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## GOVERNMENT OF PUDUCHERRY

# CRISIS MANAGEMENT FRAMEWORK AND STANDARD OPERATING PROCEDURES FOR UNION TERRITORY OF PUDUCHERRY



DEPARTMENT OF REVENUE & DISASTER MANAGEMENT

2011





Nov 30, 2010

### FOREWORD

I am happy to note that the Department of Revenue and Disaster Management, Government of Puducherry has formulated a Crisis Management Plan (CMP) for the Union Territory of Puducherry to respond to various crises - manmade or natural.

The Plan encompasses various action points to tackle any occurrence of a crisis situation including Terrorist threat / attack, though Puducherry is a peaceful spiritual tourist destination.

It is observed from the CMP that based on the past experiences, extensive analysis has been made on every aspect of crisis and Standard Operating Procedures are derived meticulously. Though, several institutes in our Country are conducting research on Management Information System (MIS) / Decision Support System (DSS) / mobile communication, etc., I believe this CMP would immensely help this Administration to tackle / defuse any Crisis situation.

I appreciate the concerted efforts taken by the Department of Revenue and Disaster Management and all the line departments for coming together to prepare this comprehensive CMP.

This CMP is a dynamic document and shall evolve based on the requirements and experiences in the field.

**(Dr. IQBAL SINGH)**





## FOREWORD


I am delighted that the Department of Revenue and Disaster Management, Government of Puducherry has prepared a Crisis Management Plan (CMP) for the Union Territory of Puducherry.

Crisis management is both an art and a science. Prevention is key and by establishing robust crisis management mechanisms one can optimise preparation and reduce the risk of an incident occurring or diminish its impact.

This CMP is not only intended for those responsible and involved in the management of critical incident and crisis management mechanisms, but also intended to serve as reference document for reflection on how to improve the prevention and management of critical incidents with the minimum available resources.

This reference guide has been designed to assist us in developing or improving our plans for responding to, and communicating during, a crisis. It is a planning guide and deals with issues like communications and implementation. Anybody can use this information to develop or assess their own plan and customize the information during a crisis situation.

I am confident that the people of this Union Territory will be immensely benefited from the knowledge and experience of a wide range of experts during crisis. I also hope this guideline will assist the Government in protecting the people and their assets and also improves the society's performance in crisis management.

  
(V. VAITHILINGAM)



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## INTRODUCTION

### a) History of Crisis Management:

Natural disasters and crises have been an integral part of human history right from the dawn of civilization. The rise and fall of the Indus Valley and Babylonian civilizations are a testimony to this. In the early days, individuals and communities would lead the response to crisis. However, with the emergence of the modern welfare state and the 20<sup>th</sup> century trends of globalization, urbanization, large-scale migrations of human population and climate changes, the nature of crises facing nations has increased both in magnitude and complexity. For example, while the frequency of calamities may have remained unchanged, increasing population densities and urbanization have resulted in greater impact on human lives and property. In the field of public health, while science has secured a major victory over epidemics, new strains of viruses and drug resistant micro-organisms have emerged raising the specter of global pandemics of new and more deadly diseases. Similarly, while frequency of wars has declined, modern weapons and mass urbanization have increased manifold the human crisis caused by such conflicts. The scourge of terrorism has created new types of crises and increasing dependence on communications and computer networks have increased the threat of newer emergencies in case these are disabled by accident or design. Further, phenomena like modernization, information explosion, transnational migrations, and the economic interdependence among nations have all contributed to extending the impact of crisis situations over larger areas.

### a) Types of Crises:

Crises can be classified into the following categories:

- (i) Crises caused by acts of nature. These can further be divided into the following sub-categories:

- a) Climatic events, cyclones and storms (associated sea erosion), floods and drought and
- b) Geological events: earthquakes, tsunamis, landslides and avalanches;
- (ii) Crises caused by environmental degradation and disturbance of the ecological balance;
- (iii) Crises caused by accidents. These, again, can be further classified into: industrial and nuclear mishaps and fire related accidents;
- (iv) Crises caused by biological activities, public health crises, epidemics, etc;
- (v) Crises caused by hostile elements: war, terrorism, extremism, insurgency etc;
- (vi) Crises caused by disruption/failure of major infrastructure facilities including communication systems, large-scale strikes etc; and
- (vii) Crises caused by large crowds getting out of control.

These crisis situations and their specific features are captured in a 'crisis management matrix'.

### c) Scale of Crises:

Depending on its intensity and area of impact, a crisis situation may be labeled as local, sub-district, district, state or national level. State Governments and their agencies, district officials and local Governments have important roles to play along with communities in crisis management. The scale of crisis determines the nature and level of response. The Union Government has to step in for major disasters by way of providing financial, material and human resources support. Also, in case of certain specific crisis situations, which affect the national interest, a national level response is necessary. Such contingent situations may be terrorist incidents like hijacking of an aircraft, suicidal attacks, sabotage, attacks on important installations/buildings or community symbols, hostage crisis, threat or actual use of nuclear / chemical / biological weapons; war or war-like situations; mutiny; migration / infiltration /; breakdown of important services like Railways, Chemical/biological disasters and those relating to major mines-mishaps; oil spills; cyber terrorism etc.

## PHASES OF CRISIS MANAGEMENT

In the traditional disaster management approach, the focus was on emergency relief and immediate rehabilitation. Society deemed these measures sufficient as anything more was considered 'unaffordable'. Besides, as stated in the Yokohama Declaration, the element of 'drama' and flurry of activities with these interventions tended to show to the Society at large that the State 'cared'. A 'Welfare State' entails wider responsibilities meaning thereby that in addition to the traditional responsibilities of relief and immediate rehabilitation, Governments in conjunction with the local bodies, the civil society, voluntary organizations and corporate bodies, address the factors leading to the crisis, in a manner significantly reduces their ill effects.

It is also necessary to recognize that often a crisis does not emerge suddenly, it has a life cycle, which may take days, months or even decades to develop depending on its causative factors. A crisis, therefore, needs to be examined in terms of its management cycle that would enable us to anticipate the crisis, prevent and mitigate it to the extent possible and deal with the crisis situation as it emerges. This 'life cycle' of crisis management may be divided broadly in three phases such as pre-crisis, during crisis and post crises.

### a) Pre-Crisis: Preparedness

This is the period when the potential hazard risk and vulnerabilities can be assessed and steps taken for preventing and mitigating the crisis and preparing for actual occurrence. These include long-term prevention measures like construction of embankments to prevent flooding, creating or augmenting irrigation facilities and adopting water shed management as drought proofing measures, increasing plantations for reducing the occurrence of landslides, construction of earthquake resistant structures and sound environment management.

Crisis can also be mitigated through various short term measures, which either reduce or modify the scale and intensity of the threat or improve the

durability and capacity of the elements at risk, for example, better enforcement of building codes and zoning regulations, proper maintenance of drainage systems, better awareness and public education to reduce the risks of hazards etc.

For different types of disasters, mitigation measures may vary but what needs to be emphasized is the priority and importance to be attached to various measures. In order to do that, an appropriate legal and operational framework is essential.

## b) During Crisis – Emergency Response

When a crisis actually occurs, those affected by it require a speedy response to alleviate and minimize suffering and losses. In this phase, certain 'primary activities' become indispensable. These are, evacuation, search and rescue, followed by provision of basic needs such as food, clothing, shelter, medicines and other necessities essential to bring the life of the affected community back to a degree of normalcy.

## c) Post -Crisis

### 1.Recovery

This is the stage when efforts are made to achieve early recovery and reduce vulnerability and future risks. It comprises activities that encompass two overlapping phases of rehabilitation and reconstruction.

### 2.Rehabilitation

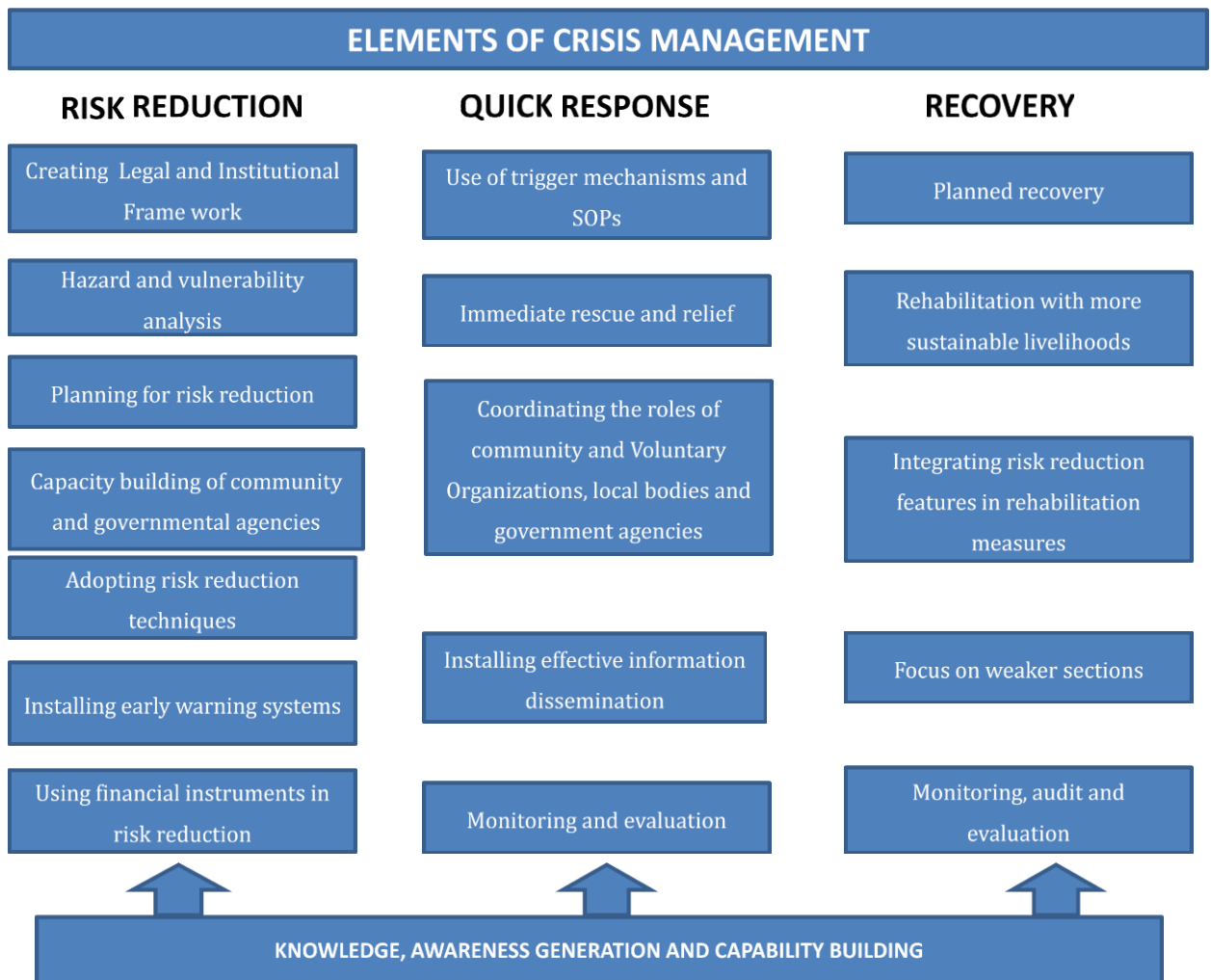
Includes provision of temporary public utilities and housing as interim measures to assist long term recovery.

