Fourth Amendment Act)
- Coastal Regulation Zone Notification (CRZ Notification), 2011
- Disaster Management Act, 2005
- National Environmental Policy., 2006
- National Marine Fishing Policy, 2017
2.7. Guideline beneficiaries

i. Coastal and Marine Fishermen

ii. Communities and Self Help Groups (SHGs)

iii. Coastal Marine Fishermen Community Leaders

iv. Grama Sabha and Panchayats’ President / Ward Councillors of Coastal Fishing Village

v. Relevant officials at Block and District level

vi. Other Stakeholders of the Fishing Villages

vii. NGOs and CBOs

viii. Academicians and Research Scholars

2.8. The Guideline can contribute to:

- Secure full rights of the fishing communities - defending and regaining coastal territories;
- Safeguard access to control over fishing zones (including coastal land) and ecosystems for fishing communities;
- Reduce community unrest;
- Support in conflict resolution;
- Protect decent markets with fair price and labour rights for all;
- Eliminate middle men in marketing and financing;
- Encourage banking and saving system;
- Guarantee a promising future for rural youth through skill development;
- Ensure economic and social justice;
- Safeguard environmental sustainability;
- Deepen local autonomy and self-determination of people;
- Involve participation
- Incorporate institutional framework.

2.9. Outcome

The major outcome of implementing the guidelines is to prepare micro plan at the coastal village focusing on sustainable, adequate and safe access to fisheries towards:

- Protection of livelihoods of traditional fisher folk communities
- Preservation of coastal ecology
- Promotion of economic activities that have to be necessarily located in coastal regions

The guidelines are an important tool not only for guiding public policies, but also for providing a framework for actions undertaken by non-state actors, such as private sector enterprises. In order to achieve the objectives, action plan should be developed in consultation with the fisherfolk.

2.10. Cases in which we see our situations reflected

**BOX 1**

Melamanakudi fishing village, Manakudi Panchayat, Rajakkamangalam block, Agastheeswaram taluk, Kanyakumari district.

Melamanakudi village is located in CRZ III area. The total population is 4000 (Marine Fisheries Census, 2010) comprising of 877 families with an average family size of 4 persons/family. The village has one Anganvadi (creeche), one primary school, and one high school. The fishing village has no open markets. The fishermen essentially required a separate auction hall, cyclone shelter, cold storage, fish processing centre and a market place. The fisherfolk prioritised housing as the immediate requirement in the gram Sabha.

**BOX 2**

Kottivakkam, Kancheepuram district, Tamil Nadu

Kottivakkam is located in CRZ II area falls under the Chennai Metropolitan Authority. The fishing community is occupying 5.4 ha area for housing, fishing and for other purposes. There are 409 households with a total population of 1507. The entire fishing community is classified under MBC. The requirements listed in the gram sabha are housing, park, playground, extension of fish drying area, cold storage unit, marketing and auction hall, dispensaries, libraries, aquarium centre, communication and networking units. Against the list of demands, the community prioritised the land area. Accordingly, the land use map is prepared which is given land use planning
2.11. Best practices to use the guide

BOX 3

Nana Layaja, Gujarat

Testing of the draft guidelines took place in May, 2017 at Nnana Layaja, Gujarat. PRA tools were used to elaborate about the plan for five days. The Vagher fishing community identified four critical areas during visioning exercise;

a) Education of children and functional literacy

b) Sustainable income through alternative employment

c) Better quality houses

d) De-siltation of creek and owning bigger boats

2.12. What do the Guidelines cover?

A. Creating planning environment in fishing villages

B. Enabling mechanisms for fishing village planning

C. Socio-economic development planning in fishing villages

D. Land-use planning process in fishing villages

E. Critical factors that deserved to focus in fishing village planning

F. Fishing village plan - report preparation

G. Fishing village plan implementation

H. Principles of parameters of planning exercise
2 PROVISIONS FOR

3 SIGNIFICANT FACTORS
This section consists of three parts. The critical factors are dealt under part-I, which analysis the two most important plans. The development of infrastructure facilities in fishing villages are detailed in part-II. Other significant aspects of micro planning are discussed under part-III.

3.1. Part I  Critical Aspects that Need to Be Focused Upon in Fishing Village Planning

3.1. A. Enabling environment in fishing villages

It would be ideal, if the fishing community themselves initiate the decentralised, integrated micro level fishing village planning exercises. The planning process starts with the participation of all stakeholders -individuals and groups from fishing village and adjacent habitats. To orient and create awareness in the fishing village community, an introductory Participatory Rural Appraisal (PRA) is conducted by announcing the event widely in the village. Such kind of participatory planning exercises will create a strong sense of ownership and will result in the communities, sharing and taking up responsibility of controlling and accessing the common resources of the fishing villages and the coastal environment for sustainability. PRAs are successful social methods to achieve decentralised planning exercises of villages. The PRA will be attended by all including women, children and family members of others living in the fishing village. During the process, general status of the village, issues, requirements, solutions and approaches for sustainable holistic village will be discussed. Table-1 provides state profile of the coastal areas which might facilitate the initiatives of decentralised micro planning exercises.

Table-1 Profile of fishing population in Coastal states
This discussion will broadly consist of the following details: -

3.1. A.1. Core discussion would primarily seek information on the following aspects: -

   a) What are the resources available in coastal fishing village? - stock assessment

   b) What are the requirements of fishing community? - need assessment

   c) How to meet the requirement of fishing community of the village? - socio-economic planning.

   d) Where are the present infrastructures located and where the required infrastructures should be developed? - land use planning

   e) What are the natural and manmade hazards faced by the fishing communities and how to protect the life and livelihoods of coastal communities? - disaster management plan

   f) How to acquire welfare and infrastructure facilities? - Mechanisms to achieve the goal

   g) How to coordinate and synchronise nodal point details? - Development of committee / facilitator

   h) What are the provisions for fishing village development? - Acts, rules and Notification provisions
3.1. A.2. Other discussions would consist of: -

Other discussions in the introductory meeting would be regarding the constitutional provisions, legal requirements, panchayat raj institutional mechanisms for protection of life and livelihood of coastal communities such as CRZ objectives and CZMP guidelines etc. Government policies and programmes for fishing village development shall also be need to be discussed and explained. Other important issues like the common properties of the fishing village and utilities -available should be discussed. Special or urgent gram sabhas could be called as the subjects under discussion are exclusively fishing community oriented. Consensus should be arrived before proceeding to the next discussion. Role and responsibilities to individuals/families/groups can be assigned to complete the task successfully.

3.1. A.3. Identification of Facilitators

After collective discussion through the introductory PRA meeting, an educated individual among the fisherfolk group living within the village may be given responsibility / nominated to act as a nodal person to coordinate the planning and implementation activities for the fishing village. The nominated person who is known as nodal officer should have skills in interacting with the community and conducting PRA, if not, training will be arranged to strengthen public relations and communication skills of the nodal officer. Training organisations like State Institutes for Rural Development (SIRDs) can be utilised to build the capacity on PRA for the nodal officer. Additionally, a facilitator also can be appointed to assist the nodal officer to carry out the fishing village planning exercises. Financial resources to appoint such an external person may be sourced from the internal contribution of the fishing village.

The expert or the team of experts as the case may be who will participate in the PRA exercises should have both a general overview of the village situation, its geographic and social-economic and the psychological profile of the people living by the sea. Some of this can be obtained through the secondary data that already exist in the government document or reports in the public domain.
For example, map-1 indicates the population distribution of the fisherfolk in the coastal states/UTs and islands. Only after a thorough study of the sectors or domains, the facilitator should initiate the PRA processes with the community. It is also advisable that the facilitator prepares a check list for each of the specific activities before they go for PRA.

Map-1 Population distribution
There are multiple perspectives on a problem situation and there are different ways of expressing one's views. In case of PRA method, a standard way to test the trustworthiness of data is to apply 'triangulation'.

3.1.A.3.a. What is Triangulation?

Team composition is generally inter-disciplinary and can be constituted in such a manner so as to have the information generated from different perspectives. Teams can have persons from different disciplines, sex, culture and experience so that data emerging from PRA can be discussed within a team and with local people by a team to clarify issues and select issues for further probing. The units of observation can be changed in order to cross check the information gained. Different groups can be approached separately or its combination so as to arrive at views from different angles. Other sources of information such as secondary data sources can also be used to examine trustworthiness of PRA data. Different PRA methods can be used to test and verify a piece of information. For eg, semi
structured interviews can be supplemented by maps, livelihood analysis and flow chart so as to check and cross-check the information obtained\(^1\).

The CRZ Notification, (Annex-I.1. A.4.) mentioned that local agencies approved by the central government shall prepare local level CZM cadastral maps to facilitate implementation of CZMPs and the approved agencies shall work under the state government. The approved agencies may provide support to the fishing villages to prepare micro level decentralised plans. District planning committee chaired by the district collector will be the chief co-ordinator of the micro level planning activities of the coastal fishing villages of the district. The facilitator / coordinator shall assist fishing village plan preparation exercises, using PRAs methods to decide on the followings; aim, objectives, activities (visioning / scoping), mechanisms, outputs, financial resources & sources, role and responsibilities, monitoring & management and implementation guidelines of the fishing village plan. Priority areas of the planning and scope shall be decided. The priority areas, short term and long term plans shall be linked with the objectives. The entire proceedings of the gram sabha discussion will be recorded. A concept paper has to be developed incorporating all major decisions taken by the gram sabha. The concept paper will be useful for and efficient monitoring and mid-course corrections. The common area where the usual gram sabha meetings are convened are the most suitable place for organising the decentralised planning exercises. The financial resources required shall be met through internal gram sabha collections and revenues.

The concept paper developed shall be placed in the village panchayat. After the discussion, the village panchayat will forward the document to panchayat samiti and form panchayat samiti to zilla parishad. The zilla parishad will examine and send it to the district planning committee for approval. Any comments, suggestions, recommendations and directions received from the higher institutions / authorities, shall be discussed in the next meeting to correct (or) justify the decisions. The corrections (or) justifications shall be distributed to all authorities.

**3.1.B. Socio-Economic Planning in Fishing Villages**

\(^1\) Sindhu Sadanandan., P. Natarajan., Dose Antony., and Vipinkumar. V. P., (2007). *Data Tools: Participatory Rural Appraisal Techniques.*, Rajiv Gandhi Chair in Contemporary Studies, Cochin University of Science and Technology, Cochin, pp.16.
Every plan shall start with a vision of the fishing village planning. This vision must have a strong empirical foundation provided through rigorous compilation and analysis of baseline data, which needs to be as institutionalised and strong as the planning system itself. The exercise has been termed as ‘stock-taking’\(^2\). It is especially important to ensure participation of women in general and those from the disadvantaged sections fishermen community in particular. In the absence of adequate participation of fishing women, fishing community’s view of many important issues may remain highly biased in favour of the male population. Moreover, fishing women are important stakeholders in marketing and allied activities of fishing hence, their participation in fishing village planning is very important. Such participation can be highly empowering for the women and can also engender a balanced vision of community development. This would reduce conflicts of interest and benefit sharing of coastal resources. Various important infrastructure and welfare facilities essentially required for fishermen sustainable livelihood would need to be discussed. To prioritise the needs, it is necessary to be classified as immediate and long run requirement of the fishing village. The socio-economic plans will need to be verified under the following legal guidelines including the provisions of CRZ 2011 Notification. The present status and the needs expressed by the fisherfolk in the gram sabha should be compiled and finalised as a report through PRA exercises.

3.1.B.1 Stock Assessment

At a starting process of stock tacking exercise, a report card (or) a data card can be prepared using various public sources of information and PRA. In addition to the PRA meetings, surveys with peer groups and national data centres established by various ministries/departments shall be efficiently utilised for fishing village planning. Ministry of statistics and programme implementation is implementing a scheme to develop reliable statistics for policy-making at local levels. The key to the new approach is to link up data collection with the panchayats by establishing a district statistics cell that would be attached to the district planning committee. The recently published data on Socio Economic Caste Census (SECC), 2011 provides wide ranging information based on selective indicators. SECC data is available for all districts, taluks and villages which could be considered as the base for the beginning of the planning. Similarly, each urban unit should have its own data centre on the lines of the National Urban Data Bank (NUDB) and indicators under National Urban Information System (NUIS) Scheme, launched during 2005-06 to establish a comprehensive information system in the urban local bodies for planning, development and management. Such resource centres may be utilised for data gathering purpose for fishing village planning.
Synthesized information shall be tabulated and can be used for reporting purpose. The stock taking exercise shall provide details about the availability of various kinds of natural resources, uses, issues, management options of the fishermen village. The stock taking exercise of the fishing village shall assess the existing status of fishermen, welfare of fishermen and infrastructures for fisheries development. The stock assessment of the fishing village shall also lead to identify the needs of fishermen and their villages. It is widely accepted that effective method for identifying important problems is by conducting a community needs assessment survey (Guy 2010). Status of fish stock and trend of the fish catch shall be analysed to take measures for preserving them from being endangered and extinct. Expert advices may be obtained from regional Central Marine Fisheries Institute (CMFRI) to develop action plan for harvestable limits, technologies, methods to avoid listed species, and to develop local level protection plans.

3.1. B.2. Need Assessment

After the stock assessment, the Need Assessment Survey (NAS) shall be conducted. NAS of a fishing village is the outcome of the stock assessment where the indicators of welfare and infrastructure are essentially required for development. The NAS shall provide information about the needs of the fishermen and the village they are living as well as the future needs for fishermen community development for a time horizon of five / ten years. The NAS results will pave the way for analysing programs implemented by governments/ panchayats / local bodies to cater to these needs. By understanding the gaps between the community needs and the programs available, NAS shall suggest potential solutions/ programs for filling. Based on an assessment should be prepared which is known as gap filling assessment. Table -2 provides a suggestive list of facilities required for the fishing community for planning.

**Table-2 Suggestive list of facilities by the fishing community in Melamanakudi and Kottivakkam, Tamil Nadu**

<table>
<thead>
<tr>
<th>Land Use Activities</th>
<th>Melamanakudi</th>
<th>Kottivakkam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anganvadi</td>
<td>Aquarium</td>
<td></td>
</tr>
<tr>
<td>Bank</td>
<td>Boat parking area</td>
<td></td>
</tr>
<tr>
<td>Boat repair shop</td>
<td>Burial ground</td>
<td></td>
</tr>
<tr>
<td>Bus stop</td>
<td>Church/Mosque / Temple</td>
<td></td>
</tr>
<tr>
<td>Cold Storage</td>
<td>Common land for fishing</td>
<td></td>
</tr>
<tr>
<td>Communication Hall</td>
<td>Community Hall</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Community park</td>
<td>Drinking water system</td>
<td></td>
</tr>
<tr>
<td>Diesel bunk</td>
<td>Dispensary</td>
<td></td>
</tr>
<tr>
<td>Fish drying area</td>
<td>Fish Market</td>
<td></td>
</tr>
<tr>
<td>Fisherman societies</td>
<td>Fishermen Office</td>
<td></td>
</tr>
<tr>
<td>Fishing Harbor</td>
<td>Govt. Hospital</td>
<td></td>
</tr>
<tr>
<td>Cremation yard</td>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>Ice plant</td>
<td>Fishermen Hostel</td>
<td></td>
</tr>
<tr>
<td>Marriage Hall</td>
<td>Kerosene shop</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>Water sports area</td>
<td></td>
</tr>
<tr>
<td>Multi-purpose cyclone shelter and community Hall</td>
<td>Net mending area</td>
<td></td>
</tr>
<tr>
<td>Non fisher men Residential</td>
<td>Panchayat Office</td>
<td></td>
</tr>
<tr>
<td>Park</td>
<td>Playground</td>
<td></td>
</tr>
<tr>
<td>Post Office</td>
<td>Ration shop</td>
<td></td>
</tr>
<tr>
<td>Rest house</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Sewage tank</td>
<td>Shops</td>
<td></td>
</tr>
<tr>
<td>Solid waste management</td>
<td>Toilet</td>
<td></td>
</tr>
<tr>
<td>Tsunami house</td>
<td>Vehicle parking</td>
<td></td>
</tr>
<tr>
<td>Waste dumping area</td>
<td>Open Spaces/Vacant land</td>
<td></td>
</tr>
<tr>
<td>Panchayat Office</td>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

3.1. B.3. Action Plan Matrix

When developing plans and especially in relation to hard engineering options such as seawall construction, fishing harbour construction, water supply pipelines, dredging in the fishing harbour/landing centres, etc., cost benefit analysis shall be accomplished. Cost benefit analysis is widely used for all kind of developmental plans because of its flexibility and broad applicability to analyse the costs and benefits of a range of interacting environmental, social and economic impacts. Action plan is a step that must be taken in order to achieve a specific goal.

Diagram 1 Action Plan Matrix
The preparation of an action plan will result in the formulation of a timeline which can outline the specific tasks needed to be completed with the detailed list of resources required. The facilitator / coordinator may support the village to find financial resources and the relevant schemes suitable for the village. The details collected shall be made as a master database of the fishing village. In addition to the survey details, local elected officials, appointed staff and volunteer leaders shall provide information on community needs to solve problems in the fishing villages.

Broadly, a stock and need assessment report may contain the following details;

i. A brief introduction to the fishing village history, social structure, geography, economy, demography and natural resources.

ii. Data regarding various resources, uses, issues and management of the fishing village shall be detailed out.

iii. Details of available infrastructure and services for the public in the fishing village. This would also include a description including local government structure

iv. Details of fishing related infrastructure established on the coast shall also be prescribed in the report.

v. A brief assessment, highlighting any significant features of development or lack of development, also focusing on progress and shortfalls, shall be assessed.
vi. A description of financial resources utilised under various Government schemes implemented for the infrastructure and welfare shall be studied.

vii. Analysis of convergence of various schemes to implement various proposed activities.

viii. Credits, corporate investments, interventions by charitable institutions, NGOs, corporate social responsibility etc., shall also be assessed.

ix. Brief of areas where there is potential for accelerated growth

There would exist plans and proposals for the fishing village approved by the Government. A list of proposals and plans of the fishing village shall be listed out to integrate planning and to avoid duplication. Table-3 provides a model for preparing action plan. The approved plans / proposals shall be adapted in the fishing village plan document.

**Table-3 Model Action Plan**

<table>
<thead>
<tr>
<th>Goal-1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement</strong></td>
<td>[ provision of net/boat repairing centre]</td>
</tr>
<tr>
<td>Action step description</td>
<td>Party/Department Responsible</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal-2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement</strong></td>
<td></td>
</tr>
<tr>
<td>Action step description</td>
<td>Party/Department Responsible</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As per Para (4) of CRZ 2011 notification, permissible activities in the coastal areas require clearance and approvals as per the procedures laid down in the notification. To abide by the CRZ conditions the proposals shall be published for suggestions, comments and objections. Hence, the project proposals will be seen by the relevant district coastal zone monitoring authorities and they should have list of activities planned in the coastal areas including fishing village. District coastal zone monitoring authority office is the domain of information about the approved plans of the fishing village.

Population estimates are very important to understand the nature of expansion of coastal fishing communities for their infrastructure and welfare development. Population projection is a scientific attempt to foretell into the future population scenario, by making certain assumptions, using data relating to the past available at that point of time. The Component Method is the universally accepted method of making population projections because growth of population is determined by fertility, mortality and migration rates. The census of India series, and marine fisheries census 2010 are important sources of information to estimate and project the population growth on various census items relevant to the fishing villages.
Map-3 Population density

However, all over the world, the coastal areas have dense population. United Nations System-Wide Earth watch (2003) has indicated that the population density is high in coastal areas per square kilometres. The average population density in coastal areas is about 80 persons per square kilometre, twice the world’s average population density. Migration may be a major factor for demographic changes of a fishing village in rural and urban fishing villages. Increase in the number of fishers as a result of population growth and migration to coastal fishing communities are contributing towards the overexploitation of local fisheries resources and deterioration of coastal environment. Changes in the size, composition, and distribution of human populations affect coastal regions by changing land
use and land cover. Understanding the population growth will determine investments in fishing villages. Population data of the fishing village shall be used for need assessment of housing and infrastructures.

**3.1.C. Significance of Land-Use Planning in Fishing Villages**

FAO & UNEP 1999 defined land use planning as a systematic and iterative procedure carried out in order to create an enabling environment for sustainable development of land resources which meets people’s needs and demands. It assesses the physical, socioeconomic, institutional and legal potentials and constraints with respect to optimal and sustainable use of natural resources and land, and empowers people to make decisions about how to allocate those resources.

Coastal land use is one of the most desired information for assessing the status of natural resources and the coastal environment. It is also a pre requisite for zonations of the coast as well as for making a sustainable coastal zone management plan. Implementation of coastal zone management plans require mapping at local/cadastral level i.e. 1:4000/8000. Resourcesat and Cartosat 1 and 2 along with IKONOS can be used for local level mapping. Stereo viewing capabilities of Cartosat can greatly help in generating local level information. Coastal zone mapping has been done at two scale: i) on 1:25000 scale for inventory and monitoring of the entire Indian coast and ii) local level mapping at 1:5000 scale for selected areas.

There shall be two land use maps viz (i) land use map explaining the present status of resources, CRZ classifications, shoreline change, HTL and hazard line etc., (ii) land use map expressing the proposed infrastructure and development activities including the CRZ classifications shorelines, HTL and hazard line etc., The land use maps shall match with the CZMP prepared by the States and local level cadastral map prepared by the local bodies. These land use maps should be in cadastral scale and apply the Land Utilization Zone (LUZs) classifications suggested by the Department of Land Resources, Ministry of Rural Development to support a uniform master plan for India. Though the land use map shall be prepared by the facilitator using market resources, the contents should be as decided in

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3 Coastal Zones of India., Space Applications Centre, ISRO Ahmedabad.2012
the socio-economic planning stock taking report and need assessment report. Participatory mapping process can be conducted to elucidate the socio-economic plans in a draft cadastral scale map collected from revenue authorities of the village (or) District Land Records Department. The land use plan of the fishing village shall have CRZ classifications as approved under CZMPs, local level CRZ maps*, HTL, LTL, hazard line, shoreline change, sediment cell, 200 meter and 500-meter line. The above CRZ parameters can help the planners to understand the proposals of the fishermen though they have relaxations in fishing related activities.

3.1. C.1. Preparation of Land Use Plans (Cadastral Maps)

The land use plan maps shall be prepared by the facilitator / expert using PRA method and shall be applied to digital format. The same shall be discussed further for more accuracy and involvement of community. For every village, there are village map sheets with details of land parcels (known as “Survey Numbers”), which form the basic record for revenue administration. Source document of the fishing village maps are usually paper/cloth bound normally in A0 size on the scale of 1:3600, 1:3960 and 1:4000 (cadastral maps). These cadastral maps are available in district land records office (or) with officials of revenue department. The document shall be scanned for planning purpose. After scanning, the printed copy of the map sheet on minimum 90-micron transparency sheet can be used for discussion with community and officials. The scanned image shall be digitised to incorporate the land use plans of the existing and proposed use. Land use planning in the coastal region is a highly complex matter and requires synchronization of village maps with GPS generated cadastral maps of both land and the sea and the sea shore prepared over a period of time. It has to incorporate ecologically sound and also incorporate the economic and livelihood issues of fishing communities who are already marginalised and endangered over time, as the majority of them do not know any other forms of livelihood other than fishing. So, land use planning has to strike a balance between ecological sensitivity and the human needs of fishing.

During the PRA exercise, facilitator has to share the information about the tool to the stakeholders for clarity. These revenue maps in cadastral scale are efficient tool to understand the various pockets of land around the fishermen villages. The common usage
lands / common properties near the fishermen village can be used for infrastructure and welfare development purpose of fishermen villages. The land use maps are available with the District Land Records Data Centres. The land records can be utilised for developing land use plans and socio-economic plans in the fishing villages. The whole land use plan should involve the concerned revenue department and the land record officials, the technical people from the fisheries and the environment and specifically, the local fishing community whose livelihood is at stake. Formal communications at all levels of administrations is necessary to ensure co-ordination of various agencies and to specify the agencies responsible for implementation. The participation of the support agencies and technical persons should be made mandatory. Lack of data in the village level hampers them from making realistic plans. Data support for any planning should come from the relevant institutions that are expected to have such data. The guidelines should ensure the participation of these agencies and also stipulate their roles and responsibilities in the DMP. The DPC at the district level should be made accountable at the district level for strengthening the mechanism.

In the cadastral map CRZ areas, fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated. States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness which shall also be incorporated in the cadastral map. Hazard line shall be taken into consideration while preparing the land use plan of the coastal areas. Demarcation of cadastral maps will be done by local agencies approved by the Central Government. The local agencies shall work under the guidance of the concerned State Government or Union Territory Coastal Zone Management Authorities. Their outputs and guidance shall be utilised for the micro planning of the fishing villages. The images (images 1-4) show the land use plan of Melmanakudi and Kottivakkam where the case studies were conducted. These images are developed on cadastral map by NCSCM.
Entry No. 18 of Seventh Schedule (the State List) of the Constitution of India, land including assessment and collection of revenue, maintenance of land records, land management and alienation of revenue etc. fall under the purview of the State governments. Since “Land” being a State subject, this falls under the legislative and administrative competence of the States. Land use planning falls, therefore, will be the responsibility of the State governments (Department of Land Resources 2013).

Conflicting land uses can also be identified to reduce the impact on fishermen livelihoods through planning. Natural resources including forests and fish breeding sites abutting the fishermen village shall be protected with an integrated management planning as guided in Critical Vulnerable Coastal Areas (CVCA) of CRZ 2011 Notification. Department of land resources also emphasising to regulate and control and uses in ‘Eco Sensitive Zones’ to avoid conflicts or negative environmental impacts. Land use planning should be undertaken giving due considerations for social aspects.

Further, land use classification of the fishing village and abutting areas shall be matched with the Land Utilisation Zone (LUZs) Classification of Department of Land Resources, Ministry of Rural Development to support mater planning through uniformity all over India. The department has developed land utilization policy frame work to ensure optimal utilisation of land resources through appropriate land use planning and management, the suggested types of Land Utilisation Zones (LUZs) are:

A. LUZ - 1: Rural/Agricultural Areas
B. LUZ - 2: Areas Under Transformation
C. LUZ - 3: Urban Areas/Metropolitan Regions
D. LUZ - 4: Industrial Areas/Corridors
E. LUZ - 5: Transportation Corridors
F. LUZ - 6: Mining Areas
G. LUZ - 7: Ecological Areas
H. LUZ - 8: Tourism Areas, Heritage Areas
I. LUZ - 9: Major Hazard Vulnerable Areas

The Department of Land Resources, has recommended including additional LUZs which could be identified by the State Government as may be necessary (Department of Land
The land use in the fishing village shall follow the major classification on that line and specific details also will be digitised in the fishing village. The expected additional LUZ in the fishing village will be:

- CRZ classifications as approved under CZMPs, HTL, LTL, hazard line, shoreline change, sediment cell, 200 meter and 500-meter line
- Features to be digitized and the type of the layer of each feature (Area, Point, Line)
- Fishing village boundary, administrative boundaries of neighbouring areas with name of block/division/district
- Fisherfolk and other settlement in land parcel of the village as identified with Khasra code (plot number given to a specific piece of land in the village)
- Transportation facilities including rail network, road network along with road code, and road type
- Water bodies/drainage network with name
- Major heritage symbols/landmarks, legends, boundaries, monuments, wells etc.
- Fishermen common usage areas such as net mending areas, boat parking areas, boat repair areas, fish market areas, fishermen offices, fish drying areas, residential areas
- Facilities such as anganawadi, bank, schools, bus stop, worship places, community halls, marriage hall, ration shop/civil supply shops, parks, play grounds, post offices, library, hospitals, public toilets, sewage networks, solid waste management/treatment areas, burial grounds
- Any other common facilities used by the fishermen or fisherfolk villagers
- Open spaces/vacant land abutting or inside the fishing village
- Proposed activities as decided under socio-economic panning*

**BOX**

Due to growing population in India, per capita availability of land has reduced from 0.89 Ha in 1995 to 0.27 Ha in 2007/08. It is estimated that by 2030, India will become the most populated country on earth with 17.9% of world’s total population. With this, the per capita land availability will further reduce. Such reducing per capita land availability will have a direct bearing on the land requirements for various developmental purposes and community development. The concerns become severe when the land availability is reduced directly in the areas that support human life or natural resources such as water or ecosystems including flora and fauna, and agricultural areas (Department of Land Resources 2013).
There shall be two cadastral maps prepared by the facilitator / coordinator / individual expert they are;(1) existing land use of the fishing village (2) proposed planned activities in the fishing village. The cadastral map shall be treated as draft, which can be finalized after the PRA. Central Sector Scheme on strengthening of database and Geographical Information System (GIS) for fisheries sectors being implemented by the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture. The scheme grants may be utilised / applied for fishing village land use mapping. Fisherfolk village land use plans shall be integrated with subsequent levels to prepare master plans at Panchayat, CRZ local plans, and master plans at district level. Image 1 &2 depicts the existing land use and the proposed land activities.

