

AN ACTION FRAMEWORK OF INCIDENT COMMAND SYSTEM (ICS) FOR BANGLADESH ARMED FORCES IN EMERGENCY RESPONSE



A Dissertation for the Degree of Master in Disaster Management

By

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Abstract

The Incident Command System (ICS) is entirely a management tool which creates a scope for the civil organization to establish a temporary organization which will help them to carry out the emergency response operation smoothly. The ICS was incorporated from military structure. The well defined and command structure inspires the civil organization to adopt ICS. In the world most developed countries are now following the ICS in their emergency response system. Recently India has also formulated the guideline for ICS in their country. This study focuses the action frame work of the Armed Forces at District level basing on the context of ICS. The action framework of Armed Forces is proposed through various models with their advantages and disadvantages. This dissertation also tries to focus on the proposed communication system for the ICS. At the end this dissertation recommends guidelines for the successful implementation of ICS in Bangladesh.

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List of Abbreviations and Acronyms

AIIMS	Australian Inter- Service Incident Management System
ACP	Action Contingency Plan
AFD	Armed Forces Division
BCERMS	British Columbia Emergency Response Management System
BSF	Border Security Force
CBRN	Chemical, Biological, Radiological and Nuclear
CRPF	Central Police Reserve Force
CFC	Chlorofluorocarbons
CEO	Chief Executive Officer
CS	Chief Secretary
C2	Command and Control
CMR	Civil-Military Relationship
CIDA	Canadian International developed Agency
CID	Central Investigation Department
CPP	Cyclone Preparedness Programme
DCO	Defense Coordinating Officer
DSCA	Defense Support of Civil Authorities
DG	Director General
DMB	Disaster Management Bureau
DRR	Directorate of Relief and Rehabilitation
DDMA	District Disaster Management Authority
DS	Deputy Secretary
DM	District Magistrate
DMC	Disaster Management Centre
DMC	Disaster Management Center
DC	Deputy Commissioner
DDMC	District Disaster Management Committee
DRRO	District Relief and Rehabilitation Officer
DMB	Disaster Management Bureau
EOC	Emergency Operation Center
EMS	Emergency Medical Response
EMAC	Emergency Management Assistance Compact
ESF	Emergency Support Function
ESM	Emergency Site Management System
EMA	Emergency Management Australia
EMA IMF	Emergency Management Australia Incident Management
FEMA	Federal Emergency Management Agency
FCO	Federal Coordinating Officer
GO	Government Organization
GOB	Government of Bangladesh
HFA	Hyogo Framework for Action
ICS	Incident Command System
IC	Incident Commander

IAP	Incident Action Plan
ITBP	Indo- Tibetan Border Police
IRT	Incident Response Team
IMT	Incident Management Teams
JTF	Joint Task Force
JFO	Joint Field Office
M of DM	Ministry of Food and Disaster Management
MBO	Management by Objectives
NGO	Non-Government Organization
NDMC	National Disaster Management Committee
NRP	National Response Plan
NOC	National Operations Center
NRCC	National Response Coordination Center
NCTC	National Counterterrorism Center
NRCC	Response Coordination Center
NEC	National Economic Council
NEC	National Executive Committee
NDMA	National Disaster Management Authority
NDCN	National Disaster Communication Network
NDRF	National Disaster Response Force
NCMC	National Crisis Management Committee
NCDM	National Council for Disaster Management
NO	Nodal Officer
OIC	Officer in Charge
PIO	Public Information Officer
PFO	Principal Federal Official
PM	Prime Minister
RO	Responsible Officer
RRCC	Regional Response Coordination Centers
SOD	Standing Order on Disaster
SFA	SAARC Framework for Action
SIDA	Swedish International Development Cooperation
SDRF	State Disaster Response Force
SDMA	State Disaster Management Authority
SEC	State Executive Committee
USAID	United States Agency for International Development
UC	Unified Command
VGf	Vulnerable Group Feeding Assistance Facility

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1.1 Background of the study

The revaluation of industrialization turned the humankind more ahead and closer to his dream. Rapid change of technology and innovation of various equipments increased the demand of setting up new industry. Besides developed countries, the developing countries are also changing their views from agricultural to industrialization based development. The industrialization process gives rapid progress but it has got negative impact on environment. In the present world it has been observed that the developed countries emit maximum CFC gas which is the cause of global warming and due to global warming, country like Bangladesh is facing a number of disasters within a short notice than in the past. After independence the Government of Bangladesh tried to manage the natural disaster with its own efforts and the support from foreign aids as well. The disaster management system in Bangladesh never gave any scope for the government ministries or Armed Forces to work with the NGOs or any other organization other than government one. But now a day due to rapid climate change the intensity of natural disaster has increased extensively with its shape and size. As a result the government needs to involve all the agencies including the GO, NGO's and its defense force to mitigate the disaster in a same chain. But these various agencies have got their own jurisdiction, legal framework and way of dealings. So they need a common organizational structure, communication system and well coordinated approach to mitigate the disaster. To overcome this issue, the recently revised SOD has incorporated the incident management system. The incident management system was first introduced by the fire department of California in 1970 to solve the wildfire problem as it needs to involve a number of agencies there. Later on this incident management system (ICS) proved workable in various situations like natural disaster, wildfire, oil spills and even against terrorism. The USA and many other countries also included this ICS in their disaster management mechanism to provide a well defined action framework for all the agencies including GO and NGO.

