

Crisis Management Plan

Dhanbad

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Background

Situation

Dhanbad district, in the state of Jharkhand, also known as the 'Coal Capital of India', is one of the most industrialised districts of the state and is located between 23° 37'3" N and 24° 4' N latitude and between 86° 6'30" E and 86° 50' E longitude. The district has one sub-division called the Dhanbad *Sadar*. There are presently, 9 blocks in the district viz. Dhanbad, Jharia, Baghmara, Nirsa, Govindpur, Baliapur, Tundi, Purvi Tundi and Topchanchi. The blocks in turn have 383 panchayats and 1348 villages. The geographical length of the district (extending from North to South) is 43 miles and the breadth (stretching across East to West) is 47 miles the district is bounded on the west by Giridih and Bokaro, on the north by Giridih and Jamtara and on the east and south by Purulia district of West Bengal.

The climate of the district is characterised by general dryness. It is pleasant during the winter season, from November to February. Thereafter it starts getting hot. The month of May, has been observed to be the hottest, when usually with temperature rises up to 47°C and many a times the high temperature is accompanied by high humidity levels. It remains hot until the monsoon outbreaks, towards the middle of June. With the setting in of rains the temperature falls and humidity rises. July and August are the months when it rains maximum, of the rainy months, from July to October. During the summers the population is exposed to the hazard of extreme heat and heat stress and during the rainy seasons to the hazard of thunder storm, lightening, water logging and flooding in certain parts.

The *Prime Coking Coal* of Jharia Coalfield (JCF), named after the main mining area of Jharia, has given Dhanbad a very distinct place in the industrial map of the nation. The importance of *Jharia Coal Field* (JCF) could be understood from the fact that it has one of the highest concentration of thick coal seams in the world, also it is the *Only source of the prime coking coal in India*, presently of the total 253.3 BT of coal reserves in India, Prime Coking Coal reserve is only 5.3 BT. *Prime Coking Coal* of the JCF are used *by steel and many other core and non core industries*. Presently there are some 112 coal mines operating in the district which totally produce 26.7MT of coal annually (total value of Rs.7000 million). The Bharat Coking Coal Ltd (BCCL), Eastern Coalfield Ltd (ECL), Indian Iron and Steel Company (IISCO) and Tata Steel are the major companies which have coal mines in the JCF.

Among the Rail Divisions of Indian Railway, Dhanbad Rail Division under East Central Railways is in second position in terms of revenue generation. Dhanbad will also come under Indian Railway freight Corridor. National Highway 2 and National Highway 32 are the major highways passing through Dhanbad. NH 2 has now been converted into Golden Quadrilateral (GQ). Golden Quadrilateral starts from Kolkata and ends at Delhi. From Dhanbad to Kolkata, Golden Quadrilateral will be converted into six lane expressway; NH 32 connects Govindpur to Jamshedpur.

Dhanbad has two major dams namely Maithon dam over Barakar river, built in the year 1957, with a catchment area of 6,294 Sq.km and Panchet Hill Dam over Damodar river, built in the year 1959, with a catchment area of 10,966 Sq. km. Hydel power is being generated at Maithon and Panchet. TATA POWER and DVC (Damodar Valley Corporation) are setting up 1050 MW Thermal power plant at Maithan. ONGC is using CBM (Coal bedded Methane) for power generation at some of the Coal Mines. Sindri, an Industrial township under the DMC is among the first industrial townships of India, ACC Cement factory and Projects & Development India Ltd. (PDIL) are present in Sindri. Many soft cokes, coal washeries, sponge Iron factory, Refractory and ceramic factory are present in Dhanbad district.

Considering the high strategic and economic importance of Dhanbad district it is evident that any crisis in the district will have implications not only on the state and the region but on the nation as well. Hence to improve upon our capabilities with respect to *Mitigation, Preparedness, Response and Recovery* of any crisis situation it is important to have a *Crisis Management Plan* in place which needs to be approved by the district *Crisis Management Group*. This document is an attempt to put up the draft *Crisis Management Plan* for Dhanbad District.

Potential Hazards

Dhanbad district is vulnerable to multiple Natural, Technological, Human-caused and Biological Hazards. They include, but are not limited to the following:

Natural Hazards:

- Earthquake
- Drought
- Severe Summer Weather/Extreme Heat
- Hailstorm
- Severe Storms, including lightning and high winds (Thunderstorms)
- Flood
- Land Subsidence

Technological Hazards:

- Dam Failure
- Train Accidents
- Mining Disasters

- Road Accidents
- Utilities Failure (Energy)
- Utilities Failure (Telecommunications)
- Utilities Failure (Water Systems)
- Land Subsidence due to underground Coal Seam Fire, resulting in major fire on the surface in JCF.
- Major fire due to electrical short circuit/other reasons in important commercial areas.

Human-caused Hazards (Intentional Acts):

- Terrorist Attack
 - Attack of naxal elements on trains and Railway Infrastructures.
 - Taking hostage of Railway employees by naxal elements.
 - Taking hostage of dignitaries/general public by naxal elements.
 - Bomb Explosion/ Sabotage by naxal elements/terrorists.
 - Attack of naxal elements on dams.
 - Terrorist attack using CBR (Chemical, Biological, Radiological etc.) Weapons.
- Civil Disorder
- Enemy Attack (National Security Threat)
- Mutiny/Large Scale Desertion of State Police Forces

Biological Hazards:

- Disease Epidemic
- Animal Disease
- Plant Disease

For further details refer to Appendix 7 and 8.

During an emergency or disaster, the District Administration will take immediate and appropriate action to determine, direct, mobilize, and coordinate resource needs. The District Administration will suspend or cancel normal operations and redirect resources to save lives, relieve human suffering, sustain survivors, protect property, and repair essential facilities.

Many of the potential risks, when ever possible, would be preceded by a period of increased alertness, giving public officials time to take preventive, precautionary or protective measures to reduce loss of life and minimize damages.

