

ANALYSIS OF ORISSA RELIEF CODE AND DISASTER PREPAREDNESS DURING ORISSA SUPER CYCLONE 1999

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Introduction:

In a welfare State, the government accepts the responsibility of risk management and corresponding relief operations. Accordingly positive measures are undertaken to alleviate the distress of human beings and life of living creatures in the disaster affected areas. The success or otherwise of relief measures is to be determined by the criterion to what extent distress can be mitigated rather than financial indicators. The subject of 'disaster management' does not find mention in any of the three lists appended in the 7th Schedule of the Indian Constitution. The basic responsibility for undertaking rescue, relief and rehabilitation measures in the event of natural disasters is that of the concerned state governments. The role of the central government is supportive, in terms of supplementation of physical and financial resources and complimentary measures in sectors like warning, transport, interstate movement of food grains and deploying the defence forces like army, navy and air-force in rescue operation. By the time of Orissa disaster the central government has been contemplating to have an integrated approach and to this end to initiate an appropriate legislation and associated rules to achieve an overall national competence and self reliance vi-a-vis international initiatives. It was ever since realized that a critical input required for a comprehensive and coordinated approach in the adoption of a multi-dimensional approach in involving all concerned agencies in the risk-management scheme of operation. A high powered committee (HPC) was constituted in August 1999 by the Central Government with Mr. K C Pant as Chairman; the members were drawn from other ministries, States, NGOs and experts from relevant fields¹.

In disaster situations, official routine need be relaxed to meet requirement of the abnormal situation while at the same time it also is necessary to guard against unnecessary and reckless expenditure of public funds. In this direction the Orissa Relief Code 1980 (hereafter 'the Code') is a comprehensive document brought out by the State government of Orissa on 6th February 1980, and operated from 29th March 1980². The Code supercedes the Bihar and Orissa

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1. HPC in August 1999 was the first attempt in India towards a centralized, uniform, systematic, comprehensive and holistic treatment to all possible types of disasters. The original mandate was confined to preparation of management plans for natural disasters only. Later into the scheme the man-made disaster situations were also referred.
2. The Commissioner & Secretary to Governor Shri RK Mishra submitted the draft on 6th February 1980 with an introduction to the code wherein it was stated that the Government decided to frame a fresh relief code after the catastrophic cyclone of 1971, and the work was entrusted to Shri KK Mishra,

Famine Code, 1930³. The Code was put to test during the devastating Orissa Super Cyclone-29th-31st October 1999, which left the state of Orissa poorer by several thousand crore of rupees and with a death toll of 10000 human lives and greater many cattle life (official figures), over night. In this article an effort will be made to critically review the various provisions of the Code 1980 relating to Cyclonic and Tidal Disaster in particular vis-à-vis Orissa Super Cyclone 1999 disaster preparedness.

History and layout of Orissa Relief Code⁴:

The disaster management and mitigation mostly are being a series of integrated administrative actions, and the Relief Code 1930 being a British vintage appeared outmoded due to Independent Indian shift of administrative emphasis from law and order to social welfare and economic development by virtue of the constitutional commitments. This brought about a phenomenal change in the concept of relief. In the past the primary object of relief was confined to save life, the government was expected to make every effort save the population from starvation, extremity of suffering, or danger to life, ensuring at the same time that there was no tendency towards indiscriminate government charity; it was primarily a rescue operation.

To supplement the Code 1930, the exigencies of drought, flood and cyclone situations the government had issued executive instructions as-

1. Circulars and Instructions on Flood Relief Measures 1960
2. Handbook of important Circulars on Drought Relief Measures 1966
3. A compilation of Circulars and Orders issued by Revenue Department 1972

The Code 1980 has the primary object not only to ensure that no one dies of starvation, but also to prevent physical deterioration in living standard and destitution of people, assistance has to be provided to enable them to resume their, normal or ordinary pursuits of life on return of better times and

OAS(I), who prepared the first draft code, subsequently Shri PS Chandra produced another draft code, and later on the recommendations of 6th Finance Commission with the changed objectives the Code 1980 was made ready; the final draft was completed on 31st March 1978 by Shri DG Kar, meanwhile the 7th Finance Commission issued revised instructions for financing relief expenditures in their letter no.43(1)-PF1-79 dated 25th April 1979. The aspects of 7th Finance Commissions were incorporated with the consultation of Finance department, CD &SW department, I&PR department, and the Board of Revenue (SR). The Relief Code was put to operation by the Addl. Chief Secretary K S Chandrasekharan on 29th March 1980.

3 The Government of India appointed a commission, to enquire into the administration of relief during famine of 1899-1900. The report of the Commission was published in 1901. In the light of recommendations of the Commission several of the then provinces took steps either for framing or for the revision of their Famine Codes. The Bihar and Orissa Famine Code, 1913 was having provisions mostly to meet situations arising out of the famine conditions and flood, this was revised in 1930. The Code 1930 was in force when Orissa as a separate was formed in the year 1936.

4 Ibid. note 1&2

simultaneously encourage the village community in making concerted and continuous effort to fight common misfortune. Approach to relief has become both preventive and curative⁵.

In the Code 1980, the onus for relief was squarely put on the State and extends not only to prevention of drought or flood but also maintenance of a certain standard of economic health of the people. The code was attended from time to time with newer executive directions supplementing the 1980 provisions; the same was published by the State Government of Orissa in the year 1996.

The Orissa Relief Code 1980 as updated on 16th January 1996 consists of 280 sections spread in XVII chapters, appended with XLVII government orders and circulars and appropriately designed annexure containing various forms and tables of records, returns and reports. Chapter-V deals exclusively with 'Cyclone and Tidal Disaster'. While matters concerning to relief works, gratuitous relief and feeding programme, administration of relief given by other governments, semi-governments, non-official organisations and individuals, care of orphans and destitute, health and veterinary measures, agricultural measures and provisions of credits, strengthening of Public distributions systems and stocking of food stuff in vulnerable areas, special relief to weavers, artisan and others are provided independently in later chapters of the code.

The Code 1980 is applicable for administration of relief measures in the entire state of Orissa in respect of natural calamities which are fairly widespread e.g., drought, flood, cyclone & tidal disasters, earthquakes, volcanic eruptions, heavy rains, etc and also those that are localized, e.g., gale winds, whirl winds, accidents relating to communications and transport services, lightning, thunder squall, violent epidemics, forest menaces, etc.

The relief operations should be viewed as an integral part of rural welfare and development, and any isolation scheme of dealing should be avoided. The general principles of relief measures are:

- i. Provisions for labour intensive work;⁶ -(this provides for preparation of Contingency Plan, hereafter CP)

5 Section 3: Boosting of the morale of the public in times of disaster is very necessary and is therefore, an important objective of the relief operations.

6 Section 6 (i); in view of the increasingly large funds which are spent for combating natural calamities, arrangements are aimed at integration of development and relief planning of the affected areas. This pre-proposes having a bundle of schemes / contingency plan ready to be switched into operation on the striking of any natural disaster. The normal; programme are either remains suspended if necessary or slowed down, or modified to fit the emergency needs and intensified programmes. The normal programmes assume secondary status to the contingency plan and operation. The 'shelf of schemes or contingency plan' may include employment-oriented works like reclamation and management of saline land, raising of shelter belts in the coastal areas, plantation works under the conservation programmes, schemes of plantation of economic species in forests, mining, irrigation, digging and renovation of tanks and walls,

- ii. Provisions for Food and Drinking water⁷;
- iii. Gratuitous relief⁸;
- iv. Assistance to cultivators to retrieve loss⁹;
- v. Assistance from non-Government sectors¹⁰; and
- vi. Best utilization of resources¹¹.

The Code-1980 speaking of 'nature of relief measures' lays down the principle that 'speed is the essence of relief operation'. As soon as a major natural calamity strikes or a particular area is declared by the government to be 'distress' or affected from such calamity one or more of the following measures, as deemed fit, may be undertaken subject, to the directive of the Board of Revenue (BoR hereafter) / Special Relief Commissioner (SRC hereafter) and then the scales of relief are given as per the modifications to be effected by government from time to time:

- a. Labour intensive works including relief works;
- b. Gratuitous relief;
- c. Nutrition supplementary feeding programme;
- d. Relief measures by Non-official organisations;

setting up of village industries by artisans, and the like. While preparing the contingency plan, special schemes provided under IRIP, SFDA, MFAL, DPAP, TDA/TTDP, HAD, CAP etc. should be taken into account.

- 7 During the times of scarcity of food and drinking water, the impact is keenly felt in the rural affected areas by the landless as well as small and marginal farmers. Scarcity of food and drinking water may lead to deterioration of physical health. By implementation of the contingency plan, which mostly comprises of programmes of development and rural employment to equip agrarian community to withstand better the rigors of recurring natural calamities and to make the area flood and drought proof, both the problems of food and drinking water can be adequately solved.
- 8 Grant of gratuitous relief as a matter of principle may not be resorted to. But there may be certain vulnerable sections of the people who cannot be supported in any other way at a time of serious natural calamity, in such situation gratuitous relief has been advised.
Similarly, children both non-school going and school-going and expectant mothers have to be provided with a supplementary feeding programmes in order that their physical conditions may not deteriorate.
- 9 In situations of major natural calamities, it becomes impossible for individual cultivators to take either preventive or remedial measure by themselves. The state comes to their assistance to retrieve the loss suffered in kharif crops by way of increasing production in next rabi and kharif crops providing –
 - a. easy availability of seeds and seedlings for re-sowing and transplantation of the crops or for raising alternative crops;
 - b. arrangements for quick supply of pumps for lifting water from rivers, nallhas etc.,
 - c. quickening the operation of irrigation tube wells;
 - d. adequate supply of credit for purchase of seeds, fertilizers, pesticides, bullocks etc., and
 - e. undertaking prompt and effective measures for eradication of widespread pest attack if any.
 Other aids in the forms of remission and suspension of both collection of land revenue and collection of loans given to cultivators are recommended.
- 10 The assistance of non-government institutions and voluntary organisations to augment the government efforts in carrying out relief measures should always be listed.
- 11 The Situation must be assessed constantly and the limited resources of men and materials' available utilized to the possible extent.