### 3.Reconstruction

Includes construction of damaged infrastructure and habitats and enabling sustainable livelihoods.

## ELEMENTS OF CRISIS MANAGEMENT

These three stages – preparedness and risk management, emergency response and recovery and rehabilitation may be subdivided into various detailed activities as presented.



## CRISES MANAGEMENT MATRIX

Crisis Caused By	Natural events						Accidents			Biological Events	Hostile elements	Disruption of essential services	Large gatherings getting unruly	
	Climatic			Geological										
Specific Features	Drought	Cyclone	Tsunami	Flood	Earthquake	Landslide	Industrial	Nuclear	Fire	Epidemics	Extremism	Terrorism		
Early Warning Possible?	Yes	Limited	Very Limited	Limited	No	No	No	No	No	Yes	Limited	No	Limited	Limited
Level of Community Preparedness	Some Extent	Some Extent	Nil	Some Extent	Nil	Nil	Nil	Nil	Limited	Nil	Nil	Nil	Limited	Nil
Duration of Disaster	A Few Months	A Few Days	A Few Hours	A Few Minutes	A Few Minutes	A Few Minutes	A Few Days	Prolonged	A Few Hours	Prolonged	Days To Months	Instantaneous	A Few Days	A Few Hours
Whether Building Structures Important	No	Yes	Yes	Yes	Yes	Limited	No	No	Yes	No	Yes	No	No	No
Area Affected	Large	Large	Large	Medium to Large	Large	Limited	Limited	Medium	Limited	Medium	Large	Limited	Large	Limited
Whether Mitigation Measures Possible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether Rescue Required	No	Yes	Yes	Yes	Large Scale	Yes	Yes	Yes	Yes	Generally No	Yes	Yes	No	Limited

## ANNEXURE-I

### LIST OF CRISIS & RELATED DEPARTMENTS

SL. No	Name of the Crisis	Nodal Department	Crisis Management Formations
1	Fund Shortage	DAT	Department SOP
2	Various problems in student hostels run by the Dept, etc	AD welfare	Department SOP
3	Non operation of schemes		
4	Financial crisis at PADCO		
5	Shortage of Agricultural Inputs (seeds, Fertilizers, pesticides)	Agriculture	ESF Damage
6	Epidemic (pest/pathogen)		
7	Crop damage due to heavy rains, flood, cyclones, etc	Animal Husbandry	ESF Emergency Health Services
8	Spread of Cattle diseases (Anthrax, Foot & Mouth, etc)		
9	Spread of Poultry diseases (bird flu, etc)		
10	Strike by Lorry operators, Traders	Civil Supplies	ESF Transportation ESF Civil Supplies
11	Acute shortage of food grains & essential commodities		
12	Steep rise in prices of food grains & essential commodities		
13	Acute shortage of Fuel (LPG, Diesel, Petrol)		
14	Adulteration	Disaster Management	ESF Frame Work
15	All Natural & man made disasters & crisis		
16	Strike by Government of Staff	Department of Personnel	Department SOP
17	Student strike	Education	Department SOP
18	Teachers Strike		
19	Central Kitchen – Food poisoning		
20	Strike by Cooks & Meals carrier		
21	Damage of school buildings, public & private	Electricity	ESF Electricity Restoration Department SOP
22	Power crisis/Shortage		
23	Damage of electrical installations-accidents, thunder strike, etc		
24	Agitation of employees		

25	Sabotage to electrical installations		
26	Financial Crisis/shortage	Finance/DAT	Department SOP
27	Fire accidents leading to disastrous situation	Fire Services	ESF Fire
28	Rescue of victims		
29	Deforestation/Wild fire	Forestry & wild Life	Department SOP
30	Spread of Epidemic	Health & Family Welfare	ESF Emergency Health Services  ESF Public Information/Warning /helpline
31	Hazard due to Hospital bio-waste		
32	Rumor on spread of disease		
33	Shortage of Medicine		
34	Shortage of Life savings drugs		
35	Strike by Doctors, Nurses, etc		
36	Drug adulteration		
37	Mass casualty due to accidents, etc		
38	Data Theft	Information Technology	Department SOP
39	Crashing of Departmental web sites		
40	Agitation of inmates	Jail	ESF-Law and Order
41	Industrial Hazards/disasters	Labour/DRDM	ESF- Fire/Hazardous Substance leak /spill
42	Labour agitation		
43	Lock out		
44	Dumping of industrial waste	Local Bodies	Department SOP
45	Dumping of garbage		
46	Large scale disposal of dead bodies (unclaimed)		
47	Blocking of drainage		
48	Agitation of employees		
49	Unauthorized use of port/harbour/Airport	Port, Police, AirPorts Authority of India	Department SOP
50	Oil spill	Science & technology, PPCB, Port	ESF/Hazardous Substance leak /spill
51	Financial Crisis	Planning and research	Department SOP
52	Terror attack		
53	Bomb blast		
54	Hijacking		



55	Assassination of WIPs/VIPs	Police	Department SOP ESF Law and Order
56	Looting		
57	Riot		
58	Road roko		
59	Attack on vital installations		
60	Strike/Agitation	Police	ESF Communication ESF Law and Order
61	Cyber crimes		
62	Coastal security		
63	Nuclear disaster at Kalpakkam		
64	Hunger strike		
65	Inciting Communal violence	Public Works	ESF Debris clearance ESF Public Works and Engineering
66	Damage to tanks, lakes, channels, Floods		
67	Damage to Bridges		
68	Damage to Government buildings		
69	Contamination of drinking water		
70	Damage of water tanks	Register of co- operative Societies/Animal  Husbandry Department	Department SOP
71	Milk shortage		
72	Communal clashes	Revenue/Police	ESF Law and Order
73	Agitation by Anganwady workers	DWCD Social Welfare	Dept SOP Department SOP
74	Non payment of OAP	Survey & Land Records	Department SOP
75	In-operation of schemes		
76	Loss of Revenue data	Transport	ESF Transport ESF Communication
77	Lorry/bus strike		

## THE INCIDENT COMMAND SYSTEM FOR PUDUCHERRY

The Incident Command System (ICS) is an on-scene, all- risk, flexible modular system adaptable to any scale of natural as well as man-made emergency/incidents. The ICS seeks to strengthen the existing disaster response management system by ensuring that the designated controlling/responsible authorities at different levels are backed by trained Incident Command Teams (ICTs), whose members have been trained in the different facets of emergency/disaster response management. The ICS will not put in place any new hierarchy or supplant the existing system, but will only reinforce it. When an ICT is deployed for an incident, all concerned agencies of the Government will respond as per the assessment of the Team.

This system therefore enables proper coordination amongst the different agencies of the Government. The five Command functions in the Incident Command System are as follows:

- i) Incident command - Has overall responsibility at the incident. Determines objectives and Establishes priorities based on the nature of the incident, available resources and Government policy.
- ii) Operations- Develops tactical organization and directs all resources to carry out the Incident Action Plan (IAP).
- iii) Planning- Develops the Incident Action Plan (IAP) to accomplish the objectives. Collects and evaluates information, and maintains status of assigned resources.
- iv) Logistics- Provides resources and all other services needed to support the organization.
- v) Finance/Administration-Monitors costs related to the incident, provides accounting Procurement, time recording, cost analysis, and overall fiscal guidance.

