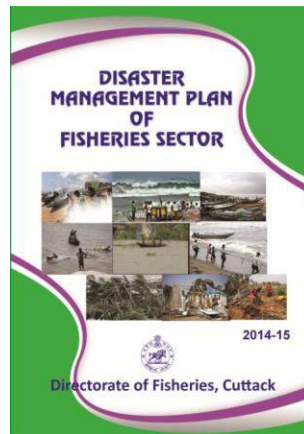


**DISASTER MANAGEMENT PLAN
OF
FISHERIES DEPARTMENT
2014-15**



**Directorate of Fisheries
Odisha, Cuttack**

2014

CONTENTS

Sl.No	Details	Page No.
01.	List of Tables	06
02.	Abbreviation	07-08
03.	Chapter 1: Profile (Introduction)	09-17
	1.1 Demographic Details	10
	1.2 River System in Odisha	10
	1.3 Climate and Temperature	10
	1.4 Fisheries Potential and Production	11
	➤ Odisha Map and Coastal District	12
	➤ Index Map of Odisha State with River Basin	13
	1.5 Organizational Structure	13
	➤ Organizational Structure	14
	1.6 Department Infrastructure	15
	1.7 Resources of Tanks/Ponds in State upto 2012-13 (Area in ha)	15-16
	➤ Other Fisheries Resources	16-17
	➤ District-wise brackish water resources & area developed (in ha) up to 2012-13 in Odisha	17
04.	Chapter 2: Hazard Vulnerability Capacity and Risk Profile	18-24
	2.1 Vulnerability and Risk Assessment	18
	2.2 Vulnerability of Fisheries resources to Natural hazards	18
	2.3 Cyclone	18
	2.4 Flood	18-19
	2.5 Droughts	19
	2.6 Fires	19-20
	2.7 Industrial Hazards	20
	2.8 Tsunami	20
	2.9 Capacity of the Department to deal with the identified disasters-	20-21

	Institutional organizational and infrastructural	
2.10	Staff Strength and Vacancy	21-24
2.11	Gap in existing capacity	24
05.	Chapter 3: Prevention, Mitigation	25-30
	➤ State level Capacity Building Programme	26
	➤ District level Capacity Building Programme	26
	➤ Public Awareness Programme at Village Level	27
	➤ Requirement of Fund for Capacity Building Programme	27
	➤ Requirement of Fund for Rehabilitation during Disaster	28
3.1	NGO's Private Sector Govt. Training Institution	29
3.2	Community effort and mitigation	29
3.3	Community level training and Public Awareness activities	30
06.	Chapter 4: Preparedness Plan	31-33
4.1	The following measure and investment would be undertaken to ensure effective preparedness to respond any disaster	31-32
4.2	Budget requirement: Provision of Funds for Disaster Preparedness	32
4.3	Drawing up preparedness plan, capacity building, data collection and identification and training of personnel in relation to disaster management	32-33
4.4	Review the enactments administered by it, its politics so rules and regulation with a view to incorporate there in the provision necessary for disaster preparedness	33
07.	Chapter 5: Response Plan	34-44
5.1	Mechanism for early warning and dissemination there of	34
5.2	Trigger Mechanism for Response	34-39
5.2.1	Response Plan for responding effectively and promptly to any threatening situation or disaster in accordance with the	34-35

	State Plan and in accordance with guidelines or directions of the National Executive Committee and the State Executive Committee and the State Govt. and the SDMA	
5.2.2	Appointment of Nodal Officers to perform Emergency Support Functions	35
5.2.3	Constitution of the Incident Response Teams (IRTs) at all level with provisions of delegation of authority	36
	➤ IRT at State level for Fisheries	37
	➤ IRT at each District level for Fisheries	38
	➤ IRT at each Block Level for Fisheries	38-39
5.2.4	Delegation of financial powers in case of Disaster event	39
5.3	Reporting procedures and formats	34-40
5.4	Role of NGO's and Voluntary Sector and coordination thereof	40
5.5	Identification of suppliers for departmental supplies and pre-Contracting for supplies in case of emergencies	41
5.6	Post Disaster	41-44
5.6.1	Role of NGO's and voluntary sector and coordination there of	41
5.6.2	System of assessing the damage from any Disaster	41-42
08.	Chapter 6: Rescue and Relief	45-47
	➤ Calamity Relief Fund (CRF)	45
	➤ Norms of Relief	45-46
	➤ Explanation for Revision	46-47
09.	Chapter 7: Restoration and Reconstruction	48
	➤ Components of contingent Plan	48
	➤ Reconstruction	48
10.	Chapter 8: Rehabilitation	49
11.	Chapter 9: Knowledge Management	50
12.	Chapter 10: Review, updating and Dissemination of plan	51
13.	Standard operating procedure for Disaster Management in Fisheries Sector	52-57

1.1	Roles and Responsibility of the Department	52
1.2	Preparedness and Preventive Measures	52
1.3	Pre-Disaster Planning	52-53
1.4	Information, Education and Communication activities	53
1.5	During Flood	53-56
1.6	Post Disaster	55
1.7	Role and Responsibility of JFTA/SFTA/AFO for Disaster Management	55-57
1.8	Preparation of contingent Plan	57
14.	Conclusion	58-59
15.	Cyclone “Phailin” in Odisha 2013	59-60
16.	Annexure (Contact Information / Proforma)	61-67

LIST OF TABLES

Sl.No.	Table Details	Page No.
1	Departmental infrastructure	15
2	Resources of tanks / ponds in the state up to 2012-13	15-16
3	Other fishery resources	16-17
4	District wise brackish water resources & area developed up to 2012-13 in Odisha	17
5	Year wise assistance received from SRC for Natural Calamity	19
6	Staff strength and vacancy	21-24
7	Risk reduction measures for prevention and mitigation	25-26
8	Requirement of funds for capacity building programme	27
9	Requirement of funds for relief / rehabilitation during disaster	28
10	Preparedness measures to respond any disaster	31-32
11	Budget requirement : Provision of fund for disaster preparedness	32
12	IRT at State Level	37
13	IRT at each District level	38
14	IRT at each Block level	38
15	Delegation of financial power in case of disaster event	39
16	Assets valuation of departmental infrastructure	42
17	Role of deferent field staff	43
18	Activity planner (Pre-disaster Phase)	44
19	State level responses for major disaster	44
20	Norms of assistance from CRF / NCCF	46
21	Review and updating DMP (Who, when & how)	51
22	Contact information	60-63

ABBREVIATION

D.F(O)	Director of Fisheries, Odisha
Addl.D.F	Additional Director of Fisheries
J.D.F.	Joint Director of Fisheries
D.D.F.	Deputy Director of Fisheries
E.E.	Executive Engineer
AEE	Assistant Executive Engineer
DFO	District Fisheries Officer
AO	Accounts Officer
DRCS (Fy.)	Deputy Registrar Cooperative Societies (Fishery)
EO	Establishment Officer
A.D Statistics	Assistant Director Statistics
Addl..FO	Additional Fisheries Officer
AFO	Assistant Fisheries Officer
ARCS (Fy.)	Assistant Registrar Cooperative Societies (Fishery)
ALO	Assistant Law Officer
SARCS (Fy.)	Sub-Assistant Registrar Cooperative Society (Fishery)
SO	Statistical Officer
PO	Production Officer
AE (Mech.)	Assistant Engineer (Mechanical)
JE (C)	Junior Engineer (Civil)
SFTA	Senior Fishery Technical Assistant
JFTA	Junior Fishery Technical Assistant
BW	Brackish Water
IE	Inland Extension
SBW	Survey of Brackish Water
B&T	Biology and Technology
MS	Marine South
BWTC	Brackishwater Training Centre

FLC	Fish Landing Centre
SRC	Special Relief Commissioner
OSDMA	Odisha State Disaster Management Authority
CRF	Calamity Relief Fund
NCCF	National Calamity Contingency Fund
NC	Natural Calamity
DDMC	District Disaster Management Cell
DDMR	District Disaster Management Plan
DMP	Disaster Management Plan
PAP	Public Awareness Programme
IEC	Introduction of Electronic Communication
CBP	Capacity Building Programme
NGO	Non-Government Organization
CIFAX	A medicine used as disinfectant in fish pond
PFCS	Primary Fishermen Cooperative Society
SHG	Self Help Group
LSG	Local Self Government
CBO	Community Based Organization
CAN	Community Need Assessment
CLT	Community Level Training
NSS	National Social Service
NCC	National Cadet Corp
NYK	Neheru Yuvak Kendra
GOI	Government of India
IRT	Incident Response Team
DIRT	District Incident Response Team
SIRT	State Incident Response Team
FED	Fishery Engineering Division
ODRAF	Odisha Disaster Rapid Action Force
OPDC	Odisha Pisciculture Development Corporation
DM	District Magistrate
FISH FED	Odisha State Fishermen's Cooperative Federation
FFDA	Fish Farmers Development Agency
BFDA	Brackish Water Fisheries Development Agency
NFDB	National Fisheries Development Board
PMRY	Prime Minister Rojgar Yojana
KSK	Krishi Sahayak Kendra
SOP	Standard Operating Procedure
CP	Contingency Plan

CHAPTER 1: PROFILE (INTRODUCTION)

Disaster means serious disruption of the functioning of a Society, causing widespread, material or environmental loss which exceeds the ability of the affected society to cope up using its own resources. To put it in other words, it is the occurrence of a sudden mishap / calamity / grave occurrence that disrupts the basic fabric and normal functioning of a society or community.

Disaster includes earthquakes, cyclones, floods, tidal waves, landslides, volcanic eruptions, tornadoes, snow storms, severe air pollution, heat waves, famines, epidemics, building collapse, toxicological accidents, nuclear accidents, warfare etc.

Odisha is one of the major maritime States having 480 Kms long coastline with 24,000 sq. kms continental shelf area has huge potential for marine fisheries development. The fresh water resources of the State include about 6.75 lakhs ha area under tanks and ponds, lakes and reservoirs, swamps and Jheels, rivers and canals etc. Chilika a brackish water lagoon extending over an area of 79,000 ha.

Aquaculture and marine fisheries is considered as the food basket for a considerable size of the families in our State. Besides, the State has exported more than 900.00 crores worth of shrimp and seafood 2012-13. Both the inland and brackish water tanks and ponds are vulnerable to the natural hazards like cyclone, flood and drought etc which are very common phenomenon of our State. Besides, marine fishermen lead a very racy life, while fishing in sea who suffers causality due to these natural hazards. Therefore partially or fully damage of dykes, fish crop loss, loss and damage of fishing nets and boats, loss of lives of fishermen, depletion of water level in drought situation and deterioration the water quality of pond are usual occurrence in pond every year in fisheries sector.

In view of the above natural hazards the aquatic environment and health management of fish biomass is an essential parameter in addition to the repair of dykes and the damaged ponds. Further the boats owned by the fishermen are also asked for relief and rescue operation works by

the District Administration. Hence the relief assistance and remedial measures are essential to compensate the loss and damage.

1.1 - Demographic details

The total population of Odisha is 4.19 crores with 3.49 crores living in rural belt and 0.70 in urban area, Ganjam records the largest rural population while Khordha the highest urban inhabitants. There are thirty districts and 314 Blocks in the State. Out of 30 districts seven belongs to coastal district with fishermen population of 8,78,190 (Inland) and 7,47,606 (Marine).

Odisha is highly prone to natural disaster. Flood and cyclone are a recurrent phenomenon in Odisha. Recent flood in Odisha -2011 clearly illustrates the need for multihazard prevention, response and recovery plans for natural hazards specially flood and cyclone, so that threat to human life and property is minimized.