- e. Care of orphans and destitute
- f. Strengthening of public distribution system;
- g. Health measures and veterinary measures;
- h. Agriculture measures including provisions of credit supply;
- i. Special relief to weavers and artisans;
- j. Arrangements of foodstuffs and stocking of food grains in strategic places;
- k. Provisions of drinking water;
- l. Provisions for immediate irrigation facilities;
- m. Remission and suspension of collection of land revenue and loans;
- n. Grant of educational concessions;
- o. Enquiry into starvation cases and prompt action taken on such reports; and
- p. Action on press reports.

Relief Fund and Finance:

The policy and arrangement of finance with regard to relief operation was reviewed by IX Finance Commission, on their recommendation, to meet exigency and emergency in the relief action plan without waiting for Central assistance, the Orissa government was provided for 'Calamity Relief Fund' (hereafter CRF) with a corpus fund of Rs.47crores during each of the years of 1990-1995 plan period¹². The X Finance Commission revised the corpus of CRF for the period from 1995-2000 in which the corpus for each year is enhanced as- for 1995-96: 46.25; for 1996-97: 49.01; for 1997-98: 51.72; for 1998-99: 54.36; for 1999-2000: 56.67 and during the total plan period of 1995-2000; 258.01crores were provided. Government of India issued instructions¹³ that the corpus of CRF is to be funded by the government of India and state government in three and one ratio¹⁴; further the norms were set that the corpus amount should be kept outside the Public Account of the State and invested in the pattern prescribed in the 'Scheme for Constitution and Administration of the CRF'.

The scheme for constitution and administration of the CRF and investment there from was clearly spelled out by the government of India in

12 Government of India letter No.43(1) – PF 1/90 dated 25th January 1991, vide this letter 'the Calamity Relief Fund' from the financial year 1990-91.

13 Letter No 43(1) PF – 1/95 dated 27th July 1995 issued by AK Pradhan, Joint Secretary to the GOI.

14 Centre's share in CRF: for 1995-96: 34.69 for 1996-97:36.76; for 1997-98:38.79; for 1998-99:40.77; for 1999-2000: 42.50and during the total plan period of 1995-2000; 193.51crores, while State's share in CRF: for 1995-96: 11.56 for 1996-97:12.25; for 1997-98:12.83; for 1998-99:13.59; for 1999-2000: 14.17and during the total plan period of 1995-2000; 64.50crores

details with respect to:

- a. Title of the scheme: Calamity Relief Fund
- b. Period of operation: 1995-2000
- c. Constitution of CRF¹⁵
- d. Contribution to the fund¹⁶
- e. Relationship of CRF with general revenues
- f. State Level Committees (SLV)¹⁷, Composition of State Level Committees, Sub-committees, Functions of SLV, Expenditure of Committee,
- g. Administration of the CRF; Investment of the Funds¹⁸ after receipt from the Centre; Pattern of investment from the Fund¹⁹; Accounts of investment transactions etc.
- h. Monitoring by the Ministry of Agriculture: The MOA shall collect information about the expenditure and investment from the CRF of each state and may advise SLV in this regard it deemed necessary.
- i. Unspent balances in the Fund: The unspent balance in the CRF as at the end of the financial year 1999-2000 will be available to the State Government for being used as resource for the next plan.
- j. Accounts and audit: The AG of the State shall maintain the accounts in ordinary course, whereas the SLV will maintain subsidiary accounts in such manner and details as may be considered necessary by the State Government in consultation with the Accountant General.
- k. Savings.

15 The fund is classified under the head '8235-General and Reserve Funds-111 Calamity Relief Fund'

16 The share of the GOI of the total contribution to the fund shall be paid to the state government as *Grants in aid and accounted under the head '3601- grants-in aid to the state government-01 Non-plan grants- 109towards contribution to calamity relief fund'*.

The State governments shall take these as receipts in heir budget and accounts under the '*1601-Grants -in -aid from the Central government-01 Non-plan Grants-109 grants towards the contributions to Calamity Relief Fund*'. The budget provisions on the expenditure side of State Government budget under the head '*2245- Relief on Account of Natural Calamities -05 CRF-101 Transfer to Reserve Funds and Deposit Accounts - Calamity Relief Fund*'

17 The Chief Secretary of the State shall be the ex-officio Chairman of the SLV. The committee would consist of officials who are normally connected with relief work and experts in various fields in the affected by the State Government.

18 The investment of funds shall be carried out by the branch of Reserve bank of India at the headquarters of the state.

19 The prescribed pattern of investment is as follows-

- a. 10% in Government dated Securities (it would be the best to invest in varying maturities);
- b. 10% in State Government Securities;
- c. 25% in auctioned treasury Bills (i.e., at present 91 days and 364 days bill are auctioned; 182 days bill are no longer being issued in Orissa State)
- d. 30% as interest earning deposits and certificates of deposits with Public Sector Banks (PSBs);
- e. 15% as interest earning deposits in State Cooperative Banks (SCB);
- f. 10% in Public Sector Bonds and Unit Trust of India and other Mutual Fund which provide for repurchase facilities.

As regards expenditure on relief and repair and restoration of public works following flood and cyclone and other calamities of this nature, central assistance would be made available as non-plan grant not adjustable against the Plan of the State to the extent of 75% of the total expenditure in excess of the margin money. Where a calamity is declared as 'rare severity', the Central Government is to extend additional assistance to the State for which a separate fund at the level of Government of India namely 'National Fund for Calamity Relief' (hereafter NFCR) has been created to which the centre and the State would subscribe and will be managed by a National Calamity Relief Committee under the Chairmanship of Union Minister of Agriculture. The Contribution to the NFCR has been fixed at the ratio of 75:25 by GOI and State government respectively annually in the beginning of the financial year. The Scheme and the Constitution of the NFCR has been laid down by the central government.²⁰ NFCR is meant for dealing with Calamities of 'rare severity', it would be classified in the accounts of the GOI under the major head '8121- General and other Reserve Funds' in the sub-section 'Reserve Funds bearing interest' by opening two minor heads of accounts²¹.

The State shall contribute their respective share of 25% to the NFCR²² in the beginning of the year, the Central Government may in case of non-receipt, adjust State's share out of the grants payable to States by the Ministry of Finance.

The National Calamity Relief Committee (hereafter NCRC) will have representations from both central and states to manage the NFCR, and will be headed by the Union Agriculture Minister and would comprise of Dy. Chairman, Planning Commission and two Union Ministers and five Chief Ministers to be recommended by the Prime Minister annually in rotation²³. The department of Agriculture would provide the Secretariat assistance. The NCRC will consider and decide whether a calamity of rare severity that would qualify for relief from the NFCR, and decide the quantum of allocation for relief.

20 GOI letter No.43(5) PE 1/95 dated 24th October 1995. This is in accordance with the recommendations of X Finance Commission for the creation of NFCR and is deemed to have come into force w.e.f 1.4.1995

21 i. National Fund for Calamity Relief (minor head)

Receipt side	Payment side
a. Share of the Central Government	a. Payment to State Government
b. Share of the State Government	b. Transfer Revenue Accounts
c. Interest Receipts	c. Loss on realization of securities
d. Gain on realization of securities	d. Incidental Charges
e. Other receipts.	e. Other payments

ii. National Fund for Calamity Relief – Investment Account (minor heads)

Receipt side : Sale of securities; and Payment side: Purchase of securities

22 The share of Orissa during 1995-2000 has been fixed at Rs.5.17crore to the total of NFCR Rs.700crores

23 The Nomination of the Chief Ministers would be done in March of each year for the next financial year.

A periodic quarterly information relating to expenditure and utilization from CRF and NFCR are to be furnished to the Ministry of Agriculture, GOI.

Control Room: Opening and Functioning²⁴

A common feature in combating disaster of any type whatsoever is centralized control system, for the purpose one of the first steps is opening and operating the Control Room (hereafter CR). The Code 1980 provides for standing preparation which includes logistics of Control Room. It is mandated that notwithstanding occurrences of any natural calamity, Control Room functions in the Revenue Department all round the year, similar control rooms are envisaged in all concerned offices of Collectors, Revenue Divisional Commissioner especially active from 1st May to 30th November each year. The Control Room is to be under the operational command of a senior officer to be nominated by the concerned head of the office. CRs may also be opened in subdivisions and other offices according to the direction of the Collector. The CR in the revenue department shall be under the charge of the Deputy Secretary in charge of Relief who shall inspect the CR frequently and report to the Secretary about the short comings.

The function of the CRs shall be to collect, collate and transmit information regarding matters to the natural calamities and relief operations undertaken, if any, and for processing and communicating all such data to concerned quarters. The CR shall be manned round the clock during the peak period of emergency till the relief operations are over, for the purpose one officer, one assistant and one peon will be on duty in suitable shifts. The service of Leave Reserve Officer may be utilized for this purpose in District and Sub-divisional Offices. The particulars of information received and action taken should be entered in the Station Diary hour to hour for every date, and daily report should be furnished to the head of office. The head of office shall indicate the particulars to be released for public information.