The ICS provide a common and defined structure where the duties and responsibilities of all individuals are well described according to their respective appointments. Actually the ICS is a system where it creates a scope to work together for various agencies having different organizational structures or jurisdictions. In case of ICS when any natural or man made disaster needs to involve a number of responders to mitigate the disaster the

ICS nominates the incident commander from the leading responder. The incident commander will act as a chief coordinator. He/She will organize the rest of the responder's agencies according to ICS's prescribed structures basing on their roles. The incident commander shall have three command staffs like the Liaison officer, the Safety officer and the information officer who will assist him/her to coordinate all the agencies. The responder agencies will be divided into 4 sections such as operation, planning, logistics, finance and administration. All these sections are further divided into various sub sections or branches. The ICS will be further explained in the following chapters.

1.2 Disaster Management: A combined approach

Disaster management is now become a vital factor for the governments in developed and developing countries. Now the development and progress of a country are not only dependent on its foreign and trade policy rather it may also be affected by its disaster management plan and policies. The sound management of the disaster can ensure the smooth prosperity and development of a country. And this can only be achieved by participation of all government ministries including defense force, non governmental organizations and collective approach from all levels from a community. To accumulate all these different organizations in a single management system need a well defined action framework this will guide the respective organizations to achieve their goals. These organizations also need well understanding and better relation among them for sound responding during disaster. In most countries of the world, the role of Armed forces or the military administration during disaster has got the trend to play an active and leading role (mainly in 3rd world countries) in disaster management because of its well trained manpower, own supply system, self sustainability, heretical chain of command and vast mobilization power. In modern world with democratic governmental environment the Armed forces though they still play the pivotal role but they have to abide by the directives and are led and control by the democratic government. Particularly in 3rd world countries, the Armed forces in spite of their leading role during disaster management have to be remaining in supportive role to the democratic government at all levels. In such circumstances the Armed forces needs a clear and well defined action framework under which they can contribute maximum. In Bangladesh perspective we have to adopt an action framework for Armed forces basing on the historical background and relation between military administration with political environment, civil administration and NGO's. The action framework should be adopted with the guide line

of revised Standing Orders on Disaster 2010 and without hampering of government's own structure and in conjunction with political and social condition of the country.

1.3 World-wide role of armed forces in disaster management

In Mexico City earthquake of year 1985, the government was severely criticized by the public for not bringing in the army for more than routine security, despite President de la Madrid's stated reason that he wanted to employ large numbers of the victims in civil work projects rather than use the army to restore services and clear the rubbles. The second incident is the 9/21 or Chi Chi earthquake which struck the center of Taiwan, on September 21, 1999 killing almost 2,500 and injuring thousands more. Over 10,000 buildings collapsed and direct losses were estimated at US\$ 14 billion. After this devastating earthquake, the central government gave official standing to military activities in its Emergency Decree of September 25 .And that took 4 days after the earthquake though the Armed forces were represented in the Emergency Operations Center (EOC) by the Minister of Defense, but no specific duties had been spelled out for the military for responding disaster, even though they quickly mobilized and effectively responded to the earthquake victims.

It has been proved from the history of disaster that Armed forces played an outstanding role in spite of own institutional limitations. The military resources of any country are the most disciplined and trained organization which can provide support to a full range of public services such as public works, communications, transport, health and emergency medical services, rescue and support activities. They can react quickly and respond rapidly in a fully self contained, self sufficient and highly mobile fashion. Defense personnel are well trained in the individual skills necessary to perform their professional and functional activities and are practical in collaboration and coordinated action under an integrated/flexible management system. Thus there is enormous potential inherent in defense organizations to serve as an additional instrument for effective delivery of emergency assistance. These all qualities facilitate the Armed forces to contribute in disaster management. But in the cases like Mexico City earthquake or the Taiwan's Chi Chi earthquake, the government could not judiciously utilize their Armed forces to response to the disaster. And thereby these governments were highly criticized by their people. In the year 2005 in Pakistan there was an earthquake in Azad Kashmir which caused deaths of about 18,000 and injuries 40,000 people. The civil administrations totally collapsed and the affected people were truly dependent on military administration for the relief and response. Later on the Armed forces or the military administration

helped the civil administration to regain the control of that affected region. So in the cases of disaster Management the participation of Armed forces is undeniable.

Like in many other countries Government of Bangladesh (GOB) also feels the urgency of the Armed forces in responding natural disaster. Thereby the Armed forces also become an important part of the National Disaster Management Council (NDMC) under the direct supervision of Prime Minister. Bangladesh government could successfully introduce the disaster management committee from national level to union level involving Prime Minister to union Chairman. Recently Standing Orders on Disaster (SOD) 2010 were revised by Ministry of Food and Disaster Management and Disaster Management Bureau and a draft disaster management Act 2008 was also prepared. As a part of the development in the field of disaster management, GOB has also introduced the National Plan for Disaster Management and a National Disaster Management Policy is to be formulated and adopted very soon.