3.1. C.2. Application of Shoreline Change Maps

Shoreline is the boundary between land and sea which keeps changing its shape and position continuously due to dynamic environmental conditions. The change in shoreline is mainly associated with waves, tides, winds, periodic storms, sea-level change, geomorphic processes of erosion and accretion and human activities. Coastal shorelines worldwide are changing rapidly as a result of natural physical processes and human activities. Natural factors such as sediment supply, wave energy, and sea level are the primary causes of coastline changes, whereas human activities are catalysts causing disequilibrium conditions that accelerate changes. Since the land on the shore is uncertainty due to shoreline changes especially due to erosion, planning in the fishing village shall consider these changes to verify the shoreline trends.

In the CRZ 2011 Notification, shoreline change is an important parameter for ‘hazard line’ preparation. A report shoreline study conducted by the National Centre for Sustainable Coastal Management (NCSCM), Chennai is available on its website for comments. Image-1 given above gives the details of the shore line changes in Kottivakkam fishing village. Many States have approved the maps and few States are in the process. These maps have been prepared based on the comparative study of four satellite images dated 1980, 1990, 2000 and 2009 at 1:10000* scale. Accordingly, the shoreline of mainland coast of India has been classified as high erosion coast, medium erosion coast and stable or low erosion coast. The

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maps are a direct source of information about the eroding sites and trends. Based on the Identification of such as eroding stretches, major long term proposals in the eroding sites shall be avoided towards protection of life and properties of the fishing communities.

As per the CRZ 2011, erosion control measures are exempted from prohibition. However, measures for control of erosion are based on scientific studies including Environmental Impact Assessment (EIA). Clearance shall be obtained to implement the erosion control measures in the fishing villages. It is technically recommended that the analysis of predicting shoreline location shall be utilised for setback programme (Crowell et al. 2012). Hence, planning for establishing fishing harbours, jetties and other infrastructures in fishing village shall be checked with the shoreline changes maps to mitigate erosion hazard and to protect / avoid investments. In addition, sediment cell concept shall be applied to protect the shore.

**BOX 02**

Further, CRZ 2011 prohibits activities of port and harbour projects including fishing harbours in high eroding stretches of the coast, except those projects classified as strategic and defence related. To get clearance of activities in CRZ areas from MoEF& CC shall have comprehensive EIA with cumulative studies for projects in the stretches classified as low, high and medium eroding by MoEF& CC based on scientific studies and in consultation with the State Governments and Union Territory Administration.

3.1.D. Fishing Village Plan Report Preparation

This section would include all work plans and framework involved in defining roles and responsibilities, based on individuals and groups to implement the plan through PRA methods. The socio-economic plan and land use plan of the area will be finalised through group consultation and recording the proceedings and sharing the report with the village panchayat, Panchayat Samiti, Zilla Parishad, administrative bodies and planning authorities of the district to converge the micro plan with macro plans of the district to implement
various schemes in the fishing village. The micro level plan will be monitored and revised if required through PRA and the changes will be informed to the concerned authorities of the district.

3.1.E. Fishing Village Plan Implementation

Decentralise planning exercises are being recognised in local level governments. At present, the district planning committee and panchayat samitis are planning for the Panchayats. The local level micro plans prepared by grama sabhas approved by the village panchayat will be advantageous to the district committee to identify the needs of the fishing villages in the districts coastal areas. Micro level plans prepared in the villages through PRA methods, shall be approved and forwarded through proper channel for incorporation in the district plans and sanctions. Accordingly, the micro-plans prepared by the fishing village shall be agreed by the village panchayat, and forwarded to panchayat samiti with their recommendations. If panchayat samiti approves the plan, it may be forwarded to the zilla parishad and District Planning Committee to incorporate in the annual plan, five year plans and other plans as required. The plans also shall be distributed to the District Coastal Zone Management Authorities, District Disaster Management Authorities, District Rural Development Authorities, Department of Fisheries, District Rural Development Agencies, and other relevant authorities and district authorities for consideration to incorporate fishing village plan in the macro plan at block level and district level. In addition, village panchayat president and facilitator shall continuously monitor the relevant schemes and propose plans if appropriate. Financial sanction would be as planned at district level for the village panchayat which will be reflecting the fishing village requirements. The components of the approved plan should thereafter be projected by the departmental officers concerned, who should then get the administrative, financial and technical approvals as may be necessary. The major works shall be carried out based on the approvals and sanctions of activities to the fishing village as guided by the Government. Implementing the plan rests with the fishing community grama sabha, panchayat president, member and functionaries of the plan implementation authorities at different levels. Fishing village gram sabha shall monitor and conduct social audits in association with the panchayats president for progress and achievements.
Part II

3.2. Provisions for welfare and infrastructure development in fishing

Some factors shall be focussed in the socio-economic planning of fishing villages like; education, banking and credit facilities, application of micro insurance for craft and gears coastal security, communication networks, and fisherwomen empowerment. However, it is to be noted that, education levels of coastal fishermen are very poor compared to the National average. Many provision and schemes of the Government shall be efficiently utilised to improve the education level of coastal fisherfolk. Further, the fisherfolk community require credit facilities to support purchase of crafts and gears, processing and preparation of value added products, marketing facilities. Informal credit facilities are exploitative in nature and it critically influences development of fisherfolk community. This is because of poor number of banking branches operations (or) facilities available to provide formal credit facilities.
There are many conflicts in coastal fisheries within the village, between the fishing villages, between the States and transnational boundary, etc. Coastal police stations, coast guard and navy are warning and safeguarding the fishermen in the sea and coastal land. Efficient utilisation of security measures of the fisherfolk can address the security issues faced by the community in a large scale. The socio-economic plan can develop linkages to incorporate coastal security measures. In addition, communication between the shore and fishermen at sea during disasters, discussion about the catch and market conditions are important role which shall be incorporated in the socio-economic planning of the village.

Fisher women of India have been involved in fish marketing and fishery related allied activities. Even though, women are non-entities of community affairs of the fishing villages. Fisherwomen empowerment, gender mainstreaming and gender budgeting in fishing community is a critical factor which shall be incorporated in the fishing village planning. Hence, many roles and responsibilities during planning and implementation stage shall be allocated to fishing women in the socio-economic planning.

![Graph-2 Infrastructure - fishery related](image)

**Source:** MFC 2010 report, p.46.

3.2.A. Implications of Fish Drying, Processing, Storing and Marketing in Fishing Village Planning
Fish is perishable and must be processed within a few hours of being caught, because no form of processing or preservation can improve the quality of spoiled fish. Sun drying of fishes is a simple and the oldest traditional method of fish preservation throughout the Indian subcontinent. Drying method is considered as the least expensive method of fish preservation. India is the second largest fish producing country in the world with the contribution of 5.43% of total global fish production and West Bengal ranked second position after Andhra Pradesh. Fish is an important part of diet and consists of rich protein. The nutritional quality if dried fish remains intact, sometimes retains higher quality standards compared to fresh fish. Drying fish is cheap and effective in India’s climate, hence, it has been practiced by Indian fishermen for time immemorial. The fish drying work is very simple for fisherman and family and the dried fish products are easily transported to the demanding markets. Dried products are in great demand both within and outside the country and form an important source of protein rich food in various forms. Dried fish now caters to different sectors such as quality fish/prawns for human consumption, and low value fishes for the preparation of fish feed as well as poultry feed. Fish drying and marketing is generally the forte of the women folk though a few men have now entered the business. The activity that started off as a subsistence form of occupation has now...

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6 Balachandran KK. (2001), *Post-harvest Technology of Fish and Fish Products*, Daya Publishing House, Delhi, pp. 77.
developed into an organised sector. Further, popularisation of drying racks, identification of separate fish drying yards near to the fishing harbour improves the quality of dried fish to increase the consumption which in turn increases of the income to fisherfolk engaged in fish drying. Fish drying occupation provides regular, additional and alternative fulltime employment and improves the living standards of the coastal fisher folk.

The process of drying involves enzymatic or microbial activity on the fresh fish in the presence or absence of salt. The dried product retains most of the nutrient goodness of fresh fish with higher concentrations of proteins, vitamins, iron and calcium. When packed and stored properly, dry fish has a shelf life of more than two years. However, all species of dry fish are in great demand during the fishing ban period when there is shortage of fresh fish in the market. Care is taken to maintain hygienic conditions when the fish are being dried for human consumption. Drying is done on a concrete platform, coir mats and hanged on ropes in the beaches near to the landing centres. Hence, PRA shall identify the common usage areas for fish drying in the fishing village which should be incorporated in socio-economic planning and the land used for the above purpose shall be classified in the land use map.

Various studies have pointed to the high levels of wastage in the Indian fishery due to spoilage. This is particularly acute during the monsoon, when up to 30% of the catch could be lost. Development of infrastructure facilities for the fishery sector is one of the important factors contributing to marine fish production and its exports. Due to limited number of Fishing Harbours / Fish Landing Centres (FHs/FLCs) available along the coastline,

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10 Ibid., p.7.
large numbers of boats are landing their catches on sandy beaches, where no back-up facilities are available to allow for auction, packing or storing, etc. In many places poor road connectivity is responsible for spoilage of the fish landings, which otherwise would have gone for human consumption. Therefore, strengthening of post-harvest infrastructure such as chilled storage facilities, ice plants, cold chains and freezing/processing units, roads and transportation, modern and hygienic wholesale and retail market outlets etc., as well as effective marketing system in identified areas are the key requirements for the development of the fishing sector. The PRA shall identify the requirements if any for such infrastructures facilities and shall be incorporated in the socioeconomic plan and land use plans.

In CRZ 2011, natural fish drying in permitted areas have been given exceptions for prohibition in CRZ areas. In the NDZ areas of CRZ III, facilities required for local fishing communities such as fish drying yards, auction halls, net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like are permitted. In the CZMP guidelines, it has been directed to the States to prepare CRZ maps and local level maps (cadastral) indicating fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities for fishing. In the areas requiring special consideration (CRZ V), fish drying and processing by traditional means are regulated in the Kerala coast and the above activities can be taken up within 50 mtrs from the HTL. In Goa, measures will be taken by state government to notify the fishing villages for providing facilities for fishing shall be approved by village Panchayats.

3.2.B. Fish Markets
Fish markets, both wholesale and retail in the country are in a pathetic condition. Mostly whole fish is sold in the market and there is negligible processing/value addition. Further, while marketing, transportation or storage of fish, the standard norms of hygiene and sanitation are least considered, leading to a product that is contaminated and unsafe from food safety point of view\textsuperscript{11}.

In the given circumstances, it is essential to augment the infrastructural facilities in considerable numbers. The needs are not only for establishing landing centres but also for modernisation to produce quality products and to meet international standards\textsuperscript{12}. To produce high quality fish products to meet the demands of the international standards, infrastructures facilities should be strengthened for processing fish which may be required additional lands in fishing villages. The PRA conducted should analyse the requirements and allot sufficient space in the land use plan to develop such processing infrastructures, if


required. State Governments with the support of Central Government are establishing various infrastructures for fish processing such as peeling yards, curing yards, processing plants, ice factories, cold storages and freezing plants. The above infrastructures are being established to improve the quality of value addition to fish products and to meet both National and International standards. Accordingly, India’s coastal region has 2903 number of fish processing facilities in various States and UTs (2010). Of this 60 % of the fish processing infrastructure facilities are located in Kerala and Gujarat.

The scheme ‘Marine infrastructure and post-harvest operations’ supports to improve the quality and standards of harvested fishes by modernising post-harvest technologies, marketing, processing and value addition. Under this scheme, construction of new and upgradation of existing major and minor fishing harbours and landing centers are implemented. The post-harvest activities include construction of processing plants and new model retail fish markets, modernisation of wholesale markets, facilities of transport & insulated containers to societies, provision for marketing (Kiosk) for women SHGs and value addition for SHGs\(^1\). National Fisheries Development Board (NFDB) proposes to set up hygienic solar fish drying units and fish drying platforms for sun drying all over India.

These units are planned to provide practical models for fishers to adopt similar methods for their drying requirements, resulting in safe and quality, dried fishery products and significant reduction in post-harvest losses. The NFDB will assist the following two components to support solar drying of fish: (i) Setting up of solar drying units (ii) Platforms for sun drying of fish. Under this category, the NFDB will support setting up of solar drying units with capacity 1,000 kg or above wet fish per load. The driers under this category can be solar driers and solar driers with LPG back-up depending up on the climatic condition of the region where the facility is set up. The platforms for drying of fish can be prepared from SS mesh on SS frame so that proper sanitation and hygiene can be maintained on a daily basis. The capacity shall be 100 kg wet fish or its multiples. This will enable better quality dry fish production which will improve consumer appeal and marketing with significant reduction in post-harvest losses (National Fisheries Development Board 2012). These schemes shall be efficiently utilized by the fishing villages based on the requirements and

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existing facilities for improving the quality and standards. The plans of the village should address infrastructure facility gaps to utilize the above scheme\textsuperscript{14}.

3.2.C. Warehouses

Warehouses of fish products is an important instalment to store the dried / processes food product to sell it for good price. Warehouse Regulatory and Development Authority (WRDA) is setting up standards for agriculture products to modernise warehousing. The aim is to enlarge uses of negotiable warehouse receipts that can be linked to e-trading, both spot and future, so that farmers have an alternative to mandis. Private sectors are also being encouraged in creation of warehousing capacity, cold storages and supply chains\textsuperscript{15} (Planning Commission 2013). The fishing village plans shall include the warehouses covering WRDA standards, if necessary. These warehouses may be proposed near to urban fishing villages that linking various fishing villages and fish markets. Land for peeling yards, curing yards, processing plants, ice factories, cold storages, freezing plants and warehousing are important requirement in the coastal villages. PRA and resource mapping

\textsuperscript{14} Ibid., P24

\textsuperscript{15} Ibid., 92.
of land use plan and socio-economic plan of the fishing village shall analyse the requirements and allot land for the infrastructure development.

3.3.D. Fishing Harbours, Jetties and Landing Centres in Fishing Villages

The fishing harbours and landing centres are interface between harvested fish and its consumption. In recent years, world fisheries have become a market-driven sector of the food industry and many coastal states have striven to take advantage of this new opportunity by investing heavily. With regard to harbours and landing places for fishing vessels, Article 6.17 of FAO code conduct for responsible fisheries sets out that States should ensure that fishing facilities and equipment as well as all fishing activities allow for safe, healthy and fair working and living conditions and meet internationally agreed standards adopted by relevant international organizations. More specifically, Article 8.9 addresses harbours and landing places for fishing vessels. Recent European Union rulings
have even gone one step further by banning outright all fish imports from certain countries\textsuperscript{16}.

India’s coastal States and UTs have 1537 fish landing centres and fishing harbours located in 45\% of fishing villages. Usually the fish landing centres are major fishing harbours, minor fishing harbours, jetties, and wharfs. In order to meet the infrastructure requirement of fisheries sector, a centrally sponsored scheme, with the objective of providing infrastructure facilities for safe landing and berthing of traditional fishing craft, mechanized fishing vessels and deep sea fishing vessels had been initiated in 1964. The infrastructure development activities included breakwaters, wharf, jetty, dredging, reclamation, quay, auction hall, slipway, workshop, net mending shed and other ancillary facilities.

Central financial assistance is provided to various implementing agencies:

\begin{itemize}
  \item[(i)] 75 \% to coastal States, port trusts, fishermen cooperative societies/organizations and 100 \% to UTs for (a) construction of minor fishing harbours (FHs) and Fish Landing Centres (FLCs); and (b) upgradation/ expansion/repair/renovation of existing minor fishing harbours and FLCs;
  \item[(ii)] 100 \% assistance to coastal States, Port Trusts, fishermen cooperative societies/organizations for construction of major fishing harbours, including expansion/modernization of existing major fishing harbours; and
  \item[(iii)] 50 \% assistance to private entrepreneurs for construction of major/minor fishing harbours and FLCs on Build, Operate & Transfer (BOOT) basis.\textsuperscript{17}
\end{itemize}

Under these schemes many infrastructure development and management activities have been implemented. While planning for fishing port, whether it be a small landing jetty on a beach or a large deep-water port, it is better to design a layout with arrangements flexible enough to permit adjustment at a future date, if the assumptions on which the needs assessment were based on ground realities. In other words, a fishing port and its land-based infrastructure should not be stuck in between fixed land boundaries (like schools, playgrounds, cemeteries, factory sites, housing, etc.) with no scope for expansion at a later date. Vice versa, if a new port is planned along a stretch of virgin coastline, a suitable buffer


\textsuperscript{17} Ibid., p. 122.
zone should be included around the port and land-use master plans should be strictly enforced to ensure that the buffer zone is not settled by illegal service settlements that generally crop up around such facilities in a matter of a short time\(^\text{18}\).

**BOX 03**

CRZ 2011 Notification has given many exemptions for establishing fishing harbours, jetties etc, in the fishing villages. In the CRZ 2011, it has been exempted from prohibition in CRZ areas for the activities directly related to waterfront or directly needing foreshore facilities. Accordingly, fishing harbours, jetties, quays, breakwaters, erosion control measures and wharves can be constructed in fishing villages. Land reclamation for the above activities is exempted from prohibition in CRZ areas. However, the port and harbour projects are not permitted in the high eroding stretches of the coast. Clearance shall be proposed for the above activities for approval from competent authority.

Government supports the maintenance of the fishing harbours and landing centres. Considering the siltation problem faced by existing fishing harbours and fish landing centres, a Trailing Suction Hopper Dredger ‘TSD Sindhuraj’ has been procured under the Japanese Grants-in-aid programme. The dredger TSD Sindhuraj is the ideal for dredging in shallow waters including fish landing centres. The ability of the dredgers with 2 to 2.50 meters’ draft and 200 cubic meters’ hopper capacity can remove siltation of about 2 lakh cubic meters annually. The operation and maintenance of the dredger has been carried out through the Department of Ports, Government of Kerala, for which the maintenance cost and insurance etc. are borne by the Centre under the scheme. Besides, central assistance to the tune of 50 % of the cost of dredging/de-silting at existing fishing harbours and fish landing centers has been provided to various implementing agencies. In case of Union Territories (UTs), 100 % cost of maintenance is borne by the Union Government (Ministry of Agriculture 2013). The PRA should identify the requirements if there is any for such

infrastructures facilities and the same shall be incorporated in the socio-economic plan and land use plans.

3.3.E. Housing in Fishing Villages

Shelter is a vital entitlement to a citizen. Human rights treaties emphasise the overriding need to ensure, among other rights, the right to adequate shelter. Article 21 of the Constitution of India guarantees the ‘Right to Life’ to all its citizens. MFC 2010 India report indicates that 2,97,840 kutcha houses and 5,66,710 pucca houses are documented with...
8,64,550 fishing families living in 3,288 fishing villages (data excludes two islands) (MFC, 2010, p.210, table 16). Government has large number of programmes for providing housing to the poorer sections of society. These are funded out of the Government Budget or subsidized through housing schemes floated by Public Sector financing agencies. While “safe housing for all” has to be enforced through a strong techno-legal regime, Government schemes should lead the way by providing safe houses for people. Schemes such as Indira Awaas Yojana (IAY), Rajiv Awas Yojana (RAY) and Jawaharlal Nehru National Urban Renewal Mission (JNNURM) are relevant in this context

The Ministry of Rural Development has redesigned the housing programme Indira Awas Yojana (IAY) into Pradhan Mantri Awas Yojana - Gramin (PMAY-G) in April 2016. PMAY-G provides a pucca house, with basic amenities like piped drinking water, electricity connection, and Liquefied Petroleum Gas (LPG) connection by convergence of different schemes and programmes run by the government to all homeless and those living in kutcha and dilapidated houses by 2022. The selection of PMAY-G beneficiaries is based on the Socio-Economic Caste Census (SECC) 2011. The beneficiaries are provided with the unit assistance of Rs 1.20 lakh for plain areas and Rs 1.30 lakh for hilly, difficult, and Integrated Action Plan (IAP), areas and the funds are transferred digitally directly to the account of the beneficiary. Apart from the unit assistance, they are entitled to 90-95 days of employment under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Rs 12,000 for constructing toilets under the Swatch Bharat Mission (SBM).

Some states do have their own additional benefits added to this program. Above all, the scheme also helps the beneficiary to mobilise up to Rs. 70,000 as loan from formal financial systems.

The Ministry of Housing and Urban Affairs is entrusted with the responsibility of broad policy formulation and monitoring of programmes regarding urban housing and urban development. It is the nodal ministry for planning and coordination of urban transport matters at the central level. Urban development is a State subject and the Constitution (Seventy-Fourth) Amendment Act, 1992 has enjoined upon State Governments to delegate

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many functions to urban local bodies. In 73\textsuperscript{rd} Constitutional amendment, several functions including rural housing were transferred to Panchayat Raj Institutions (PRIs).

The CRZ Notification (para 3, (e)) has given exemptions for reconstruction, repair works of dwelling units of local communities including fishers in accordance with the local town and country planning regulations. Further, para 8 (III) (ii) of CRZ 2011 Notification has guided that, “construction/reconstruction of dwelling units of traditional coastal communities including fisherfolk may be permitted between 100 and 200 metres from the HTL along the seafront in accordance with a comprehensive plan prepared by the State Government or the Union territory in consultation with the traditional coastal communities including fisherfolk and incorporating the necessary disaster management provision, sanitation and recommended by the concerned State or the Union territory CZMA to NCZMA for approval by MoEF. This provision may be utilised, if required using the fishing village plan.

The houses constructed for fishermen should have the capacity to withstand coastal disasters. Under GoI – UNDP Disaster Risk Management Programme, the Ministry of Home Affairs has developed ‘guidelines for development and building constructions including safety provisions for natural hazards in rural areas. The guidelines shall be applied to the construction of houses in fisherfolk villages. The guidelines provide detailed understanding of the role and responsibility of various institutions including PRIs for addressing disaster risk for buildings in rural areas. In addition, all new houses will be insured through group insurance to spread the risk of losses due to natural disasters and other calamities such as fire. The fishing village plan should incorporate all these features. MFC data regarding housing is depicted in Map-3.

3.2.F. Road

Captured fishes landing on the beach should reach processing plant, warehouse and market immediately to fetch good market value. Being a tropical country, captured fish cannot be kept fresh for long without refrigeration and processing. But most of the fishing boats do
not possess refrigerator and processing facility. Replacement of fishing craft used by the fishermen of India as power driven boats should possess facilities for quick refrigeration to avoid decomposition at the sea. In addition, marketing of fish products requires proper road network to reach out to a larger market quickly to get better remunerative price. Well established road network infrastructures also support to produce value added fish products including arranging canneries for surplus fish, and utilizing discarded portions of fish for making fertilizers, etc. Improvements in road transport can have important economic effects on fishermen economics.

The CRZ 2011 has provided provisions to create and improve road networks for the local communities including fishermen. In the CRZ areas land reclamation, bunding or disturbing the natural course of seawater are prohibited but exempted for bridges, sea link, and road on stilts and pillars which are required for traditional inhabitants living within biosphere reserves. In the intertidal area, construction of roads, bridges and jetties are permitted through incorporation of necessary safety measures after obtaining approval from concerned CZMA. In the NDZ area and the areas between 200 meters to 500 meters, construction of bridges and roads for the local inhabitants may be permitted on a case to case basis by CZMA. In the CVCA areas, IMP shall be prepared keeping in view the needs of local communities which include facilities such as roads, bridges and jetties. Until the IMP is prepared, the CZMA authority shall approve the road facilities case by case basis. In the guidelines to prepare CZMP preparation, it has been mentioned that at the local level maps which are used for local bodies (cadastral scale maps), the road network shall be indicated in the fishing villages. About 60 % of the fishing villages have bus stands or bus stops but, the remaining fishing villages needs to be connected through transport networks by improving or developing road network in the fishing villages (CMFRI, 2010).

The schemes of the rural development programmes shall be applied to develop or create road networks in the fishermen villages / hamlets. Pradhan Mantri Gram Sadak Yojana (PMGSY) is a nationwide scheme which support to provide good all-weather road connectivity to unconnected villages. This Centrally Sponsored Scheme was introduced in 2000. The PMGSY is a 100% centrally sponsored scheme. The goal is to provide roads to all villages with a population of 1000 persons. The spirit and the objective of the PMGSY is to provide good all-weather road connectivity to eligible unconnected habitations. A
habitation is a cluster of population, living in an area, the location of which does not change over time.

PMGSY covers the fisherfolk living in such hamlets as beneficiaries. A habitation which was earlier provided all-weather connectivity would not be eligible even if the present condition of the road is bad. The unit for this programme is a habitation and not a revenue village or a Panchayat. Further, the PMGSY recommended the districts to prepare a District Rural Roads Plan (DRRP). The DRRP shall identify the fishing hamlets along the coastline of the district and develop road networks to the hamlets. The core network will identify the roads required to assure each eligible habitation with a basic access (single all weather road connectivity) to essential social and economic services. Accordingly, states may, each year, distribute the state’s allocation among the districts giving at least 80% on the basis of road length required for providing connectivity to unconnected habitations and up to 20% on the basis of road length requiring upgradation under the PMGSY.

It has been directed to the districts to prepare block level District Rural Road Plans (DRRP) maps for various districts. Accordingly, preparation of the block maps, using topographical maps at 1: 50,000 scale, has been explained in the operational manual of DRRP. The block maps should show the features such as all habitations up to a population of 100; all roads viz., NH, SH, MDR, rural roads, constructed by different agencies including roads under construction as well as cart tracks and paths (in hilly areas especially); major rivers/streams; administrative office location like block & tehsil headquarters; gram panchayat headquarters, patwari office etc.; health service facilities (including veterinary facilities); educational service facilities; market centres and rural business hubs; places notified by
State Govt., as being of tourist interest; quarry sites; market centres, administrative centres like sub divisional headquarters and main roads which are outside the block boundary but serve the habitations in the block also be marked. The road network connectivity for fishing hamlets and proposals under DRRP should be prepared to incorporate in DRRP is also important to develop infrastructures for the fishing hamlets. PRA shall identify the requirement if required and should propose road network in the plan to incorporate in the panchayat plan and for recommendations to DRRP for consideration. Accordingly, socio-economic plan and land use plans shall incorporate the requirements.

3.2.G. Electricity

To produce quality fish products for market standards, processing units, ice factories, ware houses etc., are essential and they require power supply. Further, streets and shore roads of the fishermen villages should be lightened to facilitate movement of fishermen at night time. Other than that housing requirements, common properties of fishermen also should be electrified for community requirements. In India, about eighty-seven percentages of coastal fishing villages are electrified. The remaining fishing villages can be electrified using the central government schemes implemented by local governments (CMFRI 2010). In the CRZ areas, facilities for generating power by non-conventional energy sources in the areas not classified as CRZ-I (i) is based on impact assessment study including social impacts and are exempted from generating power by non-conventional energy resources. CRZ II areas, NDZ areas, and area between 200 meter - 500 meters. Fishing villages can find the opportunities to get non-conventional energy resources using common property lands. Further, the CRZ

Notification norms permits establishment of electric sub-station required for local inhabitants on a case to case basis by CZMA.

In the fisherfolk villages / hamlets Rajiv Gandhi Gramin Vidhyautikaran Yojana (RGGVY) can be implemented to get power supply in the fishing villages / hamlets who do not possess power grid / electric supply. The Ministry of Power launched Rajiv Gandhi Gramin Vidhyautikaran Yojana (RGGVY) as one of its flagship programme in March 2005 with the objective of electrifying over one lakh un-electrified villages and to provide free electricity connections to 2.34 crore rural BPL households. This programme has been brought under the ambit of Bharat Nirman. Under RGGVY, electricity distribution infrastructure is envisaged to establish Rural Electricity Distribution Backbone (REDB) with at least one 33/11KV sub-station in a block, Village Electrification Infrastructure (VEI) with at least a distribution transformer in a village or hamlet, and standalone grids with generation where grid supply is not feasible21.