Administrative Relief Organisation:

In times of widespread distress, the entire Government machinery is switched on to render relief to the people. The Revenue Department and Board of Revenue coordinates work of all the Departments of Government and Heads of Departments in regard to relief operations. Following departments are generally associated with relief work and accordingly responsibilities are assigned to them as below:

Agriculture Department coordinates supply of seeds, seedlings, fertilizers, insecticides, credit facilities, for agricultural operations including purchase

24 Section 9 & 10 of ORC 1980.

of bullocks, purchase of pumps, soil conservation, plantation works, control of sand-cast lands, construction of dug wells, post control measures, submission of periodical crop statistics, collection of statistics of damage and restoration works etc.

Panchayati Raj Department and Women & Child Development Department: Organizing employment oriented labour intensive works including Food for Work schemes, drinking water supply programme, feeding programme, collection of statistics of damage, restoration works under the Department etc.

Higher Education & Youth Services Department and Mass Education Department: Measure of relief to students and educational institutions in the affected areas mobilizing student volunteer force when needed, restoration of damages to educational institutions and buildings etc.

Forest and Environment Department & Fishery and Animal Resources Department: Veterinary measures (both preventive and curative), afforestation programmes, supply of forest materials for housing, provision of fodder, fodder banks, cattle food, mobile health unit for cattle, works on forest roads, other employment programmes, restoration works, etc.

Health & Family Welfare Department: Health measures (both preventive and curative), formation of Health squads in case of necessity, mobile health units, establishment of temporary hospitals, health units, establishment of temporary hospitals, prevention of epidemics, disinfection of wells and other drinking water resources, care of children's health, collection of damage statistics and restoration works etc.

Home Department: Law and Order problem at the time of distress provision of police help for protection of weak points in embankments and transport of relief goods, calling for army assistance in case of need, gearing up information and publicity machinery for relief work, utilizing Home Guards for relief measures, installation of wireless stations, collection of damage statistics and restoration measures etc.

Water Resource Department: Energising Lift Irrigation Points supply of pumps to cultivators, communication of gauge reading and flood forecasts, watching over weak points in river and other flood protection embankments, long term measures for harnessing river systems for irrigation and flood protection works for elimination drought conditions and flooding, collection of damage statistics and restoration measures etc.

Planning & Coordination Department: Regulation of plan and non plan

schemes and release of funds for such schemes, formulation of 'Contingency Plans' by the concerned Departments of Government as alternate programme for implementation at the time of distress etc.

Rural Development Department: Undertaking minor irrigation works in large scale and road programmes for providing employment opportunities technical supervision of works undertaken by the Block agency as needed, collection of damage statistics, restoration programmes etc.

Food and Consumer Welfare Department: Opening of fair price shops and retail sale centres in affected areas with adequate stock of food stuff, opening of depots and sub-depots in vulnerable or strategic areas prior to occurrence of natural calamities, supply of food stuff for relief operation, regulating prices line, anti-smuggling, and anti-hoarding measures as may be decided by Government etc.

Harijans & Tribal Welfare Department: Provisions for drinking water, labour employment programmes for Adivasis and Harijans in distressed areas, collection of damage statistics and restoration programmes, repair and restoration works of Sebashram and Ashram School etc.

Housing & Urban Development Department: Control of relief work in urban areas, ensuring necessary drinking water supply, completion of existing water supply schemes and laying of temporary water supply at times of scarcity, temporary pump houses, provisions of employment opportunities etc.

Works Department: Keeping the network of roads improper order for movement of traffic and relief goods, effecting speedy repairs to damage done to roads, ensuring employment facilities for the unemployed people in the distressed areas through road network, collecting damage statistics soon after the natural calamity and undertaking restoration work quickly.

Revenue and Excise Department: Besides coordinating the relief measures, RD is the administrative department for opening Relief Housing Schemes undertaken due to heavy damages on account of flood or cyclone, regulating relief measures financed from CRF and those undertaken by voluntary organisations, corresponding with the Government of India and other State Governments in matter relating to natural calamities and relief measures, and submitting reports and returns to the Government of India.

Board of Revenue BoR / Special Revenue Commissioner SRC: The Member, Board of Revenue and Special Revenue Commissioner is directly responsible to Government of India for all kinds of relief operations in the

affected areas²⁵. Member, BoR in empowered to transfer any gazetted or non-gazetted officers working in connection with the relief operation from one place to another; to requisition the services if gazetted or non-gazetted officers working in the affected areas for administering urgent relief operations; to empower the Collectors to make requisition of vehicles of their department for efficient execution of relief measures in similar terms during the Elections; to sanction detailed schemes approved in principle with in the Relief Budget; to call information from all the concerned and periodically review and coordinate the activities of relief operations. In case of extensive and acute distress arising out of any natural calamity, which may necessitates extensive relief measures, the State Government may appoint separately a SRC for expeditious and effective relief measures and delegate to him and powers exercisable by the Member, BoR for effectively meeting the situation.

The Block is the unit of Relief Organisation and the BDO shall be in-charge of the unit. This depends on the degree of distress. If the distress is acute and extensive relief measures are undertaken by the Collector, who may divide the Block into two units and deploying an additional BDO.

People's participation with the administration of Relief Operation:

In order to ensure people's participation, provisions have been made in the Code 1980 for constitution of Committees at various levels of risk management and relief operation – State Level Committee SLC²⁶ and District Level Committee DLC²⁷ on Natural Calamities. The function of the SLC committee includes:

- a. to advise the government regarding precautionary measures to be taken in respect of flood, drought and other natural calamities;
- b. to assess the situation arising out of such calamities;

25 The BoR has statutory powers and responsibilities under section 4 of the Orissa Board of Revenue Act, 1951 to exercise supervision of the work done by RDC and Collectors and this applies to relief operation also. Further powers have been delegated to the Member, BoR for relief operation.

RDC, under clause xiii of Rule 9 of the ORDC Rules 1959 are responsible for advising the government in matters connected with disaster and distress situations. They have a statutory responsibility to regulate and coordinate relief operation in areas under their jurisdiction. And the hierarchy of the revenue Department such as District Collector, Sub Collector, Tahashildar and Block Development Officers are responsible to undertake the relief measures.

26 During the year 1996 vide the letter no. IVF(M)- 2/95 – 55920 – R Dtd.13.12 1996, the Government of Orissa, through its Revenue & Excise Department reconstituted the State Level Committee on Natural Calamities with 54 listed members, which included Chief Minister, a list of Ministers, certain Members of Parliament, a list of MLAs, Chief Secretary, and Secretary from certain other related departments.

27 In accordance to ORC1980 Paragraph (Rule)- 19 (10(b) vide letter no 21317 –IVF (M)- 3/74 – R and Resolution No 5367/R dated 24th January 1989, the Government reconstituted the DLV for Natural calamities with following members: District Collector (Chairman), two members form Voluntary Organisation nominated by the Collector as Chairman of the Committee, MLA and MP of the concerned area, CDM, O/D, VO/SE(Irrigation), Sub-Collector of the District, District Emergency Officer (Member Secretary).

- c. to recommend to government the nature and the quantum of relief; and
- d. to recommend to government the policy to be adopted in giving such relief in areas affected by such calamities.

The function of the DLC shall be:

- a. to advise on the precautionary measures to be taken in respect of flood, drought and other natural calamities;
- b. to assess the situation arising out of such calamities;
- c. to advise on appropriate relief measures and location of relief works.

The Panchayat Samities and Grama Panchayats are associated in organisation of relief measures in the Blocks. The Officer-in-charge of the Relief Circles should see that the people's representatives are associated with all relief measures.

The SLC & DLC though recommended with a sprit of integrating more of people outside the government from among the general public, the Committees in constitution has more or less the same group of members of the government who are otherwise responsible for running the government as well as governing the relief operation. This makes the very purpose of the SLC and DLC redundant and non functional in the sprit of the purpose²⁸.

ORC 1980 and Cyclone and Tidal Disaster Management Scheme:

The cyclonic storms are a general feature in Orissa. They strike the coastal areas generally before and after the rain season. October is the categorized month for the cyclonic disasters. Cyclones ordinarily bring in their trail heavy rains causing severe floods, tidal disasters and saline inundation. Disasters of this kind cause heavy mortality, untold suffering and damage to private and public properties. Cyclones have been striking quite often, while in 1971 most severe cyclone with intensity of 1000 kms wide struck with a death toll of 10,000 human live and 50,000 cattle death affecting a total of about 6 lakh acres land area and a population of 59 lakhs. In view of excessive damages to life and property, the GOI, Ministry of Irrigation, and Power appointed a Committee²⁹ to examine various measures to mitigate human suffering and to reduce the loss of life and property in the event of recurrence of such cyclone in future. A committee with Dr. P K Koteswaran, Director General of Observatories, India Meteorological Department as chairman was constituted. The Koteswaran Committee conducted a very elaborate study and submitted a brief summary of 59 recommendations on the cyclone distress mitigation. Most of the recommendations are categorical with respect to early information and warning from the IMD, the logistics about the prevention measures and

²⁸ Ibid.

²⁹ Memorandum No. FC 6 (12)/71 dated 15th November 1971.

preparedness also found predominance and things like cyclone code and educating the general mass and cyclone fund at the nation and centre level found place. Most of the recommendation found acceptance at the national level and incorporated appropriately by the Central and State governments including the Orissa Relief Code 1980.