1.4 Bangladesh Armed Forces in Disaster Management

In Taiwan's Chi Chi earthquake, some of the case studies revealed that being a member of the Emergency Operations Center (EOC) the Armed forces of Taiwan was not given any specific duties for responding to the disaster. But in case of Bangladesh the picture is totally different. The Armed forces of Bangladesh has achieved the confidence of the general mass by participating as an active member in disaster from its independence till present, and it could be ensured due to proper utilization of Armed forces by the GOB through its policies and plan. In latest revised SOD of year 2010 a new revaluation took place by incorporating Hyogo Framework for Action (HFA 2005-2015) and SAARC Framework for Action (SFA) and basing on that the SOD 2010 introduced some new features like an outline of disaster management regulative framework, introduction of core groups for emergency response at various levels, a new section on multi-agency disaster incident management system, introduction of risk reduction roles and responsibilities for all committees and agencies and a new outline for local level Plans. In SOD all the government ministries and Non-Government Organizations (NGO) charter of roles and responsibilities are described; besides that action of Armed forces is also mentioned in SOD. It also includes coordination at various levels, inter-ministerial as well as between civil and military administrations. The recent SOD also gave emphasis on coordination between government ministries and NGO's. At present disaster scenario, a sound plan for disaster management needs a comprehensive and integrated participation of all GO and NGOs as well as a well coordination among these groups. The participation

of all the agencies needs a comprehensible action framework which will clearly define the role and responsibilities of all the participators in the disaster management activities.

1.5 Present Context of ICS in Bangladesh

Since the Government of Bangladesh has decided to implement the Incident Command System (ICS) in the national disaster management plan, there is a greater need for institutionalizing the Incident Command Systems and strengthening professional approach towards disaster response activities in the country in addition to promoting coordination and cooperation among various agencies and organizations. The incident management system or ICS is very new and challenging concept for our country. It involves a good number of different agencies in the same chain or system. So in this system all the participated agencies need a strong understanding and well coordination among them. The developed countries like USA and Europe have a different culture, relation and understanding which are totally different from the countries like Bangladesh, India or Pakistan. Again in regional level still we have some differences like the relation of Civil-Military administration in India and Bangladesh. The political condition of this region was not the same. In case of Pakistan and Bangladesh the most conspicuous model of civil-military relations in weak regimes or unstable states is the praetorian model. In this model the intervention of military administration takes place a number of times. Thereby military bureaucracy is strong and playing a vital role over politics. But in case of India and Sri Lanka, the pictures are different; their armies are controlled by the civilian authority. So the implementation of the incident command system may vary basing on these issues.

During disaster the deployment of armed forces are varied basing on the intensity of the disaster and resilience of civil administration on that particular disaster. In Bangladesh the armed forces are deployed under the act of In Aid of Civil Power. The scale or the mode of deployment of armed forces varied in terms of strengths and activities basing on the following different scenarios of natural disaster.

- When the intensity of a disaster is very high and the affected area is vast and the civil administration is totally collapsed (Pakistan Earthquake in 08 October 2005).
- When the intensity of a disaster is high and the entire disaster affected area can't be managed by the civil administration (Flood 1988 in Bangladesh).

- When the intensity of a disaster is normal and the disaster prone area can be manageable by the civil administration (Fire break out, water crisis in the city area).

Basing on the above mentioned scenario Armed forces determined their composition, strength of the force and command and control (C2). The action frame work of the Armed forces may not be the same in all situations. So the different natural disaster scenarios will represent different types of action framework and C2 will also change basing on that framework. In incident management system these consideration has to be incorporated and we have to adopt the ICS in the government structure without disturbing the existing system and considering the context of culture and language of our courtiers. This paper briefly discusses about the greater role that can be played by the Armed Forces in the context of ICS in different disaster response operations at district level in which their services can be better utilized. It also indicates the necessary guidelines to the civil authorities while utilizing the services of the Armed Forces personal to ensure greater co-ordination and enhance efficiency during disaster response operations.

1.6 Objective of the Study

The main objective of this research is to assess the feasibility and formulate an action framework for Bangladesh Armed Forces at district level depending on Incident Command/Unified Command System context without disturbing the present government structure, and provide a guide line for the civil administration to obtain maximum service from Armed forces. The research paper has the following objectives;

- Formulate a well defined action framework for armed forces basing on the different disaster response operations;
- Propose a plan to incorporate the ICS in present government structure without disturbing the existing system;
- Define the command and control of armed forces in ICS basing on different scenarios and civil military relation (CMR) in present context;
- Define the role and relation of NGO's with armed forces in ICS;

1.6.1 Limitations

The incident command System is very new concept in our disaster management plan. Still the governmental agencies including Armed forces didn't incorporate this system in their

disaster management plan. For this reason this research paper has been prepared based on primary data which were collected from interviews from different personal including high officials in civil, military administration, NGOs and different professionals basing on present system and relation between the organizations which are very important factors for the new concept of Incident Command System (ICS). During interview some of the sensitive questions might be avoided by the high officials intentionally or unintentionally or that they might not be able to describe the full situation. In that case the second-hand data, such as information on websites, in newspapers, and in government reports, were utilized.