3.2.H. Drinking Water

The quality of drinking water is important to maintain health of all but it is more compromised in coastal communities as the quality of ground water in costal aquifers is constrained by several factors, both natural and anthropogenic. These include depositional environments, inundation during tides and cyclones, municipal and industrial contamination etc (Central Ground Water Board., 2014). Historically, drinking water supply in the coastal areas in India has been outside the government’s sphere of influence. Community-managed open wells, private wells, ponds and small-scale irrigation reservoirs have often been the main traditional sources of drinking water. Provision of safe drinking water is a basic

21 http://powermin.nic.in/bharatnirman/bharatnirman.asp
necessity. Fishermen villages are using ground water for various uses including drinking purpose. Ground water are extracted from the coastal aquifers located near the fisherfolk villages and stored in tanks and then supplied to the fisherfolk villages through pipelines. Water to these fisherfolk villages can be supplied from varied sources (1) community water systems (2) tubed or piped wells (3) dug wells (4) springs / lakes/ rivers / rain and (5) suppliers. Piped sources tend to deliver safer water than un-piped ones, deep wells deliver safer water than shallow dug wells and well water is safer than water coming from lakes and rivers\(^\text{22}\).

The CRZ 2011 has given exemptions for prohibition in the withdrawal of groundwater, in areas inhabited by local communities where the water is meant only for their use. In the CRZ areas, setting up of desalination plants has been exempted from prohibition in the areas not classified as CRZ-I(i) based on an impact assessment study including social impacts. Further, in the area between 200 m-500 m zone the withdrawal of groundwater shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries and where no other source of water is available. However, the Notification has guided that restrictions for such withdrawal may be imposed by the Authority designated by the State Government and Union Territory Administration in the areas affected by sea water intrusion. While permitting facilities for water supply, drainage, and sewerage which are required for traditional inhabitants living within the biosphere reserves, the CRZ 2011 has recommended taking necessary safety measures to be incorporated while permitting such facilities in LTL and HTL areas which are not ecologically sensitive, after obtaining approval from concerned CZMA. In the CVCAs, the Integrated Coastal Management Plans (IMPs) shall be prepared keeping in view the facilities required including water supply, drainage, sewerage for the local communities. Till such time the IMPs are approved and notified, facilities required for traditional inhabitants shall be permitted on a case to case basis, by the CZMA with due regards to the views of coastal communities including fisherfolk. In the NDZ area of CRZ III, water supply,

drainage, and sewerage facilities which are required for the local inhabitants may be permitted on a case to case basis by CZMA.

**BOX 04**

The CRZ 2011 has exempted prohibition for setting and expansion of units or mechanism in CRZ areas for discharging treated effluents into the water course with approval under the Water (prevention and control of pollution) Act., 1974; storm water drains and ancillary structures for pumping; treatment of waste and effluents arising from hotels, beach resorts and human settlements located in CRZ areas other than CRZ-I and disposal of treated wastes and effluents.

In areas between 200 m to 500 m of CRZ areas, construction of public rain shelters, community toilets, water supply drainage, and sewerage, may be permitted by CZMA for local inhabitants of the area for those panchayats where the major part falls within CRZ, if no other area is available for construction of such facilities.

Availability of safe drinking water and adequate water available for other uses reduces health problems. Coastal land salinization and salt water ingress are major hazards encountered along the Indian coast which can hamper the rapid socio-economic growth of the coastal states and the economy of the country as a whole. Seawater intrusion in coastal aquifers leads to reduction of availability of good quality drinking water.

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In coastal regions, that are in close proximity to the sea, salinization may lead to changes in the chemical composition of natural water resources, degrading the quality of water supply to the domestic, agriculture and industrial sectors, loss of biodiversity, taxonomic replacement by halotolerant species, loss of fertile soil, collapse of agricultural and fishery industries, changes in local climatic conditions, and creating health problems; thus, affecting many aspects of human life and posing major hindrance to the economic development of the region. Other than salt water intrusion, contamination by industrial pollution and sewage also cause depletion of good quality ground water. Untreated or partially treated industrial effluents are major sources of surface and ground water pollution in and around the industries. But the effect generally gets diluted away from the mouth of the estuary, creek, or other such openings to the sea. However, the impact of industries locates at certain pockets due to continuous dumping of urban waste are polluting the quality of ground water. Effluent treatment and discharge of treated water should be practiced by the industries.

Under the Indian Constitution, the duty of providing clean drinking water and improving public health standards lies with the states. This responsibility is transferred to the PRIs in rural areas and to municipalities (called Urban Local Bodies) in the urban areas. The planning, designing and

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24 Ibid., p.22.
25 Ibid., p.106.
execution of water supply schemes takes place through State Departments (of Public Health Engineering or Rural Development Engineering) or state water boards. The central government is responsible for providing financial and policy support to the state governments. The age of written water regulatory laws is much recent and the need has emerged primarily from irrigation and livelihoods based water usages. The regulation of drinking water or domestic water supply in India is still in its nascent stage.

To improve the water resource management in fishing villages, works relating to repair and reconstruction, construction of water harvesting structures which directly benefits drinking water sources such as check dam, subsurface check dam, diversion channel, catchment improvements, deepening and de-silting of pond, etc. shall be implemented. To enhance the water quality and to manage the water aquifer, CRZ 2011 stipulated many actions. Accordingly, maintenance of clearing waterways is exempted from prohibition in CRZ areas. Further, laying of storm water drains or for structures for prevention of salinity ingress and freshwater recharge carried out by any agency to be specified by MoEF&CC are exempted from prohibition in CRZ areas. Guidelines for development of beach resorts or hotels in the designated areas of CRZ-III and CRZ-II for occupation of tourist or visitors with prior approval of the Ministry of Environment Forests and Climate Change, the CRZ 2011 Notification has recommended that construction of basement for beach resorts may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect fee flow of groundwater in that area. It has been recommended that the State Ground Water Authority shall take into consideration the guidelines issued by Central Government before granting such no objection certificate. Further, the CRZ 2011 directs that groundwater shall not be tapped within 200m of the High Tide Line by the resorts, but in the 200m 500m zone, it can be tapped only with the concurrence of the Central or State Ground Water Board. The beach resorts shall make necessary arrangements for the treatment of the effluents and solid wastes and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach.

26 Water Aid India, (2017), Drinking Water Quality in India, p.12
27 Ibid., p.15.
The following are recommended activities to prevent/control saline water intrusion into coastal aquifers include:

(i) Regulation of ground water development in coastal areas
(ii) Formation of a freshwater ridge parallel to the coast through artificial recharge
(iii) Formation of a pumping trough through a series of pumping wells aligned parallel to the coast.

Considering the responsibility of PRIs in providing drinking water supply, the water resource management activities should be taken by the fisherfolk villages. Formulation of District Water Security Plans (DWSP) is imperative. DWSP will provide development of institutional capabilities at the District Planning Board/ZP and GP/village level for preparing holistic plans for which provision must be made through allocation of funds as well as defining the institutional mechanism for capacity building and management of the Rural Drinking Water and Sanitation (RWS) sector (Department of Drinking Water Supply, 2010). Drinking water plans of Panchayats will be prepared for the fishing village. The plans may also be shared with the district drinking water planning board. PRA will identify the road,

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electricity and drinking water requirements, if any and shall be incorporated in the socio-economic plan and land use plans.

3.2.I. Sanitation, Hospitals, Health Facilities in Fishing Village Plan

Though health issues in coastal areas are more or less similar to non-coastal areas of India, the range of vulnerability and proportion of the population at risk are much higher in coastal areas compared to the interior rural and urban villages. The coastal population in India are very vulnerable to communicable and non-communicable diseases. The specific attributes of effects of climate change and disasters make the attitude towards risk of disease and their solutions very different from the rest of the country. Poverty, lack of awareness on health and disease, lack of access to quality health care and functional public health programs further increase the risk of falling prey to disease in coastal communities. Self-medication and consultation with informal health care providers has complicated the situation in the coastal areas.
Attention to mitigate the effects of disasters (flooding, mortality and impoverishment) and climate change (rising temperatures and sea levels, changing pattern of disease transmission) is the need of the hour. Inadequate sanitation in coastal areas boosts the spread of a variety of diseases. Pathogenic microorganisms commonly transferred among members of human communities through faecal–oral pathways include infectious bacteria, viruses and protozoa. Among these disease agents are those responsible for cholera, hepatitis, poliomyelitis, typhoid and parathyroid fevers, giardiasis, cryptosporidiosis, and various other forms of bacillary and amoebic dysentery and diarrhoea. Helminths frequently found in human hosts where sanitation is inadequate include, among others, hookworms, tape worms, round worms, liver flukes, and schistosomiasis.

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29 Op cit.  
In India, 31.3% of the fishing villages have hospitals which are run by private or Government. Fishermen health is very important due to their living environment hence, the schemes of the central government and state governments will be efficiently utilised in the fishing villages (CMFRI, 2010). Construction of hospital complexes in CRZ area are permissible activity which can be approved by the Ministry. In the CRZ 2011 Notification, it has been emphasised that the States shall prepare detailed plans for basic infrastructure requirements of fishermen villages including sanitation. Maintenance of sanitation in fishing villages shall improve the health quality of fishing community. Areas between LTL and HTL which are not ecologically sensitive, necessary safety measures shall be incorporated while permitting the dispensary in the CRZ I areas. Construction of dispensaries in NDZ areas of CRZ III are permitted on a case to case basis by CZMA. In the area between 200 m to 500 m of CRZ III areas, construction of dispensary is permissible, if no other area is available for construction of dispensary. Integrated Management Plan (IMP) will be prepared to construct dispensary inside the Critical Vulnerable Coastal Areas (CVCAs). Till such time the IMP is prepared for the area, CZMA should permit the dispensaries case by case basis for local communities and fisherfolk living in CVCAs. In the Coastal Zone Management Planning (CZMP) activity, preparation of local level cadastral level maps prepared shall locate dispensaries in the maps.

The expert committee on leveraging panchayats for efficient delivery of public goods and services has recommended that under NRHM, district health mission must be universally
placed under the district panchayat and parallel structure under Sarva Shiksha Abiyan (SSA) are to be made accountable to panchayats\textsuperscript{31}. Rashtriya Swasthya Bina Yojana (RSBY)\textsuperscript{32} provides for cash less, smart card based health insurance cover of Rs. 30,000 /- per annum as registration / renewal fee. The scheme covers hospitalisation expenses, including maternity benefit and pre-existing diseases. A transportation cost of Rs. 100 /- per visit is also paid.

The premium payable to insurance agencies is funded by central and state governments is at the ratio of 75:25. RSBY was originally limited to Below Poverty Line (BPL) families but was later extended to building and other construction workers, MGNREGA beneficiaries, street vendors, beedi workers and domestic workers. Fishermen shall be encouraged to use the health insurance facilities through fishermen village level awareness campaign about the scheme.

District Health Mission (DHM) shall be implemented in line of State Health Mission. DHS is not an implementing agency; it is a facilitating mechanism for the district health administration as also the mechanism for joint planning by NHM related sectors. DHM should focus on disaster preparedness in fishing villages and collection of database on health issues of the occupational health hazards. At present, the fishing villages are supported with a health SC (Sub Centres), with a Para-Medical Staff (PMS), Auxiliary Nurse Midwife (ANM) and community outreach workers. The para- medical staff usually a Lady

\textsuperscript{31} Towards Holistic Panchayat Raj Twentieth Anniversary Report of the Expert Committee on Leveraging Panchayats for Efficient Delivery of Public Goods and Services, Volume2I sectoral schemes
\textsuperscript{32} http://www.rsby.gov.in/about_rsby.aspx
Health Worker (LHV) stationed at the PHC (Primary Health Centre), and the Auxiliary Nurse Midwife (ANM) is stationed at the SC. The community health and outreach workers consist of the male health workers stationed at the SC, Anganwadi Workers (AWW) stationed at an Anganwadi centre that provides day care for children, Village Health Guides (VHG) who provide first-aid and act as outreach workers, and trained birth attendants (TBA) who help with child birth as well as outreach. Fishermen villages shall ensure the location of SC and it shall be pointed in all maps in the fishermen village plans. Identification of various health and hospital facilities is very essential in the coastal areas. Socio-economic and land use plan shall emphasize health, hospital and emergency issues considering the local environment and surrounding environment including, ports, ship building, ship dismantling and other industries. The needs in health and emergency issues also shall be linked with the district disaster management plan. Accordingly, PRA shall conduct need assessments and incorporate that in socio-economic plan and land use plan.

3.2.J. Micro Level Disaster Management Plans for Fishing Villages

Coastal fishermen villages are the most vulnerable to natural hazards from the sea. Disaster management and applications vulnerability assessment shall be given priority in the decentralised planning of the fishing village. Hence, a local level disaster management plan shall be prepared for the fishing village. Hazard line and shoreline change maps prepared under CRZ 2011 shall be effectively utilised to protect the fishermen villages. The local level disaster management plan shall be linked and matched with the district disaster management plan prepared by district disaster management authority. Though the accidents and disasters of the fishermen and fishing crafts are occurring at sea, the rescue and recovery are mostly from the fishing village hence, the disaster management plan shall include the distress of fishermen in the sea.

33 Ashlesha Datar, Arnab Mukherji* & Neeraj Sood (2007), Health Infrastructure & Immunization Coverage in Rural India, Indian Journal of Medical Research, 125, January 2007, pp 34.
Coastal fishermen villages are most vulnerable to the natural hazards. Increased frequency of climatically induced extreme events like cyclones, storm surges, and rise in sea levels are increasing the vulnerability of the fishermen villages. Since marine fishing communities’ livelihood and profession entirely depend on sea and the coastline, the impact of coastal hazards to fishermen are high. Hence, disaster management and vulnerability assessment should be given priority to fishing villages. Coastal vulnerability and assessment of consequences of coastal inundation has been given higher priority in twelfth five-year plan.\textsuperscript{34}

Working group on development and management of fisheries and aquaculture (2012) recommended to build adaptive capacity to fishing communities for mitigating the threats from climate change and climate variability by relocate houses, schools, hospitals and dispensaries, and community halls in located in low-lying areas to safer locations during flooding and cyclone. Climate change and disasters are the major causes for increasing morbidity and mortality in the area. Tropical storms like cyclones as well as storm induced flooding and surges cause massive damage to life and property. Water borne diseases such as diarrhoea, cholera and typhoid, have resurfaced due to potable water scarcity and water contamination during frequent flooding. It is expected that morbidity will continue to

\textsuperscript{34} Report of the Sub-Group on “Environment” for 12th Five Year Plan, October, 2011
increase in wake of disasters caused by climate change, threatening the ongoing efforts to contain diseases\textsuperscript{35}.

Chapter IV, district disaster management authority Para (25) of disaster management act., 2005 has given directions for establishing district disaster management authority under the chairmanship of district collector / deputy commissioner. The act directs that the district authority shall act as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by national authority and state authority. Further, chapter VI, local authorities, para (41) of disaster management act., 2005, emphasises on the need to ensure all resources available for disaster management. Under sub clause c, DMA indicates to ensure the construction projects according to the standards and specifications laid down by the national and state level authorities subject to the directions of the district authority. The local authority shall carry out relief, rehabilitation and reconstruction activities in the affected area in accordance with the State Plan and district plan. The local authority has powers to take such other measures as may be necessary for disaster management. The local authority including panchayats, municipalities, and zilla parishads of the fishing village shall be more prepared since the coastal hazards very common occurrence in the coastal areas.

The national plan for disaster management under DMA insisted the role and responsibilities of different ministries or departments of the government of India for (a) measures taken for prevention of disasters, mitigation of their effects (b) measures taken for integration of mitigation measures in the development plans (c) measures taken for preparedness and capacity building to effectively respond to any threatening disaster situation or disaster. Considering the above direction, under CRZ 2011 notification, the following disaster management measures have been emphasized;

i. Objectives of CRZ 2011 notification covers protection of life and livelihoods of coastal communities including fisher folk

ii. Preparation and implementation of hazard line mapping, shoreline change mapping and CZMP are for the purpose of protection of life and livelihood of coastal communities

iii. The procedures for clearance of permissible activities para 4.2 (1) (d), disaster management report, risk assessment report and management plan of the area are essential. Project proponents shall submit the above documents to State (or) UTs Coastal Zone Management Authority for prior clearance

iv. Construction / reconstruction of dwelling units of traditional coastal communities including fisher folk may be permitted between 100 and 200 metres from the HTL along the seafront in accordance with a comprehensive plan prepared by the State Government or the Union territory in consultation with the traditional coastal communities including fisher folk and incorporating the necessary disaster management provision recommended by the concerned State or the Union territory CZMA to NCZMA for approval by MoEF (Para 8 (III) (ii) CRZ III).

v. In the critical vulnerable coastal areas (CVCAs), integrated management plans (IMPs) shall be prepared in association with the local communities considering various parameters including impact of sea level rise and other natural disasters.

vi. It has been directed that States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness in CRZ 2011 Notification, Annexure I, (II) (7). vii. It has been directed that the dwelling unit of the local communities including that of the fishers will not be relocated if the dwelling units are located on the seaward side of the hazard line. The State Government will provide necessary safeguards from natural disaster to such dwelling units of local communities in CRZ 2011 Notification, Annexure I, (II) (8).

Hazard-line, and shoreline change maps prepared under CRZ 2011 shall be efficiently utilized to protect the fishermen villages from disasters and to develop infrastructure for fishermen. Micro level fishing village plan shall incorporate disaster management plan to
support the master plan of district disaster management plan. Local authorities may be advised to find suitable places for shelterbelt plantations in land use plan.

Though the accidents and disasters of the fishing crafts occur at sea, the response is mainly from the land. Hence, the disaster management plan shall include the preparedness for craft and gear based disasters at sea to respond the disasters. Recent studies have pointed out that calamities occur mostly due to ill-equipped vessels and non-availability of an early warning system on board. The “safety of fishermen at sea” is a scheme is intended to improve the sea safety to reduce loss of human life and property at sea. Under this component, subsidy is provided to the tune of 75 % of unit cost of a kit consisting of GPS, communication equipment, echo-sounder and search & rescue beacon. The unit cost of these equipment’s together works out to about Rs. 1.50 lakh, 75 % of which is provided as subsidy. The component is implemented through State Fisheries Federations/Corporations and Panchayati Raj Institutions. Vessel Monitoring System (VMS) has been recognized as one of the important management tools for monitoring, control and surveillance (MCS) of movement of fishing vessels in the EEZ. Entire cost of such system is borne by the Government of India (Annual report, Department of Animal Husbandry, Dairying and Fisheries., 2012-13). Further, due to their profession and working environment, lifesaving activities, communication methods and coordination will be emphasized in fisherfolk village disaster management plan. Occupational hazards such as boat building, repairing, ship breaking and its associated specific works related risks will be identified and incorporated in the disaster management plan of the fishing village. Climate characteristics, fishing borders, fish breeding areas, ambulances, hospital facilities etc., shall be integrated in fishing village plan. A communication framework for fishermen shall be prepared to tackle fishing related disasters. Because, fishing continues to be recognized as one the hazardous occupation in the world, increased training and awareness raising are needed for protecting the fisher community both at sea and land. Sea safety information material of various kinds and modes of sharing shall be prepared by the respective State Governments and arrangements shall be made to distribute to the fishermen. In general, there is a demand by fishermen for low-cost safety equipment that meets the minimum acceptable safety standards for safety of life at sea. There is a need for safety
recommendations and guidelines for the design, construction and equipment of small fishing vessels\textsuperscript{36}.  

**Part-III**

### 3.3. Significant Factors for Fishing Village Development

#### 3.3.A. Education

Education is essential for all and is fundamental to their all-round development, material and spiritual growth. About 57.8\% of the fisher folk are educated\textsuperscript{37}. About 2.4\% fisher folk are educated above the higher secondary level, which is quite low compared to national average. Accordingly, fisherfolk education is very poor compare to the National average of 11\%\textsuperscript{38}. Map 4 describes educational status of coastal state and UTs.

\textsuperscript{36} Training Department Southeast Asian Fisheries Development Centre (2010) *Report of The Regional Technical Workshop on Safety at Sea for Small Fishing Boats*. P.47.  
\textsuperscript{37} CMFRI, 2010, *Marine Fisheries Census* - Pages 1-98  
\textsuperscript{38} Asir Ramesh et al. 2012
Education status of coastal states & UT - India (Central Marine Fisheries Research Institute-2010)
The National Policy on Education (NPE), 1986 envisaged ‘universal access and enrolment, universal retention of children up to 14 years of age, and a substantial improvement in the quality of education to enable all children to achieve essential levels of learning’. The 12\textsuperscript{th} Five Year Plan also lays emphasis on the role of education and stated that education is the most important lever for social, economic and political transformation.

**BOX 07**

In 1999, it was estimated that there were 24,000 occupational deaths all over the world were recorded due to fishing. The fishing industry is characterized by the lack of a safety culture; there are many factors that have led to this, earnings only linked to the volume of the catch; training, education, poverty, outdated legislation and the perceived high cost of safety in an industry that is suffering declining catch rates and ever increasing higher input costs (FAO, 2012). A study on Norwegian fishermen has pointed out core values such as freedom and independence as explanations to why fishermen do not apply all available safety measures (R. Lamvik, G.M, 2007). Studies from Norway and other Western industrialized fisheries focussing on subjective risk perception conclude that fishermen undertake, underestimate, or under communicate the risk associated with their work as a way of coping and adapting (Davis, M.E, 2012).

Thus, every child has a right to elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards specified in the RTE Act (Ministry of Human Resources Development, 2014. Annual report of Ministry of Human Resources Development (MHRD), Government of India, MHRD Publication.)

**BOX 08**

Considering the importance of education for fishing communities by the Government, in the CRZ areas between LTL and HTL which are not ecologically sensitive, it has been directed that to take necessary safety measures while permitting schools in the CRZ I areas. Further, construction of schools in NDZ areas of CRZ III is permitted on a case to case basis by CZMA.

In areas between 200 m to 500 m of CRZ III areas, construction of schools is permissible, if no other area is available for construction of schools. In the Critical Vulnerable Coastal Areas (CVCAs), Integrated Management Plan (IMP) shall be prepared incorporating the facility to construct schools, if required. Till such time the IMP is prepared for the area, CZMA shall permit construction of schools on a case by case basis for local communities and fisherfolk living in CVCAs. It has been directed that the CZMP’s local cadastral map or local maps prepared shall indicate the schools. There are many schemes and programmes that can be utilised to increase the education level of fishermen. Ministry of HRD provides details of those schemes and programmes relating to education.

They are; Mahila Samakhya (MS), Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Model Schools – Scheme*, National scheme of incentive to girls for secondary education, Scheme of support to voluntary agencies for adult education and skill development and fishermen education assistance scheme are significant for planning to improve fishermen education. Mahila Samakhya (MS), which has a special focus on the educationally backward blocks (EBBs) is a unique process-oriented programme which has demonstrated ways of empowering rural poor and marginalised women. The critical focus within MS is the centrality of education in empowering women to achieve equality.
MS is Government of India’s main scheme targeted at addressing the barriers that prevent rural women and girls from accessing education, such as problems of their relative isolation, struggle for livelihoods, lack of self-confidence, oppressive social customs etc. MS aims to create a collective awareness and understanding of the most marginalised women’s contexts and build their capacities to challenge it. MS scheme shall be implemented in the fishing villages to empower women and girl children of the fishing community.

The above schemes and CRZ provisions can be utilised by the fishing villages based on their requirement. In addition to the above, Society of Integrated Coastal Management (SICOM), Ministry of Environment Forests and Climate Change (MoEF&CC) is implementing a special Capacity Development scheme “Fishermen’s’ Children Education Assistance Scheme”.

3.3.B. Banks

Growing demand for fish for domestic consumption and export, fishing economy has been developed as a market-oriented economy incorporating monetary features. To cater to the financial demands of the growing fishing economy, a system of formal and informal credit facilities shall be adopted by fishing communities. The formal and informal credit facilities available for fishermen have advantages and disadvantageous. The informal credit delivery system has some important advantages; such as quick delivery and flexible loan conditions but also has risks of high interest rates and exploitative terms and conditions regarding the disposal of fish. Credit support of formal/institutional banking sector to the fishermen faces difficulties mainly due - (a) lack of good retail outlets offering banking services, (b) lack of
assets with the poor that could be used as collaterals and (c) illiteracy of the poor (Planning Commission., 2007). The various Money Lending Acts enacted by the different states have not been successful in ensuring any discipline on the non-formal banking sector. Under the Constitution of India (Seventh Schedule), money lending is a State Subject. Hence, lending process including to the fisheries activities shall be streamlined by the States to protect the credit seekers including fishermen.

Government of India has developed formal credit support facilities to poor people including fisherfolk. The credit facilities have been provided by all channels of SHG-Bank linkage programme, Micro Finance Institutions (MFIs), Cooperative Banks, State Financial Corporations, RRBs and PACS. However, only about 45% fisherfolk villages have bank branches / facilities in their villages. The remaining villages needs bank branches to support fishermen financial transactions. In 1996, Reserve Bank of India (RBI) included financing of SHGs as a main stream activity of banks under the priority sector lending programmes. High repayment rates by the SHGs encouraged the banks to finance SHGs. The Micro Financial Sector (Development & Regulation) Bill (2012) was implemented by the Government of India to facilitate the flow of Micro Finance Services in a more efficient way to the unbanked population. The fishing villages shall use their SHGs to develop financial credit from Nationalised Banks for their investments to improve their facility.

NABARD has played a crucial role in providing credit for marine, inland and brackish water aquaculture production, processing, packaging, preservation, transportation and marketing of fish and fish products, prawn culture etc. Governments at different level are implementing many schemes to provide credit to the fishermen. Saving cum

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relief scheme to support fishermen in lean months of fishing is being implemented by
Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture in
association with the State / UT Governments. Further, the department is also implementing
group accident insurance scheme to be implemented by the state / UT governments in
collaboration with, Insurance Regulatory and Development Authority (IRDA) since
November, 2005
IRDA notified Micro Insurance Regulations (MIR) with focus on the direction, design and
delivery of the products including tie up with life and non-life insurance players for
integration of product to address various risks, introduction of a standalone Micro
Insurance delivery channel consisting of NGO, SHG and MFIs. Under the micro insurance
products such as health insurance contract,
contract covering the belongings such as, huts,
livestock or tools or instruments or any personal
accident contract, either on individual or group
basis. Fishermen, craft and gears of fishing (tools)
are eligible for insurance under the micro finance
products. Post-offices have been already into the
business of collecting small deposits from people
and have been providing services of transferring money. Post-office network could very
well be considered for increasing the outreach of banking services, especially in remote and
central rural areas. The schemes of the above shall be efficiently utilized by the fishermen village
to improve the savings of fishermen and to support financial transaction of the fishermen
welfare.

3.3.C. Coastal Security System- Police Stations
The living and working environment at territorial sea has been secured by various central
and State Government policing, defence and security organisations. Of the total fishing
villages of India, about 15 % have police stations. Police stations in fishing villages are
essential to promote and preserve public order in the villages. Coastal police stations are
important since fisheries face intra state and interstate boundary issues. The coastal police
stations can guide fishermen for safe working environment in sea and shore and also in
distress conditions, if any. The Coastal Security Scheme is being implemented with the
objective of strengthening the infrastructure of the Marine Police Force for patrolling and
surveillance of coastal areas, particularly shallow areas close to the coast. The scheme is also aimed at establishing institutional arrangements at State and district level for coordination among various agencies including the Coast Guard and the Navy (V). The Coastal States/UTs have been directed to expedite the implementation of the approved Coastal Security Scheme, under which, coastal police stations, check-posts, out-posts, barracks recruitment and training of executive are constructed. Coastal States and UTs are patrolled by locally hired fishing boats/trawlers. The hiring charges are being reimbursed by MHA. Further, coastal States/UTs have been directed to carry out vulnerability/gap analysis on their coasts in consultation with Coast Guard, and furnish their additional requirements for formulation of a comprehensive proposal for further approval of the Government of India. The CRZ Notification 2011 has given exemption from prohibition for the activity of establishment of coastal police stations which are requiring foreshore facilities.

To monitor and manage the fishing craft movements in the coastal waters, Ministry of Shipping, Road Transport and Highways are streamlining the process of registration of all types of vessels, i.e. fishing as well as non-fishing vessels, and also to ensure fitting/provision of navigational and communication equipment’s on the fishing boats. The mechanism is strengthening the communication network with shore to sea. Ministry of Agriculture, Department of Animal Husbandry, Dairies and Fisheries is issuing ID cards to fishermen. The Registrar General of India (RGI) is issuing ID cards under Multi-Purpose National Identity Card Scheme (MNICS) to all the population in the coastal villages including fishermen.