1.2 - River System in Odisha

Odisha is one of the States in India blessed with rivers that supplement water needed for agriculture and allied sector activities. There are 7 major river systems in Odisha such as Mahananadi, Brahmani, Baitarani, Budha balang, Subarnarekha, Rushikulya and Vasandhara. The river systems besides, useful for agriculture, power generation and capture fisheries. Also cause flood due to heavy rain in catchment area.

1.3 - Climate and temperature

The State has a tropical climate with moderate diffusion to subtropical weather. Humid to semi humid conditions prevail in the coastal areas while arid to semiarid situation in the interior parts of the State. The monsoon season ranging from June to September register average rainfall of about 900 mm.

1.4 Fisheries Potential & Production

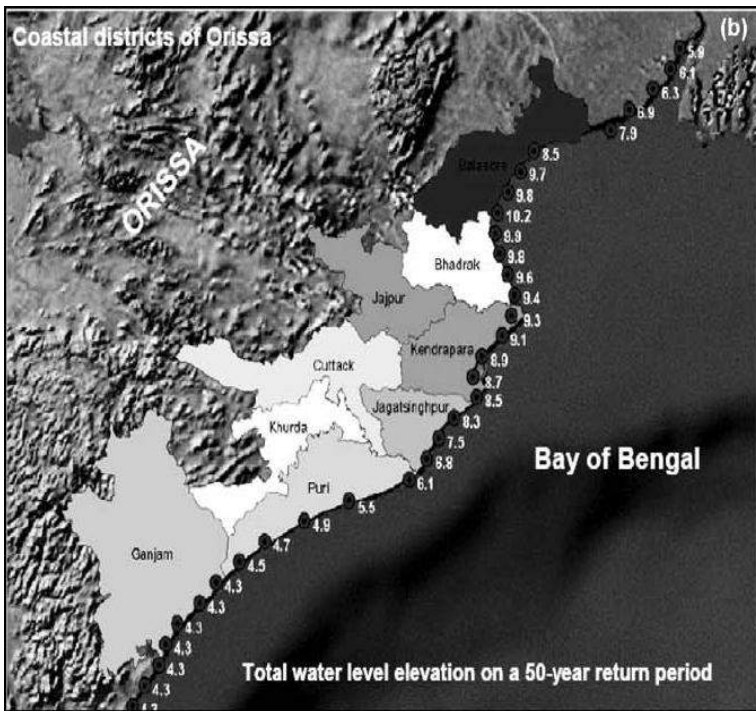
There are about 6.75 lakhs hectare of inland water resources which includes tanks ponds, reservoirs, lakes, swamps, bheels, river and canals with total production potentiality of 4.40 lakhs M.T.of fish. Similarly under brackish water sector there is a resource potentiality of 4.18 lakhs hectare of brackish water area out of which 0.33 lakhs hectare are found suitable for culture. According to Fishery survey of India(FSI) the Fisheries potential of Odisha is 5.14 lakhs MT. About 2.95 % population (10.84 lakh) depends upon fisheries for their livelihood. Of them, 7.51 lakh depend on inland fisheries and 3.33 lakh on marine fisheries. The fisheries sub-sector contributed about 6% to the GSDP share of the Agriculture Sector.

The present total fish production of the state is 4.10 lakhs MT (1.18 lakhs tones of marine, 2.62 lakhs tones of inland sector and 0.30 lakhs tones brackish water) .The present level of fish production in the State is about 62% of the overall fisheries potential.

By judiciously harnessing these resources to augment fish production in next 10 years 2010-11 to 2019 – 20 the Perspective Plan of Fisheries Sector in Odisha has been prepared is based on the Vision 2020 for Fisheries Management and Development viz, to be a leader in the country in sustainable Fisheries and Aquaculture and improving the food, livelihood security and Socio-economic status of Fishers.



Odisha Map



Coastal Districts of Odisha with Coastline

Fig – 1 Index Map of Odisha State with River Basin

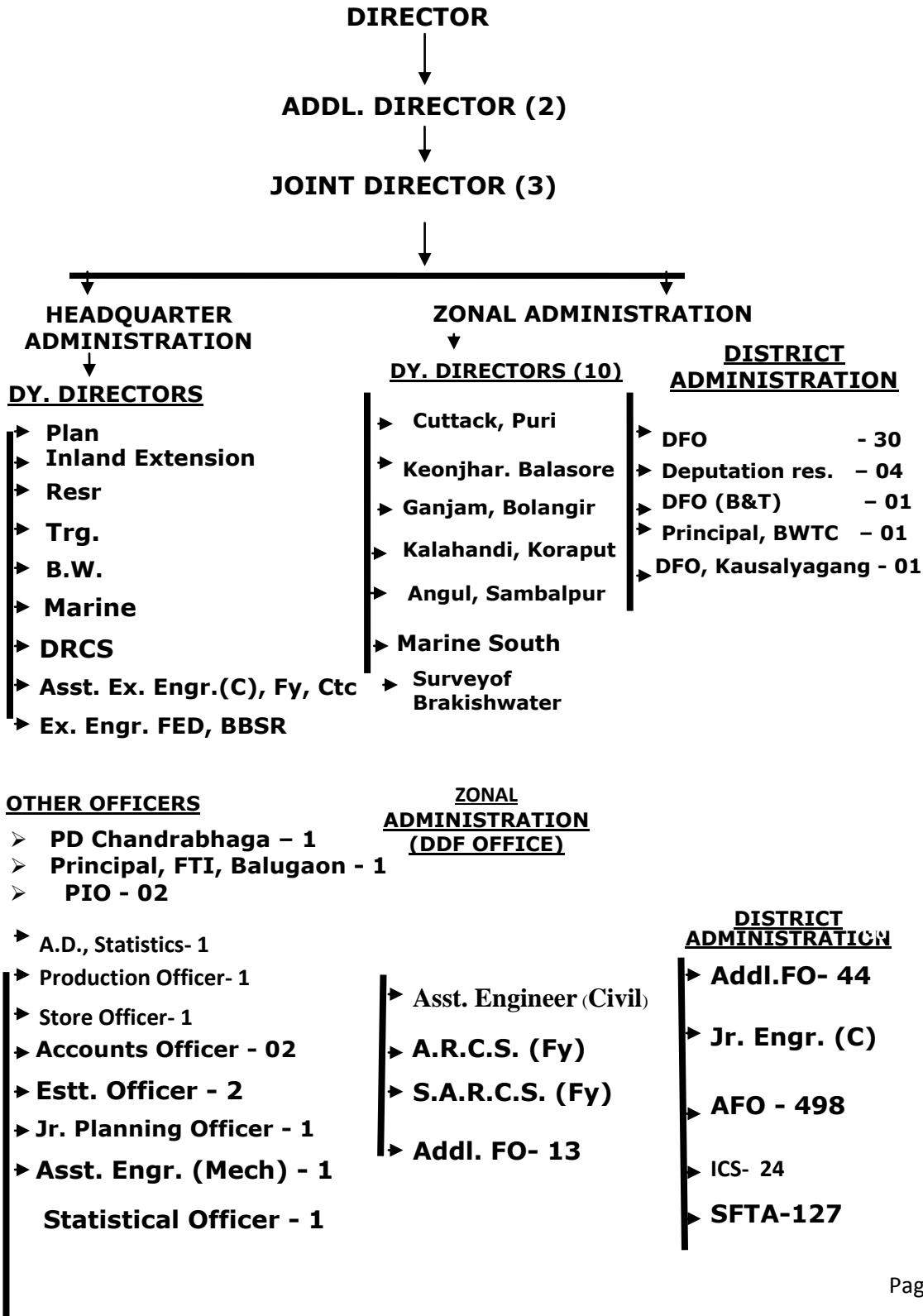


1.5 Organizational Structure

The Director of Fisheries act as the head of the department assisted by a number of officers in the rank of 2 Addl. Director, 3 Joint Directors and 6 no's of Deputy Directors besides there is one post of Deputy Registrar of Cooperative Societies to look after the cooperative matter and one Asst. Executive Engineer and one Executive engineer for civil works. The Directorate is also having 10 other categories of Junior Officers to monitor the implementation of various schemes related works.

At the zonal level there are 10 Dy. Director of Fisheries and at district level there are 30 District Fisheries Officers who implement the scheme at the field.

ORGANIZATIONAL STRUCTURE





▶ **Section Officer (L-I) - 3**

▶ **JFTA-318**

▶ **Section Officer (L-II) - 9**

1.6 Departmental Infrastructure

Table - 1

Institution / Offices	No
Directorate	1
Zonal DDF office	3
Fisheries College	1
Training Centre	2
District Offices	30
Marine Office	4
Fish Seed Hatchery (Inland)	31
Fresh water Prawn Hatchery	3
Shrimp Hatchery	2
Marine ,Fish Landing Centre	27

1.7 Resources of Tanks / Ponds in the State up to 2012-13 (Area in ha)

Table - 2

RESOURCES OF TANKS/ PONDS IN THE STATE UP TO 2013-14 (Area in ha)									
Sl.No	Districts	GP Tanks		Revenue tanks		Private tanks		Total	
		No	Area	No	Area	No	Area	No	Area
1	Cuttack	1733	1003.65	796	400.36	9161	1373.83	11690	2777.84
2	Jajpur	1823	835.88	608	205.86	5768	1411.29	8199	2453.03
3	Kendrapara	1611	707.08	1128	452.43	15702	2372.64	18441	3532.15
4	Jagatsinghpur	582	292.03	702	255.70	11321	1434.60	12605	1982.33
5	Puri	2802	1113.47	215	170.76	12493	2209.31	15510	3493.54
6	Khurda	2041	882.33	883	349.02	3185	920.97	6109	2152.32
7	Nayagarh	1554	916.88	179	897.43	2504	834.80	4237	2649.11
8	Balasore	3045	1248.76	712	261.31	33202	4678.65	36959	6188.72
9	Bhadrak	2004	533.61	293	101.48	14276	2134.24	16573	2769.33
10	Mayurbhanja	4862	2350.78	1328	4697.75	11725	2446.50	17915	9495.03
11	Boudh	1236	1350.22	150	288.90	972	580.79	2358	2219.91
12	Gajapati	723	1120.00	145	3698.56	466	175.07	1334	4993.63
13	Ganjam	5949	8365.34	1380	17415.97	4122	2652.02	11451	28433.33
14	Kalahandi	3730	3938.11	71	1113.51	2686	962.89	6487	6014.51
15	Kandhamal	315	337.07	273	198.15	629	436.76	1217	971.98
16	Koraput	891	396.60	155	354.21	1568	500.53	2614	1251.34
17	Malkangiri	570	349.80	205	127.09	4409	1112.30	5184	1589.19
18	Nawarangpur	1117	673.01	524	530.61	2652	561.27	4293	1764.89
19	Nuapada	952	655.97	315	1629.77	1436	700.50	2703	2986.24

20	Rayagada	680	423.68	184	97.33	1204	953.67	2068	1474.68
21	Anugul	1886	1580.78	461	384.65	3782	2128.75	6129	4094.18
22	Bolangir	5417	4705.77	61	152.24	923	360.01	6401	5218.02
23	Baragarh	3693	4824.71	122	217.54	3085	1409.99	6900	6452.24
24	Deogarh	611	419.15	47	80.40	525	347.38	1183	846.93
25	Dhenkanal	1649	1318.78	579	248.49	2255	1149.94	4483	2717.21
26	Jharsuguda	1000	913.41	77	113.86	520	249.37	1597	1276.64
27	Keonjhar	3447	1624.70	788	391.55	7024	1353.88	11259	3370.13
28	Sambalpur	2520	2395.18	232	568.40	1526	833.10	4278	3796.68
29	Sonepur	2771	3818.09	328	327.22	616	490.24	3715	4635.55
30	Sundargarh	2078	1214.85	421	202.87	2918	1158.75	5417	2576.47
	TOTAL	63292	50309.69	13362	35933.42	162655	37934.04	239309	124177.15