1.7 Methodology

1.7.1 Primary data

The Incident Command System (ICS) is yet to introduce by governmental agencies including Armed Forces. The ICS is a very new concept in our revised Standing Order on Disaster Management 2010. At present we don't have any study or research in our country basing on this system. The Armed Forces still not prepared or formulated any draft action framework in ICS context. For this reason this research paper has been prepared based on primary data which were collected from interviews from different personal including high official in civil-military administration, NGOs and different professionals. Because these personal from different organizations has to work under ICS jointly, so from their views I tried to find out the advantages and disadvantages while working together at present system. To carry out this research I need to interview of civil and military bureaucrats who have the experience on emergency response operation (like DG, Disaster Management Bureau, DG, Red Crescent Society or Operational Officer at G1 grade or Director, Joint operation from Armed Forces Division). This research also includes the interview from different classes of people especially from the various groups as mentioned bellow:

Table 1.1: The Background of the Interviewees

Serial	Group	Number of person	Age limit
1	Civil bureaucrats	03	45 to 60
2	Military bureaucrats	03	40 to 55
3	Researcher	02	50 to 70
4	NGOs (High officials)	03	45 to 60

The interviews required 03 months because it was difficult to arrange them for various reasons, such as willingness to participate and tight schedules. The questions were simple: the interviewees were asked to describe what they and their organizations do in the emergency response operation in earlier system and how they will work in present new Incident command system. Common Questions were asked on command, control and authority. And some of the questions were on civil-military relation and cooperation, NGOs role during disaster and knowledge on ICS. In addition, they were asked to put their suggestions on the new concept of ICS and its better utilization without hampering the present governmental context.

1.7.2 Secondary data

Secondary data, such as information on websites, in newspapers, and in government reports, were utilized because it was thought that interviewees might avoid some sensitive questions, intentionally or unintentionally, or that they might not have be able to describe the full situation as the ICS itself is a new concept in Bangladesh. So the information from the secondary data fulfilled that requirement.

CHAPTER 2

EVOLUTION OF INCIDENT COMMAND SYSTEM (ICS)

2.1 Incident Command System (ICS)

ICS is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries. In the early 1970s, ICS was developed to manage rapidly moving wildfires and to address the following problems:

- Too many people reporting to one supervisor;
- Different emergency response organizational structures;
- Lack of reliable incident information;
- Inadequate and incompatible communications;
- Lack of structure for coordinated planning among agencies;
- unclear lines of authority;
- Terminology differences among agencies; and
- Unclear or unspecified incident objectives.

An ICS enables integrated communication and planning by establishing a manageable span of control. An ICS divides an emergency response into five manageable functions essential for emergency response operations: Command, Operations, Planning, Logistics, and Finance and Administration. Figure 1 below shows a typical ICS structure.

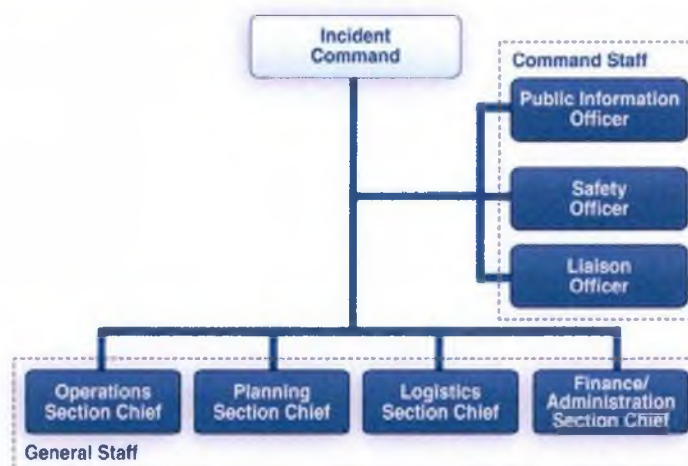


Figure 2.1: Incident Command System Structure (Source: National Incident Management System of USA, December 2008)

2.2 History of the Incident Command System (ICS)

Historically the origins of the Incident Command System are from the Military Reorganization Act of 1920. After returning from World War I, General's Pershing and March completely revamped how the entire United States military effort was organized. During World War I there were approximately 20 separate bureaucracies that had to be dealt with during any part of the conflict. This cumbersome organizational structure was a severe impediment for the conduct of the war and they sought an organizational structure to streamline the process of military management. This extensive reorganization and streamlining led to the creation of the military G-1, G-2, G-3 and G-4 system that went into effect in all branches of the military service.