INCIDENT COMMAND SYSTEM FOR THE STATE

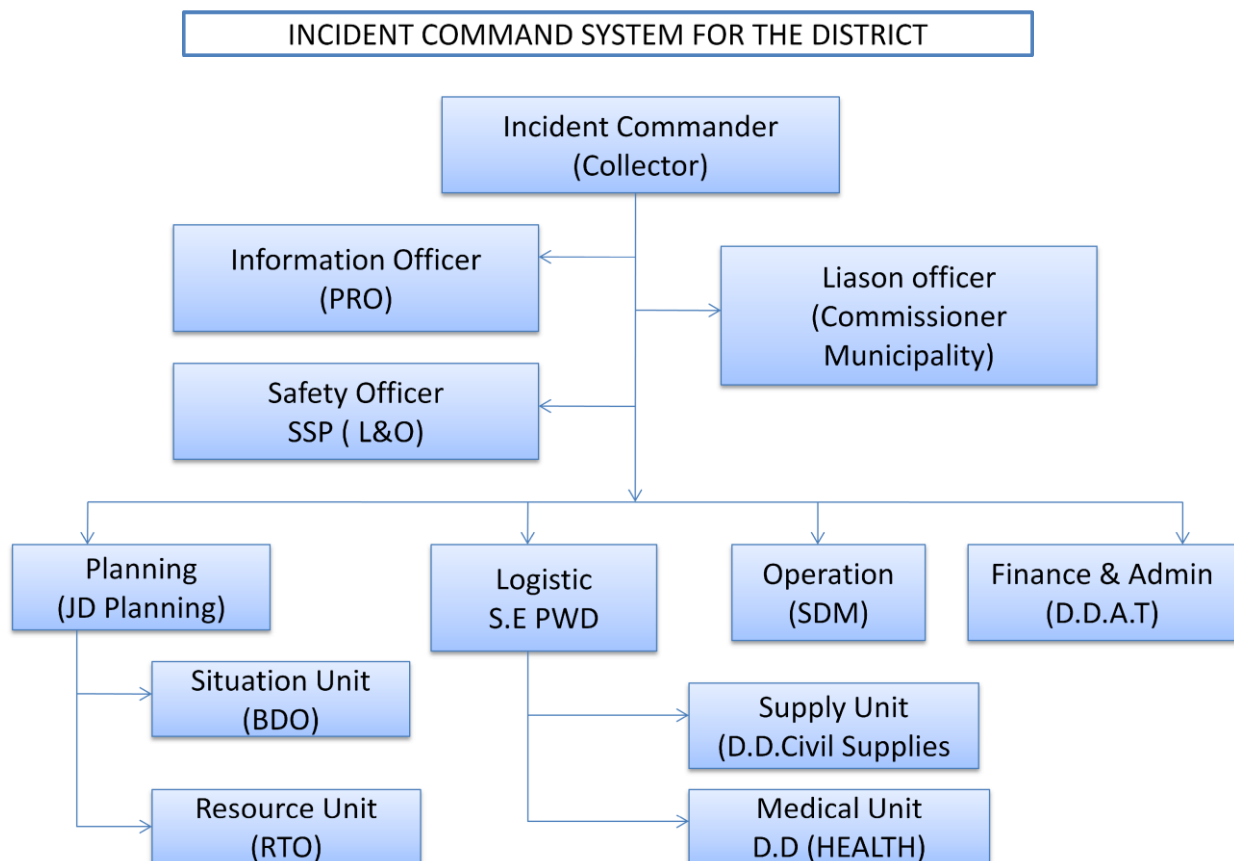


a) State Level Incident Response Team:

The State Level Incident Command System is headed by the responsible Officer (Chief Secretary) and Incident Commander at the State Level is the Development Commissioner/Relief and Rehabilitation Commissioner.

The Incident Commander is assisted by Information and Media Officer (Secretary, Information & Publicity), Safety Officer (IGP) and Liaison Officer (Collector), Puducherry. Three different sections i.e Operation Section, Planning Section and Logistics Section function under the direct control of the Incident Commander.

Revenue, Police and Fire mostly combine to form the Operation Section. Planning & Research, Finance Department and Statistics Department combine to form Planning Section, while, PWD, LAD and Transport combine to form Logistics Section.



b) District Level Incident Response Team:

At the District level, one District Headquarters Team with the primary function of assisting the Collector (Incident Commander) in handling tasks like general coordination, distribution of relief materials, media management and the overall logistics is envisaged.

In the District level, Incident Command System the Collector is the Incident Commander. Senior Superintendent of Police (L&O) is the Safety Officer, Public Relations Officer, Information Department is the Information Officer and Commissioner, Municipality is the Liaison Officer to the Incident Commander. Planning Unit headed by Joint Director (Planning), Logistic Unit headed by Superintending Engineer (PWD), Operation Unit headed by Sub Divisional Magistrate and Finance headed by Deputy Director of Accounts and Treasuries. Situation unit headed by Block Development Officer, Resource Unit headed by Regional Transport Officer, Supply unit by Deputy Director (Civil Supplies), Medical Unit by Deputy Director (Health).

c) Incident Command System for Mahe and Yanam Regions:

Incident command system for Mahe and Yanam regions will be headed by the Regional Administrators, respectively and supported by representatives of the Departments as shown for the District Incident Command System.

## EMERGENCY SUPPORT FUNCTIONS

Emergency Support Functions are some of the most common functions carried out in any response activity to a disaster either man-made or natural. The Crisis Management Plan is based on the premise that the Emergency Support Functions (ESFs) performed by various Departments and organizations during emergency operations generally are similar to the normal day to day functions. The same personnel and material resources will be employed in both cases. Day-to-day tasks or operations that do not contribute directly to the emergency may be suspended or re-directed for the duration of any emergency disaster and efforts that would normally be assigned to those tasks will be channeled towards emergency and disaster ESF as assigned.

Emergency Support Functions is a functional area of response activity established to facilitate the delivery of critical assistance required during their immediate response phase of a disaster / crisis to save lives, protect property and public health, and to maintain public safety.

It is important to note that while the causes of emergencies vary greatly, the potential effects of emergencies do not. This means that the District can plan to deal with effects common to several hazards, rather than develop separate plans for each hazard. For example, earthquakes and floods, can force people from their homes. The District administration can develop a plan and an organization around the task, or function, of finding shelter and food for the displaced with minor adjustments for the probable rapidity, duration, location, and intensity of different hazards based on the requirements. The District administration can do the same for other common tasks. In fact, a critical aspect of planning for the response to emergency situations is to identify all of these common tasks, or functions, that must be performed, assign responsibility for accomplishing each function, and ensure that tasked organizations have prepared SOPs that detail how they will carry out critical tasks associated with the larger function.

The incident commander (State level) is authorized to trigger a particular ESF into operation based on the nature and magnitude of Crisis/Disaster.

Table1:Emergency Support Functions-forUTofPuducherry

ESF	Scope	ESF Team Leader	Primary Agency	Support Agency
Communication ESF # 1	Establishing, using, maintaining, augmenting, and providing backup for all of the types of communications devices needed during emergency response operations	SSP (L&O)	POLICE	BSNL, NIC, Private Telecom Operators, Electricity Dept, IT Dept, DD/AIR.
Emergency Medical services and Public Health ESF # 2	Mass Casualty Management, Public health, Medical, Mental health services.	Director (Health)	Health Department	GH, JIPMER PIMS, MGDCRI BLOOD BANKS, AMBULANCE SERVICES, ROTARY, LIONS CLUB, RED CROSS, MGPIDS, MTPG RIHS, Revenue, LAD, Electricity Dept, Police, NCC,
Emergency Public Information, Help line & Warning ESF # 3	The flow of accurate and timely emergency information is critical to the protection of lives and property in the wake of a catastrophic event. Preparation and dissemination of notifications, updates, warnings, and instructional messages making the help line operational	Collector	Revenue	Information and Publicity Dept, Planning and Research Dept, Education Dept, NIC, Media, NGO's, Health Dept, DD/AIR.

Search & Rescue ESF # 4	Removal of trapped and injured persons from buildings collapses and other structural collapses, administering first aid, and assisting in transporting the seriously injured to medical facilities. This activity involves the use of professional and volunteer search teams including the use of dog teams	D.F.O Divisional Fire officer	Fire Services	Police, (Home guards IRBn), Health Dept, Municipality, Electricity Dept, Block Development office, Taluk office, Commune Panchayat, PTDC, Fisheries Dept, Dept of Town & Country Planning, Animal Husbandry, Coast guard, NCC.
Transport ESF # 5	Provides transportation out of a disaster area of people in need, and provides transportation essential to support emergency response in the event of a disaster, coordinating for resurrection of transport infrastructure	Transport Commissioner	Transport Dept	Southern Railways, Fisheries Dept, Education Dept, Police, Orient flight school, Private vehicle owner's association, PRTC, PTDC, Pasic, Papsco, GAW, Under Secretary (Estt).
Evacuation ESF # 6	Immediately following an earthquake people may need to be evacuated from structures that have been damaged and are likely to receive more damage when hit by one or more of the aftershocks	Collector	Revenue	LAD, Municipality & communes, BDO, RD Dept, Police, Fisheries Dept, Transport, Dept of Industries Dept AD welfare, PWD, Dept of Town & Country Planning, NCC.



Debris Clearance & Equipment support ESF # 7	The identification, removal, and disposal of rubble, wreckage, and other materials which block or hamper the performance of emergency response functions and procure needed equipments from support agencies using IDRN; should be a high priority action	Chief Engineer	PWD	LAD, Under Secretary (Works), Electricity dept, Municipality & commune Panchayat, BDO, Taluk office, Earth moving Equipment owners Association, Builder's Association.
Damage Assessment ESF # 8	Conduct of ground surveys to determine the scope of the damage, casualties, and the status of key facilities	Collector	Revenue	Agriculture, AHD, LAD, PWD, DRDA, PASIC, PIPDIC, DIC Industries, Tourism Dept, Electricity dept, Statistics Dept, PIPDIC.
Relief Camps ESF # 9	Accommodating homeless and affected people and providing mass care	Director of Social Welfare	Welfare Dept	Education Dept, Electricity Dept, Municipalities & Communes, BDO's, PWD, AD welfare, Director of social welfare, Dept of Health, Contractors Association.
Food and Civil Supplies ESF # 10	Optimizing Food and Civil Supplies to the needful	Director Civil Supplies	Civil Supplies Dept	Agriculture Co-operation Dept, Chamber of Commerce, Education Dept, Ad welfare, Papsco, Pasic, Ponlait, Puducherry Institute of Hotel Management, Hotel owner's Association, NGO's.

Water Supply and Sanitation ESF # 11	Restoration and repair of water supply system to minimize the impact on critical service to the public	SE - II PWD	PWD	LAD, Municipality & Commune Panchayat, Health Dept, DRDA, NGO's.
Electricity Restoration ESF # 12	Restoration and repair of electrical power system to minimize the impact on critical service to the public	SE – I Electricity	Electricity Dept	LAD, PWD, PPCL, Electrical Contractors.
Public Works and Engineering ESF # 13	Infrastructure protection and emergency repair Infrastructure restoration.	Chief Engineer	PWD	NHAI,LAD, Housing Board, Electricity Dept, Forest Dept, Police Dept.
Fire Fighting / Hazardous Materials Response ESF # 14	Coordinating of firefighting operations, Hazardous materials (chemical, biological, radiological, etc.)response Environmental short-term cleanup	D.F.O	Fire Services	Police, IRBn, Coast guards, NCC, Dept of Industries, Inspector of Factories, Labour Dept, Science and Technology, Dept of Atomic Energy, Dept of Health, Port Dept.
Law and Order Enforcement ESF # 15	Law and Order enforcement for Public Safety	SP	Police	Judicial Dept, Revenue, NSS, NCC.
Resources Mobilization; Contracting Services; Volunteer and Donation Support; ESF # 16	Mobilizing support (human, equipment and other) from various organizations. Contracting Services, mobilizing Volunteer support, facilitating donations	Director (Social Welfare)	Welfare Dept	Education Dept, Revenue PWD PIPDIC, NGO's

## ESF 1 – COMMUNICATION

### SCOPE:

The major requirement during any natural or man-made disasters response is the presence of a fool-proof communication system which should serve as the life-line of all Emergency Support Function and the overall co-ordination effort.