Other Fishery Resources

Table – 3

Freshwater :	Unit (No.)	Fry Capacity (in millions)
Government (R&D)	05	489.00
Government hatchery	20	121.70
Government rearing farm	59	
OPDC	05	210.00
Private	97	520.00
Freshwater prawn seed hatchery		
Government	03	80
Private	07	125
SHRIMPSEED HATCHERY		
Brackish water:	No.	Capacity (in millions)
Government	2	75
Private	12	292.5
ICE PLANT AND COLD STORAGE	No.	Capacity (in MT)
Ice Plant	57	613.5
Cold Storage	12	67
MARINE FISH LANDING CENTRE		
1. Harbour	4	
2. Jetty	9	
3. Landing Platform	15	
4. Other Landing Centre	45	
Total	73	
5. Fish Drying Platform	10	3269

CRAFTS (Marine) 2012-13: (In Nos.)			
A. Mechanized			
Trawler		1564	
Gillnetter		503	
B. Motorized			6397
C. Non-motorized			8188
TOTAL			16652
(I) MARINE PRODUCTS DEVELOPMENT AGENCY (Registered under MPEDA)	EXPORT 2009-10:	(Nos.)	Capacity (in MT)
1. Seafood Exporters from Orissa		24	
2. Processing Plants		22	459.50
3. Storage Premises		22	
4. Peeling Sheds		23	215.82
5. Ice Plant		3	58.00

***District-wise brackish water resources & area developed (in ha)
up to 2013-14 in Odisha***

Table -4

Districts	Area surveyed	Area found suitable	Area brought under culture
Balasore	4134.70	3432.54	2101.11
Bhadrak	3812.42	3385.14	2100.89
Kendrapara	4510.31	4223.23	2386.35
Jagatsinghpur	5459.10	4351.45	3245.06
Puri	11562.12	10504.18	4833.88
Khurda	5033.19	3580.14	637.79
Ganjam	4063.04	3110.17	1664.42
TOTAL	38574.88	32586.85	16969.50

CHAPTER 2: HAZARD VULNERABILITY, CAPACITY AND RISK PROFILE

2.1 Vulnerability and Risk Assessment.

The Bay of Bengal is one of the major centre of the World for breeding of tropical storms. Cyclone over the Bay of Bengal usually move westward, north-westward or northward and cross the east coast of India or Bangladesh. When it happens, it brings strong winds and high rainfall to the coastal region, causing damage to property and loss of life

2.2 Vulnerability of fisheries resources to Natural hazards.

Odisha is very much exposed to cyclone, floods and droughts. Every two to three years, Odisha experiences a moderate to severe intensity cyclone, flood and drought. About 44% of the state is vulnerable to tropical storms related hazard. Similarly flood and drought in the State causing wide spread loss to fishermen as well as fish farmers of the State.

2.3 Cyclone

Cyclone on the east coast originate in the Bay of Bengal, and usually reaches the coastline of Tamil Nadu, Andhra Pradesh, Odisha and West Bengal. Loss of lives of fishermen and fish farmers is compounded by the loss of fish crops and agricultural crops. Especially seven no. of coastal districts of Odisha are severely vulnerable to cyclonic storms. One of the deadliest cyclone of the century with death of about 10,000 people (mostly fish farmers and fishermen) took place in Odisha in 1999 (Super cyclone).

2.4 Flood

Floods are characterized as any high stream flows which overlap natural or artificial banks of a river or a stream that leads to inundation. Sometimes copious monsoon rain combined with massive outflows from the rivers cause devastating flood. Flooding is caused by the inadequate capacity within the banks of the river to contain the high flows brought down from the upper catchment due to heavy rainfall. Flood in Odisha in the past years had

caused wide spread loss and damage to fisheries tanks and ponds, fishermen houses, net and boats and fishing jetties. Infrastructure damage due to flood is a common phenomena.

Sometimes surplus discharge from Hirakud dam causes heavy flood in Odisha. With a coastline of 480 Kms, Odisha experiences frequent depression during monsoon which causes cyclone and flood almost every year. Details of loss of fishing boats and nets, fish crop losses and amount received toward assistance between 1999 to 2012 are presented in the table below:

Table - 5

Year	Type of calamity	No. of district affected	Boat and net damaged (No.)	Fish crop loss (No.)	Amount received from SRC (in crores Rs)
1999-00	Super cyclone	16	76970	-	15.5373
2005-06	Cyclone	1	430	-	0.0435
2006-07	Flood	12	-	Yes	0.2657
2009-10	Heavy cyclonic Rain	3 (Chilka Fishermen)	22642	-	3.26
2011- 12	Flood due to heavy rain	19	8544	9523	7.152
2013-14	Cyclone "Phailin"	18	58888	9853	24.08

2.5 Droughts

The drought is a condition arising out of scarce rain fall. Drought is a normal recurrent feature of the State. The prolonged drought situation reduces the water level in tanks and ponds which in turn affects the growth rate of fish and seed production.

2.6 Fires

Most of the fishermen villages in our state are thickly populated. The houses are also made of straw, palm leaves and bamboos which are very much prone to fire. It has been noticed in the past years even the entire fishermen villages were burned on fire causing

wide spread loss of property and other domestic assets. Sometimes, the mechanized fishing vessels are also set on fire due to electrical short circuit and burst of Gas cylinder which causes much financial loss and loss of life of the crew members.

2.7 Industrial Hazards

Generally most of the industries of our state are located near the river or sea. Apart from discharging a large quantum of industrial effluents these industries release lethal gases to the air and water bodies due to accident or normal process. It causes a serious health hazards on the lives of the fisher folk living near the shore areas as well as on the fishes. Due to industrial hazards the fish population in the State is gradually declining and especially the Hilsa fishery has been seriously affected. The fertilizer and oil refineries at Paradeep, Chemical Industries at Ganja, NALCO and other small and big industries are causing great loss to the environment as well aquatic animals.

2.8 Tsunami

The Tsunami is a rare phenomenon of the state. It results displacement of large volume of water due to volcanic eruption in the sea. The fishermen communities are likely to be more vulnerable to this occurrence since they dwell near the sea shore and depend on sea for their livelihood.

2.9 Capacity of the Department to deal with the identified disasters- Institutional, organizational and infrastructural.

Fisheries is having well developed network for providing fisheries services in the field. But during natural calamity like flood and cyclone which is more prevalent, the institutional networks get disrupted. With limited technical staff in the field it is very difficult in the field to create awareness and render proper services to the affected fish farmers and fishermen during disaster time. The department needs strengthening with adequate staff to meet any emergencies services during disaster.

The Fisheries Department is having a Natural Calamity Section at Directorate level which is running without sufficient man power, lack of funds and essential equipments. NC section should be strengthened to look after the different calamities occurring in different times.

2.10 Staff Strength & Vacancy 2013-14

Table -6

Sl. No.	Group	Sanction Strength	Man in Position	Vacancy Position
1	2	3	4	5
	Group-A			
1	Director	1	1	0
2	Addl. Director Fishery	2	2	0
3	Jt. Director Fishery	3	3	0
4	Dy. Director of Fishery	18	4	14
5	Executive Engineer	2	1	1
6	Asst. Executive Engineer	1	1	0
7	District Fishery Officer	39	31	8
8	Accounts Officer	1	1	0
9	DRCS(Fy)	1	1	0
	Total	68	45	23
	Group-B			
1	Addl. Fishery Officer	57	40	17
2	Assistant Fishery Officer	498	248	250
3	Establishment officer	2	1	1
4	Asst. Dir(Stat)	1	1	0
5	ARCS(Fy)	3	1	2
6	SARCS(Fy)	5	4	1
7	Statistical Officer	1	1	0
8	Production officer	1	0	1
9	Junior Planning Officer	1	0	1
10	Asst. Law Officer	1	1	0
11	A.E(Civil)	6	5	1
12	Asst. E. Eng, (Mech)	1	0	1
13	Section Officer,(L-I)	3	2	1

14	Section Officer,(L-II)	9	6	3
15	Cost Accountant	1	0	1
16	P.A (Tech)	1		1
	Total	591	311	280
	Group-C			
1	Junior Engineer, (Civil)	28	15	13
2	Senior Assistant	52	33	19
3	Assistant Store Keeper	2	0	2
4	Junior Assistant	7	2	5
5	Divisional Accountant	2	0	2
6	Senior Accounts Supervisor	1	0	1
7	Supervisor of Accounts	1	0	1
8	Auditor	6	3	3
9	Head Clerk	39	35	4
10	Senior Clerk	75	43	32
11	Junior Clerk	67	34	33
12	Senior Stenographer	21	20	1
13	Junior Stenographer	24	7	17
14	Statistical Investigator	2	0	2
15	Statistical Asst.	2	1	1
16	Supdt. Typist (L-1)	1	1	0
17	Supdt. of Typist (L-11)	3	3	0
18	Senior Grade Typist	9	8	1
19	Junior Grade Typist	1	0	1
20	Jr. Gr. Typist-cum-Dispatcher	2	1	1
21	Dispatcher	1	1	0
22	Senior Grade Diarist	2	2	0
23	Junior Grade Diarist	2	2	0
24	Senior Grade Recorder	1	1	0
25	Junior Grade Recorder	1	1	0
26	Record Supplier	1	1	0
27	Treasury Sarkar	1	1	0
28	Senior Mechanical Supervisor	1	1	0
29	Instructor (M)	1	0	1

30	Mech Foreman	2	1	1
31	Assistant Mechanical Supervisor	2	1	1
32	Motor Driver	59	23	36
33	Heavy Driver	2	0	2
34	Mechanic	8	4	4
35	Electrician	2	2	0
36	Plumber	2	2	0
37	Wireman	1	1	0
38	Amin	3	1	2
39	Inspector of Co-op. Society (Fy.)	29	21	8
40	Senior Operator	4	4	0
41	Assistant Operator	2	2	
42	Draughtsman	5	3	2
43	Tracer	1	0	1
44	Ferro Printer	2	1	1
45	Work Sarkar	1	0	1
46	Assistant Production Officer	1	0	1
47	Publicity Assistant	2	1	1
48	Project Operator	4	2	2
49	Senior Fishery Technical Assistant	127	115	12
50	Junior Fishery Technical Assistant	318	170	148
51	Pump & Lunch Driver	55	17	38
52	Lab. Attendant	5	3	2
53	Investigator	2	0	2
	Total	995	598	406
	Group-D			
1	Packer	2	2	0
2	Duftary-cum-Record supplier	1	1	0
3	Duftary	2	2	0
4	Peon	138	112	26
5	Choukidar	101	69	32
6	Attendant	54	40	14
7	Khalasi	40	32	8
8	Cleaner	8	4	4
9	Helper	6	5	1

10	Process Surveyor	1	0	1
11	Cook	1	1	0
12	Lascar	3	2	1
13	Mate	2	2	0
14	Boatman	2	2	0
15	Jamadar	1	1	0
	Total	365	278	87
1	Sweeper	3	3	0
	TOTAL GROUP-D	365	278	87
	Grand Total	2019	1223	796

2.11 Gap in existing capacity

As stated above there are 2019 nos. of sanctioned strength in the different cadres i.e. Group-A, B, C & D. As against which the staff in position are 1223. There are 796 posts which are lying vacant in the Department includes 406 technical staff. The Asst. Fisheries Officers and Junior Fisheries Technical Assistants are posted in the blocks are responsible for attending any kind of disaster. In the cadre of Asst. Fisheries Officer under Group – B category there are 250 posts and in the Group – C cadre of Junior Fisheries Technical Assistant 148 no of post are lying vacant. Similarly technical officers of Group – A cadre there are 23 posts are lying vacant. Under this situation there are difficulties to immediately assess the extent of damage caused by any disaster. However, systems are built to avenue as soon as possible.