The task of guarding the Indian coastline right from the shoreline (High Tide Line) has been entrusted to the Coast Guard. However, the responsibility of overall maritime security rests with the Indian Navy. Indian Coast Guard (ICG) is organizing the community interaction programmes for the fishermen to bring in awareness about safety issues at sea. During

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this community interaction programmes certain welfare measures like organizing medical camps, distribution of medicines and other items are regularly undertaken by the Indian Coast Guard. Coastal security helpline numbers 1554 (ICG) and 1093 (Marine Police) have also been operationalised for fishermen to communicate any information to these agencies. Government has accorded top priority to strengthen the mechanism ensuring overall coastal and maritime security of the country through increased coastal surveillance by deployment of the assets of both Navy and Coast Guard. The inputs received by intelligence agencies are being shared on daily basis through the Multi-Agency Mechanism. Further this intelligence mechanism has been streamlined through the creation of Joint Operation Centers. In order to improve preparedness and seamless integration of various security agencies against such threats, Joint Operational exercises are taking place on regular basis among the Navy, the Coast Guard, the Coastal State Police, Customs and others. Standard Operating Procedures (SOPs) have been formulated to achieve optimum level coordination.

Fishing village plan should identify the police station requirement for policing, communication, and security requirements to reduce the crime, protection of individuals in the land and to avoid problems from other nations’ Navy, and coast guard. Land use plan of the fishing village shall locate it in the maps or allocate some land to propose for such facilities if arises. Disaster plan of the fishing village shall develop linkages with the coastal police stations to guide and communicate the fisher folk through proper channel.

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42 Pushpita Das (2013) Coastal Security: The Indian Experience, IDSA Monograph Series No. 22 September, Institute for Defence Studies and Analyses, p.64,
43 Ibid., p.67.
3.3.D. Communication

Communication has grown to be an essential infrastructure for socio-economic development in an increasingly knowledge intensive world. Plummer and Fitz Gibbon\textsuperscript{44} (2007) asserted that deliberation via communication enables social learning and may enhance social capital, both of which are requisites for adaptive collaborative management. The level of collaboration largely depends on the levels of effective communication among the different stakeholders\textsuperscript{45}. According to FAO (2007)\textsuperscript{46}, Information and Communication Technologies can be defined as “technologies that facilitate communication and processing and transmission of information by electronic means”. This broad definition of ICT includes technologies like radio, television (TV), video, Digital Versatile Disk (DVD), telephone (both fixed line and mobile phones), satellite systems, computer and network hardware and software; as well as the equipment and services associated with these technologies like


\textsuperscript{46} Food and Agriculture Organization, United Nations (2007) \textit{Information and Communications Technologies Benefit Fishing Communities: New Directions in Fisheries a Series of Policy Briefs on Development Issues} 07. p.3.
video conferencing, e-mail, blogs etc. The positive externalities of information and communication technologies in marine fisheries sector definitely enhance livelihood activities of marine fisherfolk which is purely economic oriented47.

Government of India is implementing “coastal disaster risk reduction programme” with the financial assistance of International Development Association (IDA). The programme objective is to enable marine fishermen at sea to communicate with other fishermen and with shore station at times of distress. Under IDA programme shore stations, control rooms are constructed, shore equipment and any other equipment mandatory for creating seamless communication network are purchased. Communication between the fishermen at sea and shore by using VHF radio communication system fitted with GPS receiver in the fishing crafts has been initiated. This will provide information exchange between the fishing boat through voice calls from the boat to shore and to get information from coastal security offices or information centres.

About 32 % of the coastal fisherfolk families have mobile connection. The mobiles can be used by fishermen to avoid problems of Indian Maritime Boundary Limit (IMBL). Developing / incorporating an application in Android Mobile OS which is fed in the mobile computing smart phone device will be useful to fishermen to identify boundaries and can also be used for communication to the shore. The application uses the information from the inbuilt GPS & GSM module smart phone and can be used for positioning and give alert messages to base stations, friends and family48. The reach of telecom services to all parts of the country is integral to development of an innovative and technologically driven society. Studies have shown that there is a positive correlation between the penetration of internet and mobile services on the growth of GDP of a country. Sanchar Shakti Scheme has been piloted by the Department of Telecommunications of Ministry of Communication and information Technology. The Sanchar Shakti pilot scheme for Mobile Value Added Services (VAS) provisioning envisages development of content/ information customized to the requirements of women SHG members engaged in diverse activities in rural areas across India. The scheme entails innovative application of technology in designing and delivering

47 Ibid., p.5.
the VAS content so as to ensure its easier accessibility and effective assimilation among the targeted women beneficiaries\(^49\). This scheme is applied to fisheries and linkages be developed with the fisherwomen SHGs for VAS in marketing. VAS may be developed by the district level and state level authorities in vernacular languages and linked to the markets. In the socioeconomic planning of the fishing village, a communication and coordination plan shall be prepared to develop linkages with fishermen at sea, coastal hazards, market values of fishery products, emergency, helplines, potential fishing zone information of INCOIS etc.

3.3.E. Fisher Women Empowerment

Women’s empowerment is assumed to be attainable through various methods including political mobilization, consciousness raising and education. Successful empowerment strategies also require the direct involvement of women in the planning and implementation of projects. The process of empowerment evolves like a spiral, involving changes in consciousness, the identification of target areas for change, and analyses of actions and outcomes, “which leads in turn to higher levels of consciousness and more finely honed and better executed strategies”\(^50\). Fisher-women of India have been involved in fish marketing and fishery related allied activities to earn income and they are strong in position to decide the expenditures.

\[\text{QUOT}\]

“In order to awaken the people it is the women who have to be awakened, once they are on move the household moves, village moves and the whole country moves” – Indira Gandhi

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equipment as well as on the handling of domestic purchases for their family. Despite this, women are non-entities when they come to community affairs. Identification of key gender roles and issues, opportunities and constraints and the capabilities and vulnerabilities is ultimately expected to become a roadmap for gender mainstreaming in fisheries.

Development of indicators to ensure the involvement of women in the sector so that their activities can be monitored on a regular basis and their participation can be refocused and strengthened. The empowerment of women is very important for the socio-economic development of the fisherfolk. It is the need of the day to empower the women-socially, economically, politically, and legally in various facets of their life in order to sustain their livelihoods more effectively51

“As investing in women capabilities and empowering them to exercise their choice is not only valuable itself but also the surest way to contribute to the economic growth and development”.- (UNDP 2008)

As per provisions contained in Article 243 D of the Constitution, one third of the seats of PRI are reserved for women and one third offices of the Chairperson at all level covered by Part IX of the Constitution. A separate Ministry, Ministry of Women and Child Development

51 Chathurna.R.D.(2017) Women Empowerment in Fisheries Sector, Department of Fisheries Extension School of Fisheries Information and Social Sciences Fisheries College and Research Institute, Thoothukudi. P.5, 29.
is functioning to take care for women empowerment and to address the issues faced for women empowerment. The National Perspective Plan for Women (1988-2000) was prepared, which contained 360 recommendations (including for credit and land schemes and reservations in local governance institutions).

Many legislations related to women have been implemented. The National Commission for Women Act (1990) was passed in Parliament to act as a statutory ombudsperson for women reviewing laws and policies and intervening selectively in individual cases of violation and denial of women's rights.

**BOX 9**

Empowerment can be viewed as a means of creating a social environment in which one can take decisions and make choice either individually or collectively for social transformation. Empowerment is a multi-dimensional social process that helps people gain control over their own lives communities and in their society, by acting on issues that they define as important. Empowerment implies expansion of assets and capabilities of people to influence control and hold accountable institution that affects their lives. Empowerment is the process of enabling or authorizing an individual to think, behave, take action and control work in an autonomous way. It is the state of feelings of self-empowered to take control of one’s own destiny. It includes both controls over resources (physical, human, intellectual and financial) and over ideology (belief, values and attitudes. (World Bank Resource Book)

Rights and access to and the means of control of resources, are central to successful fisheries development; and women's entitlements are frequently ignored. This situation must be addressed explicitly in order for women’s contributions to be improved. Creative schemes in fishing villages are needed to allow women access to the means for their improvement, including access to capital equipment and technology, credit and loans, training and education. Women’s access to all of these enabling factors lag far behind those
of men in fisheries in every society should be incorporated in the fishing village planning52. Gender mainstreaming is a key agenda of Ministry of Women and Child Development (MWCD) of Government of India. MWCD has emphasized gender budgeting is an important tool for gender mainstreaming. The guidelines for institutionalising gender budgeting in states prepared by the MWCD has advised the states to issue notifications to adopt gender budgeting. Gender budgeting is a process of incorporating a gender perspective at all levels and stages of the budgetary process - planning / policy / programme formulation, assessment of needs of target groups, allocation of resources, implementation, impact assessment and prioritisation of resources53. Accordingly, the fishing village plans should incorporate the gender mainstreaming tools in the fishing village plans.

Equal property rights of fishing women in properties such as crafts, gears, lands shall be emphasized in the fishing village planning. Self Help Groups of informal sectors of the fisheries allied activities shall be formed to improve the facilities and application of various fisheries related technologies. Joint Forest Management (JFM) principles indicate 50% participation of women in JFM institutions. However, the models vary among states. The participation of women should be ensured in all community activities and the decisions should be based on their considered opinions54. This should be applied for all common property resource management including CRZ areas. Further, women SHGs of fishing villages should be strengthened for promoting income generation activities. SHG based microfinance has been a catalyst of the social change and empowerment of poor is proved to be a boon for the rural women in some states of India55.

The fishing villages should provide sufficient powers to women in decision making in the fishing village planning, since they have more responsibility in shore than the fishermen at sea. Since the fisher women are responsible for all fishery related activities in the shore

52 Williams etal. (2002), Global Symposium on Women in Fisheries, Sixth Asian Fisheries Forum, Taiwan. p. xv.
(fishing village), including transporting, marketing, processing, housekeeping, etc., their decision in planning of the village shall be more appropriate. In the fishing planning process, the following steps should be followed to ensure empowering fisherwomen.

i. Emphasise the role in grama sabha for capacity building trainings for elected women members.

ii. Equal responsibility and participation of fisher women in planning and decision making for the fishing village

iii. Establishing and strengthening of women SHGs and responsibility identification in management of common property rights

iv. Encourage property rights in owning boat, gears, land, processing plants, manage employees etc.

v. Provide social security including common insurance to the fisher women and include education, health and housing benefits to the existing identity cards issued to fishermen across the coastal region

PRA should identify the status, needs, and schemes to address the critical factors for fishermen community development and incorporate the requirements in socio-economic plan and land use plan.

Kerala has a successful history of community empowerment, especially for fisher women. Society for Assistance of Fisherwomen (SAF) plays a great role in enhancing socio economic conditions of fisherwomen of the state. SAF is working under the rules and regulations from the fisheries department of state government. It has great manpower from government level to community level. Theeramythri is one of the important project which aims to encourage alternative livelihood options for fishing community by providing economic assistance to start new micro enterprises56.

RESOURCES MANUAL

1. Different Methods of Participatory Planning

2. Policies and Programmes
Different Methods of Participatory Planning for Coastal Fishing Villages

“True democracy cannot be worked by twenty men sitting at the centre. It has to be worked from below by the people of every village.”

Mahatma Gandhi
3.1. Introduction

Participatory planning is a process by which a community undertakes to reach a given socio-economic goal by consciously diagnosing its problems and charting a course of action to resolve those problems. Experts are needed, but only as facilitators.

In participatory approach everyone’s perspective is considered. Since the fisher folk are a marginalised community, the participatory approach needs to widen the opportunity for obtaining ideas. Each person in the forum is an important contributor to the planning process. True participatory planning means that everyone has a voice which must be acknowledged.

Participatory Approach

BOX

A people-centred approach has the highest probability of success because it offers the potential to strengthen the voice of the most vulnerable. Participation involves women and men, allowing them to influence their own development through processes of empowerment. These processes increase knowledge and skills, and thus self-reliance. At a minimum, this implies consultation, knowledge exchange and equitable arrangements for the sharing of benefits. Source: A WFP Guide

3.2. Purpose of Participatory Planning for Fishing Folk

1. Identifies the felt needs of the people
2. Provides better appreciation of local potential
3. Empowers local disadvantaged groups
4. Helps to reach the unreached/excluded within the area
5. Integrates local knowledge and wisdom into project design

6. Political commitment and support

7. Enables mobilisation of all sections and their participation in governance

8. Ensures easy access to resources/entitlements/services

9. Leads to better absorption and targeting of funds from different sources, especially CSSs

10. Two-way learning process between the project and local people

3.3. Who should be involved?

<table>
<thead>
<tr>
<th>TARGETS OF CHANGE</th>
<th>AGENTS OF CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of the fishing community, both those on whom the intervention is</td>
<td>Local elected and appointed officials such as</td>
</tr>
<tr>
<td>specifically focused.</td>
<td>• Elected ward members</td>
</tr>
<tr>
<td>The entire adult population of fishing village both men and women living in the</td>
<td>• Village level functionaries</td>
</tr>
<tr>
<td>jurisdiction.</td>
<td>• Block level functionaries</td>
</tr>
<tr>
<td>• All above 18 years</td>
<td>• Expert group members</td>
</tr>
<tr>
<td>• If needed, children sabhas (forum) can be organised exclusively</td>
<td>• Facilitators/ Animators</td>
</tr>
<tr>
<td>• Preferably women sabhas shall be conducted</td>
<td>• Other official institutions available within the jurisdiction like school,</td>
</tr>
<tr>
<td></td>
<td>Health centre, bank officials, police, Community based organisations</td>
</tr>
</tbody>
</table>

The guideline focuses on the Fishing Village Development Plan (FVDP) in Indian coastal areas that involves participatory methods.
3.4. Planning Cycle

Preparation of fishing village plan is a time bound process. It involves planning and management within the stipulated time. Some of the main components of the FVDP are-

A. Environment Generation and Community Mobilization for Gram Panchayat Development Plan (GPDP)
B. Determining the Resource Envelope
C. Situation Analysis and Need Assessment
D. Gram Sabha for Collective Visioning
E. Project development and Plan Finalization
F. Appraisal and Approval of FVDP
G. Implementation of FVDP
H. Monitoring and Evaluation

"To me Gram Sabha signified village democracy. Let us not have only representative government from the village up to Delhi. At one place, at least there be direct government - direct democracy. The relationship between Panchayat and Gram Sabha should be that of Cabinet and Assembly

--- Jayaprakash Narayan
Tentative model of the activity schedule is sketched below:

**Table 1 Tentative Model of a Day**

<table>
<thead>
<tr>
<th>Item</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td></td>
</tr>
<tr>
<td>1. Climate setting</td>
<td>1 hour</td>
</tr>
<tr>
<td>2. Baseline data collection - Questionnaire</td>
<td>2 hours</td>
</tr>
<tr>
<td><strong>Day 2</strong></td>
<td></td>
</tr>
<tr>
<td>1. Baseline data collection – Participatory tools</td>
<td>3 hours</td>
</tr>
<tr>
<td>2. Screening for duplications</td>
<td>1 hour</td>
</tr>
<tr>
<td>3. Prioritisation of issues</td>
<td>1 hour</td>
</tr>
<tr>
<td><strong>Day 3</strong></td>
<td></td>
</tr>
<tr>
<td>1. Development of FVDF</td>
<td>3 hours</td>
</tr>
<tr>
<td>2. Identification and selection of projects</td>
<td>3 hours</td>
</tr>
<tr>
<td><strong>Day 4</strong></td>
<td></td>
</tr>
<tr>
<td>1. Project formulation</td>
<td>2 hours</td>
</tr>
<tr>
<td>2. Project proposals</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

**A. Environment Generation and Community Mobilization for FVDP**

“The Gram Sabha must be as important for the village as the Lok Sabha for the Nation”

Prime Minister Narendra Modi, Conference on Panchayati Raj & Rural Development, August 17, 2013

The active participation of concerned fishing community has to be ensured in all the stage of FVDP process. In order to enhance the participation of people to create the environment for preparation of Peoples Plan, mobilization of Stakeholders right from the level of the legislators to the cutting edge functionaries and citizens is required. A conscious effort has to be followed in this regard to ensure a deeper understanding and develop support system
at different levels. The manual prepared by the Ministry of Panchayati Raj\(^1\) suggested a detailed institutional support structure at the state, district, bock and village level. However, it is important to constitute working groups at the village level in the preparation of the FVDP on different functions. The tools and techniques that can be followed for environment creation\(^2\) can include:

- Letters to all the households informing them about GPDP and inviting them to participate in the process
- Letters to resource group/Working Group members, other local eminent persons seeking their active participation in the planning process
- Distribution of leaflets
- Microphone Announcement
- Rallies
- Street plays using local folk or popular media
- Display of Banners and Posters.
- Campaign through SHGs
- Campaign through school children, etc.

A.1. Key discussion in the Gram Sabha

- Fixing date, venue and time for initial Gram Sabha
- Approval of draft list of GPDP Committee/Working Group
- Fixing date, venue and time for initial Gram Sabha
- Approval of draft list of GPDP Committee/Working Group
- Invitation to expert persons and institutions
- Resource envelope
- Environment creation plan

A.2. Formation of Working Groups

FVDPs are mainly based on the physical, social, economic, and livelihood analysis of a fishing community leading towards the identification and prioritization of development problems and preparation of a 5-year based development plan of a Village. According to the need of the community working groups should be constituted involving different sections of the stakeholders.

1. Human Development – Health, Education and Nutrition

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\(^1\) Manual for Preparation of Gram Panchayat Development Plan (GPDP), Ministry of Panchayati Raj, 2016.

\(^2\) Ibid., PP.9.
2. Civic services & Basic Amenities – Sanitation and hygiene (open defecation, Solid/Liquid Waste Management, drinking water, Electricity, Ground for fish processing purposes, houses

3. Economic Development – Fishing, Aquaculture, Agriculture, Animal husbandry, market and local industry

4. Vulnerability assessment- Incidents of disaster and climate related hazardous

5. Social Welfare – PDS, Old aged, children, and women

In order to do the situation analysis, participatory rural appraisal method will be used. Secondary data such as NAD data, VDAP, Socio Economic Caste Census, G5P data, Census Data, NRDWP Data and village profile of the GP will be used. With regard to the data relating to the line Departments, the HoDs shall provide the data pertaining to the programs of the respective departments to the Charge Officer/BDO before the PRA exercise is conducted. One of the prime activities of the working groups is collection of both quantitative and qualitative data concerning to FVDP. The quantitative data is compiled on baseline survey. A model format for the collection data through base line survey is in supplemet-1 (page116).

A.3. Community Mobilization

Community Mobilization is one of the very important aspects for ensuring peoples participation in planning, designing, implementation and monitoring of the projects to be taken up for overall development of the village. Five steps have been identified by ANSIRD &PR³, Karnataka as enabling factors.

**Step 1:** Develop a shared understanding of community participation.
Communities are made up of people with a variety of interests and identities. It is important to share and discuss these different perspectives.

**Step 2:** Establish the current position.
A baseline position can be ascertained by identifying each section of the community in relation to the framework.

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³ Abdul Nazeer Sab State Institute of Rural Development and Panchayat Raj ,Lalith Mahal Road, Mysore, Karnataka, Preparation of Gram Panchayat Development Plan in Karnataka : The ToolKit,2015.
Step 3: Identify issues and needs.
Establishing current socio-economic status to be addressed based on the current position in the data. It will help to develop greater and more meaningful community participation.

Step 4: Agree an action plan.
It is important to be realistic about what is achievable within any given time scale and the level of resources available.

Step 5: Review progress.
Community participation strategies should be reviewed in the light of progress made and outstanding needs.

3.B. Resource Envelope
A successful implementation activity depends upon the generation of financial and technical resources. The fishing village as a whole has to understand the available resources before preparing the plan. Two types of resources are available - one is Own resources (Internal resources) and External resources.

Own resources include the funds and assets within the community that could be used for development. Assessment of external resources is indispensable as the planned activities need to be matched with the resources. A format calculating financial resources is in supplement-2 (page 121)

3. C. Situation Analysis and Need Assessment
Fisher folks are indigenous people who are well-versed with the situations that have been influencing their lives. It also provides basic information on the gaps in infrastructure, amenities and services that exist as well as the potential for future development. This analysis can serve as the basis for setting priorities for the issues
Participation is the answer to the “undisciplined” academic and ever energetic practitioner. ‘Development’ to be truly participatory a “new professionalism” is required that entails changed approaches and methods.

The situation analysis of fishing village will analyse the socio-economic scenario on the basis of human development indices, access to services and resources such as gap in assessing entitlements, services and benefits in respect of both civic services and economic services, economic development, public infrastructure, vulnerability assessment such as disaster, well-being analysis, analysis of human resources in terms of physical and social resources, economic analysis. Situation report will incorporate the basic issues, probable solutions and the departments responsible for execution of works under each of these sectors. All of these can be done through household surveys, FGDs, semi structured interviews or other various PRA methods.

C.1.METHODS OF PLANNING

Participatory Rural Appraisal (PRA) Tools and Techniques for Participatory Planning

BOX

Participation is the answer to the “undisciplined” academic and ever energetic practitioner.

‘Development’ to be truly participatory a “new professionalism” is required that entails changed approaches and methods.

Chambers has designed a variety of tools that can be used to do this, including Participatory Rural Appraisal (PRA) exercises like:

a) Transact Walk

---

b) Social Map  
c) Resource Map  
d) Hazard, Vulnerability Map and Risk Analysis  
e) Seasonality  
f) Venn Diagram  
g) Timeline Mapping  
h) Well Being Analysis Diagrams  
i) Livelihoods Analysis  
j) Semi structured Interviews  

C.1.a. Transact Walk  

Transact walk is a systematic walk along a defined path (transect) across the community area together with the local people to explore the vegetation, habitation, infrastructure, water and sanitation conditions, crops, undulation of the topography etc. by observing, asking, listening and producing a transect diagram. It is best to walk a route, which will cover the greatest diversity in terms of vegetation, habitation, infrastructure, water and sanitation conditions, crops, etc.

The transect walk is conducted jointly with the villagers or community members. The information collected during the walk is used to present the findings visually in the form of a diagram. Transact Walks contribute to the status, issues and potential outlined in the Village resource mapping exercise. Identify issues associated with local resources and land types. Discuss and visualize practical solutions and opportunities to improve land use management. Develop simple land use management plans\(^5\).

\(^5\) ANSIRD& PR., PP.34.
C.1.b. Social Mapping

Social Map is a visual depiction of all man-made structures in a village or area. It shows human habitation, the location and nature of housing, infrastructure such as roads, drains, schools, health outlets, drinking-water facilities, water channels and places of worship, settlement paters, including location houses of marginalized groups. A Social Map is prepared by local people and is not drawn to scale. It reflects the perceptions of the social dimensions of people’s reality⁶. A social map is different from a resource map. The latter depicts the natural resources – land, water sources, flora and fauna, etc.

⁶ Bid., pp.35.
C.1.c. Resource Map

Indian coastal villages represent diverse ecosystem and support highly productive habits such as mangroves, mudflats and marine species. In order to regulate sustainable conservation of coastal resources an integrated management plan has to be sketched. Since fishing communities are closer to such a dynamic resource system, a resource map needs to be drafted integrating the wisdom and knowledge of the fishermen. In order to fully leverage ecological and economic knowledge of coastal and marine ecosystems in to the
**local plan, there is a need to generate and provide access to more and better data regarding key ecosystem services including biological, economic and societal measures at the local level.

C.1.d. Hazard, Vulnerability Map and Risk Analysis

Coastal areas are frequently prone to disasters like cyclones, floods and tsunamis. Hazard is the probability of occurrence of a potentially damaging phenomenon whereas vulnerability is the degree of loss resulting from the occurrence of the phenomenon. Creating a hazard, vulnerability map would help to analyse the risk factors that would pave way for developing appropriate coping mechanism. Multi hazard maps provides details of extent risk involved due to hazards along with details of extent of geographical impact, level of risk and geographical details like extent of human settlement, resources and infrastructure that will be affected. These details are essential to assess the vulnerability of the area to various hazards and take preventive measures. Without such details it would be extremely difficult to deal with disasters.\(^7\)

C.1.e. Seasonal Calendar

A seasonal calendar is a PRA method that determines patterns and trends throughout the year in a certain village. It can be used for purposes such as fishing season, rainfall distribution, food availability, agricultural production, income and expenditures, health problems, and others. Seasonal calendar can also be used to collect information on how villagers allocate their time as well as their labour in various activities within the village (see handout). A time chart or seasonal calendar is prepared by drawing a two-dimensional matrix and writing the time period (i.e. month, year) on an axis and the different village

\(^7\) http://www.moes.gov.in/programmes/multi-hazard-vulnerability-mapping
activities on the other axis. Villagers are encouraged to fill in the matrix of the chart/calendar by marking the grid or by placing stones or other objects on the matrix.

C.1. f. Time Line Historical Mapping:

The timeline with basic events can be used for focused discussions on problems, social and technological innovations or on communities’ history of cooperation’s and activities which helped them to solve in past problems successfully. The facilitators meet small groups of villagers and discuss with them the most important events in the community’s past and prepare with the information a historical timeline which serves as the base for further work.
It is important to involve different groups of the communities to get their usually different perspectives. The timeline with basic events can be used for focussed discussions on problems, social and technological innovations or on communities’ history of co operations and activities which helped them to solve in past problems successfully.

C.1.g. Venn Diagram

Venn diagram is just the elaboration of problem solving techniques. Venn diagram is defined as an alternative way of depicting sets of values or indicators. To show the relationship between things, overlapping circles are used to represent people, villages, or institutions; lines are added to reflect inputs and outputs. Simple diagrams involving two or three sets of a few elements, or they may become quite sophisticated, including 3D presentations, as they progress to six or seven sets and beyond. Depicts how items relate to each within a particular “universe” or segment. Venn diagrams allow users to visualize data in clear, powerful ways.

For example, in a fishing village people engaged in fishing are 250, those involved in processing are 120 and those who market are 180, Venn diagram will be as depicted below:
Who measures results and who defines success? Who Counts Reality Definition of expected changes/outcomes, the interventions to achieve them in the context of positive and negative factors as they arise: the “Theory of Change”
3.C.1.h. Participatory Wealth (PWR) and Well-being Ranking

Participatory wealth ranking is a tool that captures differences in standards of living as perceived by the community themselves, thus making it possible to gain insight into relative social stratification.

Chambers

Participatory Wealth Ranking is a method whereby communities themselves define the poorest or the better-off amongst them.

Poverty and vulnerability in fishing communities, combined with other factors, such as their high level of mobility, also expose them to a number of other problems. "Management of local fish stocks in many of these areas will not improve until more is done to combat poverty among fisherfolk," "Poor people can rarely afford to defend their long-term interests of securing access to healthy fish stocks."

The rights of poor fishermen to harvest and manage local fish stocks need to be strengthened in order to fight poverty and reduce overexploitation of threatened coastal and inland fisheries.

FAO

The goal of participatory wealth rankings is to know who constitutes the extreme poor in each village, and to make sure that those households are included in the FVDP. PWR generates locally relevant indicators and characteristics of the poor. PWRs are also a rapid form of assessment, eliminating the need to visit every household in a village. For example, FVDP saves time and money by focusing survey resources solely on households that have already been indicated as living in relative poverty.
Pair-Wise Ranking

Pair-wise ranking is a PRA method that helps villagers to set priorities (i.e. problems, needs, actions, etc., Ranking can be undertaken with key informants or group of villagers that represents a good mixture of interests. ’ It can also be conducted based on gender to determine different preferences between men and women.