### ASSUMPTION:

1. Existing communication systems may have been disrupted owing to the disaster.
2. Whatever existing communication, channels may be heavily crowded – owing to heavy usage of the network by many persons.

PRIMARY AGENCY: Police Department

SUPPORT AGENCY: BSNL, NIC, Electricity Dept, IT Department, HAM Radio Operators, DD/AIR & Private Telecom Operators,

TEAM LEADER: Senior Superintendent of Police (L & O)

### SOP FOR COMMUNICATIONS:

- Team Leader (TL) of communication ESF/Senior Superintendent of Police (L & O) will activate the ESF on receiving the intimation of the disaster from EOC.
- SSP(L&O) would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- SSP(L&O) requests for reports on the incident from the local ESF contact person (this would be the local office of ESF Nodal Agency-Superintendent Police of the region concerned).

- Within half-an-hour of the occurrence of the disaster, the Team Leader convenes an urgent meeting of all ESF Members and seeks a status report on the extent of damage to telecom services and network.
- Based on the inputs from the Support Agencies and the private telecom operators, the Team Leader works out a Contingency Communication Plan, which is reliable and appropriate.
- TL issues orders to establish systems and reports to State and District EOCs on the action taken. New members and details of contact persons would also be communicated. If required mobile exchanges would be deployed.
- HAM radio operators, through their association, would be informed of the requirements and coordination mechanisms shared with them.
- TL gets the temporary telephone facilities established for the public and information on this is announced through media and ESF# Public Emergency Information / Warning.
- TL informs the Incident Commander of the status of telecom services and the alternate arrangements made.

**SOPFORQUICKRESPONSETEAMONCOMMUNICATION:**

- The main task of the QRT on Communication is to secure and provide a reliable and quick communication network for the Incident Command Team at the site and the Incident Commander of the Headquarters/EOC.
- The QRT of Communication ESF will be headed by the Superintendent of Police (Wireless).
- The other Members of the QRT are DGM of BSNL, DIO of NIC, Programmer of IT Department and Representatives of private Telecom operators.

- After briefing by the Team Leader, the QRT rushes immediately to the site.
- Superintendent of Police, (Wireless) will ensure that soon after the disaster is reported, he will close down all normal communication and keep the network available for communication regarding the disaster.
- S.P(Wireless) liaises with the Incident Commander at the site and the number of deaths, injured and preliminary extent of damage to public and private property are conveyed to the Team Leader for briefing the Incident Commander at Headquarters.
- He will operate a separate log to register the communication done pertaining to disaster.
- SP(Wireless) in Puducherry and Officer Incharge (Wireless) in other three regions will contact jurisdictional SP or the command post commander to install necessary HF/VHF sets in the command post manned by appropriate personnel.
- The QRTs on communication will liaise with other QRTs for the requirement of vehicle, materials and manpower for repair and normalization of the communication system.
- Meanwhile, the private telecom operators and the State owned BSNL through their local staff carry out repair works to revive the communication network.
- The Programme Officer of NIC and IT Department will assist the Incident Command Team at the site in sending reports and other information through E-Mail on a dedicated leased line provided by BSNL / VSNL.

WIRELESSCALLSIGNSTOBEUSED DURINGTHECRISIS

The officers listed below from the Sl. No. 1 to 9, 31 to 34, 36 to 40 will carry the same sign in all the four regions in case of crisis.

Puducherry

1	LG	TIGER
2	CM	CHARLIE MIKE
3	HM	ALFA 1
4	CS	ALFA 2
5	DEVELOPMENT COMMISSIONER	ALFA 3
6	JS(HOME)	ALFA 4
7	DGP	GOLF 1
8	IGP	GOLF 2
9	DIG	GOLF 3
10	SSP(L&O)	GOLF 5
11	SSP(C&I)	GOLF 4
12	DISTRICT COLLECTOR	ALFA 5
13	SDM(NORTH)	ALFA 6
14	SDM(SOUTH)	ALFA 7
15	SP(NORTH)	NOEMBER 1
16	SP(SOUTH)	SERA 1
17	SP(RURAL)	ROMIEO 1
18	SP(TRAFFIC)	TANGO 1
19	SP(HQ)	GOLF 15
20	SP(SB)	GOLF 7
21	SP(SIGMA)	GOLF 9
22	SP(HG)	GOLF 16
23	SP(Wireless)	GOLF 13
24	SP(PAP)	GOLF 18
25	SP(CID)	GOLF 10
26	SP(MT)	GOLF 12
27	SP(PTS)	GOLF 11
28	SP(FOOD CELL)	ALFA 8

29	SP(UNIVERSITY)	ALFA 9
30	SP(VAC)	ALFA 10
31	CMT/IRBn.	ALFA 11
32	SP (JAILS)	ALFA 12
33	COMMANDING OFFICER, CSG	ALFA 13
34	DFO	ALFA 14
35	ADFO	ALFA 15
36	MS(GH)	ALFA 16
37	DIRECTOR, JIPMER	ALFA 17
38	CE, PWD	ALFA 18
39	EE, ELECTRICITY	ALFA 19
40	DIRECTOR, LAD	ALFA 20
41	DIRECTOR, CIVIL SUPPLIES	ALFA 21
42	TRANSPORT COMMISSIONER	ALFA 22
43	THASILDAR	ALFA 23

#### Karaikal

1	COLLECTOR, KARAIKAL	KILO – CHARLIE
2	SSP (KKL)	KILO – 1
3	SDM (KKL)	KILO – 2
4	SP (KKL)	KILO – 3
5	MS, GH KKL	BETA -1
6	EE, PWD	BETA -2
7	EE, ELECTRICITY	BETA -3
8	FIRE BRIGADE, KKL (SFO)	BETA – 4
9	COMMANDER, NAVAL DET., NAGAPATTINAM	BETA – 5
10.	TAHSILDAR	BETA – 6
11.	CI-TOWN	KILO - 3
12.	CI – THIRUNALLAR	KILO – 5
13	CI – T.R. PATTINAM	KILO – 4
14	INSPR. COASTAL PS	BETA – 7
15	AC, IRBN, KKL	BETA – 8

#### Mahe

1	REGIONAL ADMINISTRATER	CHARLIE 1
2	SP (MAHE)	MIKE 1
3	MS(GH)	CHARLIE 2
4	EE,PWD	CHARLIE 3
5	EE, ELECTRICAL	CHARLIE 4
6	FIRE BRIGADE, MAHE (SFO)	CHARLIE 5
7	TAHSILDAR	CHARLIE 6
8	CI, MAHE	MIKE 2
9	INSPECTOR, SIGMA	CHARLIE 7
10	SI – MAHE	MIKE 10
11	SI – PALLOOR	MIKE 11
12	SI – PANDAKKAL	MIKE 12

Yanam

1	REGIONAL ADMINISTRATER	DELTA 1
2	SP (TRAFFIC)	TANGO 1
3	MS(GH)	DELTA 2
4	EE,PWD	DELTA 3
5	EE, ELECTRICAL	DELTA 4
6	FIRE BRIGADE, MAHE (SFO)	DELTA 5
7	TAHSILDAR	DELTA 6
8	CI, YANAM	YANKEY 1
9	SI – YANAM	YANKEY 10
10	SI – TRAFFIC	YANKEY 11
11	SI – PCR CELL	YANKEY 12



## ESF 2 – EMERGENCY MEDICAL SERVICES AND PUBLIC HEALTH

### SCOPE:

The Emergency Medical Services ESF will primarily look after emergency treatment for the injured people immediately after the disaster and also be responsible for ensuring that there is no outbreak of any epidemic.

### ASSUMPTIONS:

1. Emergency Medical Services are required for the affected population to save precious lives and treat the injured.
2. Emergency Medical Services are required to prevent possible outbreak of epidemic after a disaster.
3. Normal Health care facilities might have also been affected. (Hospital buildings too might have collapsed by earthquake).

PRIMARY AGENCY: Health Department

SUPPORT AGENCY: GH, JIPMER PIMS, MGDCRI Blood Banks, Ambulance Services, Rotary, Lions Club, Red Cross, MGPIIDS, MTPG RIHS, Revenue, Lad, Electricity, Police, NCC.

TEAM LEADER: Director (Health Services)

### SOPS FOR EMERGENCY MEDICAL SERVICES AND PUBLIC HEALTH:

- The Director of Health Services (Team Leader) will get the information of the disaster from the IC/EOC.
- The TL will immediately convene an urgent meeting of Nodal Officers of Supporting Agencies within half an hour of the occurrence of the disaster.

- The TL would conduct an assessment of the damage/disruption of any facility existing owing to the disaster.
- Additional Medical practitioners or specialists needed for dealing with specific influenza strains like H1N1, Bird Flu, etc. will be alerted and teamed for duty in disaster areas.
- The TL will coordinate with ESF – Transport, ESF-Search & Rescue and ESF – Relief Camps for providing and augmenting medical services.
- If Temporary shelters are being made for the affected population, the TL should ensure high standards of sanitation and prevent outbreak of epidemic.
- TL should provide medicines and other medical facilities required at the site.
- TL should contact ESF – Electricity for provision of back-up services for medical equipments.

**SOPs FOR QUICK RESPONSE TEAM (QRT) FOR EMERGENCY MEDICAL SERVICES AND PUBLIC HEALTH ESF:**

- The QRT will be headed by Medical Superintendent of General Hospital, Puducherry, if the site of occurrence of disaster is within Puducherry region.
- If the site of occurrence of the disaster is Karaikal, Mahe or Yanam, the M.S. of the respective General Hospital will be the Team Leader.
- The other Members of the QRT are Deputy Director( Public Health), Specialist in Surgery, GH, Microbiologist, G.H, Executive Engineer (Public Health), Under Secretary(Health).
- The QRT will rush to the site of the incident within half-an-hour of the occurrence of the event with necessary equipments, ambulances and Medical / Paramedical staff trained in Mass Casualty Management.