In Orissa the whole of the coastal belt and those adjoining area are designated as 'cyclone prone area'. As far as the measures against cyclonic storm disturbances³⁰ are concerned both 'preventive' and 'protective' operations are adopted. More importance is being given to protective measures whereas the preventive measures like USA experiment of 'storm curing project' with huge investment is simply unthinkable in an economically backward state like Orissa. The protective measures are intended to mitigate the damage and suffering due to the onslaught of cyclones depends on the action before and after the cyclonic storm which includes:

- a. pre-cyclone measures³¹;
- b. post-cyclone distress mitigation measures; and
- c. Community preparedness programme.

Pre-cyclone measures particularly during both the pre- & post- monsoon period are spelled out the code 1980 include the following:

- a. Detection and tracking of storms³²: The IMD takes measures for detection and tracking of cyclones sufficiently before their impact is felt in the coastal main land;
- b. Dissemination of cyclone warnings³³: Visual Storm Warning Signals,

30 GS Mandal, 'Orissa Super Cyclone (SuCS), its Special Characteristics and Future Strategies for Mitigation Measures', -The classification in India with regard to various intensity of cyclonic disturbances:

Categories (Weather Systems)	Abbreviations	Wind Speed	(in kmph)
1. Low Pressure Areas	L	< 17 knots	31
2. Depression	D	18-27 knots	32-49
3. Deep Depression	DD	28-33 knots	50-61
4. Cyclonic Storm	CS	34-47knots	62-88
5. Severe Cyclonic Storm	SCS	48-63 knots	80-117
6. Very Severe Cyclonic Storm	VSCS	64-119knots	118-220
7. Super Cyclonic Storm	SuCS	>119 knots	221 and above

31 Pre-cyclone measures shall be taken by the Collectors in anticipation of the occurrence of cyclones or storms, with or without tidal disasters and high floods, both during the pre-monsoon and post-monsoon periods.

32 The meteorological department at Bhubaneswar also communicates not only the forecasts and warnings but also of whirl winds, gales storms and heavy rainfalls etc. generally sufficiently before their occurrence to the concerned authorities viz.- the press, the All India Radio, Doordarshan, for giving wide publicity and warning to the people against the impending calamity. A statutory list of more than 53 officials and other related categories of officials are mandated under Rule 98 of ORC 1980.

33 The IMD issues weather bulletins as a routine to merchant ships and it maintains a port warning service by which the Port Officers are warned by high priority telegrams, it also issues warnings to

Distant Cautionary³⁴, Distant Warning³⁵, Local Cautionary³⁶, Local Warning³⁷, Danger-1,2&3levels³⁸, Great Danger-1,2,&3 levels³⁹, (This signal is also hoisted when a severe storm is expected to skirt the coast without actually crossing it.);

- c. Failure of Communications⁴⁰;
- d. For the safety of road transport services and bus depots, the transport organisation should be kept apprised of the cyclone warnings by the Collector.⁴¹ Mean while the people should be advised to shift to safer places or to the cyclone shelters already notified by the Collectors in advance;
- e. Cyclone Shelters⁴²: Annually the Collector shall undertake a survey of the coastal areas vulnerable to storms, cyclones and tidal inundations

officers of the Fisheries Department in the Coastal Districts against approaching storms/cyclones.

34 This signifies that *'there is a region of squally weather in which storm may be forming'*.

35 This indicates that *'a storm has formed'*.

36 Local cautionary indicates that *'the port is threatened by squally weather'*.

37 *'The port is threatened by a storm, but it does not appear that the danger is yet sufficiently great to justify extreme measures of precaution.'*

38 Danger-1: *'the port will experience weather from storm of slight or moderate intensity that is expected to cross the coast to the south of the port.'*

Danger-2: *'the port will experience severe weather from a storm of slight or moderate intensity that is expected to cross the coast to the north of port.'*

Danger-3: *'The port will experience severe weather from a storm pf slight or moderate intensity that is expected to cross the coast over or near the port.'*

39 Great Danger-1: *'the port will experience weather from storm of great intensity that is expected to cross the coast to the south of the port.'*

Great Danger-2: *'the port will experience weather from storm of great intensity that is expected to cross the coast to the north of the port.'*

Great Danger-3: *'the port will experience weather from storm of great intensity that is expected to cross over or near the port.'*

40 Communications with Meteorological Warning centre have broken down and the local Officers considers that there is danger of bad weather then a system of two stage warnings has been introduced by the IMD by which Collectors of coastal districts are given warning of depressions and cyclonic storms. The first warning is generally issued 48hours before the commencement of bad weather and the second about 24hours. When a depression and a cyclone is expected to affect a certain area on the east coast, the public in the area are warned through the regional AIR stations and Doordarshan which are requested to broadcast and telecast special storm bulletins at frequent intervals. These special weather bulletins are supplied to the press for publication in the daily newspapers.

Rapid dissemination of cyclone warning is a basic need of the cyclone distress mitigation scheme. As the telegraphic and other landline communications are invariably the first victim during stormy weather, radio and television are the only dependable medium of speedy dissemination. The police wireless grid is another medium for dissemination. In addition to the permanent police wireless station and temporary wireless station are installed in the vulnerable areas for the purpose.

41 Buses and other transports (other than those used for evacuation purposes) which happen to be in the area likely to be directly hit by the cyclones should be asked to move out of the danger zone quickly. Generally transportation should be prohibited on sections of roads and bridges which are imminent danger of inundation due to flood water or are direct targets of the cyclone winds.

The CR which functions round the clock through out the year also communicates such warnings, soon after their receipt, to the subordinate offices by the quickest means of communication. The Collectors will supervise the dissemination of information to all the related subordinate staff.

42 Para 100, ORC-1980: In choosing these buildings the tidal inundation areas, special care should be

- prior to the cyclone seasons and select suitable buildings for the purpose of emergency shelter;
- f. Evacuation⁴³: Once the cyclone strikes, there is no way of escape but to take shelter in a suitable storm proof building or to run away from the storm. Evacuation of people, cattle, livestock become necessary from these areas where storm proof elevated shelters are not available, during a cyclone no evacuation operation is possible. The only alternative is to persuade the people through radio broadcasts and TV telecasts to vacate from low lying areas in the coastal belt, as well as other areas threatened by cyclones on receipt of the 'alert' warning from the meteorological centre and take shelter only in the cyclone shelters selected by the Collector to save lives as well as their cattle and other livestock and property;
 - g. Emergent –Relief⁴⁴ is to be provided to people who have shifted to cyclone shelters, so also the fodder for cattle and other livestock shifted by the people to cyclone shelters are to be arranged through the Veterinary Officers;
 - h. Other precautionary measures include arrangement of vehicles, boats and organisation of relief parties for evacuation of people, arrangement of dry food stuff and other necessities of life giving emergent relief, provision of drinking water supply. It is always apprehended that the drinking water sources are polluted at the time of cyclone, arrangement of disinfectants etc, arrangement of disposal of dead bodies and carcasses (the designated departments should make prior arrangement), precautionary arrangements against epidemics and other health hazards, advance arrangements for army assistance. The Collector should ensure these arrangements using his intelligence discretion to circumvent the crisis and mitigate sufferings;
 - i. Review of pre-cyclone arrangements⁴⁵;

taken to select strong building in elevated places which can withstand both tides and high winds. Ordinarily community buildings, temples, mosques, churches, school buildings, storm shelters and such other strong built buildings of public nature in the vulnerable areas may be selected as cyclone shelters.

The Collector shall then prepare a map indicating the location of the emergency shelters and safe buildings and display them in public offices, schools and community centres, Railway station and such other places which are frequented by the people for their information. A copy of such map or list of such places, whichever can be arranged conveniently, may be supplied to the DPRO for educating the people about the safe places for taking the shelter in the event of a storm, cyclone, or tidal bore.

43 Para 101, ORC-1980

44 Para 165 defines 'Emergent Relief'

45 The Collector and the RDC shall undertake the review of pre-cyclone arrangement and furnish a consolidated report to the Revenue Department, during the pre & post monsoon months of May, June and October and November.

j. Reporting of occurrence Cyclone, Tidal inundation⁴⁶ etc.

The Post-Disaster Measures mandates the Collector and the designated officers to undertake immediate inspection of the affected area to be fully aware of the damage that has been caused by the cyclone and take appropriate protective and restorative action within the ambit of their budgetary provisions as considered necessary. And when the cyclone is accompanied with high flood or tidal bore, no damage statistics can be compiled separately for the flood and cyclone etc. The important activities include:

- a. Clearance of Road for the movement of traffic⁴⁷;
- b. Rescue of and relief to marooned people⁴⁸;
- c. Disposal of dead bodies and carcasses⁴⁹;
- d. Reconnaissance flights and army assistance;
- e. Restoration of communication;
- f. Problem of drinking water;
- g. Missing list of fishermen and fishing crafts;
- h. Restoration of power;
- i. Assessment of crop loss, human causality, loss to livestock, and other damage caused by cyclone tidal bore, floods etc⁵⁰;
- j. Submission of preliminary and final damage report;

46 As soon as possible within 24 hours of the occurrence of Cyclone the front-line officers should intimate the Collector by the quickest means of communication available or through special messenger, if necessary about the occurrence of the disaster, giving date and time of occurrence, details of the affected area, crops and other losses sustained etc. as readily available. The Collector should onward transmit the same to concerned authorities and more detailed report should follow within three days of the first report. The BoR/SRC shall furnish the consolidated report to the Government with its recommendations. P.106

47 It is likely that a large number of trees might be uprooted causing obstruction to traffic; the first measure that should be undertaken up is to clear up these roads for movement of vehicles. The Works Department and the Rural Development Department should undertake the task and the lowest executive should discharge the responsibility without waiting for the orders from the authorities. The Collector may expedite the clearance work in pursuance of this mandate.