CHAPTER 3 : PREVENTION, MITIGATION

Prevention and mitigation actions are to be taken before disaster to reduce the level of damage. During flood and cyclone the tanks and ponds , fish farms , hatcheries, boats, nets and equipments , infrastructure of fishermen/fish farmers are at risk. However the disaster prevention and mitigation both includes efforts and practice that helps to reduce the ill effects of disasters. The primary aim is to reduce the risk of life and property of the fish farmers and fishermen. Secondary aim includes reducing damage and economic losses inflicted on the community as a whole.

One of the most important long term sustainable aspects of disaster mitigation is the development of skills and capacity building at all level in vulnerable area of flood and cyclone to make people aware about different types of disaster and their consequences. Media can play significant role in this direction. The strategies will be concentrated more towards the social and economically backward communities like fisher folks.

The key tasks in risk reduction that will be taken up are given in the table below:

Table - 7

Sl.No	Particulars	Measures required
1	Capacity building at all level in vulnerable areas flood / cyclone	<p>State level – For better supervision, monitoring and preventive measures one day training-cum-awareness programme may be organized at state level. All Dy. Directors, District Fisheries Officers, Addl. Fisheries Officers will attend. This may be organized at Directorate, Cuttack with the help of OSDMA AND other related organizations.</p> <p>District level – District Fisheries Officer/ Addl. Fisheries Officer/Asst. Fisheries Officer/ Sr. Technical Assistant & Jr. Fisheries Technical Assistant may be trained to effectively manage flood, cyclone etc. OSDMA and District Disaster Cell will organize the workshop.</p> <p>Community level – 29th October of each year is observed as the disaster mitigation day in fisheries sector. In this particular day public awareness program will be organized in each village to sensitize the community. Village volunteers / fish farmers & fishermen will be trained</p>

		regarding rescue and protection of their tanks / ponds and shifting of boats & nets to a safer place and carcass disposal etc.
2	Public awareness through IEC activities	Mass awareness programme may be done through different audio-visual media to sensitize fishermen and fish farmers
3	Installation of bore well	During drought most of the tanks and ponds are dried out. There will be heavy mortality of fish due to inadequate water in the ponds so bore well facilities should be given to the farmers with 50% subsidy by RWSS Department to maintain the optimum water level. Further, permission may be given to the fish farmers to intake water from the irrigation channel.

State level Capacity Building Programme

For better supervision, monitoring and preventive measures one day training cum awareness programme is to be organized at state level. In this programme Director / Addl. Director will chair and Jt. Directors, Dy. Directors, District Fisheries Offices along with personnel involved in the training activity will participate. Event will be managed by Directorate.

District Level Capacity Building Programme

Similarly, a capacity building programmes are to be organized in the district level to sensitize the field staff working at the grass root level. In this programme the person trained in the state level programme will facilitate at district level. Here the participants are Addl. Fisheries Officer, Asst. Fisheries Officers, SFTA , JFTA. Depending upon the number of participants the training will be decided. The number of participants should not exceed more than 50. This event will be managed by the District Fisheries Officer of the respective district.

Public Awareness Programme at Village Level.

29th October of each year is observed as the disaster mitigation day. In this particular day a public awareness programme may be organized in the villages to sensitize the community. Important key person has to be identified from each village to keep in touch with the block level

fisheries officers regarding this awareness programme for any kind of disaster. In this programme all the villagers along with PRI members need to participate. Trained technical people from district / block will co-ordinate the programme with the help of village contact person. Event may be managed by AFO/NGO of the block. In this public awareness campaign the relevant poster, leaflets, pamphlets in Odiya language will be distributed to all participants. The resource person from OSDMA may be called for this training.

Requirement of Funds for Capacity Building Programme

Table – 8

Sl. No	Name of the Programme	Event Manager	Venue	Unit cost	Total No. of programme	Total cost (In lakhs)	Cost for three year (in lakhs)
1	One day training cum awareness programme	Directorate	State level	200000	03	6.00	6.00
2	One day sensitization programme at district level	DFO	District Headquarter	20000	30	6.00	6.00
3	Public awareness camp at village level	AFO + NGO	Grampancha yat	10000	350	35.00	35.00
			Total			47.00	47.00

Requirement of funds for Relief / Rehabilitation during disaster

In case of any disaster logistic play vital role in delivery of services to the affected people. The costs involved are very high which is given below in a tabular form

Table - 9

Sl. No	Description	Responsibility	No.of unit (Block / Sub-Dvn)	Cost/ Unit	Total (In lakhs)	Fund requirement for three years (In lakhs)
1	Arrangement of Additional Vehicle, POL for existing vehicle for 100 vehicle anticipated 100 affected blocks	DFO	100	20000	20.00	20.00
2	Desilting & Repair of ponds in 100 blocks	DFO	1000	6000 / ha	60.00	60.00
3	Temporary arrangement for stay of outside staff (Approx 3 persons in a block for 10 days @ Rs.250/day/person	AFO	100	250	7.50	7.50
4	Repair and replacement of equipments like Telephone, Fax, Computer accessories	DFO	30 Districts	5000 / District	15.00	15.00
6	Contingency for preparing rout chart for 314 Blocks	DFO	314	5000	15.70	15.70
	TOTAL				118.20	118.20

3.1 *NGO's Private Sector, Govt. Training Institutions*

The Non-Government Organizations (NGOs) play important role in disasters management and provide valuable resources and extended manpower during the post disasters. Flexible and informal functioning of NGOs in a unique strength, the outreach efforts combined with the flexibility is very crucial in disaster management. The outreach capability of community groups and operational sensitivity for local traditions of the community is an added advantage. Some of the agencies, both from within and outside for state have evolved technical expertise and capabilities which can be brought into managing disasters. NGOs can play important role before and after disaster and extend excellent services. NGOs working specifically in rural development, social and livelihood improvement find disaster mitigation and preventive measure activities being integral part of their mandate. It is proposed to include NGOs working in different parts of the state will be included in the capacity building efforts of the community in prevention and mitigation activities. Fisheries Department may involve NGOs in mitigation effort in the village level.

3.2 *Community efforts and mitigation*

Mitigation through developmental policies, planning and initiating appropriate steps through line departments in mitigation efforts are need to be backed up through community efforts to ensure its effectiveness. At the community level apart from households, the stake holders include Local Self Governments (LSG), Community Base Organization (CBOs) such as SHGs, NGOs, private sector line and Primary Fishermen Cooperative Societies (PFCS). The local communities in spite of their limitations and inadequacy of resources are highly motivated and bring traditional knowledge to minimize the impact of disasters through individual and collective efforts and actions.

A conscious on the part of community level actors such as Panchayat, CBOs, NGOs, including private sector to adopt Community based mitigation strategies strengthens and stabilize the efforts of development in evolving comprehensive mitigation strategy. There is a quite a

good number of NGOs and PFCS in our state for promoting community based mitigation, strategy through Community Needs Assessment (CAN) exercise.

3.3 *Community level training and public awareness activities*

- Developing programmes that include awareness, training manuals in “ODIA” outlining the do’s and don’ts of all hazards. The programme shall also include evacuation and monitoring mechanism that could help in revision and improvement of training and awareness measures among fishermen and fish farmers.
- Encouraging community drama enacting, organizing skits and making disaster management as central to village community level social gathering.
- Developing capacity building and technical training programmes targeted at state and local elected officials to encourage the development of legislation and administrative policies that support hazard mitigation.
- Promoting strategies encouraging public- private partnership to educate employees and customers about mitigation.
- Developing training programmes for teaching fish farmer / fishermen to ensure that they understand disaster, likely effect and the precautions are to be taken.
- Organizing disaster simulations within schools organize mock drills in evacuation, review with staff and students emergency procedures in the event of disasters / emergencies.

CHAPTER 4: PREPAREDNESS PLAN

Disaster preparedness involves forecasting and taking precautionary measures prior to an imminent threat when advance warnings are possible. Preparedness planning improves the response to the effects of a disaster by organizing the delivery of timely and effective rescue relief and assistance. Preparedness involves the development and regular testing of warning systems (Linked to forecasting system) and plans for evacuation on other measures to be taken during disaster alert period to minimize potential loss of life and physical damage.

A critical component of preparedness is education and training of officials and the population at risk, of intervention team, and establishment of policies, standards, organizational arrangements and operational plans are to be applied.

4.1 The following measures and investment would be undertaken to ensure effective preparedness to respond any disaster.

Table - 10

Sl.No	Particulars	Measures required
1	Strengthening of control room	The Control Rooms at State level and district level need to be well equipped with communication facility like telephone, FAX, Internet, Computer, Printer, Inverter, stationeries etc.
2	Coordination	Mobility support requirement for movement of departmental personnel to the affected areas is highly essential as currently the department has very few vehicles at their disposal. As per the requirement, the vehicle and fuel cost support shall be provided by the District Authorities for fisheries related functions. National Social Service, National Cadet Corps, Nehru Yuvak Kendras, local SHGs and other PFCS is need to be encourage to support for the cause of fisheries
3	District specific disaster management plan	All districts may make vulnerable analysis with regards to fisheries ponds and tanks / boat & nets and accordingly the DFO is responsible to prepare a plan

		specific to their district. The same may be submitted to District Collector to incorporate in the District Disaster Management Plan
4	Emergency stock of lime, CIFAX	At the State level emergency stock of essential inputs like Lime, CIFAX and other medicines may be procured and supplied to each district to keep the district ready to mitigate any disaster.
5	Financial preparedness	Delegation of power may be given to DFO to spend from the contingency

4.2 Budget Requirement: Provision of funds for Disaster preparedness

Table -11

Sl.No	Name of the programme	Unit cost	Total No.of programme	Total cost in lakhs for one year	Taol cost in lakhs for three years
A	Strengthening of Control Room				
1	State Control Room	200000	1	2.00	6.00
	Maintainance/year	100000	1	1.00	3.00
2	Incident Response Team at State level at Directorate when calamity occur	200000	1	2.00	2.00
3	District Control Room	30000	30	9.00	27.00
B	Coordination				
4	Contingent Fund for State	100000	1	1.00	3.00
5	Contingent fund for district	20000	30	6.00	18.00
6	Funds for capacity building		383	47.00	47.00
7	Funds for Relief & Rehabilitation arrangements			118.20	118.20
			Total	186.20	220.20

4.3 Drawing up preparedness plan, capacity building, data collection and identification and training of personnel in relation to disaster management

- Liming of all tanks and ponds to be done by the farmers routinely as per technical programme for prevention of fish diseases are to be completed before monsoon.

- Keep a stock of 10% of total supplies for the year at District level, Block level & Panchayat level to meet the emergency till provision of additional supply from the central body.
- Educate fishermen and fish farmers on disaster planning and preparedness

The department will open Control Room at State and District level as a part of mandatory activities as follows:

- I. To address Heat wave issues, control room shall start from 1st April till 31st May during office hour
- II. To address flood situation, control room shall start from 15th June till 31st August during office hour.