- The QRT sets up a command site near the disaster area.

**STATEQUICKRESPONSETEAM:**

Sl. No.	Name	DESIGNATION	CONTACT NUMBER
1.	Dr. VijayaBalakandan	Deputy Director(PH)	99437-99058
2.	Dr. K.R. Prakash	Deputy Director(Imm.)	99442-29330
3.	Dr. V. Govindaraj	Physician	94432-27207
4.	Dr. K. Sarangapani	Microbiologist-IGGGH&PGI	97896-67205
5.	Dr. Subash Chandra Parija	Head of Dept. Microbiology-JIPMER	94439-999511
6.	Dr. N. Nilamani	Assistant Director(Malaria)	93454-54505
7.	M. Muthuraj	Bacteriologist-GHCD	9944737597
8.	N.K. Ravishankar	Microbiologist	96298-57280

**DISTRICTQUICKRESPONSETEAM(PUDUCHERRY):**

Sl. No.	Name	DESIGNATION	CONTACT NUMBER
1.	Dr. Stanley Ambrose	Physician	94432-85972
2.	Dr. A.B. Mishra	Medicine	9443288144
3.	Mr. Azhaganathan	Epidemiologist	94888-16186
4.	H. Krishanpriya	Microbiologist	94889-41138

**KARAIKAL:**

Sl. No.	Name	DESIGNATION	CONTACT NUMBER
1.	Dr. A. Baskaran Thiruvengadam	Deputy Director(Imm)	90952-99467
2.	Dr. Rajeev Soni	Paediatrician GH-Karaikal	94431-78462

3.	Mrs. Ranganayaki	Entomologist Karaikal	GH-	04368-230640
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**MAHE:**

Sl. No.	Name	DESIGNATION	CONTACT NUMBER
1.	Dr. T.V. Prakash	Physician-GH, Mahe	94471-26360
2.	Ms. Shamna	Bio-Chemist, GH Mahe	0490-2332225
3.	Mr. Abraham E.L. Paul	Epidemiologist	90374-79161

**YANAM:**

Sl. No.	Name	DESIGNATION	CONTACT NUMBER
1.	Dr. D. Rajalingam	Deputy Director(Imm.)	99945-11537
2.	Dr. M.V.S. Prasad	GH, Yanam	0884-2321224
3.	Dr. Ravisankar	GDMO	98499-85437
4.	Mr. Arjun	Senior Lab Technician	0884-2321224

## ESF 3 – EMERGENCY WARNING, PUBLIC INFORMATION AND HELPLINE

### SCOPE:

The flow of accurate and timely emergency information is critical to the protection of lives and property in the wake of a disaster. Preparation and dissemination of notifications, updates, warnings and providing emergency Toll-free help-line for public to enquire the whereabouts of their near and dear.

### ASSUMPTION:

1. During calamities, lots of unsubstantiated news, i.e. rumours may circulate which may further aggravate the situation.
2. Therefore, there is a need to provide Genuine / Authentic information about the incident, number of deaths, injured, missing, etc.

PRIMARY AGENCY: Revenue Department

SUPPORT AGENCY: Information and Publicity Dept, Planning and Research Dept, Education Dept, NIC, Media, NGO's, Dept of Health, DD/AIR.

TEAM LEADER: Collector

### SOP FOR EMERGENCY WARNING AND PUBLIC INFORMATION AND HELPLINE:

- The Collector will be the Team Leader (TL) of the ESF Emergency Warning and Public Information.
- The Collector as the Head of the Emergency Operation Centre will be the first person to be alerted of any natural disaster for which early warning systems exist.
- As soon as the EOC / Collector receive information about any impending disaster like Tsunami, Cyclone, Flash Floods from Agencies like INCOIS, Meteorological Department / Ministry of Home Affairs, the

Incident Commander is briefed by the Collector about the information received and the veracity of the information is confirmed.

- Immediately, a meeting is convened by the Collector with the Team Leaders of Communication, Evacuation and Transportation ESFs.
- For all the natural disasters, for which Early Warning is possible, the lead time to alert the vulnerable population will vary from half-an-hour for Tsunami to one day for heavy rain, flood.
- If the Early Warning is for Tsunami, the Warning is disseminated to the coastal communities through the VHF wireless communication already established in all fisherman and coastal villages.
- Before the announcement is made through the public address system, the corresponding ESFs required for Evacuation and Transportation will be alerted through the EOC.
- The Special Officer in the Office of the Collector will be the Nodal Officer for Warning dissemination for Tsunami.
- For Cyclones and Flash Floods, where lead time is a day or more, advance warning is given through Mass Media, Television Channels and Cable Networks. The Nodal Officer will be the Revenue Officer, Office of the Collector.

#### SOPs FOR QUICK RESPONSE TEAMS:

- The Tahsildar, EOC / Disaster Management will be the Team Leader of the Quick Response Team.
- The other Members of the QRT are Director, Information and Publicity, DIO of NIC, Deputy Director( Health), Deputy Director( Planning and Research), Deputy Director( Education) and NGO Representatives.
- QRT will rush to the site within one hour of the occurrence of the disaster.

- Assistant Director (Protocol), Information Department will be stationed at the Emergency Operation Centre and liaise between the EOC and the Mass Media.
- The Programme Officer, NIC will facilitate opening of the Media Centre at the site of the Disaster.
- The Deputy Director (Planning and Research Department) will compile a status report on the number of deaths and injured persons, if any.
- Director (Information and Publicity) will cause flash news of latest updates, donation requirements for disaster area to be displayed in all cable and television channels. He will also set up the toll free number for emergency information / assistance regarding the missing relatives, friends, etc.
- The help desk at the site of the disaster will be manned by the Assistant Director (Publication).
- Under Secretary (DP&AR) will supplement, required Ministerial Staff for ESF.

## ESF 4 - SEARCH AND RESCUE

### SCOPE:

Search and rescue operations are one of the primary activities in a disaster situation. The Swiftness and promptness in carrying out search and rescue operations can make a remarkable difference in loss of life and property. It also involves removal of trapped and injured persons from collapsed buildings/rubble, administering first aid and assisting them in transporting the injured to medical facilities.

### ASSUMPTIONS:

1. The local population will initiate search and rescue at their level.
2. Spontaneous volunteers involved in search and rescue will require coordination.
3. Access to affected areas will be limited. Some sites may be accessible only through air.

PRIMARY AGENCY: Fire Service

SUPPORT AGENCY: Police, (Home guards IRBn), Health Dept, municipality, Block Development office, Taluk office, Commune Panchayat, PTDC, NCC, Fisheries Dept, Animal husbandry, Coast Guard, Dept of Town & Country Planning, Electricity Dept.

TEAM LEADER: Divisional Fire Officer

### SOP FOR SEARCH AND RESCUE:

- The TL of the ESF will get the information about the disaster from the EOC. The TL will alert the Nodal Officers of the Supporting Agencies.
- The TL will make a quick assessment on the scale of damages and the possible number of people trapped inside the collapsed buildings.



- The Quick Response Team (QRT) for search and rescue will be formed by the Nodal Officers of the Supporting Agencies.
- The TL makes a realistic assessment of the specific skill sets and other equipments required.
- Using the local resource network, the availability of earth moving equipments and concrete cutting machines is undertaken.

SOPFORQUICKRESPONSETEAM:

- The Quick Response Team (QRT) formed from among the support agencies will be dispatched to the disaster site.
- The QRT will make an assessment of the damage (No. of buildings damaged, severity of damage and the no. of people suspected to be trapped and the no. of people died).
- The QRTs will send an incident status report to the TL.
- The QRT will be headed by SFO of the respective region.
- PHC, Commissioner, Municipality/Commune/Panchayat, Tahsildar of the respective Taluk, Deputy Director, Fisheries, Deputy Commandant, IRBN.
- As soon as the QRT identifies any survivor trapped inside a rubble the concrete cutter is used to cut the rubble and retrieve survivors.
- The Chief Medical Officer from the Primary Health Centre immediately administer first Aid and if required referred to Government Hospital or other specialty hospitals for further treatment.
- The professional dog teams will be pressed into service by the police team for rescue.
- The S.F.O. will plan and assist in rescuing people caught in fire in high rise buildings.
- Fire Engine with ladder, rope repelling unit will be pressed into service for rescue effort in heavy floods, fire etc.
- In case of missing fisherman, the Director of Fisheries will follow the established procedure as per the Departmental SOP.

## ESF 5 - TRANSPORTATION

### SCOPE:

Safe and quick movement of men and materials are a pre-requisite for an emergency response mechanism. The transportation ESF should co-ordinate the use of transportation resources to support the needs of other ESF's requiring transport capacity.

### ASSUMPTION:

1. The existing transportation infrastructure would have sustained heavy damages and would not be able to deliver.
2. The movement of relief supplies and goods will further congest the transport services.

PRIMARY AGENCY: Transport Department

SUPPORT AGENCY: Southern Railways, Dept of Fisheries, Orient flight School, Private vehicle owners association, PRTC, PTDC GAW, Under Secretary (Estt), Police, Education Dept, PASIC, PAPSCO.

TEAM LEADER: Transport Commissioner

### SOP FOR TRANSPORTATION:

- The Transport Commissioner (TC) of the transportation ESF will activate the ESF on receiving the intimation of disaster from EOC.
- TC would inform nodal officers of Support Agencies about the event and ESF activation.
- The TC convenes an emergency meeting within two hours of the occurrence of the disaster with the Nodal Officers of all Support Agencies and takes stock of the transportation network, infrastructure in affected areas.

- The TC seeks interim report from the Nodal Officers of the Support Agencies within three hours from the occurrence of the disaster and briefs the Incident Commander of the status and requirements thereof.
- The TC contacts the TL of Public Works & Engineering ( Chief Engineer, PWD) and ascertains the damage to road network , alternative route arrangements and ongoing repair works scheduled.
- TC contacts the ESF- Evacuation, ESF-Medical Services and ESF-Debris Clearance for augmenting their Transportation needs.
- TC would keep ready a list of all road worthy Government vehicle category wise with Drivers for sparing them to various ESFs which need transportation.
- In case of inaccessible areas/terrain Air Support will be requisitioned by the Transport Commissioner through the Incident Commander to the responsible Officer.