The District Administration has designed, built, equipped, and staffed an Emergency Operations Center (EOC)/ District Control Room, from which all emergency activities will be managed. The District Control Room / EOC will communicate with the state EOC to ensure close cooperation in emergencies and disasters.

Assumptions

The District Administration is primarily responsible for natural and technological emergency preparedness, but has a shared responsibility with the State and the Central governments for national security preparedness and for catastrophic natural and technological hazards.

The probability of a terrorist related emergency or disaster leading to crisis situation that would involve mass fatalities and casualties, major devastation and disruption of vital services exists.

Crisis or disasters could, individually or in combination, cause a grave emergency condition in any area of the district. Crisis can vary in scope and intensity, from a small local incident with minimal damage to a multi-district disaster with extensive devastation and loss of life.

The actions of prevention, mitigation, preparedness, and response and recovery operations are conducted by the District Administration. Local authorities will exhaust their resources, and then use resources of other support agencies (refer to chapter 3), volunteer groups, the private sector, and/or neighboring districts.

State assistance will supplement District Administration efforts and central assistance will supplement State and District Administration, when it is clearly demonstrated that it is beyond local and State capability to cope with the crisis situation.

Concept of Operations

The Crisis Management Plan is based on the premise that the Emergency Support Functions (ESF) performed by the various agencies and organizations during emergency operations generally parallels their normal day-to-day functions. The same personnel and material resources will be employed in both cases. Day-to-day tasks and operations that do not contribute directly to the emergency may be suspended or redirected for the duration of any emergency or disaster, and efforts that would normally be assigned to those tasks will be channeled toward emergency and disaster ESF as assigned.

Organisation and assignment of responsibilities

The Deputy Commissioner Dhanbad (Incident Commander) has the overall responsibility for crisis management in the District. In case of crisis situation the Incident Commander activates the Incident Command System (ICS) (refer to chapter 2). On activation of the ICS, based on the crisis situation the relevant Emergency Support Functions (ESFs) will be utilized (Refer to chapter 3).

Since this Crisis Management Plan (CMP) is concerned with the many hazards to which the district and the citizens may be exposed before, during and after a crisis/disaster occurs, responsible authorities operate in accordance with the five phases of crisis management:

1. Prevention – Preventive actions are taken to avoid an incident or to intervene to stop an incident from occurring. Such actions are primarily applicable to terrorist incidents. They may include the application of intelligence and other information to a range of activities that may include deterrence, heightened security for potential targets, investigations to determine the nature and source of the threat, public health surveillance and testing, disrupting illegal activities etc.
2. Mitigation – Actions may be taken to eliminate or reduce the impact of a disaster. Such measures include zoning and land-use measures, formulating and enforcing building

codes that recognize the hazards faced by the community, public education about hazards and protective measures, hazard and vulnerability analysis and preventative health care.

3. Preparedness – Actions may be taken in advance of a crisis/disaster to develop operational capabilities and help communities respond to and recover from a disaster. Such measures include the construction and equipping of EOC's with warning and communications systems, recruitment, and training of emergency management personnel, development of plans, procedures, arrangements, and agreements, and exercises of personnel and systems.
4. Response – Response actions are taken before, during, or after a crisis /disaster to save lives, minimize damages and enhance recovery operations. Such measures include activation of:
emergency operation centers/ control room, plans and procedures, arrangements and agreements, the emergency alert system, public warning, notification of public officials, provision of mass care, shelter, search and rescue, and security.
5. Recovery – Recovery actions are taken over the short-term to return vital life support systems to minimum standards, and long-term to return life to normal or improved levels. Such measures include damage assessment, supplemental assistance to individuals and public entities, assessment of plans, procedures, arrangements, and agreements, and the development of economic impact studies and methods to mitigate damages.

The Incident Command System for Dhanbad

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:

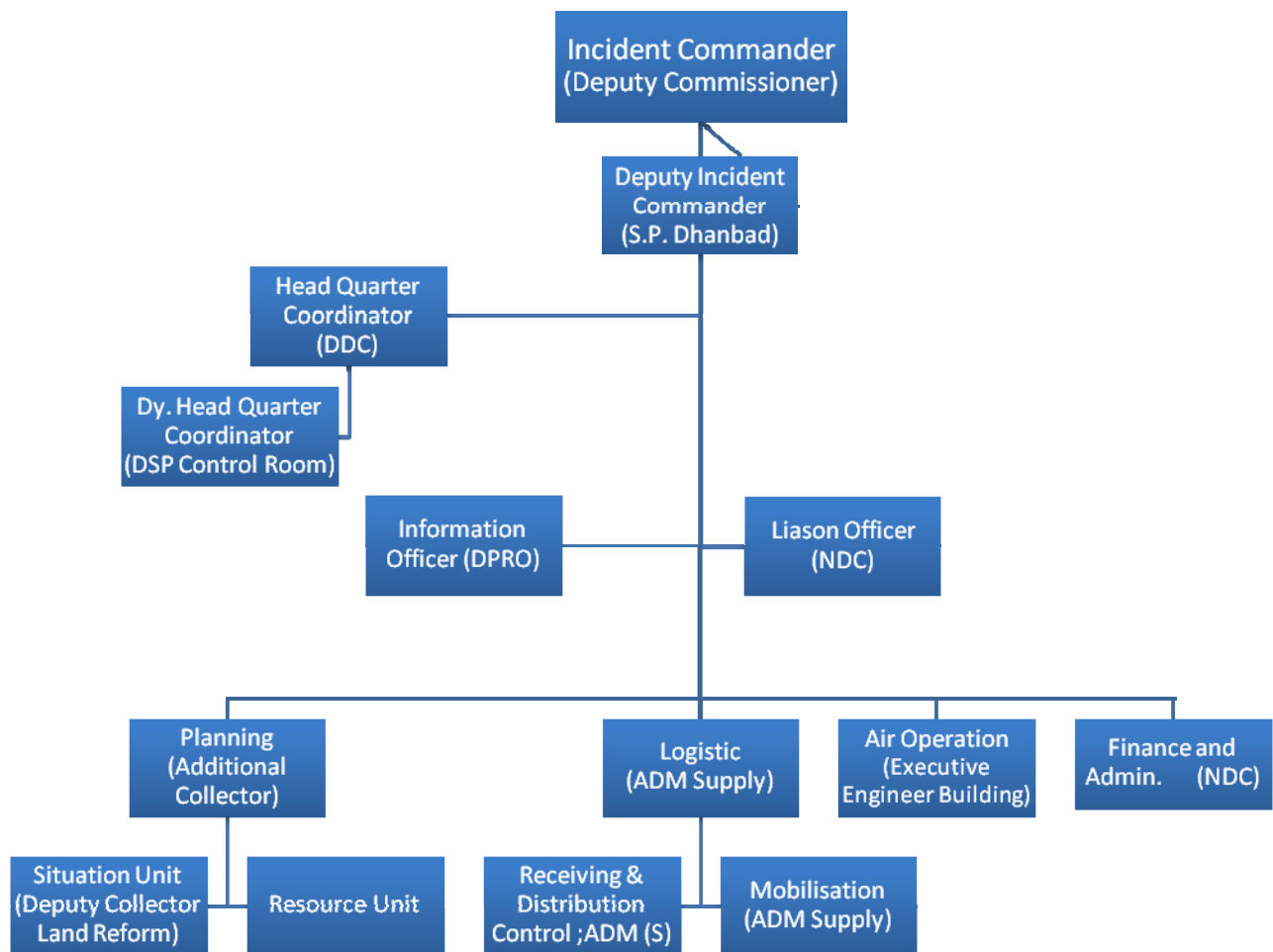
- i) Incident Command – Has overall responsibility at the incident. Determines objectives and Establishes priorities based on the nature of the incident, available resources and agency policy.
- ii) Operations – Develops tactical organization and directs all resources to carry out the Incident Action Plan.
- iii) Planning – Develops the Incident Action Plan 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.