48 The Sub-Collector shall see that a search and rescue parties with necessary boats, food stuff etc. are immediately deputed to the affected areas both for rescue and relief purposes especially to the aid of any people those have been marooned due to cyclone. And other emergent relief material including tents, tarpaulins, bamboo mats etc if necessary should follow.

49 Dead bodies of human beings found in cyclone affected areas shall ordinarily be made available to their relatives and friends, if available, for cremation or burial, as the case may be, according to their customary practices. Where there are no claimants for dead bodies, those (dead bodies) should be cremated or buried at the cost of the Government i.e., Health and Family Welfare Department. Similarly the carcasses of cattle and other animals shall be buried by Fisheries & Animal Resources Department. The Collector shall see that all the dead bodies are disposed of forthwith and any difficulty faced by him shall be brought to the notice of RDC, BoR / SRC and the Revenue Department.

50 The Range Deputy Director of Agriculture will undertake an immediate survey to ascertain the following statistics:

- i. average under crops and acreage damaged;
- ii. Approximate loss in rice, wheat, ragi, maize etc. in metric tones and value thereof;

- k. Submission of report to the Government of India;
- l. Declaration of area affected by cyclone: Usually the State Government issue a declaration indicating the areas affected by cyclone, etc. in order to enable the Government employees and others to get necessary help permissible under the Rules. This declaration cannot be issued due to delay in submission of necessary reports by the field officers. Such delay should be avoided by assessing the damage promptly⁵¹;
- m. Relief Measures⁵²;
- n. Assistance of Police: After a disastrous cyclone or a tidal bore, the law and order problems may arise in certain spheres, police may, therefore, be vigilant to the situation; for proper conducting of relief operations police help may be usefully taken; Traffic control arrangements should be tightened so that relief parties and trucks may get preference in clearance and movement; Many buildings in the affected areas might have been collapsed to the ground, while others might be in a state of dangerous inclined position, the broken electrical wires are another sources of hidden danger. Such dangerous spots should be identified and condoned off by the police; Assistance of police may be required for enforcing the orders of Public Health authorities; night patrolling in affected areas may be enforced and intensified as necessary. Police may also take care of the salvaged and unclaimed properties; Police assistance will be needed in enquiring into the causes of death during and after a disaster and in disposing of the dead bodies; Police assistance may required for guarding relief articles and in maintaining law and order at he time of distribution of relief;
- o. Community preparedness programme and long term measures:
1. A devastating cyclone is swift decisive and damaging. In the twinkling of an eye, large number of people may become homeless or even lose their lives. Untold miseries may be brought about. Community preparedness programme re necessary to lessen the
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- iii. Cropping pattern both alternate kharif and rabi programmes to be adopted and acreage in each case;
 - iv. Requirement of seeds, seedlings, fertilizers, pesticides, ground and aerial spraying arrangements in case of pest attack and pest epidemic;
 - v. Availability of seeds, seedlings etc., and procurement of purchases needed;
 - vi. Funds needed, funds available and net additional requirement of funds;
 - vii. Cropped area sand cast, depth of sand, area from which sand can be removed and cost thereof; waterlogged and possibility of reclamation and introducing any alternate crop, orchard etc.,
- The Deputy Director Agriculture and Food Production shall receive the above report with in one week after the abatement of the crisis with a copy to Collector (detailed forms are specified for the purpose)
- 51 The BoR / SRC shall submit a list of cyclone etc., affected areas, Grampanchayats wise, indicating Block and District, along with the damage report, for consideration of Government for declaring such areas as distress or affected areas.
- 52 Rules149-162 ORC 1980, deals categorically about the Relief Work and procedure regarding.

disastrous impacts and to build up resistance to calamity and to afford necessary emergency protection. Such programmes envisage educating the people and for taking timely action in face danger.

2. No advance warning of cyclones will be effective unless the public are properly educated about the action to be taken on receipt of such warnings and cooperate fully with the evacuation measures arranged by the government agencies. In order to impart broad practical background knowledge of the disaster information pamphlet and brochures are to be widely distributed. Books in local languages written on natural calamities and relief operations may be given to the rural libraries in villages of the calamity prone areas. Audio-visual materials also be shown to the public in convenient gatherings.
3. Before the beginning of the cyclonic prone seasons, the Collector organize meetings in April and September each year, by the DPRO and staff in rural areas and explain to the people the procedure for evacuation as well as measures to be taken for the safety of life and property.
4. The Information and Public Relations Department have prepared documentary films on cyclones, the Oriya version of the films should be exhibited widely I the coastal areas prior to and during the cyclone seasons.
5. The Information and Public Relations Department may also prepare some sample slides giving important information and instructions regarding actions to be taken during cyclones, which may be shown in cinema houses or by mobile vans in coastal areas. Educative posters should also be exhibited.
6. Before the onset of the cyclonic seasons, there should be a series of talks over AIR and Doordarshan by the meteorological and Administrative Officers on Natural Calamities like cyclones and actions to be taken to face the problems. Conversational talks on cyclones in the rural programmes of AIR and Doordarshan should be arranged from time to time.
7. Instructive materials on tropical cyclones and protective measures to be taken may be included in the educational syllabus in the school level.
8. People should be discouraged to live in low-lying and vulnerable areas and to shift to safer locations. In doing so, nothing should be done to make the people feel panicky, or to lose morale.

- p. Model cyclone plan for coastal areas⁵³: The model cyclone plan for coastal area in Orissa includes in the table of its content the following – (i.) Preface; (ii.) General information and Weather warning details; (iii.) Cyclone Committee- constitution, responsibility of the Cyclone Committee, Meetings; (iv.) Educating the Public- Educational media radio, Press, and Advice to the Public; (v.) Emergency Preparedness- Emergency control centre (ECO), Observatory, Shelters, Inspection of communication and meteorological equipment; (vi.) Emergency Action- Action on receipt of preliminary (first Stage) Cyclone Warning, Action on receipt of Final (Second Stage) Cyclone Warning; (vii.) Post-Cyclone Measures- Instruction to Public, Actions regarding rescue and relief of affected population and restoration of communications; (viii.) Post-Cyclone Review.
- q. Removal of old and dead trees⁵⁴;
- r. Permanent cyclone shelters: (1). Ordinarily no strong buildings are found in the tidal inundated or cyclone prone areas. It becomes difficult to provide storm or cyclone shelters in such areas. As a permanent measure, community buildings, schools etc., should be designed in such areas keeping in view that these buildings may also be used as emergency shelters in times of necessity. Departmental and other public sector buildings to be constructed in these areas may also conform to the specification of these shelters. (2). These shelters should be of two types i.e., (a.) for the areas vulnerable to tidal inundation and (b.) for other areas prone to storms cyclones and high winds. The area subject to tidal inundation may be the coastal belt of about 15 kms width from the sea coast while the area subject to cyclone may be 15-60 kms further inland. The structures in tidal inundation area and in the other cyclone wind area (i.e., two storeys and one storey) may be adopted on competent technical advice. (3). While constructing new buildings in the tidal inundation area people should be instructed to have high plinths so as to withstand tidal inundation. Similarly farmers may raise platforms (mounds) to stock the harvested crops to protect from being washed away by tidal inundation.

53 The Model Cyclone Plan adopted by the Orissa Government were issued vide the Revenue Department Communication nos. IICy(TMS) – 70/75 58135-37R., dated 7th September 1973 and no 58259/56 R dated 8th September 1973. This plan is intended to be reviewed every year and revised whenever necessary in the light of experience, the Collector is empowered to review the working of the plan and suggest revision, if any, to the BoR/SRC

54 During a cyclone many old and dead trees are uprooted and block the traffic. Such trees in vulnerable areas (i.e., in the coastal strip upto a depth of 60kms) should be removed every year before the cyclone season. The designated department shall make necessary endeavour.

- s. Construction of tidal breakers, shelter belt plantations and coastal afforestation: The entire coastal area had large forest growth. With the growth of population these forest growths have been gradually eliminated. As a result of this the coastal belt has been subjected to the direct impact of the cyclones, storms and tidal surges. The designated department should take protective and preventive measures for safeguard bandhs and embankments. Plantation and afforestation programmes are very much necessary in these areas Agriculture and Forest Departments have launched necessary schemes for the purpose. Departmental as well as private efforts may be encouraged in these directions. The available forest covers may be about one kilometer deep from the coast line to act both as a wind breaker as well as tide breaker. Some amount of publicity on the good effects of these plantations and afforestation works among the people is necessary to enlist their cooperation in preservation of these assets.

Relief Works:

In case of a widespread natural calamity there may be urgent need of providing employment to be able-bodied persons or the un-skilled rural labour who have been thrown out of employment due to such calamity. Employment oriented relief works are undertaken out of CRF. These are normally called as 'relief works'. For the purpose of relief works following mandates have been made:

1. Fixation of priority in the selection of relief work;
2. Preparation of the list of relief works;
3. Location of works;
4. Procedure of execution;
5. Departmental and non-departmental execution;
6. Payment of advances;
7. Wage Structure;
8. Food for work;
9. Grain for work;
10. Restrictions in employment;
11. Waiving of payment of departmental charges;
12. Monthly return of physical financial achievement on works.

Gratuitous Relief and Feeding Programme:

Gratuitous reliefs are of three types, viz., first- Emergent relief; secondly- Ad hoc gratuitous relief, and thirdly- Gratuitous relief on cards. When people

are in acute distress due to a severe natural calamity, it becomes impossible for them to procure food, their belongings are washed away and houses damaged. It becomes necessary for government to provide them with dry or cooked food, clothing, shelter and other necessities of life. These articles are generally transported to the affected areas by waterways as road communications stand disrupted. Air dropping is also made if the people are marooned for days together. This kind of relief is categorized as 'emergent relief'.