**SOPFORQUICKRESPONSETEAM:**

- The Leader of the Quick Response Team is the Deputy Transport Commissioner. The other Members of the QRT are Station Master, Southern Railway, Deputy Director, Fisheries Department, M.D. PRTC, Manager, Government Automobile Workshop, M.D., Orient Flight School, Medical Superintendent, Govt. Hospital, Revenue Officer, Office of the Collector and Representative of Private Vehicle Owner's Association.
- The QRT is briefed by the Transport Commissioner (TC) within one hour of the occurrence of disaster and ordered to proceed to the site of the occurrence.
- The QRT Leader will get in touch with all activated ESFs and ascertain their needs of vehicles for their respective QRTs and attempt is made to provide vehicles to all other activated QRTs within two hours of the occurrence of disaster.

- The QRT Leader will contact the QRT Leader of Search and Rescue ESF (Station Fire Officer) for provision of boats for Search and Rescue operation in rivers and sea.
- In case of disruption in rail network, the Station Master will communicate the cancellation of rails to the QRT Leader, who will in turn inform the EOC/ Emergency Public Information ESF.
- The need/availability of Coaches for evacuating people from a disaster area will be provided by the Station Master to the QRT Leader. The QRT Leader will also ascertain the availability of Training Aircraft for use by damage assessment ESF and other reconnaissance Mission by related ESFs.

## ESF6– EVACUATION

### SCOPE:

Any major calamity would involve movement of large group of people from the disaster area to a safer area. This ESF is primarily concerned with establishing shortest routes, alternate routes and along with Transportation ESF ensure safe evacuation of affected population.

### ASSUMPTION:

1. Many of structures and buildings may be damaged though may not be visible from outside.
2. Such weak structures and buildings may collapse after the occurrence of the disaster and hence the necessity of evacuation.

PRIMARY AGENCY: Revenue

SUPPORT AGENCY: LAD, (Municipality and communes), NCC, BDO, RD, Dept Police, Dept of Fisheries, Transport, Dept of Industries, Dept of AD welfare, PWD, Dept of Town & Country Planning.

TEAM LEADER: Collector

### SOPS FOR EVACUATION:

- The Collector will activate the ESF on receiving warning of the disaster from EOC.
- TL would inform Nodal Officers of Support Agencies about the event and ESF activation.
- TL will gather information about the availability of pre-defined evacuation routes.

- TL will get in contact with the TL of transportation ESF for getting the required number of transportation vehicles to evacuate the given number of population from the vulnerable areas to safer places.
- In case of non-availability of pre-defined evacuation rules, the Nodal Officer would coordinate through EOC with other ESF Nodal Officers and support agencies for identifying alternative routes.

#### SOPFORQUICKRESPONSETEAMONEVACUATION:

- The QRT on Evacuation will be headed by the respective jurisdiction SDM.
- The other Members of the evacuation QRT are Municipality/Commune Panchayat Commissioners/Taluk Tahsildar, Inspector of Police Circle, Assistant Director, Fisheries, NCC Commandant, NSS Liason Officer, RTO, Assistant Director (Adi Dravidar Welfare).
- Taluk Tahsildar will provide the evacuation routes from affected areas to safe shelter/Government Schools or designated relief camps.
- The QRT members will reach the Nodal Office as soon as they get instructions to do so from the TL.
- Once the quick response teams receive an intimation from the nodal officer for reaching the site they would rush to the site.
- On reaching the site the QRT members will take stock of the situation from the incident management team at the site and their counterparts.
- The quick response teams with the help of local task forces, will start evacuating peoples to safe shelters or open areas.
- The QRT members should concentrate more on evacuation in areas which have been worst affected by the disasters.
- Report all activities to Head Office.

- In case of non-availability of pre-defined evacuation routes, the Nodal Officer would coordinate through EOC with other ESF Nodal Officers and Support Agencies for identifying alternative routes.
- If the disaster strikes in the coastal areas like Tsunami, Cyclonic storm, etc. the Assistant Director ( Fisheries) will mobilize the fishermen community to Board the Buses arranged by the RTO for evacuation.
- If the disaster is in interior areas, like flooding of river banks, forest fires, earthquake, etc. the NCC Commandant along with the NSS Liaison Officer and the Circle Inspector of Police will mobilize the people to board the vehicles for evacuation to safer areas.
- The Assistant Director of Women and Child Welfare and Adi Dravidar Welfare will concentrate on convincing the specific target groups (Adi Dravidar community and Women and Children) in evacuation.
- In case of any poisonous gas leak from any factory / industry, the Inspector of Factories will declare the circumference of the area to be evacuated. The Taluk Tahsildar with the support of the Inspector of Police on the Commune Panchayat/Municipality Commissioner will cause the evacuation of all the people within the perimeter of the circle.

## ESF 7- DEBRIS CLEARANCE

### SCOPE:

This emergency function is a common feature in most large scale disasters such as Earth quakes, cyclones, floods etc. which primarily affect the building structures.

This ESF would identify, remove and dispose rubble and wreckage which may hamper the performance of emergency response.

### ASSUMPTIONS:

Access to disaster affected areas would depend upon the clearing of access routes of the Debris.

PRIMARY AGENCY: Public Works Department

SUPPORT AGENCY: LAD, Under Secretary (Works), Municipality and commune Panchayat BDO, Police, Revenue, Forest Dept, Electricity Dept, Animal Husbandry, Taluk office, Earth moving Equipment owners Association, Builder's Association.

TEAM LEADER: Chief Engineer (PWD)

### STANDARD OPERATING PROCEDURE FOR ESF DEBRIS CLEARANCE:

- The Team Leader i.e. Chief Engineer, PWD will activate the ESF on receiving the information of the disaster from the EOC.
- The TL would inform the Nodal Officers(NO) of support agencies about the event and ESF activation.
- TL will immediately convene meeting with the Nodal Officers of all Support Agencies within one hour of the occurrence of the disaster.



- The Quick Response Team members will also be briefed by the Chief Engineer on the magnitude of the task and seek their views on available resources and requirements of earth moving equipments and concrete cutting machinery for the purpose of debris clearance.
- The Director, LAD, Commissioners of Municipality/Commune Panchayat and the Tahsildar of Taluk Office will furnish the respective plans for the task at hand.
- The Chief Engineer, PWD will consolidate the individual plans and brief the Incident Commander about the plan of action for Debris clearance within three hours of the occurrence of the disaster.
- The TL will co-ordinate with the support agencies to mobilize equipments required for Debris clearances through local resources inventory and IDRM data base.
- The Chief Engineer, PWD will also ensure coordination with Medical ESF and Search and Rescue ESF for disposal of dead bodies and carcasses.
- The Team Leader will review the situation and ask support agencies to take precautionary measures for enabling operationalisation of the transportation ESF.

**SOP FOR QUICK RESPONSE TEAM (QRT) ON EQUIPMENT SUPPORT AND DEBRIS CLEARANCE:**

- The TL will nominate Nodal Officer (NO) from the Primary Agency and form a team of Nodal Officers from support agencies as the Quick Response Team to be dispatched to the disaster site.
- Superintending Engineer-I will be the Nodal Officer for the PWD (Primary Agency).
- Superintending Engineer-I will lead the QRT on Debris clearance and Equipment Support ESF.

- The other Members of the QRT are Executive Engineer (CPWD), Deputy Director(LAD), Executive Engineer, Municipality, Assistant Engineer (BDO), Deputy Tahsildar, Taluk Office, Assistant Engineer (Commune Panchayat), Executive and Engineer, Electricity.
- The QRT headed by Superintending Engineer-I will visit the site of the disaster within 3 hours.
- Executive Engineer (B&R) will chalk out a contingency road approach if roads are severed/damaged.
- Bye passing of broken bridges, culverts will be attempted.
- Executive Engineer, Electricity, will chalk out plans to revive power supply but only after ensuring safety of existing poles, or else backup support will be provided for emergency response.
- The QRT leader will requisition earth moving equipments from local list of machine inventory or else from IDRN inventory.

## ESF 8 - DAMAGE ASSESSMENT

### SCOPE:

Conduct of ground surveys to determine the scope of the damage, causalities, and the status of key facilities. The reports to form the basis for actions taken by the Incident Commander(IC) and further initial actions by the Team Leaders (TL) of the activated ESFs.

### SITUATIONASSUMPTIONS:

A crisis situation has arisen, but adequate information to base further decisions not available. The loss of life and damage of critical infrastructures not known.

PRIMARYAGENCY: Revenue

SUPPORTAGENCY: Agriculture, AHD, LAD, PWD,DRDA, PASIC, PIPDIC, DIC Industries Dept of Tourism, Electricity Dept, Statistics Dept.

ESFTEAMLEADER(TL): Collector

### SOPSFORDAMAGEASSESSMENTESF:

- The Collector will activate the ESF as soon as he receives information from the EOC about the disaster.
- An urgent meeting is convened by the Collector with all the Support Agencies represented by their Nodal Officers within an hour of the occurrence of the disaster.
- The Collector will seek a Incident Status Report (ISR) from the Nodal Officer of Support Agencies within 24 hours.
- A Rapid Assessment Report on the damages is submitted within 2 days to the IC.

- The QRT is also called for a meeting and they are briefed on their mandate and ordered to proceed to the site of the disaster within three hours from the occurrence of the disaster. Meanwhile, a Rapid Assessment Report is prepared by the TL and presented to the Incident Commander within two hours of the occurrence of the disaster.

SOPs for Quick Response Team:

- The Quick response team of damage assessment ESF will be lead by Sub Divisional Magistrate of the respective jurisdiction.
- The Nodal Officers from Support Agencies will form the other Members of the QRT.
- Executive Engineer (Buildings & Roads) , Assistant Engineer (National Highways Division), Assistant Engineer (Irrigation Division) Tahsildar of respective Taluk.
- The Executive Engineer (B&R) Division will provide a Rapid Assessment Report on the damage (cost) to buildings and roads within the disaster area.
- The Assistant Engineer (National Highways) will report the damage (cost) to National Highways.
- The Assistant Engineer( Irrigation) will report damage to river banks / bridges / culverts.
- The Assistant Engineer, (Municipality) / Assistant Engineer, (Commune Panchayat) will report the damages (cost) to Municipal Commune roads/buildings.