It was used to organize and march armies across Europe and the Pacific Ocean during World War II and it is still in use today. In the early 1970's, a national project known as FIREScope was convened to try and come up with an organizational system for fighting multi-state forest fires. When this group began to look around for a system that would manage large-scale critical incidents they began to examine the United States military. The military, by its very definition, is always in the emergency management business. So where better to look than at a system that was very effective in crisis management for well over 50 years? The FIREScope group realized that the G 1-4 organizational structure was a proven tool with a solid track record in the management of the large, quick moving and sometime chaotic events of warfare; and it was adopted by the FIREScope project and named the Incident Command System (ICS). ICS then quickly became the nationally recommended standard for all fire departments as an organizational system to use for management of large-scale critical incident events. Now many countries in the world they adopted this system in their disaster management plan. The Government of Bangladesh has recently incorporated the Incident Command System in the revised "Standing Order on Disaster (SOD) 2010". Therefore this system now become mandatory for all governmental organizations including military administration for formulating respective action framework basing on the ICS context.

2.3 Some key points on ICS

The ICS has contained many key personal and they have their own role and responsibilities which are mentioned below:

- ***The Incident Commander*** is faced with many responsibilities when he/she arrives on scene. Unless specifically assigned to another member of the

Command or General Staffs, these responsibilities remain with the IC. Some of the more complex responsibilities include:

- Establish immediate priorities especially the safety of responders, other emergency workers, bystanders, and people involved in the incident
 - Stabilize the incident by ensuring life safety and managing resources efficiently and cost effectively.
 - Determine incident objectives and strategy to achieve the objectives.
 - Establish and monitor incident organization.
 - Approve the implementation of the written or oral Incident Action Plan.
 - Ensure adequate health and safety measures are in place.
-
- ***The Command Staff*** is responsible for public affairs, health and safety, and liaison activities within the incident command structure. The IC/UC remains responsible for these activities or may assign individuals to carry out these responsibilities and report directly to the IC/UC.
 - ***The Information Officer's*** role is to develop and release information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.
 - ***The Liaison Officer's*** role is to serve as the point of contact for assisting and coordinating activities between the IC/UC and various agencies and groups. This may include Congressional personnel, local government officials, and criminal investigating organizations and investigators arriving on the scene.
 - ***The Safety Officer's*** role is to develop and recommend measures to the IC/UC for assuring personnel health and safety and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer also develops the Site Safety Plan, reviews the Incident Action Plan for safety implications, and provides timely, complete, specific, and accurate assessment of hazards and required controls.

- ***The General Staff*** includes **Operations, Planning, Logistics, and Finance/Administrative** responsibilities. These responsibilities remain with the IC until they are assigned to another individual. When the Operations, Planning, Logistics or Finance/Administrative responsibilities are established as separate functions under the IC, they are managed by a section chief and can be supported by other functional units.
- ***The Operations Staff*** is responsible for all operations directly applicable to the primary mission of the response.
- ***The Planning Staff*** is responsible for collecting, evaluating, and disseminating the tactical information related to the incident, and for preparing and documenting Incident Action Plans (IAPs).
- ***The Logistics Staff*** is responsible for providing facilities, services, and materials for the incident response.
- ***The Finance and Administrative Staff*** is responsible for all financial, administrative, and cost analysis aspects of the incident.

The modular organization of the ICS allows responders to scale their efforts and apply the parts of the ICS structure that best meet the demands of the incident. In other words, there are no hard and fast rules for when or how to expand the ICS organization. Many incidents will never require the activation of Planning, Logistics, or Finance/Administration Sections, while others will require some or all of them to be established. A major advantage of the ICS organization is the ability to fill only those parts of the organization those are required. For some incidents, and in some applications, only a few of the organization's functional elements may be required. However, if there is a need to expand the organization, additional positions exist within the ICS framework to meet virtually any need. For example, in responses involving responders from a single jurisdiction, the ICS establishes an organization for comprehensive response management. However, when an incident involves more than one agency or jurisdiction, responders can expand the ICS framework to address a multi-jurisdictional incident.

2.4 Unified Command (UC)

Although a single Incident Commander normally handles the command function, an ICS organization may be expanded into a Unified Command (UC). The UC is a structure that brings together the "Incident Commanders" of all major organizations involved in the incident in order to coordinate an effective response while at the same time carrying out their own jurisdictional responsibilities. The UC links the organizations responding to the incident and provides a forum for these entities to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and non-government responders may blend together throughout the operation to create an integrated response team. The UC is responsible for overall management of the incident. The UC directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. Members of the UC work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources, and enhance the efficiency of the individual response organizations.

2.5 Utilization of Unified Command

The UC may be used whenever multiple jurisdictions are involved in a response effort. These Jurisdictions could be represented by:

- Geographic boundaries (e.g., two districts or Divisions in case of Bangladesh perspective);
- Governmental levels (e.g., local, district, state in case of Bangladesh perspective);
- Functional responsibilities (e.g., fire fighting, oil spill, Emergency Medical Services (EMS));
- Statutory responsibilities (e.g., federal land or resource managers, responsible party under OPA or CERCLA); or
- Some combination of the above.

2.6 Relationship between ICS and UC

An ICS may be expanded to include a UC for complex responses, which often require multi-agency resources from the local, state, and federal levels. When it becomes necessary to establish a UC, the UC replaces the Incident Commander function and becomes an essential component of an ICS. In this way, the UC provides the

organizational management tool to facilitate and coordinate the effective involvement of the various agencies; it creates the link between the organizations responding to the incident and provides a forum for these agencies to make decisions with which all responders can agree.