<table>
<thead>
<tr>
<th>Well Off</th>
<th>Average</th>
<th>Poor</th>
<th>Poorest of the Poor</th>
<th>Destitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>{Concrete houses,</td>
<td>{Personal house,</td>
<td>{Live in rented or</td>
<td>{Live in temporary</td>
<td>{Live in miseries,</td>
</tr>
<tr>
<td>Govt. Officer, cars,</td>
<td>enough food, avg.</td>
<td>rented/ dispersed</td>
<td>rented/ dispersed</td>
<td>high tenancy,</td>
</tr>
<tr>
<td>Tractors, Cattles,</td>
<td>source of income,</td>
<td>houses/shelters,</td>
<td>houses/shelters,</td>
<td>bonded labour,</td>
</tr>
<tr>
<td>children in private</td>
<td>health facility,</td>
<td>tenants, daily wagers,</td>
<td>tenants, daily wagers,</td>
<td>high number of</td>
</tr>
<tr>
<td>schools, Electronic</td>
<td>children in private</td>
<td>not enough food,</td>
<td>not enough food,</td>
<td>children, out of</td>
</tr>
<tr>
<td>equipment, Agriculture</td>
<td>schools, medium pieces</td>
<td>Not less health facility}</td>
<td>Not less health facility}</td>
<td>schools, Not</td>
</tr>
<tr>
<td>land, Health affordability, Servants, shops}</td>
<td>of agriculture land, small room}</td>
<td></td>
<td></td>
<td>enough food &amp; health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>facility, deprived people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>etc.}</td>
</tr>
</tbody>
</table>

(ii) Fishing Community and Poverty Index

Three insights into fisher poverty are revealed through the application of these various, yet related, techniques. First, fisher poverty, particularly at the level of the local community, cannot be captured exclusively in monetary income terms. While it is true that economic criteria (catches, number of livestock, standard of housing, degree of self-sufficiency/nutritional supply, landholding and the security of property rights, capital investments, household indebtedness, etc.) generally predominate – reference is also made to social factors (literacy levels, access to education, health and other basic household
needs – such as clean water, etc.) as well as to social manifestations of poverty, power relations and the political space for participation)\(^8\)

3.1.C.i. Livelihoods Analysis

The livelihoods framework in its entirety has rarely been used as the basis for emergency assessments. Emergency assessments may take a livelihoods approach, but often focus on the impact of a disaster on households’ food security or household economy. There are important overlaps between household economy and livelihoods approaches to food security assessments, but also significant differences. A livelihoods approach to food security assessments considers the impact of coping strategies on people’s ability to maintain their livelihoods, including the impact of a shock on assets. Since coping strategies are largely aimed at protecting livelihoods assets, they are not necessarily linked to maintaining or finding new food and income sources. For example, changes in livestock migration patterns with the aim of finding new pastures, or secure routes, to preserve livestock\(^9\). A livelihood analysis forms an important opening for discussing specific details of employment; income etc. The key issues arising from the livelihood analyses are consolidated into simple indicators that can be used to assess the impact of change on the livelihoods of fishers.

D Gram Sabha and Collective Action

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\(^9\) https://www.ennonline.net/fex/103/chapter3.
An ideal Indian village will be so constructed as to lend itself to perfect sanitation. It will have cottages with sufficient light and ventilation built of a material obtainable within a radius of five miles of it. The cottages will have courtyards enabling householders to plant vegetables for domestic use and to house their cattle. The village lanes and streets will be free of all avoidable dust. It will have wells according to its needs and accessible to all. It will have houses of worship for all, also a common meeting place, a village common for grazing its cattle, a co-operative dairy, primary and secondary schools in which industrial education will be the central fact, and it will have Panchayats for settling disputes. It will produce its own grains, vegetables and fruit, and its own Khadi. This is roughly my idea of a model village... I am convinced that the villagers can, under intelligent guidance, double the village income as distinguished from individual income. There are in our villages' inexhaustible resources not for commercial purposes in every case but certainly for local purposes in almost every case. The greatest tragedy is the hopeless unwillingness of the villagers to better their lot”


The information collected should be analysed and compiled in the form of a draft report. The Fishing Village Development Draft Report should be a vision document of the fishing village. Cost effective measures including financial allocation and resource mobilisation should be identified. Generally, the vision document addresses the issues listed below:
BOX 06

VISION OF FISHING VILLAGE (INDICATIVE)

- Open defecation-free panchayat
- Safe drinking water available to all households
- Destitute free fishing village
- Gp where all habitations are connected through all-weather road
- Child labour-free fishing village
- Forced migration-free fishing village
- Trafficking free
- House for all
- 100% anganwadi enrolment
- 100% school enrolment
- 100% child and mothers are covered through immunization
- 100% insurance coverage
- Malnutrition-free
- Infant death-free
- Maternal death-free
- Complete nsap coverage
- Home for all
- Clean and green
- Fully equipped to coping hazards
- Aim to develop alternative livelihood strategies

1. Project Preparation

All the challenges have to be addressed in the form of projects. Each project might be prepared by working group or in the collective gram sabha. A format for the project preparation is in Annex. All the projects are to be compiled and documented as vision document. The vision document should be presented in the Gram Sabha.
D.2. Approval of FVDP by Gram Sabha

Approval of the gram sabha has to be obtained with the majority of the quorum prescribed in the respective State Panchayati Raj Act. The participation of various departments is essential to ascertain information on available programmes and schemes. Invariably, all the cutting-edge level functionaries like panchayat development officer, gram panchayat secretary, anganwadi workers, Asha workers, head master of schools, junior health assistant, village officials of any other line department, social entrepreneurs, corporates and industries. The minutes of all meetings should be recorded.

Similarly, the draft report of the FVDP should be placed before the gram/ village panchayat, panchayat Samiti and Zilla parishad level for approval. Final approval should be obtained for the District Planning Committee (DPC) which is the apex body at the district level as far as the decentralised planning process is concerned.

D.2.1. District Disaster Management Authority

Section 25, Disaster Management Act, 2005 establishes District Disaster Management Authority (DDMA). The composition of DDMA is as follows:

![Topography of District Disaster Management Authority](image)
The DDMA has to ensure the ability to quickly recover from the impact of any disaster and remain functional during disaster time.

The DDMA underlines the importance of preparation of Disaster Management Plan (DMP) in Section 31 and 32 and envisages activities that are classified into four major categories:

1. Actions for mainstreaming of DRR into development
2. Actions for capacity building
3. Functional continuity actions and

D.3. Implementation, Monitoring and Evaluation of FVDP

The success of the entire initiative of preparation of the Fishing Village Development Plan depends upon its effective implementation. Mainstreaming concerns into development plans and projects is necessary for successful implementation of FVDP. Participatory monitoring enables fishing community to generate, analyse and use information for their day-to-day decision-making as well as long term planning. A participatory impact assessment approach is used to access the services delivery system through an evaluation framework. This approach encourages fishers to become more reflective and conscious about different strategies of corrective measures for further improvement. Some of the Key areas for achieving various levels of participation are listed below:

- Informational seminars
- Presentations
- Public hearings/ Gram Sabha
- Dissemination of written materials
- Interactive public meetings/ working group interaction
- Field visits
- Questionnaires
- Focus groups and interviews
- Beneficiary assessments
- Participatory planning workshops and retreats
- Conflict resolution meetings
- Public review of project documents
- Joint meetings with stakeholders and management teams
- Engagement of stakeholders in implementation responsibilities
- Community participation in M&E events
Profile of the fishing village

1. Location (with maps) – Village topographic map
   - Distance to the nearest village
   - Hills, hillocks, elevated land, inclines, low lying areas, high tide lines etc
   - Nearest water bodies and distance from sea

2. History & Culture
   a. Points emerging from recorded events if any
   b. Commonly accepted local oral history
   c. Points emerging from historic time lines (PRA)
   d. Festivals, Fair and other cultural events

3. Geographic features
   a. Lie of the Land
   b. Flora & Fauna including information on forest
   c. Rivers, Water Bodies, status of Ground Water
   d. Soil and other Natural Resources
   e. Climate including rainfall
   f. Coastal resources like mangroves, coral reefs, sea grasses, salt marshes, mud flats, estuaries, lagoons, and unique flora and fauna.

4. Demographic Features
   a. Population & number of households, density
   b. Settlement Pattern (habitations)
   c. Sex Ratio
   d. Religious Composition
   e. Caste Composition
   f. SC/ST Composition
   g. Persons with Disabilities
   h. Age Profile (Along the Life Cycle)
   i. Literacy & Education
   j. Land Holding Pattern
   k. Occupational Pattern
   l. Migration Pattern
Model Human Development Indices for the preparation Situation Analysis

<table>
<thead>
<tr>
<th>S. No</th>
<th>Index</th>
<th>Index</th>
<th>Situation Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sex ratio</td>
<td>Health department. Census report</td>
<td>Problem Matrix, Vulnerability Study, Focus Group discussion, Community Workshop, Local perceptions mapping</td>
</tr>
<tr>
<td>2</td>
<td>Female foeticide</td>
<td>Asha Worker ANM Aganwadi Worker</td>
<td>Problem Matrix, Vulnerability Study, Focus Group discussion, Community Workshop, Local perceptions mapping</td>
</tr>
<tr>
<td>3</td>
<td>Contagious diseases</td>
<td>Health WHO reports Case/Research studies</td>
<td>Problem Matrix, Focus Group discussion</td>
</tr>
<tr>
<td>4</td>
<td>IMR, MMR</td>
<td>Health, Women and Child Development</td>
<td>Focus Group discussion, Community Workshop</td>
</tr>
</tbody>
</table>

5. Administrative Profile of the Gram Panchayat

a. Composition of the Gram Panchayat
b. Functions performed by the Gram Panchayat
c. Resources of the Gram Panchayat
d. Officials & Institutions under the gram Panchayat
e. Other public institutions / Offices (Different committees /functionary within the jurisdiction of the Gram Panchayat may be listed and their functioning outlined). People’s Institutions
f. Cooperatives
g. SHGs
h. Other Collectives (e.g. Fishers’ Groups)
i. User Groups
j. Youth clubs
k. Sports & Arts Clubs
l. Libraries

6. Economic Resources

a. Land Use
   i. Agricultural Land (Cultivated Land – wet & dry land, irrigated and unirrigated land)
   ii. Cultivable Fallow
   iii. Uncultivable Land
   iv. Cropping Pattern (Food & Non-Food)
   v. Orchards & Plantations
vi. Pasture – common and private

b. Livestock Profile
c. Other Natural Resources
d. Water Bodies including Irrigation Structures
e. Forests – including and those on revenue land
f. Mines (Minor & Major)

g. Other Economic Resources
   i. Manufacturing Units – including small scale and cottage industries
   ii. Commercial Units
   iii. Markets
   iv. Storage & Warehouse facilities
   v. Banks & financial institutions

7. Infrastructure & Civic Facilities
   a. Roads & Public Transport
   b. PDS centers
   c. Electricity
   d. Sanitation
   e. Sports, Recreation & other community facilities
   f. Post offices
   g. Telecom facilities

8. Chronic Poverty:
   a. Indebtedness:
   b. Land ownership
   c. Energy:
   d. Water:
   e. Livelihood and unemployment
   f. Vulnerable segments
   g. Literacy, enrolment and educational attainment
   h. Connectivity
   i. Government schemes
   j. Overall economic indicators
9. Sanitation:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Index</th>
<th>Index</th>
<th>Situation Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanitation</td>
<td>Base line survey, Engineering Department</td>
<td>Vulnerability study, Problem Matrix, Community Workshop</td>
</tr>
<tr>
<td>2</td>
<td>Drinking Water</td>
<td>PHED</td>
<td>Vulnerability study, Problem Matrix, Community Workshop</td>
</tr>
<tr>
<td>3</td>
<td>Street Light</td>
<td>Electricity Department, Baseline survey</td>
<td>Community Workshop</td>
</tr>
<tr>
<td>4</td>
<td>e-Connectivity</td>
<td>BSNL, BBNL, Hartron</td>
<td>Community Workshop</td>
</tr>
<tr>
<td>5</td>
<td>Parks</td>
<td>Gram Panchayat</td>
<td>Community Workshop</td>
</tr>
<tr>
<td>6</td>
<td>civic services</td>
<td>State PR department, line department</td>
<td>Focus group discussion</td>
</tr>
<tr>
<td>7</td>
<td>Streets with drain</td>
<td>Panchayati Raj &amp; Public Works</td>
<td>Focus group discussion</td>
</tr>
</tbody>
</table>

**Model Exercise for Focus Group Discussion: Seasonal Calendar**

Village: Name of FGD: Date: Time:

**Materials:** Colour markers, flip card papers, voice recorder

**Participants:** 5 women + 5 men

**Duration:** about 2 hours (120’)

**Facilitator:** 1-2 persons

**Note-taker:** 1 person

**Objective:** To gain understanding of livelihood activities, events happening in the fishing village/community seasonality, workload (busiest and less busy months/seasons), and division of labour between women and men in the village.

**Indicators:**

- Human resources
- Time utilization
- Common knowledge
Step by step:

A. Introduction

Duration: 15’

Remark: If participants (male and female groups) are present at the same time, the ‘introduction’ could be made before the two groups split; otherwise this introduction could be made directly in small groups.

1. The facilitator begins with introducing her/himself, the team, and the purpose of the meeting. Explain about informed consent and ask if the participants understand/agree with it. Ask if we could proceed.
2. Explain carefully and clearly the objective of this discussion and how long it might take.
3. Ask the participants what the main seasons of the year in the village. Reference to weather patterns (such as rainy season, dry season, or east wind season/fish harvesting season) or local events (such as harvest festivals or religious celebrations like Christmas or Eid/Ramadhan) can be used. Write these seasons along the top of a flip chart paper. Symbols or different colors can also be used to indicate these seasons (look at the following seasonal calendar table).
4. If participants familiar with the months of the year, the facilitator can write or number the months below the seasons (look at the following seasonal calendar table).
5. Ensure that there are enough spaces on the left side of the paper to list the activities or events in the village that participants feel are important (look at the following seasonal calendar table).
6. Ask the participants to split into two groups by gender (women and men).
7. Give each subgroup flip chart(s) and colour markers and ask a representative from each subgroup to draw the same table.
### Format for calculating Financial Resource Envelope

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Schemes</th>
<th>Amount Received During the previous financial year (Rs.)</th>
<th>Expected Amount For The Coming Year (plan year) (Rs.)**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Tied Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Swatch Bharat Mission (SBM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>National Rural Health Mission (NRHM·)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Other centrally/State sponsored scheme fund in which GP has command</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Untied Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>XIV Finance Commission Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>State Finance Commission Grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Own source of revenue (OSR)- taxes, non-tax, rents, fees for markets and ponds, user charges etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community contribution (Cash / Kind/Labour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MGNREGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corporate social responsibility funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAGY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any other sources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Policies and Programmes

Relevant For Coastal Development
The national and regional governments have enacted various policies and programmes towards development of people, especially the marginalised. In addition, there are specific policies and programmes to regulate coastal development for supporting the coastal communities and the coastal environment and ecology. It is imperative to explore and understand in depth all such related policies and programmes, so that, the design of the decentralised micro plan is well developed. To ensure the relevance, quality and effectiveness of coastal development, the policies and programmes of different ministries and departments that are relevant to fishing communities are listed for reference in Table 1.

Table 1. Policies and programmes of different ministries and departments

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of the Scheme</th>
<th>Sector</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pradhan Mantri Jan Dhan Yojana (PMJDY)</td>
<td>Financial Inclusion</td>
<td>A national mission to bring comprehensive financial inclusion of all the households in the country. Any individual above the age of 10 years and does not have a bank account can open a bank account without depositing any money.</td>
</tr>
<tr>
<td>2.</td>
<td>Pradhan Mantri Sukanya Samriddhi Yojana (PMSSY)</td>
<td>Secure the future of Girl Child</td>
<td>A saving account can be opened in the name of girl child and deposits can be made for 14 years. After the girl reaches 18 years of age, she can withdraw 50% of the amount for marriage or higher study purposes. The investments and returns are exempt from section 80C of Indian income tax act. The maximum investment of Rs. 1.5 Lakh per year can be made while minimum deposit is Rs. 1000/- per year.</td>
</tr>
<tr>
<td>3.</td>
<td>Pradhan Mantri MUDRA Yojana (PMMY)</td>
<td>Financial support for Growth of Micro Enterprises Sector</td>
<td>To provide funding to the non-corporate small business sector. The small businesses/start-ups or entrepreneurs can avail loans from Rs. 50 thousand to 10 Lakh.</td>
</tr>
<tr>
<td>4.</td>
<td>Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)</td>
<td>Provide Life Insurance cover to all Indian citizens</td>
<td>The policy holder can get a life insurance cover of Rs. 2 Lakh with an annual premium of just Rs. 330 excluding service tax. All the Indian citizens between 18-50 years of age with a saving bank account are eligible to avail the scheme.</td>
</tr>
</tbody>
</table>
| 5.   | Pradhan Mantri Suraksha Bima Yojana (PMSBY) | Provide accidental insurance cover | The policy holder can get a life insurance cover of Rs. 2 Lakh with an annual premium of just Rs. 12 excluding service tax. All the Indian
to all Indian citizens between 18-70 years of age with a saving bank account are eligible to avail the scheme.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Atal Pension Yojana (APY)</td>
<td>Pension Scheme</td>
</tr>
<tr>
<td></td>
<td>Aimed at increasing the number of pension scheme beneficiaries across the country. The scheme is especially targeted to the private unorganized sector and is open to all Indian citizens between the ages of 18 to 40 years.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Pradhan Mantri Awas Yojana (PMAY)</td>
<td>Rural Housing</td>
</tr>
<tr>
<td></td>
<td>Provides financial assistance to the poor home buyers, interest subsidy on home loan and direct subsidy on homes are under the scheme.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Saansad Adarsh Gram Yojana (SAGY)</td>
<td>Development of Model Villages called &quot;Adarsh Gram&quot;</td>
</tr>
<tr>
<td></td>
<td>Members of Parliament (MPs) will be responsible for developing the socio-economic and physical infrastructure of three villages each by 2019, and a total of eight villages each by 2024.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Pradhan Mantri Fasal Bima Yojana (PMFBY)</td>
<td>Insurance to Farmers</td>
</tr>
<tr>
<td></td>
<td>Provide insurance cover to rabi and kharif crops and financial support to farmers in case of damage of crops.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Pradhan Mantri Gram Sinchai Yojana (PMGSY)</td>
<td>Investments in Irrigation</td>
</tr>
<tr>
<td></td>
<td>Irrigating the field of every farmer and improving water use efficiency to provide ‘Per Drop More Crop’.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Pradhan Mantri Garib Kalyan Yojana (PMGKY)</td>
<td>Pro-poor Welfare Schemes</td>
</tr>
<tr>
<td></td>
<td>Implementing the pro-poor welfare schemes in more effective way and reaching out to more poor population across the country.</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Pradhan Mantri Jan Aushadhi Yojana (PMJAY)</td>
<td>Medicines at less price</td>
</tr>
<tr>
<td></td>
<td>Provides drugs/medicines at affordable cost across the country.</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Make in India</td>
<td>Jobs and Skill Enhancement</td>
</tr>
<tr>
<td></td>
<td>Initiative is to focus on job creation and skill enhancement in 25 sectors of the economy.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Swachh Bharat Abhiyan</td>
<td>Clean and Hygienic India</td>
</tr>
<tr>
<td></td>
<td>To deliver Government services to citizens electronically by improving online infrastructure and by increasing Internet connectivity.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Kisan Vikas Patra</td>
<td>Investment Scheme</td>
</tr>
<tr>
<td></td>
<td>Provide safe and secure investment avenues to the small investors.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Soil Health Card Scheme</td>
<td>Reviews the Health of Soil</td>
</tr>
<tr>
<td></td>
<td>Help farmers to improve productivity from their farms by letting them know about nutrient/fertilizer requirements for their farms.</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Digital India</td>
<td>Digitally Empowered Society</td>
</tr>
<tr>
<td></td>
<td>To deliver Government services to citizens electronically by improving online infrastructure and by increasing Internet connectivity.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Skill India</td>
<td>Skill Development</td>
</tr>
<tr>
<td></td>
<td>Main goal is to create opportunities, space and scope for the development of talents of the Indian youth.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Generate awareness and improving the efficiency of welfare services meant for women.</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Mission Indradhanush</td>
<td>Achieve Full Immunization</td>
</tr>
<tr>
<td></td>
<td>Immunize all children as well as pregnant women against seven vaccine preventable diseases namely diphtheria, whooping cough (Pertussis), tetanus, polio, tuberculosis, measles and hepatitis B by 2020.</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)</td>
<td>Rural Households &amp; Agricultural</td>
</tr>
</tbody>
</table>
|   | Providing round the clock power to rural households and adequate power to agricultural...
<table>
<thead>
<tr>
<th></th>
<th>Scheme Name</th>
<th>Sector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY)</td>
<td>Skills and productive Capacity of the Rural Youth from Poor Families</td>
<td>Aims to train rural youth who are poor and provide them with jobs having regular monthly wages.</td>
</tr>
<tr>
<td>23.</td>
<td>Pandit Deendayal Upadhyay Shramev Jayate Yojana (PDUSJY)</td>
<td>Transparency and Accountability in labour inspection</td>
<td>A Unified Labour Portal, known as the Shram Suvidha portal was launched under the scheme as a platform to facilitate the implementation of a transparent system for information and database management.</td>
</tr>
<tr>
<td>24.</td>
<td>Atal Mission for Rejuvenation and Urban Transformation (AMRUT)</td>
<td>Urban Development</td>
<td>Providing basic services (e.g. water supply, sewerage, urban transport). To (i) ensure that every household has access to a tap with assured supply of water and a sewerage connection; (ii) increase the amenity value of cities by developing greenery and well maintained open spaces (e.g. parks); and (iii) reduce pollution by switching to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling).</td>
</tr>
<tr>
<td>25.</td>
<td>Swadesh Darshan Yojana</td>
<td>Tourism Infrastructure Development</td>
<td>Develops theme based tourism circuits (TBCT) around specific themes such as religion, culture, ethnicity, niche, etc. are identified for infrastructure development across the country.</td>
</tr>
<tr>
<td>26.</td>
<td>PRASAD (Pilgrimage Rejuvenation and Spiritual Augmentation Drive)</td>
<td>Tourism Infrastructure Development</td>
<td>Aims to create spiritual centres for tourism development within the nation. As part of mission strategy, religious destinations that have potential to be show-cased as world-class tourism products are identified and infrastructure is developed on a priority basis.</td>
</tr>
<tr>
<td>27.</td>
<td>National Heritage City Development and Augmentation Yojana (HRIDAY)</td>
<td>Heritage Conservation</td>
<td>Bringing together urban planning, economic growth and heritage conservation in an inclusive manner to preserve the heritage character of each Heritage City.</td>
</tr>
<tr>
<td>28.</td>
<td>Udaan Scheme</td>
<td>Scholarship scheme to Girl Students</td>
<td>Enables meritorious girl students to transit from schools to technical education. Aims to enrich and enhance teaching and learning of mathematics and science at senior secondary school level by providing free online resources for all.</td>
</tr>
<tr>
<td>29.</td>
<td>National Bal Swachhta Mission</td>
<td>Cleanliness to Children</td>
<td>To provide hygienic and clean environment, food, drinking water, toilets, schools and other surroundings to the children.</td>
</tr>
<tr>
<td>30.</td>
<td>Integrated Power Development Scheme (IPDS)</td>
<td>Solar</td>
<td>Provide financial support for strengthening of sub-transmission network, metering, IT application, and customer care Services, provisioning of solar panels.</td>
</tr>
<tr>
<td>31.</td>
<td>Shyama Prasad Mukherji Rurban Mission</td>
<td>Rural Clusters</td>
<td>Promote growth of villages and its residents at the place where they are. Develop 300 rural clusters with urban like facilities in the next 3 years.</td>
</tr>
<tr>
<td>32.</td>
<td>Sagarmala Project</td>
<td>Transform the Existing Ports</td>
<td>Promote port-led direct and indirect development and to provide infrastructure to transport goods to and from ports quickly, efficiently and cost-effectively. Aimed at port-</td>
</tr>
</tbody>
</table>
The Ministry of Rural Development (MoRD) proposed several innovative activities while undertaking works related to fisheries and coastal areas, which are listed below:

A. Fisheries and Coastal Related Works

1. Fisheries in seasonal water bodies on public land (small reservoirs, tanks, water harvesting ponds)
2. Fish drying yards
3. Belt vegetation
4. Construction of storm water drains for coastal protection
5. Soak pits
6. Recharge pits

B. Flood Management Related Works

1. Deepening and repair of flood channels
2. Waterlogged lowland renovation

C. Other Related Works Relevant to Coastal Areas
1. Individual household latrines
2. School toilet units
3. Anganwadi toilets
4. Solid and liquid waste management

Some of the most important schemes promoted by the Ministry of Rural Development, Government of India are closely addressing the challenges amongst the fishermen that are listed below:

- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)
- National Rural Livelihood Mission (NRLM)
- Pradhan Mantri Gram Sadak Yojana (PMGSY)
- Pradhan Matri Awas Yojana (Gramin) (PMAY-G)
- Deen Dayal Antyodaya Yojana (DAY)
- Sansad Adharsh Gram Yojana (SAGY)
- Mission Antyodaya
- National Rural Mission (NRuM)
- National Social Assistance Programme (NSAP)
- Antyodaya Anna Yojna (AAY)
- Village Grain Bank Scheme (VGBS)
- National Rural Health Mission (NRHM)
- Integrated Child Development Services (ICDS)
- Accelerated Rural Water Supply Programme (ARWSP)
- Mid-Day Meals Programme (MDM)
- Sarva Shiksha Abhiyan (SSA)
- Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
- Rajiv Gandhi Gramin Vikash Yojana (RGGVY)

**Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)**

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household who volunteer to do unskilled manual work. National Rural Employment Guarantee Act 2005 was launched on the 2nd Feb 2006. Now the new name of this scheme is "Mahatma
Gandhi National Rural Employment Guarantee Scheme" (or, MGNREGS). This scheme is an Indian labour law and social security measure that aims to provide ‘right to work’ to the people falling Below Poverty Line. It guarantees 100 days employment in a year to the village people. Fifty percent workers should be women. Ninety percent of the funding is borne by the central government and the rest by the state government.

**National Rural Livelihoods Mission (NRLM)**

National Rural Livelihoods Mission (Aajeevika) is aimed to empower women’s self-help group model across the country. Under this scheme, the government provides loan up to three lakh at the rate of 7% which could be lowered to 4% on timely repayment. The mandate of NRLM is to cover 70 million poor rural households in more than 600 districts, 6,000 blocks, 250,000 Gram Panchayats and 600,000 villages in the country through self-managed community institutions and support them for livelihoods over a period of eight to ten years¹.

**Pradhan Mantri Gram Sadak Yojna (PMGSY)**

Initially a 100% centrally funded scheme, launched on the December 25, 2000, after the recommendation of 14th Finance Commission report, now expenditure is shared by the centre and state at a ratio of 60:40. The main aim of this scheme is to provide all weather road connectivity to the rural areas whose population is more than 500 persons and in terms of hilly areas it is 250 persons.

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Pradhan Mantri Awaas Yojana - Gramin (PMAY-G)

Previously Indira Awaas Yojana (IAY), is a social welfare flagship programme, created by the Indian Government, to provide housing for the rural poor in India. A similar scheme for urban poor was launched in 2015 as Housing for All by 2022. The Indira Awaas Yojana (IAY) operationalised from 1999-2000 is the major scheme for construction of houses for the poor, free of cost. The Ministry of Rural Development (MORD) provides equity support to the Housing and Urban Development Corporation (HUDCO) for this purpose.

Antyodaya Anna Yojna (AAY)

The scheme was launched by the Prime Minister Atal Bihari Vajpayee on 25 December 2000. The scheme provides food grains to around two crores Below Poverty Line (BPL) families at a very subsidized rate. Totally 35 kgs of food grains is provided to a family. Rice is provided at the rate of Rs. 3/kg and wheat at Rs.2/kg.

Village Grain Bank Scheme

This scheme was implemented by the Department of Food and Public Distribution. The main objective of this scheme is to safeguard against starvation during natural calamity or during lean season when the marginalized food insecure households do not have sufficient resources to purchase rations. Under this scheme needy people will be able to borrow food grains from the village grain bank and return it when they have abundant food.

National Social Assistance Programme (NSAP)

The National Social Assistance Programme (NSAP) which came into effect from 15th August, 1995 represents a significant step towards the fulfilment of the Directive Principles in Article 41 of the Constitution. The programme introduced a National Policy for Social Assistance for the poor and aims at ensuring minimum national standard for social assistance in addition to the benefits that states are currently providing or might provide in future. NSAP at present comprises of Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Indira Gandhi National Widow Pension Scheme (IGNWPS), Indira Gandhi National Disability
Pension Scheme (IGNDPS), National Family Benefit Scheme (NFBS) and Annapurna. National Social Assistance Programme (NSAP).

**National Rural Health Mission**

The National Rural Health Mission (NRHM), now under National Health Mission was initiated on 12 April, 2005. The main aim of this plan is to provide accessible, affordable and accountable quality health services even to the poorest households in the remotest rural regions. Accredited Social Health Activists (ASHA) scheme is also operational under this. It is run by the Ministry of Health and Family Welfare.

**Integrated Child Development Services (ICDS)**

Children in the age group 0-6 years constitute around 158 million of the population of India (2011 census). Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world’s largest and unique programmes for early childhood care and development. It is the foremost symbol of country’s commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers. The ICDS Scheme offers a package of six services, viz.