4.4 *Review the enactments administered by it, its policies, rules and regulations with a view to incorporate there in the provisions necessary for disaster preparedness;*

- a) Provision of emergency communication in the affected areas and Backup power supply
- b) Such other actions as may be necessary for the disaster management

CHAPTER 5: RESPONSE PLAN

5.1 Mechanism for early warning and dissemination thereof:

After getting warning from State Authorities or District Administration, information will be disseminated to field by the State / District Incident Response Team. Mass media like TV, Radio, Press warning should also be considered for preparedness.

In case of any fish disease epidemic confirmation report either in the State or in bordering areas of neighboring state, fisheries department appraise the State Disaster Management Authority SDMA. The concerned District IRT led by DFO apprise the District Administration about the protocol to be followed from time to time by the Central/State Government.

The State and District Control Room gets activated to function round the clock in the concerned district. The State IRT shall furnish the status report about the establishment of control room at district level. DFO will be responsible to provide all support to control room at district level.

5.2 Trigger Mechanism for response

5.2.1 Response plan for responding effectively and promptly to any threatening disaster situation or disaster in accordance with the State plan and in accordance with the guidelines or directions of the National Executive Committee and the State Executive Committee and the State Government and the SDMA.

After issue of early warning, District Fisheries Officer of the vulnerable districts explain the detailed response plan at district level meeting of District Disaster management

Authority constituted in every district in conformity with GOI guideline for planning, coordinating and implementing sustainable fisheries activities.

The District Fisheries Officers of non vulnerable district prepare 3 separate teams of AFO, SFTA and JFTA (up to 30% of total strength) for deployment to the affected area at the request of State IRT. The first team will be replaced after 7 days by second team and so on.

All the field staff are asked to remain at their respective headquarter with necessary preparation as per the standard operating procedure.

The control room collects, collates and transmit information regarding matters relating to the natural calamities and relief operations undertaken, if any and for processing and communicating all such data to concerned quarters. The list of volunteers and community resources that is already available is in readiness to support response measures.

The Control Room is manned round the clock during the peak period of disaster till the relief operations are over. For this purpose one Officer, one Assistant and one Peon will be on duty in suitable shifts. The Officer in-charge of the Control Room maintains a station diary and such other records as may be prescribed by the department. The particulars of all information received and actions taken are entered in the Station Diary chronologically.

The DFO furnishes a daily report to the head of office on the important messages received and actions taken thereon. The head of office shall indicate the particulars to be released for public information.

5.2.2 *Appointment Of Nodal Officers to perform Emergency Support functions*

The District Fisheries Officer will be the Nodal Officer at the district level to perform emergency support functions. The Addl. Director of Fisheries(Admn) will be the Nodal Officer at State level. The Fisheries Department serves as a support agency for sustainable Pisciculture and welfare of fishermen. The department also assists the District administration for assessing lime, CIFAX, Fish seed etc in the affected areas. In case of disease epidemics in the ponds/tanks the treatment of liming followed by CIFAX are taken up by the department. The district administration provides necessary support.

5.2.3 Constitution of the Incident Response Teams (IRTs) at all level with provision of delegation of authority;

Incident Response Team are constituted at State and district level to tackle any disaster event.

Role of the District Incident Response are:-

- information for post incident analysis
- To coordinate with Directorate and District Authority
- To activate disaster plan
- To prepare Fisheries aid plan and procure required resources as per incident specific action plan.
- To manage the overall response activities in the field
- To deploy adequate staff for the response and monitor effectiveness
- To develop the media messages regarding up to date status of disaster mitigation and response work
- To arrange necessary equipments lime, CIFAX etc necessary for response work
- To collect and store disaster related information for post incident analysis

Role of the State Incident Response Team are:-

- To coordinate with State Government, Central Government and other line department
- To facilitate execution of orders for declaring the disaster

- To prepare a status report regarding the disaster
- Visit the spot and assist the District Response Team for pre disaster planning
- Assess the staff and other logistic requirement for field operation and monitor effectiveness
- To ensure availability of funds at District and block level to meet contingency expenses
- To develop the media messages regarding up to date status of disaster mitigation and response work
- To arrange necessary equipments / lime / CIFAX etc. necessary for response measures
- To monitor and guide the district response team
- To maintain an inventory of all related guidelines, procedures, action plans , district maps and contact numbers
- To document the lessons learnt at different stages of disaster management and make suggestion for necessary addition / alteration

IRT at State level for Fisheries

Table – 12

Sl.No	Post	Role	Responsibility
1	Director of Fisheries	Chairman	Overall supervision
2	Addl. Director of Fisheries (Admn)	Vice Chairman	Nodal Officer
3	Addl. Director of Fisheries (Tech)	Convener	Coordination, follow up
4	Dy. Director of Fisheries	Member in charge	In charge of logistic

	(Marine) I/c NC	of Logistic	
5	Accounts Officer	Member in charge of Finance	Fund management, follow \Government rules / regulations
6	All Jt. Director of Fisheries	Member	Planning/ Coordination/ information dissemination/documentation etc.
7	Ex.Engineer FED, Bhubaneswar	Member invitee	Responsible for restoration/ reconstruction in inland/ marine sector
8	Asst.Ex.Engineer FED, Cuttack	Member invitee	Responsible for restoration/ reconstruction in inland/ marine sector

IRT at State level shall meet at least twice in a year

1st meeting: 2nd week of December

2nd meeting 2nd week of May

In case of any disaster, immediately.

IRT at each District level for Fisheries

Table – 13

Sl.No.	Post	Role	Responsibility
1	District Fisheries Officer	Chairman	Overall supervision
2	Addl. Fisheries Officer	Convenor	Follow up & report compilation
3	All Asst. Fisheries Officer	Member	In charge of logistic Coordination, follow up
4	Cashier / Head Clerk	Member i	Fund management, follow Government rules / regulations

Similarly IRT at District level shall meet at least twice in a year after getting proceedings of meetings / instructions / guidelines from State IRT State level

1st meeting 1st week of January

2nd meeting 1st week of June

In case of any disaster, immediately.

IRT at each Block level

Table – 14

Sl.No.	Post	Role	Responsibility
1	Block Development Officer	Chairman	Overall supervision
2	Asst. Fisheries Officer	Convenor	Follow up & report compilation
3	Cashier / Head Clerk	Member in charge of finance	Funds management, follow Government rules / regulations

The Block IRT at Block level shall meet at least twice in a year after getting proceedings of meeting / instructions / guidelines from the district I.R.T.

1st Meeting 3rd week of January

2nd Meeting 3rd week of June

In case of any disaster, immediately.

5.2.4 Delegation of financial powers in case of Disaster event:

At the district level, quick response in case of any disaster is hampered due to want of earmarked funds and power to spend. Therefore, following financial powers are to be delegated to DFO to facilitate rescue and relief measures in case of any disaster. The expenses made from other source of fund outside the budget can be reimbursed later on after sanction of funds.

Table - 15

Sl.No.	Nature of power	Remarks
1	Hiring of vehicle for Mobile team (2 vehicles up to Rs.2,000 / day for 3 days	The fund will be spent from available account & post approval will be taken
2	Procurement of lime ,CIFAX & other articles required for response measures u to Rs.10,000/- as per the recommendation of District Incident Response Team	-do-
3	Contingency expenses up to Rs.5,000/- to make control room functional (Fax/Printer/Computer/Telephone, Mobile recharge voucher/stationeries) and fuel for vehicle ,DG set etc. required for rescue and relief	-do-

5.3 Reporting procedures and formats

The block is the lowest unit and the block AFO will be responsible to collect and compile the statutory reports determined by the department for disaster management. The District Fisheries Officer compiles the report and submit to zonal Dy. Director of Fisheries and zonal Dy. Director of Fisheries will send the report to Directorate of Fisheries, Odisha. The first choice of sending the report is through E-mail. The following regular reports are collected. The other occasional reports will be collected as per the need specific to disaster.

- I. Pre assessment of village wise vulnerable areas
- II. Fisheries tanks and ponds affected and loss
- III. Relief measures like supply of fish seed and medicine
- IV. Lime/CIFAX supply and utilization
- V. Mobile teams deployed and advice given to fish farmers

(The detailed formats are given in Annexure)

5.4 Role of NGOs and Voluntary Sector and coordination thereof:

Odisha Disaster Rapid Action Force (ODRAF) provides assistance for rescue of Fish farmer / fishermen in the worst affected area during disaster. They also help fisheries staff to extend fisheries related measures in the inaccessible areas.

There is a wide network of Community Based Organizations and voluntary agencies and PFCS in Odisha Regular meetings are held at more frequent intervals to face any untoward incident. Such coordination meetings are held at district level under the chairmanship of DM & Collectors.

The role of the voluntary agencies and the Community Based Organization which operate at the grass roots level is crucial in motivating and mobilizing community participation in disaster response measures for fisheries properties and for improving community coping mechanism during disasters because of their close linkages with the local population and flexibility in procedural matter. They are involved for raising awareness of the communities, information dissemination, advocacy and planning immediate rescue, evacuation of fisherman / fish farmers.

5.5 Identification of suppliers for departmental supplies and pre-contracting for supplies in case of emergencies;

The sources for procurement of lime, CIFAX (Medicine), feed/rice bran and ground nut oil cake, fish seed within the district and nearest location are identified, and the suppliers are kept informed about the emergency situation, which might require action at their level for production and supply to the identified areas within the shortest possible time. Pre-arrangement for tie up with suppliers should be done. During emergency the fisheries input becomes a problem for arranging. FISHFED and OPDC and other such government sponsored agencies are intimated to be in readiness for supply of fisheries input in short notice.

5.6 Post Disaster

5.6.1 Role of NGOs and voluntary Sector and coordination thereof;

National Social Service, National Cadet Corps, Nehru Yuba Kendra's, village level SHGs Primary Fishermen Cooperative Societies and other welfare organizations are involved in rescue and relief operations. They are intimated about the measures taken by the department and their feedback will be considered for further streamlining the post operations.

5.6.2 System of assessing the damage from any disaster;

The local JFTA, SFTA and AFO keeps all the record of lost/ damaged boat and nets as well as affected tanks and ponds if any in their jurisdiction with all relevant information name and address etc.

The Fisheries personnel in the block level may come across some complaint regarding loss of boats and nets due to heavy water current and may not be traceable. In such cases a missing/ lost profile may be maintained with the Revenue Inspector, PRI member, VLW and PFCS Secretary a committee. The loss and damage fishermen and fish farmers will be submitted by Block AFO which will be compiled at district level for onward transmission to District Collector and Directorate in the prescribed format as per the CRF norms. The departmental Institutions like Govt.Fish farms, hatcheries and office buildings etc damages affect the service delivery. The assessment are done by the departmental field staff and compiled by the DFO as per the prescribed format enclosed. The Directorate asset value may be considered while assessing the damage to departmental infrastructure, as mentioned below.

Table – 16

SL.No	Name of the Institution/Offices	Number	Unit cost	Valuation Approx. (in Lakhs)
1	Directorate	1	2600.00	2600.00
2	Zonal DDF Office	3	50.00	150.00
3	Training Centre	2	40.00	80.00
4	District office	30	30.00	900.00

5	Marine Office	4	30.00	120.00
6	Fish seed hatchery (Inland)	31	30.00	930.00
7	Fresh water prawn hatchery	3	50.00	150.00
8	Shrimp hatchery	2	200.00	400.00
9	Marine fish landing centre	27	100.00	2700.00

- Committee shall convene Disaster related meeting with DFOs as per requirement
- Remind all the DFOs to update information and develop plan for any eventuality.
- Send Early Warning Signals to the vulnerable districts if Disaster is forecast in advance
- During disaster, IRTs get deployed to affected area which should get their daily allowances promptly by the DFO of the affected district.