2.7 Advantages of an ICS/UC

An ICS led by a UC has been used to manage local, district and state responses to complex multi-agency, multi-jurisdictional incidents. The following is a list of the advantages of an ICS/UC:

- Uses a common language and response culture;
- Optimizes combined efforts;
- Eliminates duplicative efforts;
- Establishes a single command post;
- Allows for collective approval of operations, logistics, planning, and finance Activities;
- Encourages a cooperative response environment;
- Allows for shared facilities, reducing response costs, maximizing efficiency, and minimizing communication breakdowns; and
- Permits responders to develop and implement one consolidated IAP.

The ICS/UC structure outlines responsibilities and functions, thereby reducing potential conflicts, and improving information flow among all participating organizations. The ICS maintains its modular organizational structure, so that none of the advantages of the ICS are lost by the introduction of a UC.

2.8 Important key to successful implementation of an ICS/UC

The key to successful implementation of an ICS/UC is planning and exercising at the regional and area levels. Practice using an ICS/UC prior to an incident will help responders understand their roles and responsibilities and prepare them to work together in the ICS. When responders understand each other's roles and responsibilities and have a plan for working together, they are more likely to be able to reach consensus on response strategies and tactics. To be most effective, there are four keys to implementing an ICS with a UC.

- **Plan** How the ICS/UC will be implemented in varying situations should be decided well in advance of an incident. The ACP process should be used to identify roles and responsibilities of the various participants during different response scenarios.
- **Start early** As soon as two organizations are determined to have responsibility for, or in, a response, an ICS/UC should be implemented.
- **Practice** Periodic training and drills are crucial to providing training and role-playing opportunities. To maintain proficiency, using ICS on smaller spills and non-spill events should be considered.

Planners and responders at all levels need to understand the authorities and resources each response organization brings to a specific incident. When plans and procedures are understood, agencies can support each other effectively. However, each response results in new lessons learned which necessitates continuing refinement of the procedures and processes, development of better methods, and meshing of agency needs and actions. Because most responses that require an ICS with a UC will be multi-agency and may be multi jurisdictional, all participating organizations must understand the complexities of coordination. The question is not “Who is in charge?” but “How can all responders work together for the best results?” The goal of an ICS is to enhance response efficiency by eliminating duplication of effort and lessening response time – and consequently response costs. The best way to reduce confusion and conflict is to anticipate problems and develop possible solutions. This requires scenario-based planning and exercises with constant communications and coordination among all participants, working together as a team.

2.9 An example of ICS

Let's assume that a large explosion has occurred in a Garments factory which is a 5 storied building and it collapsed just beside the main road of Dhaka city. In that disaster scenario, there are several main groups that can come together to run this event: the local police department, the fire department, emergency medical services, public works with their heavy lifting capability equipment and rescue support materials and finally the garments factory administration. If we believed that there was the potential of a terrorist act, these groups would be joined by the CID. All the leaders from these various agencies would then group together and gather at a central command post location. Each agency

(police, fire, public works, school administration, CID etc.) would have its own incident command system being established behind their leader. In this manner we would all be utilizing the same organizational system, "singing off that same sheet of music", so that we could help each other. The Logistics OIC from police could go and talk to the Logistics OIC from fire if they were having trouble locating a specific item, like say chain-link fence. The PIO's (Public Liaison Officer) from the various agencies could link together and run a unified PIO organization and the Intelligence OIC's could all share and exchange information that they had gathered.

In order to understand the very fluid concept of "who's the foreman" in a Unified Command event, the concept of a triangle can be used. We can think that the Incident Commander's position on the ICS diagram not as a box for a single person, but as a triangle comprised of the leaders of all the agencies present. The person who moves to the top of the triangle as our "*foreman / shot caller / group leader*" is the person whose group has the most to do at that given point in time in our management of this event (that is the leading agency). In this scenario of a collapse of a Garments factory, when the event first starts, this is primarily a Fire / Rescue / Medical operation. The agency leader that we would all look to for guidance and direction would be the fire department's Incident Commander who reached initially on the operational spot. This person would move to the top position in the triangle as the initial "shot-caller".

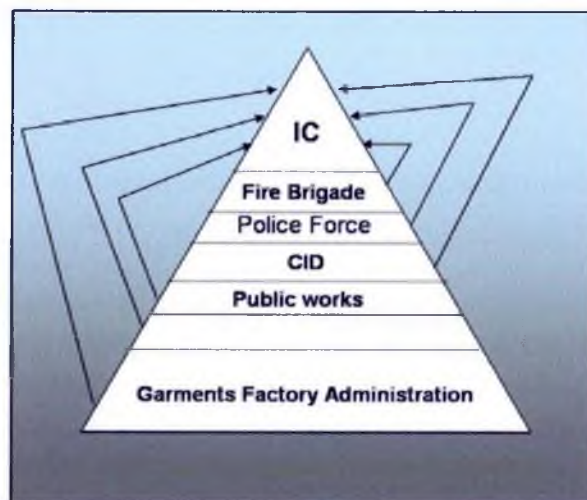


Figure 2.2: Incident/ Unified Command System Structure for collapse of a Garments factory