- Supplementary Nutrition
- Pre-school non-formal education
- Nutrition & health education
- Immunization
• Health check-up and
• Referral services

**Accelerated Rural Water Supply Programme (ARWSP)**

The Accelerated Rural Water Supply Programme (ARWSP) was the first major intervention in the water sector that started in 1972-1973. To accelerate coverage, a Technology Mission on Drinking Water was launched in 1986. In 1991-92, this mission was renamed Rajiv Gandhi National Drinking Water Mission, and in 1999. The Ministry of Drinking Water and Sanitation is the nodal department for the overall policy, planning, funding and coordination of programmes of drinking water and sanitation in the country. The goal of ARWSP is to provide safe drinking water and improved sanitation for all, at all times, in rural India.

**Mid-Day Meals Programme (MDM)**

Mid-Day Meal Programme was introduced for disadvantaged children in Madras Municipal Corporation. The scheme aims to enhance enrolment, retention and attendance and simultaneously improving nutritional levels among children. The Mid Day Meal Rules, 2015 have been notified under the National Food Security Act, 2013 and the same are effective from the date of its publication i.e. 30th September, 2015. Every child within the age group of six to fourteen years studying in classes I to VIII who enrol and attend the school, is being provided meal having nutritional standards as specified, free of charge every day except on school holidays. Most of the states and UTs have adopted several innovative best practices for implementation of Mid-day Meal scheme effectively and efficiently.
Sarva Shiksha Abhiyan (SSA)

SA has been operational since 2000-2001 to provide for a variety of interventions for universal access and retention, bridging of gender and social category gaps in elementary education and improving the quality of learning.

SSA interventions include inter alia, opening of new schools and alternate schooling facilities, construction of schools and additional classrooms, toilets and drinking water, provisioning for teachers, regular teacher in service training and academic resource support, free textbooks & uniforms and support for improving learning achievement levels / outcome. With the passage of the RTE Act, changes have been incorporated into the SSA approach, strategies and norms.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

During 2015-16, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was launched with an aim to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on farm water use efficiency, introduce sustainable water conservation practices etc. With the launch of PMKSY, Accelerated Irrigation Benefits Programme (AIBP) became a part of it. Irrigation is a state subject and irrigation projects are formulated, executed and funded by the State Governments themselves from their own resources. Central assistance is released in the form of block loans and grants not tied to any sector of development or project.
Rajiv Gandhi Grameen Vidyutikaran Yojana:

Under RGGVY, electricity distribution infrastructure is envisaged to establish Rural Electricity Distribution Backbone (REDB) with at least a 33/11KV sub-station in a block, Village Electrification Infrastructure (VEI) with at least a Distribution Transformer in a village or hamlet, and standalone grids with generation where grid supply is not feasible. Subsidy towards capital expenditure to the tune of 90% is being provided, through Rural Electrification Corporation Limited (REC), which is a nodal agency for implementation of the scheme. Electrification of un-electrified Below Poverty Line (BPL) households is being financed with 100% capital subsidy @ Rs.2200/- per connection in all rural habitations.

Saakshar Bharat Programme

Department of School Education & Literacy, M/o Human Resource Development has launched Saakshar Bharat Programme, a Centrally Sponsored Scheme, on 8th Sept. 2009 to impart functional literacy to adult non-literate in the age group of 15 years & beyond with prime focus on Women, SCs, STs, Minorities and other disadvantaged groups. In addition, the programme also aims at enabling neo-literates to continue their learning beyond basic literacy and acquire equivalence to the formal educational system, equip neo-literates with skills to improve their living and earning conditions and provide opportunities to them for continuing education.
e-Panchayat Mission Mode Project

The Panchayats being the basic unit for planning and implementation of a large number of schemes and services, this MMP would also go a long way in improving public service delivery through PRIs with better outcomes. The e-Panchayat Mission Mode Project (MMP) is intended to address all the aspects of Panchayats' functioning from internal core functions such as Decentralized Planning, Budgeting, Accounting, Implementation and monitoring etc. to service delivery like issue of certificates, licenses etc.

Pradhan Mantri Adarsh Gram Yojana

PMAGY aims to ensure integrated development of the selected villages with more than 50% SC population into "model villages". As per Census 2011, there are 46844 SC majority villages (having greater than 50% SC population) in the country. With the pilot phase and the present expansion total 2500 SC majority villages will be covered under the Scheme. The overall percentage of SC/ST among the marine fishermen households was 16.6%. Among the maritime states, Orissa and West Bengal had 59.3% and 54.8% of the fishermen households belonging to SC/ST\(^2\). The principal objective of the Scheme is integrated development of SC Majority Villages:

- Primarily through convergent implementation of the relevant Central and State Schemes.
- By providing these villages Central Assistance in form of gap-filling funds to the extent of Rs.20.00 lakh per village, to be increased by another 5 lakh if State makes a matching contribution.
- By providing gap-filling component to take up activities which do not get covered under the existing Central and State Government Schemes are to be taken up under the component of ‘gap filling’.

\(^2\) MFC, 2010 p.17
Social Audit

Social Audit is a process where through the active involvement of the primary stakeholders of the scheme, the social gaps and progress are understood. Social audit helps to narrow gaps between vision/goal and reality; and between efficiency and effectiveness. It allows us to measure, verify, report on and to improve the social performance of any government effort or organization. Social Audit is different from the development audit. The key difference between development audit and social audit is that a social audit focuses on the neglected issue of social impacts, while a development audit has a broader focus including environment and economic issues, such as the efficiency of a project or programme. The most appropriate institutional level for social audit is the Gram Sabha, which has been given ‘watchdog’ powers and responsibilities by the panchayati raj acts in most States to supervise and monitor the functioning of panchayat elected representatives and government functionaries, and examine the annual statement of accounts and audit reports.³

Saansad Adarsh Gram Yojana (SAGY):

The Saansad Adarsh Gram Yojana, unlike other Schemes, does not look at the beneficiaries as receivers and the Government as the doer. The Yojana aims each Member of Parliament to make one village of his or her constituency a Model Village by 2016 and two more model villages by 2019. SAGY envisages integrated development of the village across multiple areas such as agriculture, health, education, sanitation, environment,

livelihoods etc. It seeks to not only provide physical infrastructure and access to basic amenities but also improve the standard of living, enrich social capital and build community spirit.

Additionally, SAGY promotes environmental, basic amenities, social security and good governance focusing elaborately as illustrated below:

Based on the discussion illustrated above, some of the fishing villages could be demonstrated as model villages. The Centrally Sponsored 'National Scheme of Welfare of Fishermen’ envisages to provide financial assistance to fishers for construction of house, community hall for recreation and common working place and installation of tube-wells for drinking water. One of components of the schemes is development of model fishermen villages. Key elements of model fishing villages as highlighted below:

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Kumbalangi village, Kerala – a model for eco-tourism

Kumbalangi is essentially a fishing hamlet which has been developed as a unique rural tourist destination in Kerala’s Ernakulam district. The Kumbalangi Integrated Tourism Village Project was launched in 2004, with a focus on eco-tourism, while offering tourists a glimpse of the rich and rustic life of the Indian countryside. The important attractions in Kumbalangi include organic farm produce used to prepare meals for tourists, toddy tapping and crab farming. To keep the village clean and serve its energy needs, households are also provided
subsidies for setting up mini biogas plants in their households. The Kumbalangi approach could be adopted by other coastal villages to boost tourism and provide livelihood to local communities. This coastal hamlet without doubt provides a fascinating glimpse of the simple and prosperous livelihood of the villagers, and also unravels the age-old culture and heritage of the place. Kalagramam, an artist’s village, displays handicrafts and fishing equipment. Mangroves are nurtured here as well as fish farming. Bait fishing is extremely popular among tourists here. Many houses in the village are homestays and visitors can book their stay directly with homestay operators or seek the assistance of the village council.
Annexures

1. CRZ Notification, 2011
2. Seventy Third Amendment Act, 1992
3. Seventy Fourth Amendment, 1992
COASTAL REGULATION ZONE NOTIFICATION
MINISTRY OF ENVIRONMENT AND FORESTS
(Department of Environment, Forests and Wildlife)

S.O.19(E).- WHEREAS a draft notification under sub-section (1) of section and clause (V) of subsection (2) of section 3 of the Environment (Protection) Act, 1986 was issued inviting objections and suggestions for the declaration of coastal stretches as Coastal Regulation Zone and imposing restrictions on industries, operations and processes in the CRZ was published vide S.O.No.2291 (E),dated 15th September, 2010.;

AND WHEREAS, copies of the said Gazette were made available to the public on 15th September, 2010.;

AND WHEREAS, the suggestions and objections received from the public have been considered by the Central Government.;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government, with a view to ensure livelihood security to the fisher communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches, its unique environment and its marine area and to promote development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, sea level rise due to global warming, does hereby, declare the coastal stretches of the country and the water area upto its territorial water limit, excluding the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands upto its territorial limit, as Coastal Regulation Zone (hereinafter referred to as the CRZ) and restricts the setting up and expansion of any industry, operations or processes and manufacture or handling or storage or disposal of hazardous substances as specified in the Hazardous Substances (Handling, Management and Transboundary Movement) Rules, 2009 in the aforesaid CRZ.; and

In exercise of powers also conferred by clause (d) and sub rule (3) of rule 5 of Environment (Protection) Act, 1986 and in supersession of the notification of the Government of India in the Ministry of Environment and Forests, number S.O.114(E), dated the 19th February, 1991 except as respects things done or omitted to be done before such super cession, the Central Government hereby declares the following areas as CRZ and imposes with effect from the date of the notification the following restrictions on the setting up and expansion of industries, operations or processes and the like in the CRZ,-

(i) the land area from High Tide Line (hereinafter referred to as the HTL) to 500 mts on the landward side along the sea front.
(ii) CRZ shall apply to the land area between HTL to 100 mts or width of the creek whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance upto which development along such tidal influenced water bodies is to be regulated shall be governed by the distance upto which the tidal effects are experienced which shall be determined based on salinity
concentration of 5 parts per thousand (ppt) measured during the driest period of the year and distance upto which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plans (hereinafter referred to as the CZMPs).

Explanation. - For the purposes of this sub-paragraph the expression tidal influenced water bodies means the water bodies influenced by tidal effects from sea, in the bays, estuaries, rivers, creeks, backwaters, lagoons, ponds connected to the sea or creeks and the like.

(iii) the land area falling between the hazard line and 500mts from HTL on the landward side, in case of seafront and between the hazard line and 100mts line in case of tidal influenced water body the word ‘hazard line’ denotes the line demarcated by Ministry of Environment and Forests (hereinafter referred to as the MoEF) through the Survey of India (hereinafter referred to as the SoI) taking into account tides, waves, sea level rise and shoreline changes.

(iv) land area between HTL and Low Tide Line (hereinafter referred to as the LTL) which will be termed as the intertidal zone.

(v) the water and the bed area between the LTL to the territorial water limit (12 Nm) in case of sea and the water and the bed area between LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.

2. For the purposes of this notification, the HTL means the line on the land upto which the highest water line reaches during the spring tide and shall be demarcated uniformly in all parts of the country by the demarcating authority(s) so authorized by the MoEF in accordance with the general guidelines issued at Annexure-I. HTL shall be demarcated within one year from the date of issue of this notification.

3. Prohibited activities within CRZ,- The following are declared as prohibited activities within the CRZ,-

(i) Setting up of new industries and expansion of existing industries except, -

(a) those directly related to waterfront or directly needing foreshore facilities;

Explanation: The expression “foreshore facilities” means those activities permissible under this notification and they require waterfront for their operations such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations and the like.;

(b) projects of Department of Atomic Energy;

(c) facilities for generating power by non-conventional energy sources and setting up of desalination plants in the areas not classified as CRZ-I(i) based on an impact assessment study including social impacts.;

(d) development of green field Airport already permitted only at Navi Mumbai;

(e) reconstruction, repair works of dwelling units of local communities including fishers in accordance with local town and country planning regulations.
(ii) manufacture or handling oil storage or disposal of hazardous substance as specified in the notification of Ministry of Environment and Forests, No. S.O.594 (E), dated the 28th July 1989, S.O.No.966(E), dated the 27th November, 1989 and GSR 1037 (E), dated the 5th December, 1989 except,

(a) transfer of hazardous substances from ships to ports, terminals and refineries and vice versa;

(b) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II appended to this notification and facilities for regasification of Liquefied Natural Gas (hereinafter referred to as the LNG) in the areas not classified as CRZ-I(i) subject to implementation of safety regulations including guidelines issued by the Oil Industry Safety Directorate in the Ministry of Petroleum and Natural Gas and guidelines issued by MoEF and subject to further terms and conditions for implementation of ameliorative and restorative measures in relation to environment as may be stipulated by in MoEF. Provided that facilities for receipt and storage of fertilizers and raw materials required for manufacture of fertilizers like ammonia, phosphoric acid, sulphur, sulphuric acid, nitric acid and the like, shall be permitted within the said zone in the areas not classified as CRZ-I(i).

(iii) Setting up and expansion of fish processing units including warehousing except hatchery and natural fish drying in permitted areas:

(iv) Land reclamation, bunding or disturbing the natural course of seawater except those,

(a) required for setting up, construction or modernisation or expansion of foreshore facilities like ports, harbours, jetties, wharves, quays, slipways, bridges, sea link, road on stilts, and such as meant for defence and security purpose and for other facilities that are essential for activities permissible under the notification;

(b) measures for control of erosion, based on scientific including Environmental Impact Assessment (hereinafter referred to as the EIA) studies

(c) maintenance or clearing of waterways, channels and ports, based on EIA studies;

(d) measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structures for prevention of salinity ingress and freshwater recharge based on carried out by any agency to be specified by MoEF.

(v) Setting up and expansion of units or mechanism for disposal of wastes and effluents except facilities required for,

(a) discharging treated effluents into the water course with approval under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(b) storm water drains and ancillary structures for pumping;

(c) treatment of waste and effluents arising from hotels, beach resorts and human settlements located in CRZ areas other than CRZ-I and disposal of treated wastes and effluents;
(vi) Discharge of untreated waste and effluents from industries, cities or towns and other human settlements. The concerned authorities shall implement schemes for phasing out existing discharge of this nature, if any, within a time period not exceeding two years from the date of issue of this notification.

(vii) Dumping of city or town wastes including construction debris, industrial solid wastes, fly ash for the purpose of land filling and the like and the concerned authority shall implement schemes for phasing out any existing practice, if any, shall be phased out within a period of one year from date of commencement of this notification.

Note:- The MoEF will issue a separate instruction to the State Governments and Union territory Administration in respect of preparation of Action Plans and their implementation as also monitoring including the time schedule thereof, in respect of paras (v), (vi) and (vii).

(viii) Port and harbour projects in high eroding stretches of the coast, except those projects classified as strategic and defence related in terms of EIA notification, 2006 identified by MoEF based on scientific studies and in consultation with the State Government or the Union territory Administration.

(ix) Reclamation for commercial purposes such as shopping and housing complexes, hotels and entertainment activities.

(x) Mining of sand, rocks and other sub-strata materials except,-
   (a) those rare minerals not available outside the CRZ area,
   (b) exploration and exploitation of Oil and Natural Gas.

(xi) Drawl of groundwater and construction related thereto, within 200mts of HTL; except the following:
   (a) in the areas which are inhabited by the local communities and only for their use.
   (b) In the area between 200mts-500mts zone the drawl of groundwater shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries and where no other source of water is available.

Note: -Restrictions for such drawl may be imposed by the Authority designated by the State Government and Union territory Administration in the areas affected by sea water intrusion.

(xi) Construction activities in CRZ-I except those specified in para 8 of this notification.

(xiii) Dressing or altering the sand dunes, hills, natural features including landscape changes for beautification, recreation and other such purpose.

(xiv) Facilities required for patrolling and vigilance activities of marine/coastal police stations.
4. Regulation of permissible activities in CRZ area. - The following activities shall be regulated except those prohibited in para 3 above, -

(i) (a) clearance shall be given for any activity within the CRZ only if it requires waterfront and foreshore facilities;

(b) for those projects which are listed under this notification and also attract EIA notification, 2006 (S.O.1533 (E), dated the 14th September, 2006), for such projects clearance under EIA notification only shall be required subject to being recommended by the concerned State or Union territory Coastal Zone Management Authority (hereinafter referred to as the CZMA).

(c) Housing schemes in CRZ as specified in paragraph 8 of this notification;

(d) Construction involving more than 20,000 sq mts built-up area in CRZ-II shall be considered in accordance with EIA notification, 2006 and in case of projects less than 20,000 sq mts built-up area shall be approved by the concerned State or Union territory Planning authorities in accordance with this notification after obtaining recommendations from the concerned CZMA and prior recommendations of the concern CZMA shall be essential for considering the grant of environmental clearance under EIA notification, 2006 or grant of approval by the relevant planning authority.

(e) MoEF may under a specific or general order specify projects which require prior public hearing of project affected people.

(f) construction and operation for ports and harbours, jetties, wharves, quays, slipways, ship construction yards, breakwaters, groynes, erosion control measures;

(ii) the following activities shall require clearance from MoEF, namely: -

(a) those activities not listed in the EIA notification, 2006.

(b) construction activities relating to projects of Department of Atomic Energy or Defence requirements for which foreshore facilities are essential such as, slipways, jetties, wharves, quays; except for classified operational component of defence projects. Residential buildings, office buildings, hospital complexes, workshops of strategic and defence projects in terms of EIA notification, 2006.;

(c) construction, operation of lighthouses;

(d) laying of pipelines, conveying systems, transmission line;

(e) exploration and extraction of oil and natural gas and all associated activities and facilities thereto;

(f) Foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water and outfall for discharge of treated wastewater or cooling water from thermal power plants. MoEF may specify for category of projects such as at (f), (g) and (h) of para 4; (g) Mining of rare minerals as listed by the Department of Atomic Energy;
(h) Facilities for generating power by non-conventional energy resources, desalination plants and weather radars;

(i) Demolition and reconstruction of (a) buildings of archaeological and historical importance, (ii) heritage buildings; and buildings under public use which means buildings such as for the purposes of worship, education, medical care and cultural activities;

4.2 Procedure for clearance of permissible activities. - All projects attracting this notification shall be considered for CRZ clearance as per the following procedure, namely: -

(i) The project proponents shall apply with the following documents seeking prior clearance under CRZ notification to the concerned State or the Union territory Coastal Zone Management Authority, -

(a) Form-1 (Annexure-IV of the notification);

(b) Rapid EIA Report including marine and terrestrial component except for construction projects listed under 4(c) and (d)

(c) Comprehensive EIA with cumulative studies for projects in the stretches classified as low and medium eroding by MoEF based on scientific studies and in consultation with the State Governments and Union territory Administration;

(d) Disaster Management Report, Risk Assessment Report and Management Plan;

(e) CRZ map indicating HTL and LTL demarcated by one of the authorized agency (as indicated in para 2) in 1:4000 scale;

(f) Project layout superimposed on the above map indicated at (e) above;

(g) The CRZ map normally covering 7km radius around the project site.

(h) The CRZ map indicating the CRZ-I, II, III and IV areas including other notified ecologically sensitive areas;

(i) No Objection Certificate from the concerned State Pollution Control Boards or Union territory Pollution Control Committees for the projects involving discharge of effluents, solid wastes, sewage and the like.;

(ii) The concerned CZMA shall examine the above documents in accordance with the approved CZMP and in compliance with CRZ notification and make recommendations within a period of sixty days from date of receipt of complete application, -

(a) MoEF or State Environmental Impact Assessment Authority (hereinafter referred to as the SEIIAA) as the case may be for the project attracting EIA notification, 2006;

(b) MoEF for the projects not covered in the EIA notification, 2006 but attracting para 4(ii) of the CRZ notification;
(iii) MoEF or S E I A A shall consider such projects for clearance based on the recommendations of the concerned CZMA within a period of sixty days.

(vi) The clearance accorded to the projects under the CRZ notification shall be valid for the period of five years from the date of issue of the clearance for commencement of construction and operation.

(v) For Post clearance monitoring – (a) it shall be mandatory for the project proponent to submit half-yearly compliance reports in respect of the stipulated terms and conditions of the environmental clearance in hard and soft copies to the regulatory authority(s) concerned, on 1st June and 31st December of each calendar year and all such compliance reports submitted by the project proponent shall be published in public domain and its copies shall be given to any person on application to the concerned CZMA.

(b) the compliance report shall also be displayed on the website of the concerned regulatory authority.

(vi) To maintain transparency in the working of the CZMAs it shall be the responsibility of the CZMA to create a dedicated website and post the agenda, minutes, decisions taken, clearance letters, violations, action taken on the violations and court matters including the Orders of the Hon’ble Court as also the approved CZMPs of the respective State Government or Union territory.

5. Preparation of Coastal Zone Management Plans.

(i) The MoEF may obtain the CZMPs prepared through the respective State Government or Union territory;

(ii) The CZMPs may be prepared by the coastal State Government or Union territory by engaging reputed and experienced scientific institution(s) or the agencies including the National Centre for Sustainable Coastal Management (hereinafter referred to as the NCSCM) of MoEF and in consultation with the concerned stakeholders;

(iii) The hazard line shall be mapped by MoEF through SoI all along the coastline of the country and the hazard line shall be demarcated taking into account, tide, waves, sea level rise and shoreline changes;

(iv) For the purpose of depicting the flooding due to tides, waves and sea level rise in the next fifty and hundred years, the contour mapping of the coastline shall be carried out at 0.5m interval normally up to 7km from HTL on the landward side, and the shoreline changes shall be demarcated based on historical data by comparing the previous satellite imageries with the recent satellite imageries;

(v) Mapping of the hazard line shall be carried out in 1:25,000 scale for macro level planning and 1:10,000 scale or cadastral scale for micro level mapping and the hazard line shall be taken into consideration while preparing the land use plan of the coastal areas;

(vi) The coastal States and Union Territory will prepare within a period of twenty-four
months from the date of issue this notification, draft CZMPs in 1:25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guidelines given in Annexure-I of the notification, which involve public consultation;

(vii) The draft CZMPs shall be submitted by the State Government or Union territory to the concerned CZMA for appraisal, including appropriate consultations, and recommendations in accordance with the procedure(s) laid down in the Environment (Protection) Act, 1986;

(viii) The State Government or Union territory CZMA shall submit the draft CZMPs to MoEF along with its recommendations on the CZMP within a period of six months after incorporating the suggestions and objections received from the stakeholders;

(ix) MoEF shall thereafter consider and approve the CZMPs within a period of four months from the date of receipt of the CZMPs complete in all respects;

(x) All developmental activities listed in this notification shall be regulated by the State Government, Union Territory Administration, the local authority or the concerned CZMA within the framework of such approved CZMPs as the case may be in accordance with provisions of this notification;

(xi) The CZMPs shall not normally be revised before a period of five years after which, the concerned State Government or the Union territory may consider undertaking revision of the maps following the above procedures;

(xii) The CZMPs already approved under CRZ notification, 1991 shall be valid for a period of twenty-four months unless the aforesaid period is extended by MoEF by a specific notification subject to such terms and conditions as may be specified therein.

6. Enforcement of the CRZ, notification, 2011-
(a) For the purpose of implementation and enforcement of the provisions this notification and compliance with conditions stipulated thereunder, the powers either original or delegated are available under Environment (Protection) Act, 1986 with the MoEF, State Government or the Union territory Administration NCZMA and SCZMAs;
(b) The composition, tenure and mandate of NCZMA and State Government or the Union territory CZMAs have already been notified by MoEF in terms of Orders of Hon’ble Supreme Court in Writ Petition 664 of 1993;
(c) the State Government or the Union territory CZMAs shall primarily be responsible for enforcing and monitoring of this notification and to assist in this task, the State Government and the Union territory shall constitute district level Committees under the Chairmanship of the District Magistrate concerned containing at least three representatives of local traditional coastal communities including from fisherfolk;
(d) The dwelling units of the traditional coastal communities including fisherfolk, tribals as were permissible under the provisions of the CRZ notification, 1991, but which have not obtained formal approval from concerned authorities under the
aforesaid notification shall be considered by the respective Union territory CZMAs and the dwelling units shall be regularized subject to the following condition, namely-

(i) these are not used for any commercial activity
(ii) these are not sold or transferred to non-traditional coastal community.

7. Classification of the CRZ – For the purpose of conserving and protecting the coastal areas and marine waters, the CRZ area shall be classified as follows, namely: -

(i) CRZ-I, –
   A. The areas that are ecologically sensitive and the geomorphological features which play a role in the maintaining the integrity of the coast, -

   (a) Mangroves, in case mangrove area is more than 1000 sq. mts, a buffer of 50meters along the mangroves shall be provided;
   (b) Corals and coral reefs and associated biodiversity;
   (c) Sand Dunes;
   (d) Mudflats which are biologically active;
   (e) National parks, marine parks, sanctuaries, reserve forests, wildlife habitats and other protected areas under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), the Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986); including Biosphere Reserves;
   (f) Salt Marshes;
   (g) Turtle nesting grounds;
   (h) Horse shoe crabs habitats;
   (i) Sea grass beds;
   (j) Nesting grounds of birds;
   (k) Areas or structures of archaeological importance and heritage sites.

   B. The area between Low Tide Line and High Tide Line;

(ii) CRZ-II, -

The areas that have been developed up to or close to the shoreline.

Examination. - For the purposes of the expression “developed area” is referred to as that area within the existing municipal limits or in other existing legally designated urban areas which are substantially built-up and has been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains;

(iii) CRZ-III, -

Areas that are relatively undisturbed and those do not belong to either CRZ-I or II which include coastal zone in the rural areas (developed and undeveloped) and also areas within municipal limits or in other legally designated urban areas, which are not substantially built up.

(iv.) CRZ-IV, -

A. the water area from the Low Tide Line to twelve nautical miles on the seaward side;
B. shall include the water area of the tidal influenced water body from the mouth of the water body at the sea up to the influence of tide which is measured as five parts per thousand during the driest season of the year.

(v) Areas requiring special consideration for the purpose of protecting the critical coastal environment and difficulties faced by local communities, -

A. (i) CRZ area falling within municipal limits of Greater Mumbai;
(ii) the CRZ areas of Kerala including the backwaters and backwater islands;
(iii) CRZ areas of Goa.

B. Critically Vulnerable Coastal Areas (CVCA) such as Sundarbans region of West Bengal and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 and managed with the involvement of coastal communities including fisherfolk.

8. Norms for regulation of activities permissible under this notification, -

(i) The development or construction activities in different categories of CRZ shall be regulated by the concerned CZMA in accordance with the following norms, namely: -

Note: - The word existing use hereinafter in relation to existence of various features or existence of regularisation or norms shall mean existence of these features or regularisation or norms as on 19.2.1991 wherein CRZ notification, was notified.

I. CRZ-I,-

(i) no new construction shall be permitted in CRZ-I except, -

(a) projects relating to Department of Atomic Energy;
(b) pipelines, conveying systems including transmission lines;
(c) facilities that are essential for activities permissible under CRZ-I;
(d) installation of weather radar for monitoring of cyclones movement and prediction by Indian Meteorological Department;
(e) construction of trans harbour sea link and without affecting the tidal flow of water, between LTL and HTL.
(f) development of green field airport already approved at only Navi Mumbai;

(ii) Areas between LTL and HTL which are not ecologically sensitive, necessary safety measures will be incorporated while permitting the following, namely: -

(a) exploration and extraction of natural gas;
(b) construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants living within the biosphere reserves after obtaining approval from concerned CZMA.
(c) necessary safety measure shall be incorporated while permitting such developmental activities in the area falling in the hazard zone;
(d) salt harvesting by solar evaporation of seawater;
(e) desalination plants;
(f) storage of non-hazardous cargo such as edible oil, fertilizers and food grain within notified ports;
(g) construction of trans harbour sea links, roads on stilts or pillars without affecting the tidal flow of water.
II. CRZ-II,-

(i) buildings shall be permitted only on the landward side of the existing road, or on the landward side of existing authorized structures;

(ii) buildings permitted on the landward side of the existing and proposed roads or existing authorized structures shall be subject to the existing local town and country planning regulations including the ‘existing’ norms of Floor Space Index or Floor Area Ratio:

Provided that no permission for construction of buildings shall be given on landward side of any new roads which are constructed on the seaward side of an existing road:

(iii) reconstruction of authorized building to be permitted subject with the existing Floor Space Index or Floor Area Ratio Norms and without change in present use;

(iv) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II appended to this notification and facilities for regasification of Liquefied Natural Gas subject to the conditions as mentioned in subparagraph (ii) of paragraph 3;

(v) desalination plants and associated facilities;

(vi) storage of non-hazardous cargo, such as edible oil, fertilizers and food grain in notified ports;

(vii) facilities for generating power by non-conventional power sources and associated facilities;

III. CRZ-III,-

A. Area up to 200mts from HTL on the landward side in case of seafront and 100mts along tidal influenced water bodies or width of the creek whichever is less is to be earmarked as “No Development Zone (NDZ)”,-

(i) the NDZ shall not be applicable in such area falling within any notified port limits;

(ii) No construction shall be permitted within NDZ except for repairs or reconstruction of existing authorized structure not exceeding existing Floor Space Index, existing plinth area and existing density and for permissible activities under the notification including facilities essential for activities; Construction/reconstruction of dwelling units of traditional coastal communities including fisherfolk may be permitted between 100 and 200 metres from the HTL along the seafront in accordance with a comprehensive plan prepared by the State Government or the Union territory in consultation with the traditional coastal communities including fisherfolk and incorporating the necessary disaster management provision, sanitation and recommended by the concerned State or the Union territory CZMA to NCZMA for approval by MoEF;

(iii) however, the following activities may be permitted in NDZ –

(a) agriculture, horticulture, gardens, pasture, parks, play field, and forestry;
(b) projects relating to Department of Atomic Energy;
(c) mining of rare minerals;
(d) salt manufacture from seawater;
(e) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II;
(f) facilities for regasification of liquefied natural gas subject to conditions as mentioned in subparagraph (ii) of paragraph 3;
(g) facilities for generating power by non-conventional energy sources;
(h) Foreshore facilities for desalination plants and associated facilities;
(i) weather radars;
(j) construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, provision of facilities for water supply, drainage, sewerage, crematoria, cemeteries and electric sub-station which are required for the local inhabitants may be permitted on a case to case basis by CZMA;
(k) construction of units or auxiliary thereto for domestic sewage, treatment and disposal with the prior approval of the concerned Pollution Control Board or Committee;
(l) facilities required for local fishing communities such as fish drying yards, auction halls, net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like;
(m) development of green field airport already permitted only at Navi Mumbai.