- Joint Director(Agriculture) will report on the damage in hectares of standing crops.
- Joint Director( Animal Husbandry) will report on the damage to cattle & Livestock.
- Tahsildar of the respective Taluk will provide damage assessment report on the loss of human lives, damage to houses, number of missing / injured.

## ESF 9 – RELIEF CAMPS

### SCOPE:

In the event of a disaster, there would be a need for temporary structures like Tents or thatched pandals for accommodating the evacuated people from marooned hamlets or disaster area. The ESF on Relief should ensure coordination of activities involved with the emergency provisions of temporary shelters, emergency mass feeding and bulk distribution of relief supplies to the disaster victims as also the disaster managers and relief workers.

### SITUATIONASSUMPTION:

1. The possibility of the affected population staying in their own houses near / in the disaster area is unlikely and should be avoided.
2. The houses in disaster affected areas may appear to be unaffected but from within they may suffer structural failure and continued usage would put the lives of those living in jeopardy.
3. Therefore, the evacuated people should be kept in Camps until danger signal is withdrawn.

PRIMARYAGENCY: Women and Child Welfare Department

SUPPORTAGENCY: Women & Child Dept, Education Dept, Municipalities and Communes, BDO's, PWD, Electricity Dept, AD Welfare, Director of Social Welfare, Dept of Health, Contractors Association.

TEAM LEADER: Director (Women and Child Welfare)

### SOPsFOR RELIEFCAMPS:

- Team Leader (TL) i.e. the Director, Women and Child Welfare of ESF on relief will activate the ESF on receiving the intimation of the disaster from State EOC.

- TL would inform Nodal Officers (NOs) of Support Agencies about the event and ESF activation.
- TL will coordinate with all State and District level suppliers as identified with under IDRN.
- TL will coordinate with other ESFs like transportation, debris and road clearance to ensure quality supply chain management of relief materials.
- The TL will convene a meeting of the Nodal Officers of Support Agencies within three hours of the occurrence of the disaster and ascertain the need for relief camps. Based on the need and input from sub-offices in the disaster area number of tents or thatched shelters required are arrived at.

**SOPsFORQUICKRESPONSETEAM(QRT)ONRELIEF:**

- The QRTs for relief will be headed by Child Development Project Officer. The other Members of the QRT on relief are Deputy Director, Social Welfare, Assistant Director, Adi Dravidar Welfare, Managing Director, PADCO, Assistant Engineer, Municipality / Commune Panchayat, Chief Education Officer.
- QRTs will report to disaster site within five hours from the occurrence of the disaster.
- The QRT Leader will analyze the ground situation and assess the requirement of relief camps. As far as possible, QRTs will attempt to locate the relief camps in public buildings like Community Hall / Cyclone Shelter / School Buildings. Whenever such facility is not present in the near vicinity, then, make shift temporary shelters are put up under the direction and supervision of the QRT.
- The Chief Education Officer will furnish a list of School going Children and total victims in the Relief Camp.

- The Child Development Project Officer will furnish list of Women and Children (0 to 5 years) in the Relief Camp.
- Assistant Director, A.D. Welfare will furnish the list of Scheduled Caste population in the Relief Camp.
- The Assistant Director, Social Welfare will prepare a comprehensive list of victims ( other disadvantaged sections of the Society including old aged and handicapped persons) and forward it to the Team Leader.
- The QRT Leader will liaise with Emergency Medical Services QRT and requisition for a Team of Doctors / Paramedics for treating the injured in the Relief Camps.
- The Assistant Engineers of Municipality / Commune Panchayat will be responsible for contracting the task of setting up of temporary shelters or putting up of tents.
- The QRT will in turn nominate Nodal Officers belonging to the same Primary and Secondary Agencies in the region / area concerned.
- QRTs will be responsible for management and distribution of relief items to the affected victims
- QRTs will be responsible for reporting the progress on action taken by the team to the EOC.
- The CDPO will take special care in food distribution for women with infants, pregnant women and children.



## ESF 10 – FOOD AND CIVIL SUPPLIES

### SCOPE:

The persons affected by most common disasters are mostly shifted to relief Camps which may be far away from their households and would required to be fed until rehabilitation packages are put in place.

### SITUATIONASSUMPTION:

Chance of cooking their own food in a disaster area would not be possible. There may be a need to distribute food packets and drinking water to the victims in far flung area. Cooked food need to be served to inmates of relief camps.

PRIMARYAGENCY: Civil Supplies Department

SUPPORT AGENCY: Agriculture, Co-operation, Dept Chamber of Commerce, PAPSCO, PASIC, PONLAIT, Education Dept, Electricity Dept, Ad welfare, Puducherry Institute of Hotel Management, Transport Dept, NGO's, Hotel owner's Association.

TEAMLEADER: Director (Civil Supplies)

### SOPFORESFFOODANDCIVILSUPPLIES:

- The Team Leader(TL) i.e. the Director of Civil Supplies will activate ESF on receiving the information about the incident and will also inform to the supporting agencies
- The TL will contact the TL of the ESF Relief Camp and ascertain the number of relief camps functioning and total number of people accommodated in such camps.

- The TL also will liaise with ESF Search and Rescue Team Leader to ascertain whether there are any inaccessible areas for air dropping of food and water packets.
- The TL will convene a meeting with all the Nodal Officers of the Supporting Agencies within five hours from the occurrence of the disaster.
- The TL will contact the EOC to find out the number of ESFs activated and the number of personnel involved in the task of the emergency response so as to provide food for all the various categories of QRTs on the site and off the site.
- Nodal Officer of the Education Department will be the key person for ensuring that all Central Kitchens are kept ready and ensure the presence of Cooks/Workers to dispatch food to Quick Response Teams
- TL will guide QRTs to reach at rehabilitation centers to provide food packages
- TL will keep on coordinating about the distribution of food items to the evacuees and will give appraisal to the IC
- In case of shortage of food items, TL will arrange more food packages and will ensure continuous supply

#### SOPs FOR QUICK RESPONSE TEAMS:

- The QRT on Food and Civil Supplies will be lead by Deputy Director of Civil supplies.
- The Joint Director Education will coordinate with the Relief Camps and the Central Kitchens for provision of food to the victims.

- The Managing Director, PONLAIT will make available boiled milk for children.
- Conveying the food from the Central Kitchens to Relief Camps will be the duty of the Deputy Registrar of Cooperative Society.
- The Joint Director, Agriculture and the Marketing Committee Incharge will be responsible for making available Cereals, Vegetables and all grocery items to the Central Kitchen.
- If there is any shortage of rice, cereals etc. the QRT Leader will request the Food Corporation of India Depot Manager through the Team Leader.
- The QRT Leader will liaise with the Water and Sanitation QRT for ensuring uninterrupted water supply for the Central Kitchen and other places where the food is cooked.
- Management and distribution of relief items to affected victims
- Report the progress on action to the TL
- Inform TL about more requirement of staff members, additional materials and food packages
- Initiate procurement of food items available at near by markets
- Prepare take-home food packets for the families
- Ensuring equal distribution of relief material including children, aged groups, women and poor people

## ESF 11 – WATER SUPPLY AND SANITATION

### SCOPE:

During disasters the normal water supply mains/lines would be heavily damaged and availability of water for drinking, cooking/sanitation would be scarce which may hinder rehabilitation efforts.

### SITUATIONASSUMPTIONS:

1. There may be a need of supplying water for fire fighting operation.
2. There may be a need for drinking purpose.
3. Rehabilitation site might be requiring temporary/mobile toilets.
4. There may be need to ensure clean environment.

PRIMARYAGENCY: Irrigation and Public Health (Public Works Department)

SUPPORTAGENCY: Commune Panchayat, Health Dept, DRDA, NGO's.

TEAMLEADER: Superintending Engineer-II (Public Works Department)

### SOPsFORESFWATERSUPPLYANDSANITATION:

- Superintending Engineer II , Irrigation and Public Health will be the Team Leader for ESF Water Supply and Sanitation.
- The TL of the ESF will contact the EOC and ascertain the number of ESFs activated
- The TL will call a meeting of the Support Agencies within five hours of the occurrence of the disaster.
- The TL shall coordinate with the Relief Camp ESF and ascertain the requirement of drinking water and water for sanitation purposes.

- The TL also contact the Fire Fighting ESF for replenishing the depleted stock of water for the Fire Engines engaged in fire fighting.
- TL will ensure that QRTs are on the site along with the required resources
- TL shall be ensuring uninterrupted supply of water for fire-fighting to all the brigades in operation
- TL shall coordinate with the transport coordinator for replenishing the depleted stock of fire water at the incident site through water tanks
- Establish temporary sanitation facilities at the shelters
- Ensure cleanliness of sanitation facilities, relief shelters and local commandant post.

#### SOPs FOR QUICK RESPONSE TEAMS:

- The QRT will be headed by the Executive Engineer, Irrigation and Public Health .
- The other Members of the QRT are Assistant Engineer, LAD, Assistant Engineer, Municipality, Health Inspector from Health Department, Assistant Engineer, DRDA, Managing Director, PASIC.
- The QRTs will reach the disaster sites within five hours from the occurrence of the disaster.
- The immediate priority for the QRT is to identify the damage to the potable water pipe line and water supply system.
- The next step is to do immediate patch of repair work to resume water supply.

- If the QRT finds that the water source is contaminated, the water supply through pipe line is temporarily stopped and potable water is delivered through tanker lorries to areas.
- To prevent outbreak of diseases, chlorination of potable water containers will be carried out under the supervision of the Health Inspector.
- Assistant Engineer, DRDA will ensure temporary sanitation facilities at the relief camps.
- If necessary, mobile toilets from Tourism Department will be provided for Sanitation.
- Managing Director, PASIC will ensure water for all the requirements of the ESF from PASIC bore wells.

## ESF 12 - ELECTRICITY RESTORATION

### SCOPE:

One of the essential services to be affected during a calamity like cyclone, floods, earthquakes and heavy winds are disruption in power supply and the potential threat to habitations because of the danger of collapse of precarious electrical poles/transformers.