District Level Incident Response

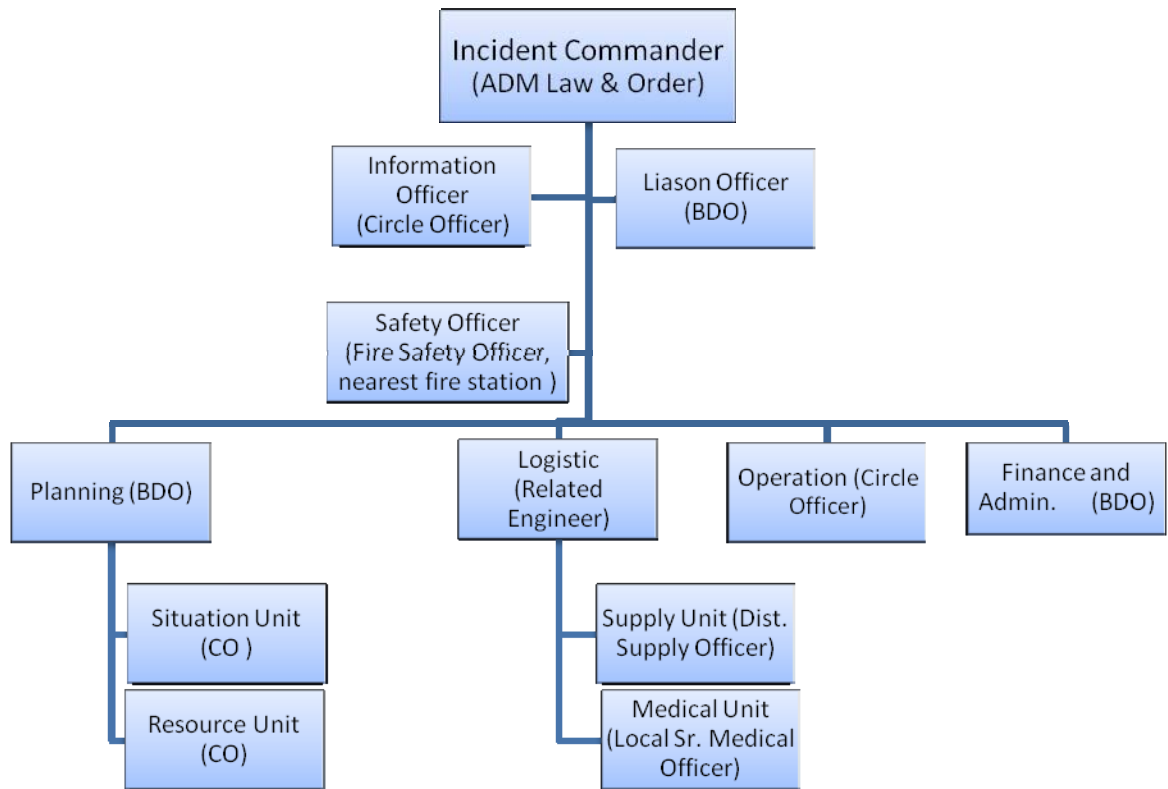
At the District level, one **District Headquarters Team** with the primary function of assisting the Deputy Commissioner (Incident Commander) in handling tasks like general coordination, distribution of relief materials, media management and the overall logistics has been constituted. The District Headquarters Team core management structure is shown in Fig 1.