Post Disaster

- **Roll of NGOs and Voluntary Sector and Co-ordination thereof**
 - a. **Community mobilization**
 - b. **Awareness programme**
 - c. **Carcass disposal**
 - d. **Distribution of lime**
- System of assessing the damage from any disaster
 - Jr. Fisheries Technical Asst / Sr.Fisheries Technical Asst. / Asst. Fisheries Officer will accompany revenue team.
- Rolls and responsibility and co-ordination mechanism for the department

Role at Zonal level /District Level

- a) Establishment of control room from 1st June
- b) Designated mobile, fax cum Xerox machine, all stationary, computer with internet facility

Role of Different Field Staff

Table – 17

Sl. No	Activities	Who is responsible
1	Tank and pond, boat and nets survey in flood prone areas	JFTA/SFTA/AFO
2	Preventive measure in flood prone villages	-do-
3	Prepare the list of village volunteers willing to assist in rescue and relief operation during disaster	-do-
4	Assist Revenue damage assessment committee for assessment of damage and loss to fishermen/Fish farmers	-do-
5	Training and awareness of farmers/ fishermen regarding disaster preparedness and mitigation	AFO
6	Assess the requirement of lime, CIFAX, fish seed and other equipments and indent to DFO	AFO
7	Treatment of ponds and tanks	JFTA/SFTA
8	Compile the district requirement and arrange resources	DFO
9	Deployment of Staff (intra district)	DFO
10	Overall coordination	Zonal DDF/DFO
11	Deployment of Fisheries staff (inter district)	Director of Fisheries

Table – 18

Sl. No	Activity Planner (Pre- disaster Phase)	When	Whom
1	Remind field staff to update information	December	DFO
2	Complete assessment of Fisheries resources	Jan	JFTA/SFTA
3	Asses lime, CIFAX, Feed boats & Nets	Jan	JFTA/SFTA
4	Up-to-date production (Capture & Culture Fisheries	Jan	JFTA/SFTA
5	Identify enterprise related action	Jan	JFTA/SFTA
6	Identify places for safe shelter (village wise)	Jan	JFTA/SFTA
7	Consolidate all information at DFO Level	Feb	AFO
8	Consolidate all information at Zonal DDF level	March	DFO/Ad.FO

Disaster Specific Response Plan

Response plan for major disasters such as earthquake, flash flood / drought, snow avalanche, landslide etc. in which state level response would be needed to meet the possible outbreak of diseases.

Table - 19

Sl. No	Major Disaster	State level response needed
1	Flood	Lime and CIFAX, fish seed, feed procurement and supply to district in time
2	Cyclone	-do-
3	Drought	Installation of tube well and bore well
4	Tsunami	Lime and CIFAX, fish seed, feed procurement and supply to district in time, drinking water facility
5	Tornado/Heat wave/Earthquake	Lime and CIFAX supply Request for sending expert from other state
6	Industrial toxicity	Advice regarding specific antidotes to affected fishes

CHAPTER 6: RESCUE AND RELIEF

Calamity Relief Fund (CRF)

This fund was established separately for the state. The expenditure for providing immediate relief to the fishermen and fish farmers victims of cyclone, drought and flood etc.

Calamity Relief Fund (CRF) is set up to meet the expenditure for providing immediate relief to the victims of cyclone, drought, flood, earthquake, fire, tsunami, hailstorm, landslide, cloudburst and pest attack. Government of India contributes 75% of the yearly allocation in the form of non-plan grant and remaining 25% is covered by the state government. Outlay of funds in consultation with the State Government is allocated by the Finance Commission. In the event of shortfall of funds, on the request of the State Government, additional financial assistance from National Calamity Contingency Fund (NCCF) is provided by the Govt. of India.

Norms of relief.

The Government of India has revised the items and norms of assistance from CRF / NCCF in the wake of identify natural calamities. The norms of relief applicable to Fisheries Department for different calamities are given below:

Revised list of items and norms of Assistance from Calamity Relief Fund (CRF) and National Calamity Contingency Fund (NCCF) for the period 2010 to 2015(MHA Letter No. 32-7/2011-NDM-1 Dated The 16th January, 2012 Modified Vide Letter No. 32-3/2012-NDM-! Dated 28th September, 2012, which needs to be revised as per the Table below:

Table - 20

Sl.No.	Items	Norms of Assistance	Norms of Assistance to be revised
1	Assistance to fish farmers , desilting , restoration, & repair of fish farms	Rs.8100/- per Hectare	Rs. 15000/- per Hectare
2	Assistance to Fishermen (a) For repair / replacement of boats, net- damaged or lost. - Boat -Dugout canoe - Catamaran - Nets (b) Input subsidy for fish seed farm	Rs.3000/- for repair or partially damaged boats only Rs.1500/- for repair of partially damaged net Rs.7000/- for replacement of fully damaged boats Rs.1850/- for replacement of fully damaged net Rs.6000/- per Hectare	Rs.5000/- for repair or partially damaged boats only 3000/- for repair of partially damaged net Rs.15000/- for replacement fully damaged boats Rs. 4000/- for replacement of fully damaged net Rs.10000/- per Hectare
3	Gratuitous Relief (a) Ex-Gratia payment to the families of diseased fish farmers / Fishermen (b) Ex-gratia payment for loss of limb or eyes c) Grievous injury requiring hospitalization	Rs.150000/- per diseased person (i) Rs.43500/- per person with disability between 40 % to 80% (ii) Rs,62000/- per person with disability more than 80% Rs.9300/- per person (More than 7 days)and Rs.3100/- per person (less than 7 days)	Rs.200000 /- per diseased (i) Rs.70000/- per person with disability between 40 % to 80% (ii) Rs,100000/- per person with disability more than 80% Rs.15000/- per person (More than 7 days)and Rs5000/- per person (less than 7 days)

Explanation for Revision.

- In case of flood there is acute shortage of fish seeds, lime, Cifax etc. So necessary provision of funds for supply of fish seed to the fish farmers should be made in the budget of the Fisheries & ARD Department. Certain fisheries camps may be arranged in selected areas where the useful input subsidy may be provided as relief to the fish farmers at State cost under departmental supervision.
- Advances should be given to the fish farmers / fishermen to construct bore well and for purchase of fishing equipments, inputs etc. The PFCS may take the leading role for this.
- The relief amount provisioned @ Rs.6000/- per hectare towards assistance for input subsidy to the affected fish farmers is not adequate which should be increased to Rs.10000/- per hectare as the farmers spend about Rs.1,00,000/ per hectare towards input for intensive pisciculture.
- Similarly the amount provisioned @ Rs.8100/- per Ha. towards assistance to fish farmers for desilting , restoration and repair of fish farms is not adequate which should be Rs.15000/- per ha.
- Further, assistance to fishermen in the relief norms for repair / replacement of boat and nets damaged or lost provisioned amount Rs.3000 for repair or partially damaged traditional crafts plus all types of net and Rs.7000/- for replacement fully damaged traditional crafts (all type plus net) should be increased to Rs.5000/- for partially damaged boat and net and Rs.15000/- for fully damaged boat and net respectively.
- A request in this context has been sent to Special relief Commissioner vide letter No.11650 dated 23.07.2013.

CHAPTER 7: RESTORATION AND RECONSTRUCTION

The District fisheries Officer prepares a contingent action plan every year for their district for reconstruction and accordingly State Action Plan gets prepared and submitted by the Department to Special Relief Commissioner, Odisha and Fisheries & ARD Department.

Components of contingent plan

1. Preparation of contingency action plan to provide for immediate relief to the affected by the district administration as per CRF norms.
2. Advice the Primary Fishermen Cooperative Societies (PFCS) to supply their boats for relief and rescue operation works by the Revenue and block administration apart from the livelihood activities of the fishermen.

Reconstruction

(A) Fisheries services

a) Exemption of User Fees for preparation of plan and estimate for schematic loan, treatment of ponds and tanks for the month in the affected area in case of disaster notified by the State (Flood, Cyclone, Drought etc.)

b) Common fishery input like lime, CIFAX, fish seed and feed should be provided to fish farmers for one month post disaster. Accordingly , a proposal is submitted to SRC , Odisha vide letter No. _____ dtd. _____

(B) Infrastructure

It includes Directorate, Zonal DDF office, Training Centre, Fisheries Engineering Division, Hatcheries and fish farms, District offices, Fish Landing Centers etc. There are chances of damage during disaster such as flood, cyclone & earthquake etc. Damaged buildings and fish farms should be assessed and the report is to be sent to Special Relief Commissioner, Odisha for adequate funding needed for repair and construction of damaged building and fish farms for quick recovery and restoration of fisheries services. The equipments which are

coming under the category of lost / damaged needs replace need to restore and uninterrupted service.

CHAPTER 8: REHABILITATION

In the event of a disaster the fish production is severely affected due to breaches in the pond dyke and sometimes the entire fish stock is washed away which create severe loss to the farmers. Similarly fishermen loss / damage their boat and nets during disaster time.

Livelihood assistance as per the need of the people are provided for small scale pisciculture activities for restocking through bank loan. Participation of people in decision making for taking appropriate, feasible and timely intervention in recovery programme is important. Access to capital for people to start small and medium business is necessary as most of the population survives on extremely limited cash flow. The bank loan at a low rate of interest with flexible borrowing terms and conditions to sustain fisheries based livelihood is required. State Govt. has already reduced long term and short term interest rates through interest subvention.

The Primary Fishermen cooperative Societies and SHG group involved in Pisciculture activities could be provided with revolving fund if approved by the State Govt. which will be utilized to meet the working capital requirement for maintaining the Fisheries activities by the members. The women SHGs are already being provided revolving fund for taking up various activities.

Fish farmers in rural areas established some nursery unit for fish seed rearing with assistance of bank loan under different schemes such as FFDA / NFDB /PMRY & KSK etc. If such farms get affected due to impact of disaster, the family get trapped in the poverty. Loan waiving measures or moratorium period for repayment could act as a safety net to stop further descending down, rather ease the farmers from the disasters and inculcate courage to cope up. There are free requests which are made in report to Special relief Commissioner.

CHAPTER 9: KNOWLEDGE MANAGEMENT

Disaster preparedness is achieved among others by developing strong knowledge base on the subject. Odisha has high quality educational and research institutions. Knowledge and preparation are the keys to survival in the event of disaster. Our Departmental Officers are well equipped with knowledge for planning to protect fish seed farms and fishermen to any extent. The government Management i.e. preparedness and good fish farm management will assist in minimizing the impact of the event. The center for disaster preparedness at Gopabandhu Academy of Training & Public Administration has currently started training on Disaster Management training programme for all the line department of Odisha including our department to strengthen our officers for disaster management.

CHAPTER 10: REVIEW AND UPDATING & DISSEMINATION OF PLAN

Table - 21

Who	When	How
Director of Fisheries (Natural Calamity Section)	Pre-monsoon Pre-winter	Workshop – Zonal Seminar – Zonal
DFO	March every year	District level workshop and seminars

A standard operating procedure (SOP) has been prepared for flood / cyclone and uploaded in the department website and printed documents supplied to all the stakeholders. Meeting and seminar will be held to disseminate the Disaster Management Plan being prepared and ask to follow SOP. This training are to be part of the State, District and Block level awareness programmes as envisaged in table-7 & 8 in page no 17, 18 & 19.