### SITUATIONASSUMPTIONS:

1. Expect electric short circuits in the affected area which may aggravate the fire and explosions.
2. Electric fitting of the affected areas may get damaged and need repairing.
3. There may be a requirement of temporary lightening provisions in the relief shelters and local commandant post.

PRIMARYAGENCY: Electricity Department

SUPPORTAGENCY: LAD, PWD, PPCL, Electrical Contractors

TEAMLEADER: Superintending Engineer-I (Electricity Department)

### SOPsFORESFELECTRICITYRESTORATION:

- The Superintending Engineer-I , Electricity Dept. will be informed by the EOC of any disaster
- Team Leader (Superintending Engineer-I, Electricity Department) will activate the Emergency Support Functions(ESF) by informing his headquarter team and field team
- Team Leader will inform Nodal and Supporting Agencies about the incident.

- If early warning of cyclonic storm, heavy wind laden rain is forecast, the TL takes precautionary measures like pre-emptive shut down of power regulating in affected areas
- The TL should contact other activated ESFs like Emergency Medical Services, Search and Rescue and other operations which may require power back-up for operation.

SOPs FOR QUICK RESPONSE TEAM (QRT):

- Executive Engineer (O & M) will be the Team Leader for the QRT.
- The QRT will reach the site of disaster within three hours from the occurrence of the disaster.
- The QRT will give a rapid assessment report of the damaged poles, lines, transformers, etc.
- The Assistant Engineer of the Local Body, Electrical Contractors of the area, the Assistant Engineer, PWD along with the Assistant Engineer, Puducherry Power Corporation will be the other Members of the QRT.
- The QRTs will also assess the requirement of power supply and provide them immediately for relief Camps in consultation with the QRT of Relief Camp through local contractors.
- QRTs will send a requisition for electrical poles and cables to the Team Leader of the Headquarters.



## ESF 13 - PUBLIC WORKS AND ENGINEERING

### SCOPE:

During any natural calamity, major infrastructure through out rail network, buildings, bridges, water tanks and other critical assets heavily damaged. Therefore, it is mandatory to protect the remaining assets from further damage and also to repair the damaged roads and buildings for ensuring speedy relief and response works.

### ASSUMPTIONS:

1. Many buildings may appear to be safe from outside. But in a post disaster situation, the structure of the buildings may be weak and it becomes necessary for this ESF to periodically check the buildings and cause demolition, if necessary.
2. Major roads and transportation would have been affected during a natural calamity. And it may not be possible to reach all the affected areas by various ESFs. Therefore, it becomes necessary to repair the damages to roads / bridges in a war footing manner.

PRIMARY AGENCY: Public Works Department.

SUPPORTING AGENCY: NHAI, LAD, Housing Board, Electricity Dept, Forest Dept, Police Dept.

TEAM LEADER: Chief Engineer

### SOP FOR PUBLIC WORKS AND ENGINEERING:

- The Chief Engineer is alerted of the disaster / crisis by the EOC.
- Immediately, the CE convenes a meeting of all the Nodal Officers and briefs them about the situation and seeks the status from all the support agencies within half-an-hour.

- Multiple Quick Response Teams (QRTs) are formed according to the necessity of the situation.
- Executive Engineers of Special Building Division I / II and Executive Engineer(North) and EE (South), Building and Roads will be the Team Leaders of the respective QRTs.
- Assistant Engineer, Electricity corresponding to the area of jurisdiction will be co-opted as Members of each QRT.

SOPFORQUICKRESPONSETEAM(QRT):

- QRTs will rush to the site immediately on receiving information from the Chief Engineer.
- If the access to the site of disaster itself is severed, then QRT from the sub-office rushes to the spot before the QRT from Headquarters and tries to attend to the repair / breach .

## ESF 14 – FIRE FIGHTING AND HAZARDOUS MATERIALS RESPONSE

### SCOPE:

An accidental fire either due to short circuit or otherwise if unattended within the least possible time can aggravate and spread to neighboring buildings. So, prompt action in containing the small fire or gas leak is always required to contain it from growing to larger proportions. Fire in industrial premises or factory can also lead to explosions.

PRIMARY AGENCY: Fire Service Department

SUPPORT AGENCY: Police, IRBn, Coast guards, NCC, Industries Dept, Inspector of Factories, Labour Dept, Dept of Atomic Energy, Science and Technology, Health Dept, Dept of Industries, Port Dept,

TEAM LEADER: Divisional Fire Officer

### SOP FOR ESF FIRE FIGHTING:

- Divisional Fire Officer is the Team Leader who will activate the ESF and give instructions to the QRTs to reach an incident site to person rescue operations
- DFO will coordinate with the EOCs (on site and off site) to judge the situation
- DFO will coordinate in will coordinate with technical experts, safety coordinators and material coordinator of quick response in case of any requirement in conducting rescue operations

### SOP FOR QUICK RESPONSE TEAM ON FIRE FIGHTING:

#### a. On-Scene Assessment:

- First fire vehicle to reach at incident site will contact at site controller and collect the necessary information regarding chemical leak, action taken, current status and type of equipment required

- Driver will park their vehicle in a manner to prevent exposure to air-borne chemical contaminants and fire explosions
- Each crewmember will wear the necessary PPEs (Personnel Protective Equipments) before entering in the “hot zone”. They will work in pairs and coordination.
- The situation will be communicated to the District Control Room/EOC to provide the update of additional resource and manpower requirement

b. Plugging/Stopping of Leaks:

- Few crew members having good knowledge of basic tools and knowledge to limit the losses from punctured or leaking tanks will work for plugging holes. Plugs of varying sizes and shapes (conical, cylindrical, square or wedge shaped wood pieces, rubber or metal sheets) can be jammed in the wholes to reduce the leaking.

c. Suppression of Hazardous Gas or Vapour Releases:

- Based on the guidance of technical coordinators, the response team shall take rapid measures to reduce the rate of amount of hazardous vapors or gases entering in the atmosphere using one or combination of the following measures.
- Physical restriction of liquid pool surface areas
- Transfer to an alternate or standby container if available
- Use of fire-fighting or specialized hazardous material foams
- Dilute or coverage of liquid pools with water or other compatible liquids
- Use of water sprays or fogs
- Neutralization of spilled liquids
- Cooling of spilled liquids or venting tanks

d. Search and Rescue Operations:

- According to the instructions of rescue coordinators QRTs should enter into the hazardous areas and rescue injured and trapped people

- For common safety practice, QRTs should work in pairs
- QRT should initiate search and rescue operations of trapped people under the guidance of technical experts
- QRT of rescue operations should carry a self-contained breathing apparatus (SCBA) to carry out their mission without falling victim. They should also carry a spare SCBA units which will help them to escape people trapped in the hazardous areas and also sometimes rescue workers require extra air supplies to accomplish prolonged rescue.
- TL gets the temporary telephone facilities established for the public and information on this is announced through media.

**SOPs FOR QRT ON FIRE FIGHTING AND HAZARDOUS MATERIAL RESPONSE:**

- The QRTs for fire and hazardous materials response will be lead by the Assistant Divisional Fire Officer.
- The other Members of the QRT are Inspector of Police, Taluk Tahsildar, Deputy Director, Industries, Chief Inspector of Factories.
- The QRT will reach the site with the required protective equipments as quick as possible.
- Each Team Member will necessarily wear the personnel protective equipments before entering the site.
- A technically qualified team identified through the Department of Science and Technology will provide inputs on the ways and means for containing / arresting the leak of poisonous gases or containing the fire.
- The QRTs will have volunteers from Home Guards, IRBM and NCC Cadets for search and rescue in fires in high raised buildings.
- The QRT Leader will remain in touch with Medical, Search and Rescue ESF.

## ESF 15 - LAW AND ORDER ENFORCEMENT

### SCOPE:

The ESF on Law and Order maintains the law and protects the property and valuables. It is mainly responsible in controlling crowd and preventing riots.

### SITUATIONASSUMPTION:

1. There would be panic and people will gather at a place.
2. The crowds may go out of control.
3. Riots may also take place.

PRIMARYAGENCY: Police

SUPPORTAGENCY: Judicial Dept, Revenue, NSS, NCC.

TEAMLEADER: Superintendent of Police

### SOPFORESFLAWANDORDER:

- Deploying Quick Response Teams (QRTs) to maintain law and order at the incident site
- QRTs deployed at the site will be equipped and will coordinate with following activities.
- Quick Assessment of law and order situation in affected areas.
- Cordon off the site to restrict movement of curious onlookers, vehicles and pedestrians.
- Control and monitor traffic movements.
- Support and coordinate with local administration.

- Prepare updates on the law and order situation in every 2 hours and brief the authorities.
- Ensure law and order at assembly points and evacuation points.
- Control situation of rioting and looting and cordon off affected areas.
- Provide traffic diversions so as to ease movement of response vehicles to incident site.
- Gather and disseminate information about the traffic flow on alternate routes for decongestion.
- Ensuring law and order in rehabilitation centres.
- Communicate with PCR on regular basis regarding field activities including deployment of manpower and resources.
- To advice home-guards to remain alert for responding to call from Police.
- To contact nearby hospitals for making emergency arrangements for receiving injured persons.

## ESF 16 - RESOURCE MOBILISATION; CONTRACTING SERVICES VOLUNTEER AND DONATION SUPPORT

### SCOPE:

In the aftermath of any disaster there will be lose of lives and property depending upon scale and magnitude of the disaster. When the scale of the disaster becomes unmanageable, the response activity needs to be augmented with other resources of personnel, material, equipment.

### SITUATIONASSUMPTION:

If the scale of the disaster is enormous then the response mechanism available needs to augmented by Mobilizing additional resources, enlisting volunteers and contracting / out sourcing of essential services before the onset of disaster.

PRIMARYAGENCY: Social Welfare.

SUPPORTAGENCY: Revenue, Education Dept, PIPDIC, NGO'S, NCC,  
NSS.

TEAMLEADER: Director Social Welfare.



## REFERENCES

FEMA – Federal Emergency Management Agency  
National Emergency Response Framework

III Report of II Administrative Reforms Commission  
– CRISIS MANAGEMENT from Despair to Hope

Crisis Management Plan – Dhanbad

District Disaster Management Plan – New Delhi (N)

Incident Command System, MHA, GOI