In addition to the District Headquarters Team, there will be one or more **District-level Incident Command Teams (DICTs) which can be deployed at the site of a complex emergency/disaster**. As and when required, these DICTs will be deployed at the site of an emergency/disaster for on-scene management. The teams will focus on the operational aspects of response management, duly supported by other functions in ICS, e.g. Planning, Logistics, Finance/Administration, etc. The District-level Incident Command Team core management structure Shown in Fig 2

Fig 1: District Head Quarter Team for Dhanbad (As Constituted in Year 2005)



**Fig 2: District-level Incident Command Teams (DICTs) {As Constituted in Year 2005}
(To be deployed at the site of a crisis)**



The Emergency Support Functions for Dhanbad

Emergency Support Functions is a functional area of response activity established to facilitate the delivery of critical assistance required during the 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 Emergency Support Functions identified for Dhanbad district along with the Primary Agency, Team Leader and the Support Agencies is presented as Table 1:

Direction and Control: The over all direction, coordination and control of all the ESFs mentioned below, will be under taken by the *District Incident Commander*, i.e. the Deputy Commissioner, Dhanbad in which he will be assisted by the *District Head Quarter Team* (Refer to fig1). ADM (Law and Order), Dhanbad will be the crisis site Incident Commander (Refer to fig 2).

Table 1: Emergency Support Functions – Matrix for Crisis Management in Dhanbad District

ESF		Scope	ESF Team Leader	Primary Agency	Support Agency
ESF #1	Communication	Establishing, using, maintaining, augmenting, and providing backup for all of the types of communications devices needed during emergency response operations.	Superintendent of Police	Police Department	BSNL, NIC, Private Telecom Operators, Public Relation department
ESF #2	Damage Assessment	Conduct of ground surveys to determine the scope of the damage, casualties, and the status of key facilities.	Additional Collector	Revenue Section, Circle Office, Education Department	Police Department, Dhanbad Municipal Corporation , MADA, BCCL, Electricity Board, Public Health Engineering Dept., Health dept, Block Offices, PWD, Building department, DVC, NHAI, DRM Office East Central Railways
ESF #3	Emergency Public Information , Help line & Warning	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	District Public Relation Officer	Public Relation department	Media, NGOs, Health department, Police department
ESF #4	Transport	Provides transportation out of a disaster area for people in need, and provides transportation essential to support emergency response in the event of a disaster, coordinating for resurrection of transport infrastructure.	District Transport Officer (DTO)	Transport Department	DRM Office, East Railways, NHAI, PWD, REO, Dhanbad Municipal Corporation, all leading public sector and private organizations, Community Volunteers, Voluntary Organisations
ESF #5	Access Control and Re-Entry	Control of access to the area severely affected until it is safe. Only those people directly involved in emergency response operations should be allowed to enter. Also determining the appropriate	DSP Traffic	Police department, Sub Divisional Office	Road Departments (NHAI, PWD, REO)

ESF		Scope	ESF Team Leader	Primary Agency	Support Agency
		time to allow evacuees and the general public to re-enter the area that was severely impacted.			
ESF #6	Search & Rescue	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.	DSP of the incident area	Police, Fire Brigade, Education Department	CISF, GRP, CRPF, Health department, Mines Search and Rescue BCCL, State Electricity Board, Building departments, NCC, NYKS, Community Volunteers, Red Cross, Civil Society Organisations, DRM Office East Central Railways, TISCO, BCCL, Home Guard Department, other Para-military agencies
ESF #7	Evacuation	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	DSP (Law and Order)	Police, Education Department	CISF, RPF, GRP, CRPF, Home Guard Department, other Para-military agencies, NCC, Voluntary Organisations, Community Volunteers, NYKS
ESF #8	Emergency Medical services and Public Health	Mass fatality management, Public health, Medical, Mental health services	Civil Surgeon	Health Department	PMCH, Central Hospital BCCL, TMH TISCO, Divisional Rail Hospital, East Central Railways, MADA, Redcross, Rotary Club, Lions Club, IMA, Medicine Stockiest, Volunteer Organisations, Private Hospitals and Nursing Homes, Ambulance Services, Blood banks
ESF #9	Fire Fighting	Coordination of firefighting operations	Fire Safety Officer	Fire Safety Departments Dhanbad, Jharia and Sindri	BCCL, TISCO, Police department
ESF #10	Debris Clearance & Equipment support	The identification, removal, and disposal of rubble, wreckage, and other material which block or hamper the performance of emergency	Administrat or, Dhanbad Municipal Corporatio	Dhanbad Municipal Corporation, MADA	BCCL, TISCO, Indian Railways, IISCO, ECL, NHAI, PWD, REO

ESF		Scope	ESF Team Leader	Primary Agency	Support Agency
		response functions and procure needed equipments from support agencies using IDRN; should be a high priority action	n		
ESF #11	Inspection , Condemnation, Demolition	Inspection of buildings and other structures to determine whether it is safe to inhabit or use them after an earthquake has occurred	Executive Engineer, Building Department	Building Department, Municipal Corporation	MADA, DVC
ESF #12	Public Works and Engineering	Infrastructure protection and emergency repair Infrastructure restoration	Executive Engineer, PWD	PWD, Municipal Corporation	District Board (Zilla Parishad), BCCL, TISCO, IISCO
ESF #13	Water Supply and Sanitation	Restoration and repair of water supply system to minimize the impact on critical service to the public	M.D MADA	MADA, PHED, Municipal Corporation	BCCL, TISCO, IISCO
ESF #14	Electricity Restoration	Restoration and repair of electrical power system to minimize the impact on critical service to the public	GM, State Electricity Board	State Electricity Board	BCCL, Indian Railways, DVC
ESF #15	Resources Mobilisation; Contracting Services; Volunteer and Donation Support;	Mobilising support (human, equipment and other) from various organizations, Contracting Services, mobilizing Volunteer support, facilitating donations	DDC	DRDA, District Welfare Department, Programme Department	All leading Government, Public Sector and Private organizations, Community Volunteers, Voluntary Organisations
ESF # 16	Food and Civil Supplies	Optimising Food and Civil Supplies to the needful	ADM (Supply)	Supply Department	Agriculture Marketing Board, Chamber of Commerce, Market Associations, Local Civil Suppliers
ESF # 17	Law and Order Enforcement	Law and Order enforcement for Public Safety	SDM	Law and Order section, Police department	Home Guard Department, other Para-military agencies, Community Volunteers, Voluntary Organisations
ESF # 18	Relief Camps	Accommodating homeless and affected people and providing mass care	District Welfare Officer	Welfare department , Nazarat Department,	Supply department, All leading public sector and private organizations, Community Volunteers,