B. Area between 200mts to 500mts, -

The following activities shall be permissible in the above areas;

(i) development of vacant plot in designated areas for construction of hotels or beach resorts for tourists or visitors subject to the conditions as specified in the guidelines at Annexure-III;
(ii) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II;
(iii) facilities for regasification of liquefied natural gas subject to conditions as mentioned in sub-paragraph (ii) of paragraph 3;
(iv) storage of non-hazardous cargo such as, edible oil, fertilizers, food grain in notified ports;
(v) foreshore facilities for desalination plants and associated facilities;
(vi) facilities for generating power by non-conventional energy sources;
(vii) construction or reconstruction of dwelling units so long it is within the ambit of traditional rights and customary uses such as existing fishing villages and goathans. Building permission for such construction or reconstruction will be subject to local town and country planning rules with overall height of construction not exceeding 9mts with two floors (ground + one floor);
(viii) Construction of public rain shelters, community toilets, water supply drainage, sewerage, roads and bridges by CZMA who may also permit construction of schools and dispensaries for local inhabitants of the area for those panchayats, the major part of which falls within CRZ if no other area is available for construction of such facilities;
(ix) reconstruction or alteration of existing authorised building subject to sub-paragraph (vii), (viii);
(x) development of green field airport already permitted only at Navi Mumbai.

(IV) In CRZ-IV areas, -

The activities impugning on the sea and tidal influenced water bodies will be regulated except for traditional fishing and related activities undertaken by local communities as follows: -

(a) No untreated sewage, effluents, ballast water, ship washes, fly ash or solid waste from all
activities including from aquaculture operations shall be let off or dumped. A comprehensive plan for treatment of sewage generating from the coastal towns and cities shall be formulated within a period of one year in consultation with stakeholders including traditional coastal communities, traditional fisherfolk and implemented;
(b) Pollution from oil and gas exploration and drilling, mining, boat house and shipping;
(c) There shall be no restriction on the traditional fishing and allied activities undertaken by local communities.

V. Areas requiring special consideration, -

1. CRZ areas falling within municipal limits of the Greater Mumbai.

(i) Developmental activities in the CRZ area of the Greater Mumbai because of the environmental issues, relating to degradation of mangroves, pollution of creeks and coastal waters, due to discharge of untreated effluents and disposal of solid waste, the need to provide decent housing to the poor section of society and lack of suitable alternatives in the interconnected islands of Greater Mumbai shall be regulated as follows, namely: -

A. Construction of roads - In CRZ-I areas indicated at sub-paragraph (i) of paragraph 7 of the notification the following activities only can be taken up:

(a) Construction of roads, approach roads and missing link roads approved in the Developmental Plan of Greater Mumbai on stilts ensuring that the free flow of tidal water is not affected, without any benefit of CRZ-II accruing on the landward side of such constructed roads or approach roads subject to the following conditions:

(i) All mangrove areas shall be mapped and notified as protected forest and necessary protection and conservation measures for the identified mangrove areas shall be initiated.
(ii) Five times the number of mangroves destroyed/cut during the construction process shall be replanted.

B. Solid waste disposal sites shall be identified outside the CRZ area and thereafter within two years the existing conventional solid waste sites shall be relocated outside the CRZ area.

(iii) In CRZ-II areas-

(a) The development or redevelopment shall continue to be undertaken in accordance with the norms laid down in the Town and Country Planning Regulations as they existed on the date of issue of the notification dated the 19th February, 1991, unless specified otherwise in this notification.

(b) SLUM REHABILITATION SCHEMES, -

1. In the Greater Mumbai area there are large slum clusters with lakhs of families residing therein and the living conditions in these slums are deplorable and the civic agencies are not able to provide basic infrastructure such as drinking water, electricity, roads, drainage and the
like because the slums come up in an unplanned and congested manner and the slums in the coastal area are at great risk in the event of cyclones, storm surges or tsunamis, in view of the difficulties in providing rescue, relief and evacuation.

2. To provide a safe and decent dwelling to the slum dwellers, the State Government may implement slum redevelopment schemes as identified as on the date of issue of this notification directly or through its parastatal agencies like Maharashtra Housing and Area Development Authority (MHADA), Shivshahi Punarvasan Prakalp Limited (SPPL), Mumbai Metropolitan Region Development Authority (MMRDA) and the like.:

Provided that, -

(i) such redevelopment schemes shall be undertaken directly or through joint ventures or through public private partnerships or other similar models ensuring that the stake of the State Government or its parastatal entities shall be not less than 51%;

(ii) the Floor Space Index or Floor Area Ratio for such redevelopment schemes shall be in accordance with the Town and Country Planning Regulations prevailing as on the date on which the project is granted approval by the competent authority;

(iii) it shall be the duty of the project proponent undertaking the redevelopment through conditions (i) (2) above along with the State Government to ensure that all legally regularized tenants are provided houses in situ or as per norms laid down by the State Government in this regard.

(c) REDEVELOPMENT OF DILAPIDATED, CESSED AND UNSAFE BUILDINGS:

1. In the Greater Mumbai, there are, also a large number of old and dilapidated, cessed and unsafe buildings in the CRZ areas and due to their age these structures are extremely vulnerable and disaster prone and therefore there is an urgent need for the redevelopment or reconstruction of these identified buildings.

2. These projects shall be taken up subject to the following conditions and safeguards:

   (i) such redevelopment or reconstruction projects as identified on the date of issue of this notification shall be allowed to be taken up involving the owners of these buildings either above or with private developers in accordance with the prevailing Regulation, directly or through joint ventures or through other similar models.
   (ii) the Floor Space Index or Floor Area Ratio for such redevelopment schemes shall be in accordance with the Town and Country Planning Regulations prevailing as on the date on which the project is granted approval by the competent authority.
   (iii) suitable accommodation to the original tenants of the specified buildings shall be ensured during the course of redevelopment or reconstruction of the buildings by the project proponents, undertaking the redevelopment through condition 2 (i) above.

(d) Notwithstanding anything contained in this notification, the developmental activities for slums and for dilapidated, cessed and unsafe buildings as specified at paras (b) and (c) above shall be carried out in an accountable and transparent manner by the project proponents mentioned therein which shall include the following pre-condition measures, wherever applicable; -
1. (i) applicability of the Right to Information Act, 2005 to all redevelopment or reconstruction projects granted clearance by the Competent Authorities; 
(ii) MoEF shall issue an order constituting the CPIO and the first Appellate Authority of appropriate ranks in consultation with Government of Maharashtra; 
(iii) details of the Slum Rehabilitation Scheme, including the complete proposal and the names of the eligible slum dwellers will be declared suo-moto as a requirement of Section 4 of compliance of the Right to Information Act, 2005 by the appropriate authority in the Government of Maharashtra in one month before approving it; 
(iv) the implementing or executing agency at the State Government with regard to projects indicated at sub-item (b) and (c) of item (iii) of sub-paragraph V shall display on a large notice boards at the site and at the office of the implementing or executing agency the names of the eligible builders, total number of tenements being made, names of eligible slum dwellers who are to be provided the dwelling units and the extra area available for free sale. 
(v) Projects being developed under sub-items (b) and (c) of item (iii) of sub-paragraph V shall be given permission only if the project proponent agree to be covered under the Right to Information Act, 2005.

2. MoEF may appoint statutory auditors, who are empanelled by the Comptroller and auditor General (hereinafter referred to as the C&AG) to undertake performance and fiscal audit in respect of the projects relating to redevelopment of dilapidated, cessed and unsafe buildings and the projects relating to Slum Rehabilitation Scheme shall be audited by C&AG.

3. A High Level Oversight Committee may be set up by the Government of Maharashtra for periodic review of implementation of V(iii)(b) and (c) which shall include eminent representatives of various Stakeholders, like Architects, Urban Planner, Engineers, and Civil Society, besides the local urban bodies, the State Government and the Central Government.

4. The individual projects under V(iii)(b) and (c) shall be undertaken only after public consultation in which views of only the legally entitled slum dweller or the legally entitled tenant of the dilapidated or cessed buildings shall be obtained in accordance with the procedures laid down in EIA notification, 2006.

(e) In order to protect and preserve the ‘green lung’ of the Greater Mumbai area, all open spaces, parks, gardens, playgrounds indicated in development plans within CRZ-II shall be categorized as CRZ-III, that is, ‘no development zone’. 
(f) the Floor Space Index upto 15% shall be allowed only for construction of civic amenities, stadium and gymnasium meant for recreational or sports related activities and the residential or commercial use of such open spaces shall not be permissible. 
(g) Koliwada namely, fishing settlement areas as identified in the Development Plan of 1981 or relevant records of the Government of Maharashtra, shall be mapped and declared as CRZ-III so that any development, including construction and reconstruction of dwelling units within these settlements shall be undertaken in accordance with applicable as per local Town and Country Planning Regulations. 
(h) Reconstruction and repair works of the dwelling units, belonging to fisher communities and other local communities identified by the State Government, shall be considered and granted permission by the Competent Authorities on a priority basis, in accordance with the applicable Town and Country Planning Regulations.

2. CRZ for Kerala
In view of the unique coastal systems of backwater and backwater islands along with space limitation present in the coastal stretches of the State of Kerala, the following activities in CRZ shall be regulated as follows, namely:

(i) all the islands in the backwaters of Kerala shall be covered under the CRZ notification;
(ii) the islands within the backwaters shall have 50mts width from the High Tide Line on the landward side as the CRZ area;
(iii) within 50mts from the HTL of these backwater islands existing dwelling units of local communities may be repaired or reconstructed however no new construction shall be permitted;
(iv) beyond 50mts from the HTL on the landward side of backwater islands, dwelling units of local communities may be constructed with the prior permission of the Gram panchayat;
(v) foreshore facilities such as fishing jetty, fish drying yards, net mending yard, fishing processing by traditional methods, boat building yards, ice plant, boat repairs and the like, may be taken up within 50mts width from HTL of these backwater islands.

3. CRZ of Goa.

In view of the peculiar circumstances of the State Goa including past history and other developments, the specific activities shall be regulated and various measures shall be undertaken as follows:-

(i) the Government of Goa shall notify the fishing villages wherein all foreshore facilities required for fishing and fishery allied activities such as traditional fish processing yards, boat building or repair yards, net mending yards, ice plants, ice storage, auction hall,jetties may be permitted by Grama Panchayat in the CRZ area;
(ii) reconstruction, repair works of the structures of local communities including fishermen community shall be permissible in CRZ;
(iii) purely temporary and seasonal structures customarily put up between the months of September to May;
(iv) the eco sensitive low lying areas which are influenced by tidal action known as khazan lands shall be mapped;
(v) the mangroves along such as khazan land shall be protected and a management plan for the khazan land prepared and no developmental activities shall be permitted in the khazan land;
(vi) sand dunes, beach stretches along the bays and creeks shall be surveyed and mapped. No activity shall be permitted on such sand dune areas;
(vii) the beaches such as Mandrem, Morjim, Galgiba and Agonda has been designated as turtle nesting sites and protected under the Wildlife Protection Act, 1972 and these areas shall be surveyed and management plan prepared for protection of these turtle nesting sites;
(viii) no developmental activities shall be permitted in the turtle breeding areas referred to in sub-paragraph (vii).

4. (a) Critical Vulnerable Coastal Areas (CVCA) which includes Sunderbans and other identified ecological sensitive areas which shall be managed with the involvement of the local coastal communities including the fisher folk;
(b) the entire Sunderbans mangrove area and other identified ecologically important areas such as Gulf of Khambat and Gulf of Kutchhh in Gujarat, Malvan, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhaitarkanika in Orissa, Coringa, East Godavari and Krishna in Andhra Pradesh shall be declared as Critical Vulnerable Coastal Areas (CVCA) through a process of consultation with local fisher and other communities inhabiting the area and depend on its resources for their livelihood with the objective of promoting conservation and sustainable use of coastal resources and habitats;
(c) the process of identifying planning, notifying and implementing CVCA shall be detailed in the guideline which will be developed and notified by MoEF in consultations with the stakeholders like the State Government, local coastal communities and fisherfolk and the like inhabiting the area;
(d) the Integrated Management Plans (IMPs) prepared for such CVCA shall interalia keep in view the conservation and management of mangroves, needs of local communities such as, dispensaries, schools, public rain shelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage and the impact of sea level rise and other natural disasters and the IMPs will be prepared in line with the para 5 above for preparation of Coastal Zone Management Plans;
(e) till such time the IMPs are approved and notified, construction of dispensaries, schools, public rain shelters, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants shall be permitted on a case to case basis, by the CZMA with due regards to the views of coastal communities including fisherfolk.

[F.No.11-83/2005-IA-III]
J. M. MAUSKAR, Addl. Secy.

ANNEXURE I
GUIDELINES FOR PREPARATION OF COASTAL ZONE MANAGEMENT PLANS

I. A. Demarcation of High Tide Line

1. Demarcation of High Tide Line (HTL) and Low Tide Line (LTL) shall be carried out by one of the agencies authorised by MoEF based on the recommendations of the National Centre for Sustainable Coastal Management (NCSCM).
2. Demarcation of the High Tide Line or LTL shall be made on the Coastal Zone Management (CZM) Maps of scale 1:25,000 prepared by the agencies identified by the MoEF.
3. Local level CZM Maps shall be prepared for use of officials of local bodies for determination of the CRZ.
4. The local level CZM Maps shall be prepared on a Cadastral scale in accordance with the CZM Maps approved by the Central Government.

B. Preparation of CZM Maps

5. Base Maps of 1:25,000 scale shall be acquired from the Survey of India (SOI) and wherever 1:25,000 maps are not available, 1:50,000 maps shall be enlarged to 1:25,000 for the purpose of base map preparation and these maps will be of the standard specification given below:

<table>
<thead>
<tr>
<th>Unit</th>
<th>: 7.5 minutes X 7.5 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbering</td>
<td>: Survey of India Sheet Numbering System</td>
</tr>
<tr>
<td>Horizontal Datum</td>
<td>: Everest or WGS 84</td>
</tr>
<tr>
<td>Vertical Datum</td>
<td>: Mean Sea Level (MSL)</td>
</tr>
<tr>
<td>Topography</td>
<td>: Topography in the SOI maps will be updated using latest satellite imageries or aerial photographs</td>
</tr>
</tbody>
</table>

6. The High Water Level (HWL) and Low Water Level (LWL) marked on the Base maps will be transferred to the CZM maps.
7. Coastal geomorphological signatures in the field or satellite imageries or aerial photographs will be used for appropriate adjustment, in the HWL or LWL for demarcating HTL or LTL in accordance with the CRZ notification.
8. The following geomorphological features shall be considered while demarcating in HTL or LTL: Landward (monsoonal) berm crest in the case of sandy beaches Rocks, Headlands, Cliffs Seawalls or revetments or embankments
9. 500 meter and 200 metre lines will be demarcated with respect of HTL.
10. HTL (as defined in the CRZ notification) and LTL shall also be demarcated in the CZM maps along the banks of tidal influenced inland water bodies with the help of the geomorphological signatures or features.
11. Classification of different coastal zones shall be done as per the CRZ notification
12. Standard national or international colour codes shall be used to highlight sub-classification of data.

C. Local level CZM Maps
Local level CZM Maps are for the use of local bodies and other agencies to facilitate implementation of the Coastal Zone Management Plans.
13. Cadastral (village) maps in 1:3960 or the nearest scale, shall be used as the base maps.
14. These maps are available with revenue Authorities and are prepared as per standard norms.
15. HTL (as defined in the CRZ notification) and LTL will be demarcated in the cadastral map based on detailed physical verification using coastal geomorphological signatures or features in accordance with the CZM Maps approved by the Central Government.
16. 500metre and 200metre lines shall be demarcated with respect to the HTL thus marked.
17. HTL (as defined in the CRZ notification, 1991) and LTL will also be demarcated along the banks of tidal influenced inland water bodies with the help of geomorphological signatures or features.
18. Classifications shall be transferred into local level CZM maps from the CZM Plans.
19. Symbols will be adopted from CZM Maps.
20. Colour codes as given in CZM Maps shall be used.
21. Demarcation of cadastral maps will be done by local agencies approved by the Central Government. The local agencies shall work under the guidance of the concerned State Government or Union Territory Coastal Zone Management Authorities.

D. Hazard mapping:-

II. Classification of CRZ areas
1. The CZM Maps shall be prepared in accordance with para 5 of the CRZ notification demarcating CRZ I, II, III, IV and V.
2. The CZM Maps shall clearly demarcate the land use plan of the area and lists out the CRZ-I areas. All the CRZ-I areas listed under para 7(I)A and B shall be clearly demarcated and colour codes given so that each of the CRZ-I areas can be clearly identified.
3. Buffer zone along mangrove areas of more than 1000sq mts shall be stipulated with a different colour distinguishing from the mangrove area.
4. The buffer zone shall also be classified as CRZ-I area.
5. The hazard line to be drawn up by MoEF shall be superimposed on the CZM maps in 1:25,000 scale and also on the cadastral scale maps.
6. The CRZ-II areas shall be those areas which have been substantially built-up with a ratio of builtup plots to that of total plots is more than 50%.
7. In the CRZ areas, the fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated on the cadastral scale maps. States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness.

8. No developmental activities other than those listed above shall be permitted in the areas between the hazard line and 500 mts or 100 mts or width of the creek on the landward side. The dwelling unit of the local communities including that of the fishers will not be relocated if the dwelling units are located on the seaward side of the hazard line. The State Government will provide necessary safeguards from natural disaster to such dwelling units of local communities.

9. The water areas of CRZ IV shall be demarcated and clearly demarcated if the water body is sea, lagoon, backwater, creek, bay, estuary and for such classification of the water bodies the terminology used by Naval Hydrographic Office shall be relied upon.

10. The fishing Zones in the water bodies and the fish breeding areas shall be clearly marked.

11. The water area shall be demarcated indicating the pollution levels as per Central Pollution Control Board standards on water quality.

12. In the CRZ V areas the land use maps shall be superimposed on the Coastal Zone Management Plan and clearly demarcating the CRZ I, II, III, IV.

13. The existing authorized developments on the sea ward side shall be clearly demarcated.

14. The features like cyclone shelters, rain shelters, helipads and other infrastructure including road network may be clearly indicated on the CZM Maps for the purpose of rescue and relief operations during cyclones, storms, tsunami and the like.

III. CZMPs approved by MoEF in accordance with CRZ notification, 1991

1. While preparing the CZMPs under CRZ notification, 2011, the CZMPs that have been approved under the CRZ Notification, 1991 shall be compared. A justification shall be provided by the concerned CZMA in case the CZMPs prepared under CRZ notification, 2011 varies with respect to the approved CZMP prepared under CRZ notification, 1991.

IV. Public Views on the CZMP.

a) The draft CZMPs prepared shall be given wide publicity and suggestions and objections received in accordance with the Environment (Protection) Act, 1986. Public hearing on the draft CZMPs shall be held at district level by the concerned CZMAs.

b) Based on the suggestions and objections received the CZMPs shall be revised and approval of MoEF shall be obtained.

c) The approved CZMP shall be put up on the website of MoEF, concerned website of the State, Union Territory CZMA and hard copy made available in the panchayat office, District collector office and the like.

V. Revision of Coastal Zone Management Plans

1. Whenever there is a doubt the concerned State or Union territory Coastal Zone Management Authority shall refer the matter to the National Centre for Sustainable Coastal Management who shall verify the CZMP based on latest satellite imagery and ground truthing.

2. The rectified map would be submitted to MoEF for its record.

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Annexure-II
List of petroleum and chemical products permitted for storage in [CRZ except CRZ-I(A)]
(i) Crude oil;
(ii) Liquefied Petroleum Gas;
(iii) Motor spirit;
(iv) Kerosene;
(v) Aviation fuel;
(vi) High speed diesel;
(vii) Lubricating oil;
(viii) Butane;
(ix) Propane;
(x) Compressed Natural Gas;
(xi) Naphtha;
(xii) Furnace oil;
(xiii) Low Sulphur Heavy Stock;
(xiv) Liquefied Natural Gas;
(xv) Fertilizers and raw materials for manufacture of fertilizers.

Annexure-III
Guidelines for development of beach resorts or hotels in the designated areas of CRZ-III and CRZ-II for occupation of tourist or visitors with prior approval of the Ministry of Environment and Forests
I. Construction of beach resorts or hotels with prior approval of MoEF in designated areas of CRZ-II and III for occupation of tourist or visitors shall be subject to the following conditions, namely:-
(a) The project proponent shall not undertake any construction within 200 metres in the landward side of High Tide Line and within the area between Low Tide Line and High Tide Line;
(b) The proposed constructions shall be beyond the hazard line or 200mts from the High Tide Line whichever is more;
(c) live fencing and barbed wire fencing with vegetative cover may be allowed around private properties subject to the condition that such fencing shall in no way hamper public access to the beach;
(d) no flattening of sand dunes shall be carried out;
(e) no permanent structures for sports facilities shall be permitted except construction of goal posts, net posts and lamp posts;
(f) Construction of basement may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect fee flow of groundwater in that area;
(g) the State Ground Water Authority shall take into consideration the guidelines issued by Central Government before granting such no objection certificate;
(h) though no construction is allowed in the no development zone for the purposes of calculation of Floor Space Index, the area of entire plot including the portion which falls within the no development zone shall be taken into account;
(i) the total plot size shall not be less than 0.4 hectares and the total covered area on all floors shall not exceed 33 percent of the plot size i.e., the Floor Space Index shall not exceed 0.33 and the open area shall be suitably landscaped with appropriate vegetal cover;
(j) the construction shall be consistent with the surrounding landscape and local architectural style;
(k) the overall height of construction up to the highest ridge of the roof, shall not exceed 9 metres and the construction shall not be more than two floors (ground floor plus one upper floor);
(l) groundwater shall not be tapped within 200 metres of the High Tide Line; within the 200 metre 500 metre zone it can be tapped only with the concurrence of the Central or State Ground Water Board;
(m) extraction of sand, leveling or digging of sandy stretches except for structural foundation of building, swimming pool shall not be permitted within 500 metres of the High Tide Line;
(n) the quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986;
(o) necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach;
(p) to allow public access to the beach, at least a gap of 20 metres width shall be provided between any two hotels or beach resorts; and in no case shall gaps be less than 500 metres apart; and
(q) if the project involves diversion of forestland for non-forest purposes, clearance as required under the Forest (Conservation) Act, 1980 shall be obtained and the requirements of other Central and State laws as applicable to the project shall be met with; and (r) approval of the State or Union territory Tourism Department shall be obtained.

II. In ecologically sensitive areas (such as marine parks, mangroves, coral reefs, breeding and spawning grounds of fish, wildlife habitats and such other area as may be notified by the Central or State Government Union territories) construction of beach resorts or hotels shall not be permitted.

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STATEMENT OF OBJECTS AND REASONS

Though the Panchayati Raj Institutions have been in existence for a long time, it has been observed that these institutions have not been able to acquire the status and dignity of viable and responsive people's bodies due to a number of reasons including absence of regular elections, prolonged supersessions, insufficient representation of weaker sections like Scheduled Castes, Scheduled Tribes and women, inadequate devolution of powers and lack of financial resources.

2. Article 40 of the Constitution which enshrines one of the Directive Principles of State Policy lays down that the State shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government. In the light of the experience in the last forty years and in view of the short-comings which have been observed, it is considered that there is an imperative need to enshrine in the Constitution certain basic and essential features of Panchayati Raj Institutions to impart certainty, continuity and strength to them.

3. Accordingly, it is proposed to add a new Part relating to Panchayats in the Constitution to provide for among other things, Gram Sabha in a village or group of villages; constitution of Panchayats at village and other level or levels; direct elections to all seats in Panchayats at the village and intermediate level, if any, and to the offices of Chairpersons of Panchayats at such levels; reservation of seats for the Scheduled Castes and Scheduled Tribes in proportion to their population for membership of Panchayats and office of Chairpersons in Panchayats at each level; reservation of not less
than one-third of the seats for women; fixing tenure of 5 years for Panchayats and holding elections within a period of 6 months in the event of supersession of any Panchayat; disqualifications for membership of Panchayats; devolution by the State Legislature of powers and responsibilities upon the Panchayats with respect to the preparation of plans for economic developments and social justice and for the implementation of development schemes; sound finance of the Panchayats by securing authorisation from State Legislatures for grants-in-aid to the Panchayats from the Consolidated Fund of the State, as also assignment to, or appropriation by, the Panchayats of the revenues of designated taxes, duties, tolls and fees; setting up of a Finance Commission within one year of the proposed amendment and thereafter every 5 years to review the financial position of Panchayats; auditing of accounts of the Panchayats; powers of State Legislatures to make provisions with respect to elections to Panchayats under the superintendence, direction and control of the chief electoral officer of the State; application of the provisions of the said Part to Union territories; excluding certain States and areas from the application of the provisions of the said Part; continuance of existing laws and Panchayats until one year from the commencement of the proposed amendment and barring interference by courts in electoral matters relating to Panchayats.

4. The Bill seeks to achieve the aforesaid objectives.

NEW DELHI; G. VENKAT SWAMY.

The 10th September, 1991.
THE CONSTITUTION (SEVENTY-THIRD AMENDMENT) ACT, 1992

[20th April, 1993.]

An Act further to amend the Constitution of India.

BE it enacted by Parliament in the Forty-third Year of the Republic of India as follows:-

1. Short title and commencement.—(1) This Act may be called the Constitution (Seventy-third Amendment) Act, 1992.

(2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

2. Insertion of new Part IX.—After Part VIII of the Constitution, the following Part shall be inserted, namely:-

PART IX

THE PANCHAYATS

243. Definitions. - In this Part, unless the context otherwise requires, -

(a) "district" means a district in a State;

(b) "Gram Sabha" means a body consisting of persons registered in the electoral rolls relating to a village comprised within the area of Panchayat at the village level;

(c) "Intermediate level" means a level between the village and district levels specified by the Governor of a State by public notification to be the intermediate level for the purposes of this Part;

(d) "Panchayat" means an institution (by whatever name called) of self-government constituted under article 243B, for the rural areas;

(e) "Panchayat area" means the territorial area of a Panchayat;

(f) "population" means the population as ascertained at the last preceding census of which the relevant figures have been published;
(g) "village" means a village specified by the Governor by public notification to be a village for the purposes of this Part and includes a group of villages so specified.

243A. Gram Sabha. - A Gram Sabha may exercise such powers and perform such functions at the village level as the Legislature of a State may, by law, provide.

243B. Constitution of Panchayats. - (1) There shall be constituted in every State, Panchayats at the village, intermediate and district levels in accordance with the provisions of this Part.

(2) Notwithstanding anything in clause (1), Panchayats at the intermediate level may not be constituted in a State having a population not exceeding twenty lakhs.