The fire department Incident Commander will set the goals for these initial stages of the operation. Their skill and expertise in the handling of the treatment and transport of the

injured, the rescue of victims who may be trapped and the availability to deal with any hazardous materials involved, all speaks to the principle that we as the other agencies in the Unified Command should be taking our direction from the Commander who has the most skill and knowledge to deal with the event at that given point in time. During the time that fire is in the lead position of the Unified Command, this does not mean that law enforcement (Police Force) or any of the other agencies involved are sitting around idly waiting until fire duties have finished. Local law enforcement, along with all of the other agencies involved, will be responsible for establishing their own incident command system to manage this event during the time that the Fire Department is in charge. As the fire department's involvement begins to wind down - everyone has been rescued, the fire has been put out and the casualties have all been moved from the scene to local area hospitals- the next group with the most amount of things to do is the local law enforcement agency. The local law enforcement agency now has the most to do and their Incident Commander will now move to the top of the triangle and assume duties as the group leader.

When Incident Command passes to law enforcement, the law officer in charge will then set the goals for the operation, and begin conduct of the preliminary investigation. This will include identifying and taking initial statements from potential witnesses and victims, along with crime scene preservation, any emergency actions toward suspect apprehension, and evidence collection. When the fire department begins to wind down its functions of fire-rescue-medical response, the fire and law commanders will agree when incident command will pass to law enforcement. When this occurs, simultaneous broadcasts should be made on both the fire and law enforcement channels so that all personnel understand that incident command has passed from the fire service to law enforcement.

Also at this time, the specific location for the command post should be repeated via radio so that there is no mistake as to where the command post for this "Unified Command" is located. This concept of a change in "who is the group leader" within the Unified Command does not mean that the fire department is finished and can leave the scene. Yes, their entire operation will wind down greatly and they will need a small fraction of the people that they had during the initial stages of the event, but their continued presence is vital. Their numbers and equipment may be greatly reduced, but they are still necessary for the continuity of information and in the event any fire issues arise. It is essential that

under the Unified Command concept that a Fire Department officer remain in the command post who can direct fire resources if they are needed during this time. As the law enforcement mission winds down, assuming that we have not discovered criminal involvement in our garments factory explosion, control of the incident will now pass to the garments factory administration. The command level person from the garments administration would now move to the top of the triangle and become the group leader; the setting their goals for the incident and being supported by the other groups in the Unified Command.

Again, this does not mean that the local law enforcement or any of the other agencies would leave the scene. They would still leave a command level person at the incident command post and sufficient forces on scene to handle any kind of problems that may arise in their area of expertise. At some point during the final stages of the incident, the participating leaders would need to make a decision as to when the Unified Command would be disbanded or demobilized. In general, the Unified Command would be disbanded / demobilized when an agreement was reached that the final command agency could handle the entire event utilizing its own internal resources. In our example case of the garments factory explosion, this would be the garments factory administration. When this decision is made within the command group, the Unified Command is broken down with all of the other members returning to their normal duties. The emergency stage has passed and control of the area would return to the garments factory administration so that they can "get back in business" as fast as they can. The garments factory administration may elect to keep its on-site staff managing the reorganization and recovery of the garments in the already established organizational framework of the Incident Command System. As hard as it may be to spare the personnel, their participating group is already established using ICS and it is an excellent organizational framework for this huge task. They will be able to continue managing the recovery of the garments utilizing a seamless organizational system that can handle all of the problems that may arise.

CHAPTER 3

ARMED FORCES AND DISASTER MANAGEMENT IN BANGLADESH

3.1 Evaluation of Organized Disaster Management in Bangladesh

Bangladesh is a well-known country in the world because of natural disaster. This country first time came to the world media for “BHOLA Cyclone” in 1970 that time it was under colonial rule of West Pakistan. After Independence again this country came a number of times in world media in year 1974 (famine), 1988 Flood, 1988 Cyclone, 1991 Cyclone, 1997 Cyclone, 1998 Flood, 2004 flood and recently in 2007 for Cyclone SIDR and AILA. Bangladesh is a breeding zone of all kinds of natural disasters. Because of its low land and location within the flood plains of three great rivers, the Ganges, the Brahmaputra, and the Meghna, their tributaries, and distributaries, the country is more vulnerable to floods. The conical shape of the Bay of Bengal is the breeding ground for tropical cyclones and Bangladesh is the worst victim in terms of fatalities and economic losses incurred. The global distribution of cyclones shows that only 1% of all the cyclones that form every year strike Bangladesh, but, unfortunately, the fatalities they cause are 53% of the whole world total.