ESF		Scope	ESF Team Leader	Primary Agency	Support Agency
				Education Department, ,	Voluntary Organisations
ESF #19	Oil and Hazardous Materials Response	Oil and hazardous materials (chemical, biological, radiological, etc.) response Environmental short- term cleanup	Fire Safety Officer, Dhanbad	Fire Safety Department	IOC, BPCL, HPCL, BCCL, TISCO, Fire safety departments Jharia and Sindri, Police department
ESF # 20	Animal Care	Controlling spread of diseases in animal and providing animal care	District Animal Husbandry Officer	District Animal Husbandry Department	Vet nary Doctors, NGOs, Community Volunteers

Standard Operating Procedures for the ESFs

The SOPs for the select ESFs

ESF # 1 Communications

Scope:

The communication ESF is primarily responsible for establishing, using, maintaining, augmenting, and providing backup for all of the types of communications devices needed during emergency response operations.

Situation Assumptions:

1. There would be congestion in the network because of increased calls owing to confusion and panic in the community.
2. The initial reports on damage may not give a clear picture of the extent of damage to communication network.
3. The affected site may cut off from the state District Control room/ Emergency Operation Centre (EOC) and the officials on site and find difficulty in communicating to the District/State EOC.
4. Police wireless network will only be the reliable communication network till the other communication networks are fully restored.

What the SOPs Are?

*A standard operating procedure is "a set of instructions constituting a directive that establishes a standard course of action."
Standard operating procedures or SOPs, clearly spell out what is expected and required of personnel during emergency response .
In other words, SOPs are written*

What the SOPs Are Not?

SOPs are not pre-incident plans or pre-plans, which describe strategies for emergency response at a specific facility. Pre-plans allow the department to gather information on designated locations, identify potential hazards, and assess site-specific factors. SOPs, on the other hand, are more generic in nature.

SOPs are not intended to provide technical information rather is meant

ESF Team Leader (TL): Superintendent of Police

Primary Agency at District level: Police Department

Support agencies: NIC, BSNL, Private Telecom Operators

Communication ESF will activate the ESF on receiving the intimation of occurrence of the disaster from the District EOC.

SOPs for Primary Agency: Team leader (TL) of

- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL would establish contact with the district EOC for First Information Report
- TL requests for reports from local ESF contact persons (this would be the local office of ESF Primary Agency) to understand the current situation and actions taken.
- Based on information given by the support agencies, TL decides on the need to launch an assessment mission to estimate the extent of damage to telecom services and network as well as to come up with possible arrangements to establishing reliable and appropriate network.
- TL communicates situation to support agencies and also requests to provide details on the status of equipment and infrastructure in the affected area(s).
- TL informs the Incident Commander on the status of telecom services.
- TL works out a plan of action for telecom companies and convenes a meeting of all ESF members to discuss and finalise the modalities.
- TL issues orders to establish systems and reports to District EOCs on the action taken. New phone numbers and details of contact persons would also be communicated.
- TL gets the temporary telephone facilities established for the public. Prior information on this would be announced through media
- Wireless operators would be informed about the current requirements and coordination mechanisms shared.
- TL monitors the situation and arranges emergency staff required to operate established systems.
- TL sends the District Quick Response (SQR) team at the affected site with the required equipments and other resources.

SOPs for Quick Response Team on Communication

- The QRT (Quick Response Team) members will reach to the Nodal office as soon as they will get instructions from the TL.
- Once the QRTs receive any intimation from the Nodal officer to reach at the site they would rush to the site.
- At the emergency site QRT members will take stock of the situation from the site communication manager.
- QRTs would assess the ground situation and would send sectoral report to the District ESF agency.

A sectoral report would contain following:

- An assessment of overall damage, listing specifically:
 - Overhead route damage (in miles/kilometers).
 - Cable damage (in yards/meters).
 - Specific equipment damaged.
- Establish a temporary communication facility for use by the public
- Identify requirements of manpower, vehicles and other materials and equipments Give priority and concentrate on repairs and normalization of communication system at disaster affected areas.
 - Begin restoration by removing and salvaging wires and poles from the roadways with the help of casual labourers.
 - Carry out temporary building repairs to establish a secured storage area for the equipments and salvaged materials.

- Report all activities to head office
- Begin restoration by removing and salvaging wires and poles from the roadways through recruited casual labourers.
- Establish a secure storage area for incoming equipments and salvaged materials.

ESF # 2 Damage Assessments

Scope: Conduct of ground surveys to determine the scope of the damage, casualties, 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

Situation Assumption:

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.

ESF Team Leader (TL): Additional Collector, Revenue Department

Primary Agency at District level: Revenue Section, Circle Office, Education Department

Support agencies: Police Department, Dhanbad Municipal Corporation , MADA, BCCL, Electricity Board, Public Health Engineering Dept., Health dept, Block Offices, PWD, Building department, DVC, NHAI, DRM Office East Central Railways

SOPs for Primary Agency:

- Incident Commander (IC) will call the Team Leader (TL) of Primary Agency and get the ESF activated.
- TL of primary agency will call Nodal officers of other primary and support agencies and ask for *Incident Status Report (ISR)* in prescribed format (appendix 2).
- The *Incident Status Report* will be known to all the call Nodal officers of other primary and support agencies
- The TL would be responsible for timely receipt of the ISR from all agencies.
- The TL would collate the ISRs and update the IC on the status of damage.
- The TL will ensure that time is not wasted for getting minor details
- The TL will get the reports periodically depending on the severity of the crisis and keep updating the IC.

ESF # 3 Emergency Public Information, helpline & Warning

Background: The ESF on Emergency Public Information, help lines and warning dissemination should process and circulate information about the welfare of citizens of affected area and managing the flow of correct and needed information. The help lines will be responsible for providing, directing and coordinating logistical operations.