Emergent relief is sanctioned irrespective of the consideration of status, caste or religion as at such a juncture the haves and the have-nots are levelled to the same position. Emergent relief may include distribution of Chuda, Muddhi, Gur, salt, Kerosene, Match boxes and other bare necessities of life, including cooked food and clothing. It may include provision of improvised shelter with timber, bamboo, tarpaulins, straw, etc. In case non-official organisations come forward to extend emergent relief as is usually the case at the time of a grave natural calamity, assistance from government to the extent may be temporarily suspended. For emergent relief rice, wheat, chuda, mudhi, ragi, maize, etc., may normally be sanctioned at the rate of 500 grams per adult and 250 grams per child below 12 years age per day. The Collector is competent to sanction such relief himself and can delegate the powers of sanction to the Sub-Collectors to exercise the power in their respective jurisdiction for a period of three days only. And for more number of days it is the RDC and BoR/SRC are empowered to sanction. The emergent relief normally should not extend beyond 15 days.

Ad hoc Gratuitous Relief:

Ad hoc gratuitous relief can be given to the people affected by a natural calamity to avoid starvation, extreme hardship etc., as in the following cases;

1. Persons whose attendance on the sick or infant children is absolutely necessary making impossible for them to go out and earn their livelihood.
2. Able-bodied persons but temporarily rendered weak due to want of food, malnutrition or as a result of illness,
3. In case, the people are deprived of cooking their food due to inundation and if they are marooned.

Gratuitous Relief on Cards:

This facility is extended by the government for a longer duration on the basis of need and intensity of a natural calamity on conditions as may be prescribed. It shall ordinarily be limited to villages where there has been crop loss of 50% or above, and private charities cannot cope up with the need.

Eligibility criteria for availing the gratuitous relief on card have been defined⁵⁵. The BDO is made responsible for preparing the list of deserving persons for gratuitous relief on cards and indicate the same in a stipulated format.

Provisions regarding the location of Gratuitous relief Centres, supply of relief cards, Issue of gratuitous relief, Maintenance of GR Register at the Relief centre, maintenance of register of abstract of issues of gratuitous relief by BDO, Supply of food stuff by Food & Consumer Welfare Department, Stocking of food stuff at different centres, Payment of costs of transport, Disposal of residue stock, submission of monthly return of Gratuitous relief. For Women & Children, supplementary feeding programme has been stipulated.

Apart from the governmental relief measures, 'the aspects of administration of relief given by other governments, semi-governments, non-official organisation and individuals' are systematized. Assistance from Prime-Minister's Relief Fund and from other Governmental sources is routed through the Chief-Minister's fund, and administered by the General Administration Department who shall submit the detailed utilization report. The activities of semi-government and non-governmental organisations and individuals shall be coordinated by the BoR/SRC⁵⁶. The gift materials and cash shall be regulated through the stipulated procedure as laid down in R.190 of ORC 1980. Provision has also been made to distribute the relief through honorary workers or organisations. Among other details the funds from Charitable Trusts, special relief operation by non-governmental organisations, etc are provided.

Care of Orphan and Destitute:

Special provisions have been made empowering the District Collector to act as temporary guardian of children found deserted in his district. Particularly in times of cyclonic disasters there remains a situation for sudden raise of orphans and destitute. The ORC 1980 stipulates the Collector to maintain a register of all children found destitute in a prescribed format. The procedure of registering the details of the way in which each child eventually disposed of is made mandatory. General Rules as to the disposal of orphans, Obligations of private orphanages, free access to orphanages, Disposal of old orphans, destitute, expenditure incurred on orphans, submission of monthly reports etc. are elaborated in Rules 195-203 of ORC1980.

Health Measures:

Health measures include (a.) Medical and Public Health Administration and (b.)Veterinary Measures. MPHA plays a vital role during times of distress,

55 R.169 of ORC1980.

56 Government Resolution no. IVF(II)- 38/79- 10890-R dated 7th February 1979 and Revenue & Excise Depts. Order no. 33087/R dated 13th May 1981.

particularly during the post-cyclonic phase there is increasing incidence of diseases and possible outbreak of epidemics like Cholera, Typhoid etc., in the affected area which have potential to take a huge toll of human lives. CDMO and the Collector are to remain vigilant and attend to the need. Preventive measures are spelled out. Health department is obligated to maintain certain records and ensure measures to submit periodic reports to the district administration. Reserve of doctors and special staff and medicines are stipulated. A special health care programme for mother, children and vulnerable category is spelled out. The assessment of damage and restoration work with respect to PHC is stipulated in the post-cyclonic phase at the affected areas. The Health and Family Welfare department still issues derailed instruction for the guidance of their field officers to effectively tackle the situation that may arise due to any major natural calamity.

The Director, Veterinary Services and Animal Husbandry shall make arrangements for prevention of cattle epidemics at the time of distress. Necessary animal health squads with medicines, vaccines and other equipments will make rounds in the affected areas. Loss of cattle and other animals shall be reported and adequate arrangement of fodder shall be made by the designated officers. Special report on shortage of fodder, location of fodder banks, arrangements for emergency production of fodder, cattle camps, forest grazing is to be undertaken.

Agricultural Measures and Provisions of Credit Facilities:

The Code 1980 envisages following 'Agricultural Measures' for ensuring production against the vicissitudes of natural calamities the visit the State almost every year- Kharif programme, supply of seeds, supply of fertilizers, dug-well irrigation scheme, precautionary measures before cyclonic floods, pest attack control measures, problem of sand cast lands, Rabi programmes etc. The Agriculture Department will make an assessment of the outcome of these programmes at the end of the year and make available a copy of such assessment to the Revenue Department. The 'credits facilities' provides on the basis of 'the Bihar and Orissa famine Code, 1913 under section 155 a set of Special Rules and under the Land Improvement Act XIX of 1883 for grant in an area declared by the Local Government under section 74 'as affected by distress', the same provisions are updated in Bihar and Orissa Loans Manual reprinted in 1971 read with the Bihar and Orissa Famine Code 1930 section 47. These special rules are applicable when the extensive distress due to distress and calamity is imminent or is present. These provisions have been adopted in the Code 1980. Stipulations are also made to 'Taccavi Loans' i.e., sagging of the morale of the people is inevitable on the occurrences of a wide spread calamity including disasters like cyclone and tidal inundation. It is of great importance

on such occasions, to have recourse to an early adequate distribution of loans, both as an act of moral strategy to give confidence to the people and also with the object of stimulating agriculturist efforts. In the circumstances, liberal advances may be given under the Agriculturist Loans Act 1884 until normal conditions are restored. The extent of loan is dependent on the degree of distress caused by natural calamity. Institutional loan facilities are stipulated during the time of natural calamities which may be a substantial amount for not only purchase of seeds, bullocks, fertilizers and insecticides but also for various other purposes like provision of water for irrigation (dug wells), capital employment of labourers, removal of sand from sand-cast lands, and land improvements. The Agriculture department will take steps for providing institutional credit in time for all such purpose.

Strengthening of Public Distribution System and Supply of Food Stuff for Relief Measures:

The PDS is the normal channel for distribution of essential commodities among people. Free flow of staple commodities like rice, wheat, products and other necessities of life of people are made available through this system at affordable price. This envisages also labour intensive works in order to provide employment to the rural population and in continuum opening of fair price shops or retail centres quite contiguous to the relief operation areas to avoid long distance movement of the consumers to avail the facility. This facility in addition to the gratuitous relief measures (supra). The concerned officers are required to avail adequate stock to face any contingency that may arise during the distress times. A report of the working of the PDS should be made immediately available to the BoR / SRC immediately after the occurrence of natural calamity.

Special Provisions in matters of 'Relief to Weavers and other Backward Artisan Class of People':

The rural artisan class like weavers, the fishermen, the potters, the blacksmiths, the carpenters, the cobblers, the tailors and similar others who are engaged in specialized trade are considered for liberal extension of relief measures. The BDO shall prepare a detailed list of these class persons and the damages they suffered including the loss of their equipments, implements and instruments and indicate the value thereof; the BoR / SRC on receipt of the same shall define a policy and sanction such relief measure as deemed proper. The Relief may be in the form of free grants for purchase of raw materials, tools and implements, including boats or nets to fishermen; for repair to workshop or shed; or giving of cash grants or loans. Special relief to distressed weavers and other artisans may be as far as possible given, if they are:

- a. Unfit, by the practice of their profession and hereditary habits, for hard outdoor labour; or
- b. Physically incapable of earning a sufficient livelihood in relief works; or
- c. Unable to submit to the labour tests on relief works without risk or impairing their normal skills or the delicacy of touch necessary for their arts and crafts.

Miscellaneous Relief Measures envisages that *mutatis mutandis* the government should follow ORC1980 stipulated procedures about the occurrence of natural calamities and the standing preparations in the event of any such natural calamity and keep vigilant watch over the situation and in the event occurrence of any such disaster, prompt action for rendering necessary relief to the affected people should be taken, Government Orders wherever needed may be sought for promptly.

Relief to bereaved families for Selfless Service:

While saving or trying to save human life from flood, cyclone or any such natural calamity or disaster, if any person dies accidentally, relief shall be given upto the maximum of Rs.10,000/- to the bereaved family as a token of recognition of the selfless service. Relief for other loss of life includes the cases of any member of the family dies to such natural calamities relief shall be given upto a maximum of Rs.05,000/- to the bereaved family⁵⁷. The Collector is empowered to sanction the relief. An elaborate procedure of record and registration of such sanctions of relief is also mentioned.