Annexure:-

1. Important contact details –National, State, Directorate of Fisheries / Zonal Dy.
Director of Fisheries / District Fisheries Officers & Block level officers etc.
2. List of suppliers relevant for the department – Feed, Medicine & Fish seed
3. Damage assessment format
4. Reporting Formats:
 - Proforma – I (Information on loss / damage in fishery sector during cyclone / flood
(Boat & Net)
 - Proforma – II Information on loss / damage in fishery sector during cyclone / flood
(Tank fisheries)
 - Proforma – III Report on Institutional building and Govt. farms and hatcheries as on.
 - Proforma – IV Contingency plan for possible flood / cyclone situation (Rs. in lakhs)

STANDARD OPERATING PROCEDURE FOR DISASTER MANAGEMENT

FISHERIES SECTOR

1.1 Roles and Responsibility of the Department

- a. Awareness of people on precautionary measures/
- b. Provision of both preventive and curative measures should be undertaken
- c. Liaison with SRC / District authority for relief operation such as provision of input, medicine, fish feed etc.
- d. Post facto disease surveillance in affected fish pond/ tank.
- e. The mobile advisories will be utilized to inform and aware the fish farmers / fishermen.

1.2 Preparedness and Preventive Measures

Among the 30 districts of Odisha District / Sub-division / Block / G.P./ Village those are prone for various disasters will be demarcated as (a) Flood prone (b) Drought Prone (c) Cyclone prone (d) Multi-disaster prone area. Basing on the type of disaster the block level JFTA / SFTA / AFO will make a preliminary assessment of fisheries resources / fishing equipment / boat & net etc every year in the prescribed format.

1.3 Pre-disaster Planning

Pre-disaster planning is crucial for ensuring an efficient response at the time of a disaster. A well planned and well rehearsed response system can deal with exigencies of calamities and also put up a resilient coping mechanism, optimal utilization of scarce resources for rescue relief and rehabilitation during time of crisis is possible only with detailed planning and preparation.

- Fishes are affected with various diseases due to flood. Therefore necessary medicines like CIFAX and lime are to be assessed before flood with the concerned District Fisheries Officers of flood prone areas, List of suppliers of medicines and lime should be available with the Department.

- Fish seed and feed scarcity is seen during flood. District fisheries officers should ensure to supply the same from non affected district. If required the same may be provided from outside State. Necessary collaboration should be made with District Administration for transportation and distribution of fish seed, medicines, lime and feed to the affected fish farmers.

1.4 Information, Education & Communication Activities

IEC materials are to be prepared and distributed to public regarding measures to be taken in case of disaster. The community volunteers be trained regarding carcass disposal. Awareness meeting be organized in disaster prone villages by the JFTA / SFTA / AFO / NGOs / CBOs and PFCS to discuss the steps to be taken in case of disaster with the fisheries activities. The fish farmers are instructed to strengthen their pond embankment and liming of ponds for prevention of diseases. The fishermen are advised to shift their fishing equipments to a safer place.

1.5 During Flood

- Assessment of loss/ damage
- Rescue of fish farmers/ fishermen
- Memorandum will be prepared for submission to Special Relief Commissioner
- The influx of flood water which is rich in nutrients and organic matter make the pond water either acidic or alkaline
- The entry of heavy suspended solid along with pollutant make pond water unsuitable for pisciculture and invite disease problem
- Entry of flood water causes the pond water inhospitable for survival and growth of fish biomass
- Entry of flood water brings many unwanted weed fishes as well as predatory fishes which affect fish growth
- The natural calamity some time breached out the pond dyke and wash away the entire fish stock which creates severe loss to fish farmers

- Natural calamity sometimes take the life of those are residing near the farm side and sea shore and especially the Marine fishermen
- The compensation amount should be disbursed
- Matshya credit card holder should get loan
- Loss and damaged to infrastructure should be restored
- Less ion learnt will be documented introspection
- Reconstruction Action Plan will be prepared for rehabilitation of fishermen

Lime/ medicine/Fish seed/ Fish feed for fish farmers and Boat and Net for Fishermen

- State level committee CRF will sanction
- NCCF will sanction for Central Committee

Constitution of the Incident response Teams (IRT's)at State level

Composition of Committee

- Chairman : Director
- Vice Chairman : Addl. Director(P&T)
- Convenor : Dy. Director(Marine)
- Member : Addl.Director (Admn.), All Jt.Directors, Dy. Directors, & D.F.O's

Major Task

- The committee meeting to be convened at 3 times a year
Ist meeting in the month of December
2nd meeting in the month of April
3rd meeting in the month of June
- Committee shall meet on Disaster related meeting with D.F.O's as and when necessary
- Interaction with D.F.O's to update information and develop plan for any eventuality
- Send early warning signals to the vulnerable districts if Disaster is forecasted in advance
- In the event of any Disaster in a District, staff from neighboring District Fisheries Office will send staff up to 30% of total strength to the affected area in consultation with

Chairman and Director or Nodal Officer from Head office. These staff will be changed /replaced in every 7 days.

- During Disaster the IRT's deployed in affected area should get their daily allowances promptly by the DFO's of the affected District.
- Delegation of Financial Power to Nodal officer at District Level up to 1,00,000/ for any Disaster
- Reporting procedures and formats
- Role of NGO's and Voluntary section and coordination thereof
- Identification of suppliers for departmental supplies and pre- contracting for supply in case of emergencies

1.6 Post Disaster

- Role of PFCS's/ NGO's/SHG's/ Voluntary Sector and coordination thereof
 - a) Community mobilization
 - b) Awareness Programme
 - c) Caracac disposal
 - d) Distribution relief
- System assessing the damage from any disaster by statistical enumerator/Junior fisheries technical Assistant/SFTA/ AFO and Revenue Officials etc.
- Roles and responsibilities and coordination mechanism for the department
 - a) Establishment of control room from 1st June at Zonal level/ District level
 - b) Designated mobile, telephone, fax cum Xerox machine, all stationery, computer with internet facility

1.7 Role and Responsibility of JFTA/SFTA/AFO for Disaster Management

Pre- Disaster Phase

- Update village wise survey to ascertain fisheries resources, and fishermen population
- Advice the fish farmers to manure the ponds/tanks with lime against prevention of diseases by 15 th June for each year in the flood prone area.

- Keep the list of active fishermen/ fish farmers/ Volunteers/ NGO's with mobile Nos.
- Develop route chart with main land mark of each village in the jurisdiction.
- Forecast requirement of contingencies
- Resource/Enterpriser mapping

During Disaster Phase

- Advised to activate Block IRT liaison with District Fisheries Officer.
- Must be accessible on mobile.
- Act as per direction of Block IRT, District IRT and any other instruction from higher authority.

Post Disaster Phase

- a. The JFTA/SFTA/AFO should generate quick eye estimation preliminary information on the extent of damage/loss and send the report to concerned DFO
- b. Visit all the affected fish farmers / fishermen assess their loss/ damage etc.
- c. Render services like advice as practicable to the affected fish farmers/ fishermen
- d. He/ she should prepare and send daily report as per the prescribed format
- e. The JFTA/SFTA/AFO may come across some complaints regarding loss of boats and nets due to heavy water current may not be traceable, in such cases missing /lost profile may be maintained and a committee headed by block JFTA/SFTA & AFO with two of the following members should certify such incident and forward it to proper quarters for consideration of Ex-gratia compensation as per present practice a committee will be formed with the following:
 - a. Local PRI member
 - b. Revenue Inspector
 - c. Village Level Worker
 - d. PFCS Secretary

The JFTA / SFTA will accompany the local damage assessment committee for assessment of loss / damage of boat and net, fish seed, tanks & ponds. The DFO will also report

the damage to the departmental infrastructure due to disaster. The concerned AFO will compile the information and send to DFO. The complied information will be sent to zonal DDF and the district wise compiled report will sent to the Directorate by the zonal DDF.

1.8 Preparation of Contingent Plan

The District Fisheries Officer will prepare a contingent plan for their district for reconstruction and rehabilitation. He will prepare a contingency action plan covering immediate / permanent relief to the affected fish farmers and fishermen to be taken up by the district administration as per Calamity Relief Fund norms.

CONCLUSION

The State of Odisha is predominantly an agrarian economy where fisheries plays pivotal role in the socio economic life of farm families. Fisheries based livelihood programmes are a priority in many areas of our state. Odisha ranks seventh in terms production of fish in India.

The mitigation, preparedness and prevention action are to be taken before a disaster to reduce the level of damage expected from a possible occurrence. The District Fisheries Officer may be entrusted the responsibilities for assessment of loss in fisheries sector and to prepare plan at district level for prevention and mitigation of different types of probable disasters. The department needs to be strengthened with adequate staff by way of filling up the vacancies at different levels to meet any emergencies services during disaster.

The Control Room at State Directorate and District Level may be functional from June to September to monitor the situation and to provide assistance at the need of the hour. Preparedness is more important for combating disaster. It involves a continuous cycle of planning, organizing, training, equipping, exercising, evaluating and improvement of activities to ensure effective coordination among different Govt. and Non-Government Organization. This would help enhancing the capabilities of fishermen, fish farmers and field level officers to prevent, protect, mitigate and to recover from occurrence from any disasters.

The District Fisheries Officer is responsible for preparing the DDMP for the district. The role and responsibility of the Incident Response Team (IRT) from the state level to block level have been illustrated in Chapter – 5 Response Plan. The Joint Director Fisheries (Planning & Training) of the Directorate will be the Nodal Officer for the state and DFO shall act as Nodal Officer for the district.

The Govt. of India has revised the norms of assistance for Calamity Relief Fund (CRF) and National Calamity Contingency Fund (NCCF) for the period 2005-10 which need to be revised in view of extent of loss and damage.

The DFO should prepare a contingent plan every year for their district and accordingly the state action plan will be prepared and submitted by the department to the SRC, Odisha and to Govt. in Fisheries & ARD Department.

In the event of a disaster, the fish seed and fish production is severely affected due to damage of the ponds dykes and washing away of the fish stock which causes severe loss to the farmers. Similarly, the fishermen also sustain damage of their boats and nets during disaster time. Hence the assistance through bank loan at low rate of interest is needed with flexible borrowing terms and conditions to sustain fisheries based livelihood is essential. The PFCS & SHG groups involved in pisciculture activities may be provided with revolving funds for restocking of seeds and repair of damaged dykes. Loan waiving or moratorium period for repayment of loan will be requested to SRC as and when required as a step for revival of their activities.

Disaster preparedness is achieved among others by developing strong knowledge based on the subject. The fishermen usually live near the sea and rivers and hence physically and mentally accustomed to face disaster like cyclone and flood. Every event provides them with better experiential knowledge, which should be disseminated. The individual families collectively plan to improve their physical protection and evacuation methods for coping emergencies.

The Disaster Management Plan of Fisheries Department is a living document which would be reviewed and updated from time to time. A standard operating procedure has been prepared for flood / cyclone which have been uploaded in the department website www.orissafisheries.com for the public and stakeholders for their information and to follow SOP before, during and after disaster. It is hoped that this will help organize thoughts and action points in pre, during and post disaster response.

Cyclone Phailin in Odisha 2013- Early warning and timely action saved lives

Effective disaster planning, preparation and dissemination of early warning information led to zero death toll in the wake of the strongest Cyclone “PHAILIN”, that hit on Odisha coast on 12.09.2013, followed by severe flood causing devastation and damage of the fishermen families residing in the Coastal area affecting the livelihood of fishermen/fish farmers of 18 affected District. Due to timely intervention and evacuation the lives of fishermen could be saved but the assets like houses, boats, nets, and other household properties were lost. The Inland Fishermen and fishers also faced the devastation of

cyclone along with the flood and in many areas the ponds were inundated and the existing fish stock were washed out both in fresh water and brackish water sectors.

Immediate need of fishers was assistance /rehabilitation and restoration of their houses and fish culture activities. The loss of properties, as far as practicable, was assessed by the District Fisheries Officers of the affected Districts. The Infrastructures of Govt like Seed Producing farms, Offices and other infrastructures were severely damaged which require immediate repair & restoration.