Situation Assumptions

- There may be an ambiguity and confusion about the injured population.
- The communication networks in the affected area may be partially impaired.

Team Leader (TL): District Public Relation Officer

District Primary agency: District Public Relation department

Support Agencies: NIC, Media, NGOs, Health department, Police department

SOPs for Primary Agency:

- Incident Commander (IC) will call the Team Leader (TL) of Primary Agency and get the ESF activated.
- TL of primary agency will call Nodal officers of support agencies.
- TL would activate the District Quick response Team.
- The QRTs will be deployed at the affected site.
- QRTs will report the situation and the progress in response activities to the respective EOC.
- Sending Warning messages/flash news of latest updates/donation requirements for disaster area all over the state
- Assisting the EOC in providing updated information to national as well as at the District level.
- Setting up of toll free numbers for emergency information assistance.

SOP for Quick Response Team on Emergency Public Information, help lines and messages

- The QRT members will reach to the Nodal office as soon as they will get instructions.
- QRT teams would reach to the site immediately after receiving instructions from the Nodal officer
- On the site QRT members will take stock of the situation from the IC at the site and their counter parts.
- The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.

ESF # 4 Transport

Background: The ESF on Transport should ensure smooth transportation links at state and district level. Within the disaster context, quick and safe movement of material and humans are a priority. It should coordinate the use of transportation resources to support the needs of

emergency support forces requiring transport capacity to perform their emergency response, recovery and assistance missions.

Situation assumptions

- The state civil transportation infrastructure will sustain damage, limiting access to the disaster area.
- Access will improve as routes are cleared and repaired.
- The movement of relief supplies will create congestion in the transportation services.

ESF Team Leader: DTO Dhanbad

District Primary Agency: Department of Transport

Support Agencies: DRM Office, East Railways, NHAI, PWD, REO, Dhanbad Municipal Corporation, Nazarat Department, All leading public sector and private organizations, Community Volunteers, Voluntary Organisations

SOPs for Primary Agency:

- TL of Transportation ESF will activate the ESF on receiving the intimation of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL establishes contact with the district EOC for Incident Report
- TL requests for reports from local Transportation ESF contact persons
- TL communicates situation to support agencies and requests for detailed information on the status of transportation infrastructure in the affected area(s).

SOP for Quick Response Team on transport

- The QRT members will reach to the Nodal office as soon as they will get instructions to do so from the TL.
- As quick response teams will receive instructions from the Nodal officer they would reach to the site immediately.
- QRTs would report the situation and the progress on action taken by the team to the respective EOCs
- QRT will send a requirement schedule for the different modes of transportation e.g. trucks, boats, helicopters to be put on stand-by.
- QRTs will ensure timely re-establishment of the critical transportation links.

ESF # 5 Access Control and Re-Entry

Sub function of Law and Order

ESF # 6 Search & Rescue

Background: Search and Rescue operations are one of the primary activities taken up in a post disaster situation. The promptness in these operations can make a remarkable difference in the amount of loss of life and property and will include 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.

Situation Assumptions

- Local community task forces will initiate search and rescue at residential level
- Spontaneous volunteers will require coordination
- Access to affected areas will be limited.
- Some sites may be accessible only through air routes only

Primary Agencies: Police, Fire Brigade, Education Department

ESF Team Leader (TL): DSP In charge of the crisis site

Support agency: CISF, GRP,RPF, CRPF, Medical Service departments, Mines Search and Rescue BCCL, State Electricity Board, Building departments, NCC, NYKS, Community Volunteers, Red Cross, Civil Society Organisations, DRM Office East Central Railways, TISCO, BCCL, Home Guard Department, other Para-military agencies.

SOPs for Primary Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call Nodal officers of supporting agencies.
- TL would activate the District Quick Response Team.
- Quick Assessment for the scale of S& R operations required to be carried out made.
- On requirement request for additional S&R teams sent to National Disaster Response force through state Govt.
- Assessments of the specific skill sets and the other equipments required.
- Using IDRN network to check and map the availability of resources in and round the disaster site.

SOP for Quick Response Team on Search & Rescue

- Assessment of damage (locations, number. of structures damaged, severity of damage)
- The QRTs will be deployed at the affected site.
- Enlisting the types of equipment required for conducting the S&R
- QRTs will report the situation and the progress in response activities to the respective EOCs.

ESF # 7 Evacuation

Background: The ESF on evacuation is primarily responsible for establishing evacuation plans, identification of fastest evacuation routes and alternate routes and coordinating evacuation logistics during field operations.

Situation Assumptions

- Most of the buildings would be damaged and would not remain serviceable.
- Many structures would be damaged and there would be an urgent need to evacuate.

Primary Agencies: Police, Education Department

ESF Team Leader (TL): DSP (Law and Order)

Support agencies: CISF, GRP, CRPF, Home Guard Department, other Para-military agencies, NCC,

Voluntary Organisations, Community Volunteers, NYKS

SOPs for Primary Agency:

- Team leader (TL) of Evacuation ESF would activate the ESF on receiving the warning of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of other primary and support agencies about the event and ESF activation.
- TL will direct the QRTs to be deployed on the affected site.
- TL will gather information on availability of predefined evacuation routes.
- Where the predefined evacuation routes are not available, the Nodal officer would coordinate through District EOC with other ESFs Nodal officers and the support agencies about clearing of routes and identifying alternate routes.

SOPs for Quick Response Team on evacuation

- 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 order from the Nodal officer for reaching the site they would rush to the site.
- On reaching at the site the QRT members will take stock of the situation from the Incident Management Team at the site and their counter parts.
- 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 that have been worst affected by the disasters.
- Keep reporting about all the activities to the TL

ESF # 8 Emergency Medical services and Public Health

Background: The ESF on Emergency Medical Services and Public Health Counseling will look after emergency treatment for the injured people immediately after the disaster take place.