Sanction of Reward for showing exceptional bravery in rescue operations: A reward may be sanctioned in favour of an individual showing exceptional bravery in the rescue operation undertaken in connection with natural calamity.

The ORC 1980 has taken care to provide a very stringent '**Accounting and Auditing**' procedure which includes:

- a. Policy and arrangement for financing Relief Expenditure;
- b. Provision of fund in the annual budget for Relief Expenditure;
- c. Allotment of funds for relief measures;
- d. Supplementary allotments;

57 Rule 254 vide Revenue & Excise Department Resolution No. 24143/R dated 5th May 1992 and resolution No.38277/R dated 1st September 1995 and Resolution No. 52854 dated 24th November 1995 in ORC 1980 further provides for the cases where more than one member of a family dies due to such natural calamities, relief shall be given to the bereaved family as follows:

- i) Rs.10,000/- in case any member of a family dies,
- ii) Rs.06,000/- in case the second member of the family dies,
- iii) Rs.04,000/- in case of the third member of the family dies,
- iv) Rs.02,000/- in each case of death of an additional member of the family.

- e. accounts Registers;
- f. Drawl of money from treasury in case of emergency;
- g. Sanction of permanent advance;
- h. Expenditure statement and control;
- i. Reconciliation of departmental figures of relief expenditure with Accountant General's figures;
- j. Application of the normal accounting procedure and rules in respect of relief expenditure
- k. Audit of relief accounts;
- l. General points requiring attention of Audit;
- m. Classification of relief expenditure.

The concluding portion of the relief operations in the risk- management scheme is the '**Reports and Returns**': Like information dissemination and intelligence in undertaking of relief operation the vital finale to all the activities done 'prompt reporting' finds the crucial place. It is envisaged that all the concerned right from the field staff to policy making authority to quickly write down a report of the part played in disaster management depicting the facts and figures of the distress report and role play with in the stipulated time. The report should reach through the proper channel to the BoR / SRC. In appropriate cases a '*Memorandum of Natural Calamities*' will be submitted to the Central Government by the State Government. The Government of India prescribed⁵⁸ certain outlines and formats for use in drafting the memorandum and supplying information therein. Submission of monthly return on physical and financial achievements to the Government of India, utilization of advance plan assistance, report on flood damage required by the Central Water Commission, submission of weekly report on flood damage to the Government of India. A list of 28 reports⁵⁹ are prescribed with details of to whom they should furnished and the period of submission is also stipulated.

58 Letter no.12-1/77-(SR) dated 4th July 1977. the Letter written by S P Mukherji, Additional Secretary to the Government of India writes 'it is felt the task of central teams will be considerably facilitated if the memoranda submitted by different state governments conform, as far as possible, to the outlines (suggested)...' This includes:

1. Back ground of the natural calamity
2. Nature and extent of damage caused by the Natural calamities
3. Loss of revenue, if any
4. Measures taken by the State Government- emergent rescue, preventive health, relief etc.
5. Overall agricultural situation in the State
6. Requirements of Financial assistance for housing, fodder, fertilizer etc
7. Review of position for food grain
8. Summary

Formatted tables (11 numbers) are stipulated for filling up the appropriate columns depicting the above details.

59 The Following Reports are to be submitted by the District Collector:

1. Weather and Crop Situation – *Fortnightly*

Issue of White Paper: In case of a Major Calamity the legislators, the Press as well as the public express concern over the situation prevailing and relief measures undertaken, in order to present authentic information, the State Government usually lays a White Paper containing all the material particulars of the floor of the assembly for the information of the Members, copies thereof being circulated to the Press. When Government decides to take this step, the Revenue Department shall compile the White Paper after obtaining necessary material from the BoR /SRC.

Cyclones in Orissa:

The coast line of the State of Orissa stretches to 480 kms length on the east of Indian peninsula with the Bay of Bengal interface. The districts of Gajapati, Ganjam, Puri, Jagatsinghpur, Kendrapara, Bhadrak, and Balasore enjoy the sea line. Orissa located at lat.17.31°N – 20.31°N / long. 57.30°E - 81.31°E with an area of 1,55,707 square kilometers. The frequency of cyclonic storm during 1891-1989 is that the district of Balasore struck with 19 Cyclones, while the district of Cuttack with 17, and the southern most district of Ganjam with 7 cyclones. During the years, Orissa suffered following 'severe cyclones':

1. 1831- at Balasore – more than 22,000 people lost life
2. 1885 – False Point – more than 5,000 people died
3. September, 1971- nearly 10,000 people died due to severe wind and

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2. Situation Report for April, May & June – 10th July
 3. Monthly Situation Report from July to October- Special Situation Report – 10th of succeeding month/ October.
 4. List of Flood Circle Officers – 1st week of June.
 5. List of Places where Food Stock stocked – 30th June
 6. Review of Pre-Flood arrangements- 5th July
 7. Submission of daily situation report during Flood- daily
 8. Preliminary Flood damage – immediately after assessment.
 9. Final Flood Report- within one month from the abatement of Flood.
 10. Review of Pre-Cyclone arrangement – end of September
 11. Occurrence of Cyclone- within 24hours
 12. Post-cyclone disaster measures – quick review and submission of report on damage – within three days of occurrence.
 13. Preliminary and Final of Cyclone Damage Report – immediately after assessment and after abatement of Cyclone respectively
 14. Monthly return on work – 20th of succeeding month
 15. Monthly return of gratuitous relief – 25th of the month
 16. Monthly return on feeding programmes – 15th of succeeding month
 17. Monthly return of private Charity – 10th of succeeding month
 18. Monthly return of Orphans – by the end of the month
 19. Director of Health & FW Services : Weekly report on Health Measures – 7th, 14th, 21st and last of the month
 20. Director of Animal Husbandry and Veterinary Services: Weekly report on veterinary Measures - 7th, 14th, 21st and last of the month
 21. Irrigation and Power Department to Revenue Department: Progress in Clearance of damage works- 30th June 7, 2003
 22. Irrigation Officers to Collector: Weak points in flood control : Last week of May

- tidal surge.
4. September, 1985 – 84 people died and 2600 cattle were lost, Land of 4.0 hectare damaged.
 5. June, 1989- 61 people died and 27,000 cattle lost life, 145,000 houses devastated.
 6. October, 1999 – two cyclones struck, while the first cyclone killed 100 people and devastated one whole of the district of Ganjam, while the later distinguished as ‘Super Cyclone’ took a toll of 10,000 human live and proportionate high toll in cattle and other animal extinction with widespread destruction of property and infrastructure in 12 of its districts, bringing the state of Orissa to its knees.

Orissa had the history of being a victim of ‘severe’ to ‘very severe’ cyclones during the years 1942, 1971 before suffering the disaster of Super Cyclone in 1999. The killer Cyclone of 1999 rendered nearly 90 percent of the mud and thatched dwellings and 6million marginal and small farmer landless agricultural workers, fisher folk, and artisan jobless for more than 180 days. The inundation by saline water with tidal wave rising above 10 meteres at many places, left most of the drinking water sources dysfunctional for days. About 350,000 cattle perished and paddy crop worth Rs.1,750 crore, spread over 24 lakh hectares, was destroyed by high velocity winds with speed ranging between 100-250 kmph. Most affected districts are Paradip, Jagatsinghpur, and Kendrapara where a scene of total destruction appeared after the continuous three-day cyclone visit. The green cover of the state estimating to 9 million trees was destroyed. Most of the cyclone victims did not find the warning and information any different from the past and as such did not take the anticipated precaution as stipulated. This cyclone has been rated by the Meteorologists and Oceanographic scientists as the severest cyclone of the century, both in terms of intensity and trail of destruction that ever occurred in India. In Orissa, it was compared to ‘False Point Cyclone’ which ravished the State during the dates 19th - 23rd September 1885; the scientists in India explained that it was severer to that of Cyclone in Andhra Coast in 1977, where it killed 8547 people and 40,000 cattle and disrupting the life and infrastructure facilities of the State for more than 30 days.

Pre-Cyclone Measure: Cyclone Warnings and state of Preparedness during Super Cyclone:

Cyclone Warning Dissemination System CWDS did transmit the disaster warnings directly to the community using INSAT satellite, but no information about the destructive nature, the ferocity, the violent status was forth coming.

There were about 28 operational active warning sets functioning on the Orissa coast until 28th October 1999 as confirmed by the IMD⁶⁰. The AIR and Doordarshan did broadcast and telecast the warnings as per stipulations. The print media brought out the IMD bulletin as per the information indicated.

Government of India through the Department of Agriculture and Cooperation (DAC) functioning as the nodal agency for relief and rehabilitation measures in the wake of natural calamities convened pre-cyclone emergency meetings with the Chief Secretaries of all the three vulnerable State Governments of Andhra Pradesh, Orissa and West Bengal, as early as on 26th October 1999, and took stock of the alert status.

The National Crisis Management Committee (NCMC) under the Chairmanship of Cabinet Secretary reviewed the status preparedness in the meetings held at 2200hours on 27th October '99 and at 16hours & at 23hours on 28th October '99. The representatives of various ministries and departments of GOI viz., Defence, Home Affairs, Power, Telecom, Shipping, Road Transport, Railways, Petroleum, and Natural Gas, Information & Broadcasting, IMD and Resident Commissioners of the concerned states were all present in the meeting and gearing up for preparatory measures⁶¹. The NCMC communicated the Chief Secretary of Orissa to take necessary measures including evacuation of the people, stopping of drains in the vulnerable areas.