The total loss during the Phailin has been categorised like

- . Fully and partially Loss/damage of Boat,
 - Fully and partially loss and damage of Net, &
 - . Crop loss and pond dyke damage in culture area.
- 1 As per the report received from the DLOs so far 10712 nos of Boats have been fully damaged for which assistance was sought amounting to Rs 749.84 Lakhs. 6350 nos of Boats have been partially damaged for which Rs 190.50 lakhs assistance was sought for. Maximum loss has been reported from Ganjam, Chilika & Puri. About one lakh fishermen families were affected by this cyclone and the subsequent flood.
 2. Similarly 114741 units of nets were fully damaged for which Rs 272.70850 lakhs assistance had been sought for & 27085 units have been partially damaged for which Rs 406.275 lakhs had been sought for assistance.
 3. As reported 9853.11 Ha of water area in 15 Districts have been submerged & the crop in both brackish water & Fresh water was totally lost. Rs 798.10191 Lakhs had been sought for assistance.
 4. The houses damaged have been enumerated by the machineries of District Administration.
 5. The loss of Govt properties in Fisheries sector is estimated to be Rs 781.800 Lakhs which requires Repair & Restoration

Govt provided emergent relief like Rice & cash to the affected fishermen considering the extent of damage. Besides SRC, Odisha, Bhubaneswar had been pleased to sanction Rs 24.08 crore for distribution of relief assistance to the affected fishermen/fish farmers. So far Rs 18.12 crore have been distributed by the Department.

ANNEXURE

CONTACT INFORMATION

STATE LEVEL						
Sl.	Name of the Office/Officer	STD Code	Office No.	Res. No.	Mobile No.	Fax No.
1	2	3	4	5	6	7
A	Govt. of Orissa, Bhubaneswar					
1	Minister, F & A.R.D.	0674	2536020	2535255	94370-53030	2390990
2	Assembly	0674	2391304			
3	APC-cum-Addl. C.S.	0674	2394935			2392438
4	Comm-cum-Secy, F & ARD	0674	2536985/2322960			2390681
5	Addl./Spl. Secy., F & ARD	0674	2393958/2322961			
6	D.Hembram, J.S., F & ARD	0674	2322970		94371-47811	
7	P.Dandasena, F.A.-cum-J.S.	0674	2322964			
8	Under Secy, F&ARD	0674	2322973			
9	Fishery Estt. Section	0674	2322962			
10	Fishery Plan Section	0674	2322962			
B	Directorate of Fisheries, Odisha.			0674-		
1	Sri P.K. Mohan, IFS, Director of Fisheries	0671	2414061	2546621	94371-89609	2410521
2	Smt.Urbasi Behera,, Addl. Director of fisheries (Admn.)	0671	2414256	2445059	94381-49619	
3	Sri J.B. Dash, Addl. Director of Fisheries (Tech) & I/c JDF (P&T)	0671	2414389		94371-33910	
4	Sri U.K. Mohanty, Joint Dorector (Coastal)				94372-28669	
5	Sri Debanand Bhanja, JDF(Inland)	0671	2425599		94371-84325	
6	Sri P.K. Behera, DDF(Planning)	0671	2415049		94371-26758	
7	Sri Sadanand Mahapatra, I/c DDF(BW)	0671	2415061		94371-54598	
8	Sri P.R. Rout, DDF(Marine)	0671	2414002		94371-37627	
9	DDF(I&E)S.N.Mahapatra i/c	0671	2414496		94371-54598	
10	DDF(R) S.N.Mahapatra i/c				94371-54598	
11	Sri Bijaya Mishra, DRCS(Fy.)	0671	2414110		94370-44833	

12	Sri Rabindranath Rout, AEE	0671	2414090		94372-04114	
13	Mamata Mahapatra DFO				9437204114	
14	Biranchi Mohapatra, A.E.(SZ)				98610-31960	
15	Smt. Kumudini Dei, A.O.	0671	2414496		99378-46754	
16	Sri Biswanath Lenka, A.D.(St.)				94372-35742	
17	Sri R.N.Rout, I/c. A.E.(M)				94372-04114	
18	Control Room	0671	2414107			
	ZONAL & DISTRICT LEVEL					
C	Central Zone Offices					
1	P.K.Behera, I/c D.D.F.(CZ)	0671	2415761		94371-26758	
2	Balaram Dandapat,DFO,Kendrapara	06727	220094		99383-79207	220823
3	Basanta Ku. Dash, DFO, Puri	06752	223319		98611-56254	223319
4	J.R.Samal, DFO,Jagatsinghpur	06724	220293		99374-37495	220293
5	Subal Ch. Mohanty, DFO, Khurdha	06755	221015		94377-63920	223015
6	S.K. Achrya, DFO,i/c Balasore	06782	262315		94372-32717	
7	Sashikanta Acharya, DFO, Bhadrak	06784	240223		94372-32717	250384(Pvt.)
8	Pradip Ku. Dey, DFO, Mayurbhanj	06792	252231		99372-01571	252231
9	R.N. Pattnaik, DFO, Cuttack	0671	2422455		94391-03336	
10	Kuwnar Marandi, DFO, Nayagarh	06753	252378		97780-26074	254302/252955(Pvt.)
11	B.N. Rout, DFO, Jajpur	06728	222693		94374-11005	
12	Subrat Dash (B), DFO, K.gang	0674	2112771		94371-69970	
D	Southern Zone Offices					
1	Subrat Dash, DDF(GZ)i/c	0680	2115182		9437114090	2229993(Pvt.)
2	Subrat Dash(A), DFO, Ganjam				94371-14090	2229993(Pvt.)
3	Simanchal Behera, DFO, Gajapati	06815	222820		94383-02718	223953(Pvt.)
4	Ashok Sahoo, DFO, Kandhamal	06842	253683		78948-82632	
5	Dipti Ku. Patnaik, DFO, Boudh	06841	222175		87630-51741	
6	Siba Prasad Bhoi, DFO, Kalahandi	06670	230538		94371-25332	

7	Muralidhar Jena, DFO, Koraput	06854	233083		94374- 53776	230839/230549
8	Biraja Pr. Dwivedi, DFO Rayagada	06856	223590		98615- 89928	223590
9	Jagadish Ch. Panda, DFO, Naw.pur	06858	222689		94372- 69613	
10	Nilambar Kilka, DFO, Nuapada	06678	223524		94374- 05682	
11	Santosh Ku. Dalai, DFO, M.giri	06861	230518		94371- 00441	230887
E	Northern Zone Offices					
1	Pratap Ekka, DDF(NZ),Sambalpur	0663	2520792		94371- 37308	2520792
2	Bhabani Ch. Mishra,DFO., Keonjhar	06766	255553		94374- 83434	250335(Pvt.)
3	Smt.Filisita Lakra,DFO,Sundargarh	06622	272274		94372- 49849	272704(Pvt.)
4	Surendra Ku. Patra,DFO,Sambalpur	0663	2400393		94371- 46631	
5	Rameswar Saha, DFO, Bargarh	06646	233714		94372- 36580	246433(Pvt.)
6	Joachim Lakra,DFO, Jharsuguda	06645	270032		94371- 10615	270032
7	Pradipta Ku. Dash, DFO,Deogarh	06641	226491		94374- 20356	226491
8	Sangeeta Patnaik, DFO, Bolangir	06652	234204		99378- 68535	234204
9	Surendra Ku. Kalo,DFO, Sonapur	06654	220094		99374- 08260	220094
10	Santanu Ku.Sahu, DFO,Dhenkanal	06762	224408		94383- 16577	223752(Pvt.)/ 224485(Block)
11	Ajaya Ku. Bhoi, DFO, Angul	06764	233458		99371- 74484	224485(Block)
F	Marine Officers/Offices					
1	Anup Ku. Sahoo,Addl. FO,(M),Bls.& l/c Dhamara FH	06782	250318		94373- 18099	250318
2	Chintamani. Behera,Addl. FO(M), Ganjam	06811	263509		94371- 08834	262847
3	S.K.Ghadei, Addl. FO(M), Puri	06752	229004		94383- 75794	233960/225380
4	Ranjit kesari Das, ADF(M),Kujang l/c	06722	236243		9437332239	237014(Pvt.)
5	Pramod Ku. Rout, Principal, BWTC and FH,Paradeep				94372- 51699	
7	ICZM, Bhubaneswar Office	0674	2397920/30			2397965
8	Dr. N.C.Biswal, Fishery Specialist				94371- 99954	
9	ICZM Section, Cuttack	0671	2411619			
G	F.E.D., Bhubaneswar					

1	Director,Ports & IWT (Subrat Rout)	0674	2390355		94393- 22399	
2	N.K. Padhy,E.E.,Fy.FED,BBSR	0674	2313250		94370- 13387	2313250
3	L.K. Mishra, A.E., FED, BBSR	0674	2341407		98613- 66307	
H	Offices at Balugaon					
1	Suresh Behera, Pr.,FTI, Balugaon	06756	220405		9861516636	
2	Hemanta Ku.Dash,DFO(B&T),B.gaon	06756	220429	220430	87632- 94123	220302(Pvt.)
3	Suresh Ch. Behera, ARCS,Balugaon	06756	220472		98615- 16636	
I	OPDC Limited, Bhubaneswar					
1	A. Kushal, Chairman, OPDC	0674	2393983		94371- 51868	2393983/2395291
2	P.K. Mohan, M.D., OPDC	0674	2393522	2546621	94371- 89609	
3	Sri Debananda Bhanja, GM, OPDC		2395881		94371- 84325	
4	B.K. Mishra, FA & CAO	0674	2395992		98612- 38992	
5	A.K.Pattnaik, I/c A.M.(Mktg.)				98610- 99232	
J	Diesel Outlets					
1	N. Naik,OIC, Chandipur				94373- 71966	
2	K. Parida, OIC, Dhamara				94378- 14325	
3	P.K. Sathua, OIC, Kasafal				94372- 38864	
4	P.K. Patra, OIC, Baripada				78941- 66542	
5	P. Praharaj, OIC, Penthakata				73811- 13941	
6	R. Jena, OIC. Chhatrapur				87636- 82090	
K	Hatchery					
1	S.K.Ghadei, P.D., Chandrabhaga	06758	213233		94371- 33910	236745(Pvt.)
2	N.Naik, H.M., Chipilima	0663	2460505		94372- 00057	
3	B. Mishra, H.M., Bhanjanagar	06821	241155		94382- 53009	
4	P.Das, H.M., Saramanga				94373- 93996	
5	M.R. Sahoo, H.M., Binika				94371- 50274	
6	R.M. Patra,H.M., Bayasagar	06673	257512		94374- 27282	
L	T.P.Rao Dora,Chairman,Fishfed	0674	2312770		94370- 77577	

M	U.K. Mohanty, M.D., Fish Fed.	0674	2312770		94372-28669	
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PROFORMA – III

REPORT ON INSTITUTIONAL BUILDING & GOVT. FARMS & HATCHERIES AS ON																		
Sl. No .	Name of the district	No.of the Institution damagepartially / fully	App rox. valu e	Govt. Farms with loss of Spawn/ Fry / Fingerlings & Fish											Hatchery damaged		Grand Total	
				N o.	Area (in Ha.)	Amt	Spawn		Fry		Fingerling s		Fish		Total	No.	Amt. Appro x.	Amount
							Qty.	Amt.	Qty.	Am t	Qty.	Am t	Qty.	A m t.	Appr ox.lo ss value (4+7+ 9+11 +13+ 15)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