Situation Assumptions

- Emergency Medical services will be required for affected population
- Likely outbreaks of diseases epidemic after the disaster.
- Hospital services would be affected

Primary Agency: State Health Department

ESF Team Leader (TL): Civil Surgeon

Support Agencies: PMCH, Central Hospital BCCL, TMH TISCO, Divisional Rail Hospital, East Central Railways, MADA, Red Cross, Rotary Club, Lions Club, IMA, Medicine Stockiest, Volunteer Organisations, Private Hospitals and Nursing Homes, Ambulance Services, Blood banks

SOPs for Primary Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- Team leader (TL) of primary agency will call Nodal officers of support agencies.
- In coordination with the transport ESF, it will ensure a critical number of medical professionals to be reached at the site including specialists from other Districts.
- If temporary housing arrangements are being made for the affected population, the ESF must ensure high standards of sanitation in settlements in order to reduce epidemic outbreak.
- Ensuring the provision and continuous supply of medical facilities (medicines, equipments, ambulances, doctors and manpower etc) required at the disaster affected site and the hospital health centres catering to disaster victims.
- In case of orthopedic care required in disasters like earthquakes the immediate response would have to be complimented by a follow up treatment schedule for a majority of the patients in/ near their place of residence.
- Trained professionals should be mobilized by psychosocial support.
- Ensuring setting up of temporary information centers at hospitals with the help of ESF through help lines and warning dissemination system.
- TL will coordinate, direct, and integrate state level response to provide medical and sanitation health assistances.
- On the recommendations of the EOC, the TL is also responsible to :
 - Send required medicines, vaccines, drugs, plasters, syringes, etc.
 - Arrange for additional blood supply. Send additional medical personnel equipped with food, bedding and tents etc.
 - Send vehicles and any additional medical equipment.

SOP for Quick Response Team (QRT)

- QRTs will provide situation and progress reports on the action taken by the team to the respective EOCs
- QRTs will assess type of injuries, number of people affected and possible medical assistance needs

- QRTs will ensure timely response to the needs of the affected victims such as:
 - Establishing health facility and treatment centres at disaster sites.
 - providing medical services as reported by the District Civil Surgeon with District EOC and State EOCs.
- Procedures should be clarified for
 - Peripheral hospitals
 - Private hospitals
 - Blood banks
 - General hospitals and
 - Health services established at transit camps, relief camps and affected villages.
- QRTs should maintain check posts and surveillance at each railway junction, State Transport depots and all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

ESF #9 Fire Fighting & ESF # 19 Oil and Hazardous Materials Response

Situation Assumption: There may be a massive fire
 Expect more aggressive fire explosions
 There may be a need of repairing leakages to reduce fire explosions
 Situation can aggravate due to mishandling or carelessness

Primary Agency : State Fire Service (Dhanbad, Jharia and Sindri)
ESF Team Leader (TL): Respective fire Officers

Supporting Agencies : IOC, BPCL, HPCL, BCCL, TISCO, Police department

Immediate Tasks :

1. TL will activate the ESF and give instructions to the QRTs to reach at incident site to person rescue operations
2. TL will coordinate with the EOCs (on site and off site) to judge the situation
3. TL will coordinate in deputing rescue team to enter in hazardous areas
4. TL will coordinate with technical experts, safety coordinators and material coordinator for quick response incase of any requirement in conducting rescue operations

Immediate Tasks of QRTs: Fire fighting teams will undertake these services

a. a. On-scene Assessment

- First fire vehicle to reach at incident site will contact the 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 Dist. Control Room/EOC to provide the update of additional resource and manpower requirement

b. Plugging/Stopping of Leaks

- Few crewmembers 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.

ESF # 10 Debris clearance & Equipment support

Background: The importance of this ESF emanates from the fact that most large-scale disasters such as earthquakes, cyclones, floods primarily affect the building structures. The ESF would involve in identification, removal, and disposal of rubble, wreckage, and other material which block or hamper the performance of emergency response functions and procure needed equipments from support agencies using IDRN; is a high priority action

Situation Assumptions

- Access to disaster-affected area would depend upon the re-establishment of access routes.
- Early damage assessment may be incomplete, inaccurate and general. A rapid assessment may be required to determine response time.
- Engineers and masons may be required in large numbers for the inspection of present buildings

District Primary agency: Dhanbad Municipal Corporation, MADA

ESF Team Leader (TL): Administrator, Dhanbad Municipal Corporation

Support Agencies: BCCL, TISCO, Indian Railways, IISCO, ECL, PWD, NHAI,REO

SOPs for Primary Agency:

- Team leader (TL) will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL will coordinate with the support agencies to mobilize equipments from the ware houses through IDRN database
- The respective supporting agencies will contact their respective personnel to move the equipments to central warehouse
- The equipments like earth movers, concrete cutters identified as per the need will be transported to the site.
- As per the information the TL of Debris clearance will make an assessment on of the damages of roads and built structures at the site and surrounding areas
- The Response Teams will immediately start debris clearance operation to enable movement to the affected site.

- Review of the current situation is taken up by the Primary agency to update the support agencies and to delegate their respective personnel to take precautionary measure to plan de-routes for the transportation ESF's to be operational
- All supporting agencies will inspect the road and rail network and structures within the disaster site and surrounding.
- TL will also ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.

SOP for Quick Response Team on Equipment support and debris Clearance:

- Damage assessment including locations, number of structures damaged and severity of damage
- The QRTs will be deployed at the affected site.
- Enlisting the types of equipment as compiled from IDRN resource inventory required for conducting the debris clearance
- The QRTs will report the situation and the progress in response activities to the respective EOCs.
- Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- Repairing of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.

ESF #13 Water Supply and Sanitation

Situation Assumptions:

- There may be a need of supplying water for fighting operation
- There may be a need for drinking purpose
- Rehabilitation site might be requiring temporary/mobile toilets
- There may be need to ensure clean environment

Primary Agency : MADA, PHED, Municipal Corporation

ESF Team Leader (TL): M.D MADA

Supporting Agencies : BCCL, TISCO, IISCO

Immediate Tasks :

- TL will ensure that QRTs are on the site along with the required resources
- He shall be ensuring uninterrupted supply of water for fire-fighting to all the brigades in operation.