243C. Composition of Panchayats. - (1) Subject to the provisions of this Part, the Legislature of a State may, by law, make provisions with respect to the composition of Panchayats:

Provided that the ratio between the population of the territorial area of a Panchayat at any level and the number of seats in such Panchayat to be filled by election shall, so far as practicable, be the same throughout the State.

(2) All the seats in a Panchayat shall be filled by persons chosen by direct election from territorial constituencies in the Panchayat area and; for this purpose, each Panchayat area shall be divided into territorial constituencies in such manner that the ratio between the population of each constituency and the number of seats allotted to it shall, so far as practicable, be the same throughout the Panchayat area.

(3) The Legislature of a State may, by law, provide for the representation-

(a) of the Chairpersons of the Panchayats at the village level, in the Panchayats at the intermediate level or, in the case of a State not having Panchayats at the intermediate level, in the Panchayats at the district level;

(b) of the Chairpersons of the Panchayats at the intermediate level, in the Panchayats at the district level;
(c) of the members of the House of the People and the members of the Legislative Assembly of the State representing constituencies which comprise wholly or partly a Panchayat area at a level other than the village level, in such Panchayat;

(d) of the members of the Council of States and the members of the Legislative Council of the State, where they are registered as electors within-

   (i) a Panchayat area at the intermediate level, in Panchayat at the intermediate level;

   (ii) a Panchayat area at the district level, in Panchayat at the district level.

(4) The Chairperson of a Panchayat and other members of a Panchayat whether or not chosen by direct election from territorial constituencies in the Panchayat area shall have the right to vote in the meetings of the Panchayats.

(5) The Chairperson of -

   (a) a Panchayat at the village level shall be elected in such manner as the Legislature of a State may, by law, provide; and

   (b) a Panchayat at the intermediate level or district level shall be elected by, and from amongst, the elected members thereof.

243D. Reservation of seats. - (1) Seats shall be reserved for-

   (a) the Scheduled Castes; and

   (b) the Scheduled Tribes,

in every Panchayat and the number of seats of reserved shall bear, as nearly as may be, the same proportion to the total number of seats to be filled by direct election in that Panchayat as the population of the Scheduled Castes in that Panchayat area or of the Scheduled Tribes in that Panchayat area bears to the total population of that area and such seats may be allotted by rotation to different constituencies in a Panchayat.
(2) Not less than one-third of the total number of seats reserved under clause (1) shall be reserved for women belonging to the Scheduled Castes or, as the case may be, the Scheduled Tribes.

(3) Not less than one-third (including the number of seats reserved for women belonging to the Scheduled Castes and the Scheduled Tribes) of the total number of seats to be filled by direct election in every Panchayat shall be reserved for women and such seats may be allotted by rotation to different constituencies in a Panchayat.

(4) The offices of the Chairpersons in the Panchayats at the village or any other level shall be reserved for the Scheduled Castes, the Scheduled Tribes and women in such manner as the Legislature of a State may, by law, provide:

Provided that the number of offices of Chairpersons reserved for the Scheduled Castes and the Scheduled Tribes in the Panchayats at each level in any State shall bear, as nearly as may be, the same proportion to the total number of such offices in the Panchayats at each level as the population of the Scheduled Castes in the State or of the Scheduled Tribes in the State bears to the total population of the State:

Provided further that not less than one-third of the total number of offices of Chairpersons in the Panchayats at each level shall be reserved for women:

Provided also that the number of offices reserved under this clause shall be allotted by rotation to different Panchayats at each level.

(5) The reservation of seats under clauses (1) and (2) and the reservation of offices of Chairpersons (other than the reservation for women) under clause (4) shall cease to have effect on the expiration of the period specified in article 334.

(6) Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Panchayat or offices of Chairpersons in the Panchayats at any level in favour of backward class of citizens.

243E. Duration of Panchayats, etc.- (1) Every Panchayat, unless sooner dissolved under any law for the time being in force, shall continue for five years from the date appointed for its first meeting and no longer.
(2) No amendment of any law for the time being in force shall have the effect of causing dissolution of a Panchayat at any level, which is functioning immediately before such amendment, till the expiration of its duration specified in clause (1).

(3) An election to constitute a Panchayat shall be completed-

(a) before the expiry of its duration specified in clause (1);

(b) before the expiration of a period of six months from the date of its dissolution:

Provided that where the remainder of the period for which the dissolved Panchayat would have continued is less than six months, it shall not be necessary to hold any election under this clause for constituting the Panchayat for such period.

(4) A Panchayat constituted upon the dissolution of a Panchayat before the expiration of its duration shall continue only for the remainder of the period for which the dissolved Panchayat would have continued under clause (1) had it not been so dissolved.

243F. Disqualifications for membership. -(1) A person shall be disqualified for being chosen as, and for being, a member of a Panchayat-

(a) if he is so disqualified by or under any law for the time being in force for the purposes of elections to the Legislature of the State concerned:

Provided that no person shall be disqualified on the ground that he is less than twenty-five years of age, if he has attained the age of twenty-one years;

(b) if he is so disqualified by or under any law made by the Legislature of the State.

(2) If any question arises as to whether a member of a Panchayat has become subject to any of the disqualifications mentioned in clause (1), the question shall be referred for the decision of such authority and in such manner as the Legislature of a State may, by law, provide.
243G. Powers, authority and responsibilities of Panchayats. - Subject to the provisions of this Constitution, the Legislature of a State may, by law, endow the Panchayats with such powers and authority as may be necessary to enable them to function as institutions of self-government and such law may contain provisions for the devolution of powers and responsibilities upon Panchayats at the appropriate level, subject to such conditions as may be specified therein, with respect to-

(a) the preparation of plans for economic development and social justice;

(b) the implementation of schemes for economic development and social justice as may be entrusted to them including those in relation to the matters listed in the Eleventh Schedule.

243H. Powers to impose taxes by, and Funds of, the Panchayats. - The Legislature of a State may, by law, -

(a) authorise a Panchayat to levy, collect and appropriate such taxes, duties, tolls and fees in accordance with such procedure and subject to such limits;

(b) assign to a Panchayat such taxes, duties, tolls and fees levied and collected by the State Government for such purposes and subject to such conditions and limits;

(c) provide for making such grants-in-aid to the Panchayats from the Consolidated Fund of the State; and

(d) provide for Constitution of such Funds for crediting all moneys received, respectively, by or on behalf of the Panchayats and also for the withdrawal of such moneys therefrom as may be specified in the law.

243-I. Constitution of Finance Commission to review financial position. -(1) The Governor of a State shall, as soon as may be within one year from the commencement of the Constitution (Seventy-third Amendment) Act, 1992, and thereafter at the expiration of every fifth year, constitute a Finance Commission to review the financial position of the Panchayats and to make recommendations to the Governor as to-
(a) the principles which should govern-

(i) the distribution between the State and the Panchayats of the net proceeds of the taxes, duties, tolls and fees leviable by the State, which may be divided between them under this Part and the allocation between the Panchayats at all levels of their respective shares of such proceeds;

(ii) the determination of the taxes, duties, tolls and fees which may be assigned to, or appropriated by, the Panchayat;

(iii) the grants-in-aid to the Panchayats from the Consolidated Fund of the State;

(b) the measures needed to improve the financial position of the Panchayats;

(c) any other matter referred to the Finance Commission by the Governor in the interests of sound finance of the Panchayats.

(2) The Legislature of a State may, by law, provide for the composition of the commission, the qualifications which shall be requisite for appointment as members thereof and the manner in which they shall be selected.

(3) The Commission shall determine their procedure and shall have such powers in the performance of their functions as the Legislature of the State may, by law, confer on them.

(4) The Governor shall cause every recommendation made by the Commission under this article together with an explanatory memorandum as to the action taken thereon to be laid before the Legislature of the State.

243J. Audit of accounts of Panchayats. - The Legislature of a State may, by law, make provisions with respect to the maintenance of accounts by the Panchayats and the auditing of such accounts.

243K. Elections to the Panchayats. -(1) The superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the Panchayats shall be vested in a State Election Commission consisting of a State Election Commissioner to be appointed by the Governor.
(2) Subject to the provisions of any law made by the Legislature of a State, the conditions of service and tenure of office of the State Election Commissioner shall be such as the Governor may by rule determine:

Provided that the State Election Commissioner shall not be removed from his office except in like manner and on the like grounds as a Judge of a High Court and the conditions of service of the State Election Commissioner shall not be varied to his disadvantage after his appointment.

(3) The Governor of a State shall, when so requested by the State Election Commission, make available to the State Election Commission such staff as may be necessary for the discharge of the functions conferred on the State Election Commission by clause (1).

(4) Subject to the provisions of this Constitution, the Legislature of a State may, by law, make provision with respect to all matters relating to, or in connection with, elections to the Panchayats.

243L. Application to Union territories. -The provisions of this Part shall apply to the Union territories and shall, in their application to a Union territory, have effect as if the references to the Governor of a State were references to the Administrator of the Union territory appointed under article 239 and references to the Legislature or the Legislative Assembly of a State were references, in relation to a Union territory having a Legislative Assembly, to that Legislative Assembly:

Provided that the President may, by public notification, direct that the provisions of this Part shall apply to any Union territory or part thereof subject to such exceptions and modifications as he may specify in the notification.

243M. Part not to apply to certain areas. -(1) Nothing in this Part shall apply to the Scheduled Areas referred to in clause (1), and the tribal areas referred to in clause (2), of article 244.

(2) Nothing in this Part shall apply to-

   (a) the States of Nagaland, Meghalaya and Mizoram;
(b) the Hill Areas in the State of Manipur for which District Councils exist under any law for the time being in force.

(3) Nothing in this Part-

(a) relating to Panchayats at the district level shall apply to the hill areas of the District of Darjeeling in the State of West Bengal for which Darjeeling Gorkha Hill Council exists under any law for the time being in force;

(b) shall be construed to affect the functions and powers of the Darjeeling Gorkha Hill Council constituted under such law.

(4) Notwithstanding anything in this Constitution,-

(a) the Legislature of a State referred to in sub-clause (a) of clause (2) may, by law, extend this Part to that State, except the areas, if any, referred to in clause (1), if the Legislative Assembly of that State passes a resolution to that effect by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting;

(b) Parliament may, by law, extend the provisions of this Part to the Scheduled Areas and the tribal areas referred to in clause (1) subject to such exceptions and modifications as may be specified in such law, and no such law shall be deemed to be an amendment of this Constitution for the purposes of article 368.

243N. Continuance of existing laws and Panchayats.-Notwithstanding anything in this Part, any provision of any law relating to Panchayats in force in a State immediately before the commencement of the Constitution (Seventy-third Amendment) Act, 1992, which is inconsistent with the provisions of this Part, shall continue to be in force until amended or repealed by a competent Legislature or other competent authority or until the expiration of one year from such commencement, whichever is earlier:

Provided that all the Panchayats existing immediately before such commencement shall continue till the expiration of their duration, unless
sooner dissolved by a resolution passed to that effect by the Legislative Assembly of that State or, in the case of a State having a Legislative Council, by each House of the Legislature of that State.

243-O. Bar to interference by courts in electoral matters. - Notwithstanding anything in this Constitution, -

(a) the validity of any law relating to the delimitation of constituencies or the allotment of seats to such constituencies, made or purporting to be made under article 243K, shall not be called in question in any court;

(b) no election to any Panchayat shall be called in question except by an election petition presented to such authority and in such manner as is provided for by or under any law made by the Legislature of a State.'.

Constitution, after sub-clause (b), the following sub-clause shall be inserted, namely: -

"(bb) the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats in the State on the basis of the recommendations made by the Finance Commission of the State;".

Constitution, the following Schedule shall be added, namely: -

"ELEVENTH SCHEDULE
(Article 243G)

1. Agriculture, including agricultural extension.
2. Land improvement, implementation of land reforms, land consolidation and soil conservation.
3. Minor irrigation, water management and watershed development.
4. Animal husbandry, dairying and poultry.
5. Fisheries.
6. Social forestry and farm forestry.
7. Minor forest produce.
8. Small scale industries, including food processing industries."
10. Rural housing.
11. Drinking water.
12. Fuel and fodder.
13. Roads, culverts, bridges, ferries, waterways and other means of communication.
14. Rural electrification, including distribution of electricity.
15. Non-conventional energy sources.
17. Education, including primary and secondary schools.
18. Technical training and vocational education.
19. Adult and non-formal education.
21. Cultural activities.
22. Markets and fairs.
23. Health and sanitation, including hospitals, primary health centres and dispensaries.
24. Family welfare.
25. Women and child development.
26. Social welfare, including welfare of the handicapped and mentally retarded.
27. Welfare of the weaker sections, and in particular, of the Scheduled Castes and the Scheduled Tribes.
28. Public distribution system.
29. Maintenance of community assets."
ANNEXURE 3

The Constitution (Seventy-fourth Amendment) Act, 1992

Statement of Objects and Reasons appended to the Constitution (Seventy-third Amendment) Bill, 1991 which was enacted as the Constitution (Seventy-fourth Amendment) Act, 1992

THE CONSTITUTION (SEVENTY-FOURTH AMENDMENT) ACT, 1992

[20th April, 1993.]

An Act further to amend the Constitution of India.

BE it enacted by Parliament in the Forty-third Year of the Republic of India as follows:

1. Short title and commencement. -(1) This Act may be called the Constitution (Seventy-fourth Amendment) Act, 1992.

(2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

2. Insertion of new Part IXA.- After Part IX of the Constitution, the following Part shall be inserted, namely:

`PART IXA

THE MUNICIPALITIES

243P. Definitions.- In this Part, unless the context otherwise requires,-

(a) "Committee" means a Committee constituted under article 243S;

(b) "district" means a district in a State;

(c) "Metropolitan area" means an area having a population of ten lakhs or more, comprised in one or more districts and consisting of two or more Municipalities or Panchayats or other contiguous areas, specified by the Governor by public notification to be a Metropolitan area for the purposes of this Part;
(d) "Municipal area" means the territorial area of a Municipality as is notified by the Governor;

(e) "Municipality" means an institution of self-government constituted under article 243Q;

(f) "Panchayat" means a Panchayat constituted under article 243B;

(g) "population" means the population as ascertained at the last preceding census of which the relevant figures have been published.

243Q. Constitution of Municipalities.- (1) There shall be constituted in every State,-

(a) a Nagar Panchayat (by whatever name called) for a transitional area, that is to say, an area in transition from a rural area to an urban area;

(b) a Municipal Council for a smaller urban area; and

(c) a Municipal Corporation for a larger urban area,

in accordance with the provisions of this Part:

Provided that a Municipality under this clause may not be constituted in such urban area or part thereof as the Governor may, having regard to the size of the area and the municipal services being provided or proposed to be provided by an industrial establishment in that area and such other factors as he may deem fit, by public notification, specify to be an industrial township.

(2) In this article, "a transitional area", "a smaller urban area" or "a larger urban area" means such area as the Governor may, having regard to the population of the area, the density of the population therein, the revenue generated for local administration, the percentage of employment in non-agricultural activities, the economic importance or such other factors as he may deem fit, specify by public notification for the purposes of this Part.

243R. Composition of Municipalities.- (1) Save as provided in clause (2), all the seats in a Municipality shall be filled by persons chosen by direct election from the territorial constituencies in the Municipal area and for this purpose each
Municipal area shall be divided into territorial constituencies to be known as wards.

(2) The Legislature of a State may, by law, provide-

(a) for the representation in a Municipality of-

(i) persons having special knowledge or experience in Municipal administration;

(ii) the members of the House of the People and the members of the Legislative Assembly of the State representing constituencies which comprise wholly or partly the Municipal area;

(iii) the members of the Council of States and the members of the Legislative Council of the State registered as electors within the Municipal area;

(iv) the Chairpersons of the Committees constituted under clause (5) of article 243S:

Provided that the persons referred to in paragraph (i) shall not have the right to vote in the meetings of the Municipality;

(b) the manner of election of the Chairperson of a Municipality.

243S. Constitution and composition of Wards Committees, etc.- (1) There shall be constituted Wards Committees, consisting of one or more wards, within the territorial area of a Municipality having a population of three lakhs or more.

(2) The Legislature of a State may, by law, make provision with respect to-

(a) the composition and the territorial area of a Wards Committee;

(b) the manner in which the seats in a Wards Committee shall be filled.

(3) A member of a Municipality representing a ward within the territorial area of the Wards Committee shall be a member of that Committee.

(4) Where a Wards Committee consists of-

(a) one ward, the member representing that ward in the Municipality; or

(b) two or more wards, one of the members representing such wards in the Municipality elected by the members of the Wards Committee, shall be the Chairperson of that Committee.
(5) Nothing in this article shall be deemed to prevent the Legislature of a State from making any provision for the constitution of Committees in addition to the Wards Committees.

243T. Reservation of seats.—(1) Seats shall be reserved for the Scheduled Castes and the Scheduled Tribes in every Municipality and the number of seats so reserved shall bear, as nearly as may be, the same proportion to the total number of seats to be filled by direct election in that Municipality as the population of the Scheduled Castes in the Municipal area or of the Scheduled Tribes in the Municipal area bears to the total population of that area and such seats may be allotted by rotation to different constituencies in a Municipality.

(2) Not less than one-third of the total number of seats reserved under clause (1) shall be reserved for women belonging to the Scheduled Castes or, as the case may be, the Scheduled Tribes.

(3) Not less than one-third (including the number of seats reserved for women belonging to the Scheduled Castes and the Scheduled Tribes) of the total number of seats to be filled by direct election in every Municipality shall be reserved for women and such seats may be allotted by rotation to different constituencies in a Municipality.

(4) The officers of Chairpersons in the Municipalities shall be reserved for the Scheduled Castes, the Scheduled Tribes and women in such manner as the Legislature of a State may, by law, provide.

(5) The reservation of seats under clauses (1) and (2) and the reservation of offices of Chairpersons (other than the reservation for women) under clause (4) shall cease to have effect on the expiration of the period specified in article 334.

(6) Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Municipality or offices of Chairpersons in the Municipalities in favour of backward class of citizens.

243U. Duration of Municipalities, etc.—(1) Every Municipality, unless sooner dissolved under any law for the time being in force, shall continue for five years from the date appointed for its first meeting and no longer:
Provided that a Municipality shall be given a reasonable opportunity of being heard before its dissolution.

(2) No amendment of any law for the time being in force shall have the effect of causing dissolution of a Municipality at any level, which is functioning immediately before such amendment, till the expiration of its duration specified in clause (1).

(3) An election to constitute a Municipality shall be completed,-

(a) before the expiry of its duration specified in clause (1);

(b) before the expiration of a period of six months from the date of its dissolution:

Provided that where the remainder of the period for which the dissolved Municipality would have continued is less than six months, it shall not be necessary to hold any election under this clause for constituting the Municipality for such period.

(4) A Municipality constituted upon the dissolution of a Municipality before the expiration of its duration shall continue only for the remainder of the period for which the dissolved Municipality would have continued under clause (1) had it not been so dissolved.

243V. Disqualifications for membership.- (1) A person shall be disqualified for being chosen as, and for being, a member of a Municipality-

(a) if he is so disqualified by or under any law for the time being in force for the purposes of elections to the Legislature of the State concerned:

Provided that no person shall be disqualified on the ground that he is less than twenty-five years of age, if he has attained the age of twenty-one years;

(b) if he is so disqualified by or under any law made by the Legislature of the State.

(2) If any question arises as to whether a member of a Municipality has become subject to any of the disqualifications mentioned in clause (1), the question shall
be referred for the decision of such authority and in such manner as the Legislature of a State may, by law, provide.

243W. Powers, authority and responsibilities of Municipalities, etc.- Subject to the provisions of this Constitution, the Legislature of a State may, by law, endow-

(a) the Municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government and such law may contain provisions for the devolution of powers and responsibilities upon Municipalities, subject to such conditions as may be specified therein, with respect to-

(i) the preparation of plans for economic development and social justice;

(ii) the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule;

(b) the Committees with such powers and authority as may be necessary to enable them to carry out the responsibilities conferred upon them including those in relation to the matters listed in the Twelfth Schedule.

243X. Power to impose taxes by, and Funds of, the Municipalities.-The Legislature of a State may, by law,-

(a) authorise a Municipality to levy, collect and appropriate such taxes, duties, tolls and fees in accordance with such procedure and subject to such limits;

(b) assign to a Municipality such taxes, duties, tolls and fees levied and collected by the State Government for such purposes and subject to such conditions and limits;

(c) provide for making such grants-in-aid to the Municipalities from the Consolidated Fund of the State; and

(d) provide for constitution of such Funds for crediting all moneys received, respectively, by or on behalf of the Municipalities and also for the withdrawal of such moneys therefrom.
as may be specified in the law.

243Y. Finance Commission.- (1) The Finance Commission constituted under article 243-I shall also review the financial position of the Municipalities and make recommendations to the Governor as to-

(a) the principles which should govern-

(i) the distribution between the State and the Municipalities of the net proceeds of the taxes, duties, tolls and fees leviable by the State, which may be divided between them under this Part and the allocation between the Municipalities at all levels of their respective shares of such proceeds;

(ii) the determination of the taxes, duties, tolls and fees which may be assigned to, or appropriated by, the Municipalities;

(iii) the grants-in-aid to the Municipalities from the Consolidated Fund of the State;

(b) the measures needed to improve the financial position of the Municipalities;

(c) any other matter referred to the Finance Commission by the Governor in the interests of sound finance of the Municipalities.

(2) The Governor shall cause every recommendation made by the Commission under this article together with an explanatory memorandum as to the action taken thereon to be laid before the Legislature of the State.

243Z. Audit of accounts of Municipalities.- The Legislature of a State may, by law, make provisions with respect to the maintenance of accounts by the Municipalities and the auditing of such accounts.

243ZA. Elections to the Municipalities.- (1) The superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the Municipalities shall be vested in the State Election Commission referred to in article 243K.

(2) Subject to the provisions of this Constitution, the Legislature of a State may, by law, make provision with respect to all matters relating to, or in connection with, elections to the Municipalities.
243ZB. Application to Union territories. - The provisions of this Part shall apply to the Union territories and shall, in their application to a Union territory, have effect as if the references to the Governor of a State were references to the Administrator of the Union territory appointed under article 239 and references to the Legislature or the Legislative Assembly of a State were references in relation to a Union territory having a Legislative Assembly, to that Legislative Assembly:

Provided that the President may, by public notification, direct that the provisions of this Part shall apply to any Union territory or part thereof subject to such exceptions and modifications as he may specify in the notification.

243ZC. Part not to apply to certain areas. — (1) Nothing in this Part shall apply to the Scheduled Areas referred to in clause (1), and the tribal areas referred to in clause (2), of article 244.

(2) Nothing in this Part shall be construed to affect the functions and powers of the Darjeeling Gorkha Hill Council constituted under any law for the time being in force for the hill areas of the district of Darjeeling in the State of West Bengal.

(3) Notwithstanding anything in this Constitution, Parliament may, by law, extend the provisions of this Part to the Scheduled Areas and the tribal areas referred to in clause (1) subject to such exceptions and modifications as may be specified in such law, and no such law shall be deemed to be an amendment of this Constitution for the purposes of article 368.

243ZD. Committee for district planning. — (1) There shall be constituted in every State at the district level a District Planning Committee to consolidate the plans prepared by the Panchayats and the Municipalities in the district and to prepare a draft development plan for the district as a whole.

(2) The Legislature of a State may, by law, make provision with respect to—

(a) the composition of the District Planning Committees;

(b) the manner in which the seats in such Committees shall be filled:

Provided that not less than four-fifths of the total number of members of such Committee shall be elected by, and from amongst, the elected members of the
Panchayat at the district level and of the Municipalities in the district in proportion to the ratio between the population of the rural areas and of the urban areas in the district;

(c) the functions relating to district planning which may be assigned to such Committees;

(d) the manner in which the Chairpersons of such Committees shall be chosen.

(3) Every District Planning Committee shall, in preparing the draft development plan,-

(a) have regard to-

(i) matters of common interest between the Panchayats and the Municipalities including spatial planning, sharing of water and other physical and natural resources, the integrated development of infrastructure and environmental conservation;

(ii) the extent and type of available resources whether financial or otherwise;

(b) consult such institutions and organisations as the Governor may, by order, specify.

(4) The Chairperson of every District Planning Committee shall forward the development plan, as recommended by such Committee, to the Government of the State.

243ZE. Committee for Metropolitan planning.-(1) There shall be constituted in every Metropolitan area a Metropolitan Planning Committee to prepare a draft development plan for the Metropolitan area as a whole.

(2) The Legislature of a State may, by law, make provision with respect to-

(a) the composition of the Metropolitan Planning Committees;

(b) the manner in which the seats in such Committees shall be filled:

Provided that not less than two-thirds of the members of such Committee shall be elected by, and from amongst, the elected members of the Municipalities and Chairpersons of the Panchayats in the Metropolitan area in proportion to
the ratio between the population of the Municipalities and of the Panchayats in that area;

(c) the representation in such Committees of the Government of India and the Government of the State and of such organisations and institutions as may be deemed necessary for carrying out the functions assigned to such Committees;

(d) the functions relating to planning and coordination for the Metropolitan area which may be assigned to such Committees;

(e) the manner in which the Chairpersons of such Committees shall be chosen.

(3) Every Metropolitan Planning Committee shall, in preparing the draft development plan,-

(a) have regard to-

(i) the plans prepared by the Municipalities and the Panchayats in the Metropolitan area;

(ii) matters of common interest between the Municipalities and the Panchayats, including co-ordinated spatial planning of the area, sharing of water and other physical and natural resources, the integrated development of infrastructure and environmental conservation;

(iii) the overall objectives and priorities set by the Government of India and the Government of the State;

(iv) the extent and nature of investments likely to be made in the Metropolitan area by agencies of the Government of India and of the Government of the State and other available resources whether financial or otherwise;

(b) consult such institutions and organisations as the Governor may, by order, specify.

(4) The Chairperson of every Metropolitan Planning Committee shall forward the development plan, as recommended by such Committee, to the Government of the State.

243ZF. Continuance of existing laws and Municipalities.- Notwithstanding anything in this Part, any provision of any law relating to Municipalities in force
in a State immediately before the commencement of THE CONSTITUTION (Seventy-fourth Amendment) Act, 1992, which is inconsistent with the provisions of this Part, shall continue to be in force until amended or repealed by a competent Legislature or other competent authority or until the expiration of one year from such commencement, whichever is earlier:

Provided that all the Municipalities existing immediately before such commencement shall continue till the expiration of their duration, unless sooner dissolved by a resolution passed to that effect by the Legislative Assembly of that State or, in the case of a State having a Legislative Council, by each House of the Legislature of that State.

243ZG. Bar to interference by courts in electoral matters. - Notwithstanding anything in this Constitution,

(a) the validity of any law relating to the delimitation of constituencies or the allotment of seats to such constituencies, made or purporting to be made under article 243ZA shall not be called in question in any court;

(b) no election to any Municipality shall be called in question except by an election petition presented to such authority and in such manner as is provided for by or under any law made by the Legislature of a State.'.

3. Amendment of article 280. - In clause (3) of article 280 of the Constitution, sub-clause (c) shall be relettered as sub-clause (d) and before sub-clause (d) as so relettered, the following sub-clause shall be inserted, namely:-

"(c) the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State;".

4. Addition of Twelfth Schedule. - After the Eleventh Schedule to the Constitution, the following Schedule shall be added, namely:-

"TWELFTH SCHEDULE

(Article 243W)

1. Urban planning including town planning."
2. Regulation of land-use and construction of buildings.
3. Planning for economic and social development.
4. Roads and bridges.
5. Water supply for domestic, industrial and commercial purposes.
6. Public health, sanitation conservancy and solid waste management.
7. Fire services.
8. Urban forestry, protection of the environment and promotion of ecological aspects.
9. Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded.
10. Slum improvement and upgradation.
11. Urban poverty alleviation.
12. Provision of urban amenities and facilities such as parks, gardens, playgrounds.
13. Promotion of cultural, educational and aesthetic aspects.
14. Burials and burial grounds; cremations, cremation grounds and electric crematoriums.
15. Cattle pounds; prevention of cruelty to animals.
16. Vital statistics including registration of births and deaths.
17. Public amenities including street lighting, parking lots, bus stops and public conveniences.
18. Regulation of slaughter houses and tanneries."
“The fishermen know that the sea is dangerous and the storm terrible, but they have never found these dangers sufficient reason for remaining ashore.”
- Vincent van Gogh

“We could not make good fisheries by throwing rocks in it. The fish population is the ultimate indicators of how well we are doing.”
- Greg Policky

“Fishing is much more than fish…. It is the great occasion when we may return to the fine simplicity of our forefathers.”
- HERBERT HOOVER, New York Times, Aug. 9, 1964