60 Managing Disasters in Orissa, Orissa State Disaster Mitigation Authority (OSDMA), 2002, Pp.34. – The IMD officials in Kolkata first sighted the depression near the western coast of Malay Peninsula as early as October 25, 99. The fact that the system posed a potential threat to the Indian Coast line was brought to their notice three days in advance. A series of Cyclone alerts and regular cyclone warning bulletins were issued. The ACWC issued warnings for north Andhra Pradesh, Orissa, West Bengal Coast. The CWC commenced warning from the late evening of 27th October, 99. The bulletins indicated ongoing intensification of the cyclonic storm, occurrence of gale winds varying from 100-200 kmph, heavy to very heavy rainfall in the coastal districts, high to phenomenal state of sea and advice to fishermen not to venture into the sea. As the system approached Orissa coast and intensified into a super cyclonic storm, the warnings are upgraded to indicate gale wind speed reaching 240-260 kmph and storm surge reaching 4-5meters above the astronomical tide level at the time and point of landfall.

61 The preparatory measures taken were:

1. Cancellation of rail services in some routes and diversion of trains in other routes in order to eliminate the loss of life.
2. the Armed forces and paramilitary forces were alerted to remain in readiness and to be available to the state government for the help.
3. A team of senior officers from the Ministry of Health was deputed to Orissa.
4. The port authorities at Paradip, Kolkata and Visakhapatnam were alerted to take all preparatory measures.
5. Department of Power alerted to remain in state of readiness.
6. Department of Telecom informed all its local organisations.
7. The Doordarshan and RIR were informed to issue special cyclone bulletins in various languages including local languages.
8. The Ministry of Petroleum was advised to ensure availability of Kerosene and other petroleum products.
9. A decision was taken to send a rapid Action Team comprising the officials of the Ministries of Agriculture, Power, Roads, Telecom, Defence, and Shipping.

Regarding the 'event prediction', the IMD conformed prediction that the cyclone would be very severe and make landfall on the night of 28th October between Puri and Balasore⁶². The prediction was accurate and was available more than 75 hours before the event, providing ample time for 'risk-avoidance action'. The State Government communicated the warning to district Collectors and alerted Army. Over the next 48 hours the Collectors were kept posted about the cyclone's movement and were asked to evacuate people residing within 10 kms of the sea. At about 7.30 AM on 29th October '99 the states' communication system got disrupted to the ferocity of the super cyclone creating chaos in monitoring the event. The breakdown of the power and communication network has brought the state administration to a grinding halt, depending totally for help and assistance from neighboring states and other agencies. The Army launched 'operation sahayata'; Initial relief came from government of Andhra Pradesh⁶³ and Care India. The NCMC started monitoring the disaster management from Krishi Bhavan by establishing a 'multi-disciplinary control room.

When the cyclonic system took the shape and attained the ferocity of super cyclone range and made a landfall near Paradip⁶⁴, the whole of the Coastal Districts plunged into sudden darkness, being bitten by the high velocity wind and heavy rain at places. In no time the state became poorer by several million rupees infrastructure, agriculture facility, and huge toll of human life due to storm surge and torrential rain and ensuing flood⁶⁵. The worst affected area was Ersama, where public warnings were broadcast on the electronic media

62 The Orissa Meteorological Department had issued a warning in the afternoon of 26th October '99.

63 An iridium global satellite phone sent by the AP Chief Minister Mr.Chandrababu Naidu to his counterpart in Orissa Mr.Giridhari Gomang was of immense use in communication, the AP relief team helped in clearing the road, the APTRANSCO assisted in restoring power, the medical team from Andhra Pradesh joined the relief action plan.

64 Landfall point: Between Ersama and Balikuda (southwest of Paradip)

- Time of landfall: 10.30 AM of 29th October '99.
- Storm surge: 7-10meters
- Eye of storm: Paradip
- Diameter of cyclone: 200kms
- Central pressure of the storm: 926hpa
- Storm intensity 6.5 in Beuforte scale
- Wind speed; 200-260kmph

(Source: White Paper on Super Cyclone, Chapter-2 p.22)

65 Super Cyclonic Storm (October 29th -30th '99) damage statistics:

- Population affected: 15,68,11,072
- Number of villages affected: 14,586
- Districts affected: 12
- Human lives lost: 9,893
- Livestock perished: 4,44,531
- Houses damaged: 16,61,683
- Cropped area damaged: 18,43,047

(Source: White Paper on Super Cyclone, Chapter-2 p.22)

more than 50 hours before the disaster struck and even the remote villages were covered through battery-operated radios and TVs. The warning categorically advised evacuation of certain areas⁶⁶. The cyclone warnings were 'timely', reached the vulnerable people, and appropriately disseminated in view of the impending disaster, however the aspects of 'decisiveness', 'credibility', and 'specificity' about the risk information was not upto the mark, for the weather information puts the onus of taking decisions on the people, emergency action information instructs people in certain ways both together leaving the people indecisive as to act on their own judgment or to follow instructions. The ill fated people preferred status quo, and remained confined to their mud-walled home on the flat low-land only to be swept away by the tidal waves which made larger inroad because of larger storm surge and inundation⁶⁷. Ersama people were not aware of any 'risk avoidance action' to act swiftly and to exercise choice for mitigating the disaster.

The infrastructure that Orissa had at its command was in contrast to all the policy, executive orders formulated in the subordinate legislation ORC 1980. Orissa was having only 23-Cyclone Centres (constructed by Red Cross Society), where as it should have had at least 480 for 480kms coastline. The wireless system failed during the cyclone for want of radio masts that could withstand high wind velocity. The ham radio network as a backup communication link is almost absent in Orissa. The fail-proof communication system was near to naught in Orissa during the cyclone. The criticism is being made to the ORC for not distinguishing 'weather information' and 'emergency action information' in the warnings issued. Emergency-action level based on predicted cyclone intensity is not stipulated in the Code and the third of the criticism is targeted to 'the revenue department', who are empowered with the task of the coordination of the disaster mitigation services. The activated emergency plan though started at Ersama came to a grinding halt for want of effective transportation system and appropriate cyclone shelter. There however remains a need for a specialist emergency management agency to handle such situation instead of overburdened District Collector and the Revenue Department.

The large scale destitution that followed the cyclone was made worse by the fact that education, health, situation and drinking water facilities remained damaged and non-functional for months after cyclone. The economy of the state was shattered, although the districts in the coastal belt are considered prosperous, a large segment of the population was already vulnerable and living

66 Ibid at p.35.

67 Ibid at page 36 – The destruction was complete by the incessant rain and strong winds that smashed houses, uprooted trees, power and telephone poles and felled all that came across the storm's path.

below the poverty line before the cyclone hit. The most important failure was resulted from the community based disaster preparedness, perception and people involvement to reduce the catastrophe. There is an imminent need to infuse a disaster reduction component into development activities of the state so that the objectives of restoration and reconstruction as well as building up the capacity to face future calamities.

Reference has to be made to the extremely poor and inadequate communication systems affected areas for consideration of improvement of the road networking, electricity, warning systems and other forms advanced communication. The preventive and preparedness measures to combat the disasters should form an integral part of all the developmental plans irrespective of departments to whatever they relate.

Risk Reduction Measures commences from risk assessment. The evaluation of risk from a tropical cyclone has to be made through a hazard map, by analyzing climatologically records of previous cyclones, by studying the history of wind strength, frequencies, the height and location of storm surges and frequencies of flooding, by building a data base of information about occurrences of cyclones in the past 100 years over the Bay of Bengal and their intensity, track, impact and lessons learnt from each of the occurrences. The OSDMA prescribes the following specific preparedness measures as a lesson learnt from the Super Cyclonic disaster:

1. An integrated warning / Response System
2. Effective Public Warning System
3. Fail-proof Communication net-work
4. Building a cadre of specialist risk management agency
5. Community Awareness, Training, and Participation
6. Creation of trained personnel at the village level in search & rescue operation
7. Planned cyclone shelter centres
8. Improvised housing structure
9. Stock piling of relief material, medicine, and drinking water
10. Post-disaster arrangements such as-
 - Evacuation
 - Emergency Shelter
 - Search & Rescue
 - Medical assistance
 - Provision for short term food and water
 - Water purification

- Epidemiological surveillance
- Provision of temporary lodging
- Reopening of roads
- Reestablishment of communication networks and contact with remote areas
- Debris clearance
- Disaster assessment
- Provision of seeds, other livelihood support, restoration and construction of damaged buildings and other infrastructure.

There appears that the ORC 1980 designed with its updated executive directives and mandates till 1996 were in order. Any law relating to disaster mitigation, risk management has to essentially include all the policy directives as conceptualized in the Orissa Relief Code. The shortcomings in the Code can be augmented by updating with the advancements made in the knowledge and technology all around the world in the field of 'risk management'. The thrust in the prevailing circumstances should be more on community awareness, people participation, and formation of village self-help squads. The people awareness programmes should be repetitive, continuous and targeted for internalization, and involvement. The Orissa Super Cyclone largely tells a tale of economic backwardness, poor infrastructure networking contributed to the aggravating situation of human loss interalia the property damages. The disaster-mitigation-law in the books is both apt and at appropriate place but there has been a crisis in learning, understanding, and making effective use of the well articulated policy and propositions. From the analysis of the research reports of the meteorologists, oceanographers, and disaster managers it appears the Cyclone visited Orissa in a very very furious animosity, which never happened in India any where earlier, as such the bite of the cyclone would have caused the similar disaster and distress any where around a third world nation.