- He shall coordinate with the transport coordinator for replenishing the depleted stock of fire water at the incident site through water tanks
- Carry out repairing task of all damages to water supply system
- Arranging alternate storage of potable water at temporary shelters
- Ensure restoration of potable water as per standards and procedures laid down under 'Standards for Potable Water '
- Plan for emergency accommodation of water supply in or near temporary shelters
- Establish temporary sanitation facilities at the shelters
- Ensure cleanliness of sanitation facilities, relief shelters and local commandant post

ESF #14 Electricity

Situation Assumptions:

- Expect electric short circuits in the affected area which may aggravate the fire explosions
- Electric fitting of the affected areas may get damaged and needed repairing
- There may be a requirement of temporary lightning provisions in the relief shelters and local commandant post

Primary Agency : State Electricity Board

ESF Team Leader (TL): GM, State Electricity Board

Supporting Agencies: BCCL, Indian Railways, DVC

Task Involved :

Team leader will activate the Emergency Support Function(ESF) by informing his headquarter team and field team

Informing nodal and supporting agencies about the incident

A. Notification and shutdown of electricity utilities

- Major explosions may be caused by breaking of power supply line and electrocution hazard to those who might contact with any downed lines. To avoid such cases, it is desired to shutdown electric power system rapidly in the area and near by areas. As per the instruction given by IC, coordinator should instruct to concerned officers of BSES/NDPL to shut down the power supply immediately.
- Provisioning Backup Power during Emergency
- Once power system is closed down, but power would still be required for response teams, LCP, EOC, water supply stations, temporary houses and temporary hospitals. Therefore electricity coordinator will be responsible for providing back-up or alternate source of uninterrupted power supply for smooth operations

In addition to the above, QRTs should also undertake following responsibilities:

- Take stock of situation immediately on reaching the incident site
- Coordinate with other team leaders and provide essential help expected from the electricity department
- Conduct repairing work of dismantled connections
- Provide temporary electricity supply to EOC, LCP and relief centers
- Report to the team leader about the situation appraisal

ESF # 16 & 18 Relief (Food and Shelter) Supply

A. Food Supply

Situation Assumption: There may be a need to distribute food packets and drinking water to the victims

Action to be taken by: Food and Civil Supply department

Supporting Agencies : Agriculture Marketing Board, Chamber of Commerce, Market Associations, Local Civil Suppliers

Immediate Tasks :

- TL will activate ESF on receiving the information about the incident and will also inform to the supporting agencies
- Food coordinator would gather information about the locations of shelters and number of persons housed in each of these shelters.
- 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

Tasks for QRTs :

- 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

B Shelter Arrangements

Situation Assumption:

- There may be a situation of transferring victims to the safer temporary shelter
- There may be a need to establish triage station for medical treatments

Primary Agency: Welfare department , Nazarat Department, Education Department,

ESF Team Leader (TL): DWO

Supporting Agencies: All leading public sector and private organizations, Community Volunteers, Voluntary Organisations

Immediate Actions :

1. TL would be the in-charge of rehabilitation centers who will ensure number of people evacuated , care of evacuees and availability of essential supplies
2. Those who will reach to the relief centers would also like to know about their missing members. TL will response to their queries and also pass on the message to the evacuation and rescue related coordinators
3. QRT will help them in arranging temporary shelters, food and sanitary facilities
4. Medical facilities will also be provided to the victims and injured people

ESF # 17 Law and Order Enforcement

Situation Assumption: There may be a chaos in the affected area
People may rush without proper following proper instructions which may increase the expected loss
Traffic may become out of control and lead jams

Primary Agency: Sub divisional Office, Law and Order section, Police department

ESF Team Leader (TL): SDM Dhanbad

Supporting Agencies : Civil Defence and Home Guard

Immediate Actions of Police:

1. Deploying a quick response teams (QRTs) to maintain law and order at the incident site
2. QRTs deployed at the site will be equipped and will coordinate with following activities

3. Quick Assessment of law and order situation in affected areas
4. Cordon off the site to restrict movement of curious onlookers, vehicles and pedestrians
5. Control and monitor traffic movements
6. Support and coordinate with local administration
7. Prepare updates on the law and order situation in every 2 hours and brief the authorities
8. Ensure law and order at assembly points and evacuation points
9. Control situation of rioting and looting and cordon off affected areas
10. Provide traffic diversions so as to ease movement of response vehicles to incident site
11. Gather and disseminate information about the traffic flow on alternate routes for decongestion
12. Ensuring law and order in rehabilitation centers
13. Communicate with PCR on regular basis regarding field activities including deployment of manpower and resources
14. To advise home-guards to remain alert for responding to call from Police
15. To contact nearby hospitals for making emergency arrangements for receiving injured persons

Immediate actions of Traffic Police:

1. To coordinate and communicate with concerned functionaries
2. To detail traffic staff to reach the place of occurrence
3. To give directions whenever necessary to ensure free passage for fire brigade ambulance, police vehicles and vehicles of other respondents
4. DCP (traffic) to coordinate with the DTC and other private transporters for additional vehicles

Conclusion

The Crisis Management Plan is not a one time activity but a process which needs to be thoroughly assessed on the following points and also on other aspects:

- Feasibility— Is the proposed procedure realistic? Can it work “on the ground” given the department’s operating environment? How will responders react?
- Implementation factors—Can the procedural alternative be readily implemented given the current resources of the department? Will extensive training be required, must equipment be procured, or will new positions have to be created?
- Compliance with regulations and standards—Does the proposed procedure comply with regulatory requirements and guidelines?
- Political viability—Will the procedure survive the scrutiny of the public, politicians, and outside interest groups?

Further, once the plan had been assessed and approved, it will work at the time of actual need only when it is regularly practiced at all levels and the gaps overcome.

References

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