The country has a long history of seismic activity related to its proximity to the Himalayas. Three great earthquakes of magnitudes exceeding 8 were felt in 1897, 1934, and 1950, and another four earthquakes exceeding magnitude 7 were felt between 1869 and 1950. Major seismic sources are the Meghalaya (8.0), Tripura (7.0), Sub-Dauki (7.3), and Bogra (7.0), all of them are associated with earthquakes of expected magnitudes higher than or equal to 7.0. At present the country is at risk of an earthquake in any time. The Government of Bangladesh started its development process in disaster management by issuing Cyclone Preparedness Programme (CPP) in 1972. At that time the Relief and Rehabilitation Ministry was there to assist government in case of natural disaster. After forming up of Armed forces division in year 1983, they participated in natural disaster as a combined force (Army, Navy and Air force). Before hand, the participation of defense was not as organized as it is now. The 1988 flood was successfully mitigated with the present system. But the intensity of Cyclone 1991 was the beyond capacity of the new government of BNP. Thereafter it felt necessary to formulate a combined national programme on disaster management. The government of Bangladesh could successfully published The Standing Orders on Disaster in the current format in 1997 in Bangla. It was modified and translated in English in 1999. There after basing on the Hyogo Framework

of Action 2005-15 and the SAARC Framework of Action 2006-15, the SOD was again revised in 2010. After the cyclone in 1991 the Government also formed up Ministry of Food and Disaster Management (MoFDM) which is the national focal point for disaster management in Bangladesh. And the earlier Relief and Rehabilitation Ministry was incorporated under a directorate in it. Now the Ministry of Food and Disaster Management (MoFDM) manages disasters through its three agencies: Disaster Management Bureau (DMB), Directorate of Relief and Rehabilitation (DRR), and Directorate General of Food. In the development process the Government devises the disaster management plan which involves the union chairman to Prime Minister from union to National level. This plan formulates various committees in each and every administrative level. Beside that the government of Bangladesh published draft disaster management Act, disaster management policy etc. At present Bangladesh has established its credibility in global context because of successfully incorporating its all government agencies, ministries, Armed Forces and NGO's to mitigate the disaster and strengthen the resilience of its population.

3.2 Bangladesh Armed Forces in Present Disaster Management Context

In disaster situations, relief, rescue and response operations have to be undertaken immediately and in the most appropriate manner. The development oriented civil administration in our country is still not well equipped for undertaking large scale disaster response activities in the event of major and wide spread disasters. But like many other countries, Bangladesh Armed Forces are always in a state of operational readiness to move quickly to any disaster affected area and their ability to work under adverse ground & climatic conditions is of immense help to any civil authority during disaster situations. Bangladesh Armed Forces are one of the most dedicated, professional and modernized armed forces in the world. So far in Bangladesh the role played by the Armed Forces during disaster rescue and response operations has been exemplary. Just after the independence the Bangladesh defense force didn't have any combined organization, because of the strength and composition the army enjoyed the superiority over Navy and Air force. But there was no existence of well defined defense mechanism under which these three forces can jointly take part in any operation. In year 1983 in the regime of General Ershad, the Armed Forces division (AFD) first established. And it made a flexibility and well defined command and control over three forces to engage in natural disaster under the supreme command of the then president (at present under command of Prime Minister). Armed Forces were serving for the nation with their sincerity and full of

dedication during the flood 1988 and the subsequent natural disasters like Cyclone 1991, Tornado 1996 in Tangail district, Cyclone 1997, Flood 2004 and Cyclone Sidr in 2007. Beside this devastating national level disaster the Armed Forces work all the year round in Aid of Civil Power to assist government in case of water crisis in summer or building collapse or fire break out. They work with the civil defense force and other government ministries as a supporting role. The Armed Forces also engaged in Vulnerable Group Feeding Assistance (VGF) to assist the government in post flood relief activities i.e. VGF Programme. As a part of that VGF programme the Armed Forces deployed in various parts of Bangladesh from 20 August 2006 and assisted the civil authority in verification of list, distribution of card, and ration distribution in all unions of Bangladesh (64 districts).

Since the independency the Bangladesh Armed Forces achieved a long experience for working with government ministries and other agencies in emergency response. It can be mentioned here that the Armed Forces experienced itself for working with NGOs at a larger scale during **Operation Sea Angles** in 1991 cyclone. But till the publication of **revised SOD 2010** the Armed Forces doesn't have any written authority to work with NGOs even though they work with them unofficially and temporary basis. In a Country like Bangladesh, it is very important to accumulate all the government and non government agencies as an emergency responder. And thereby ICS is the best possible method for implementing this process.

3.3 Civil – Military Relationship in Bangladesh

In the recent time the Bangladesh Government has incorporated ICS in the disaster management system in Bangladesh. The ICS needs a well coordinated and comprehensive approach by all agencies who will be working mutually in this system. And it depends on strong relation in the midst of the agencies. In our country the relation between military administration with civil which includes political group, NGOs and civil administration is essential to know for formulating a logical and workable action framework for the Armed Forces in ICS context .Bangladesh achieved its independence after a bloody war against Pakistan in year 1971. Just after four years of its emergence on the map of South Asia it witnessed blood coup and counter coup both successful and abortive mutinies of Army soldiers and Non-commissioned officers against their senior officers the brutal assassination of its great leader Bongobondhu Sheikh Mujibur Rahman as well as President Ziaur Rahman and execution of large number of political leaders and military officers since 1975. These turmoil situations made this country unstable and slowed down

the progress of development. The corruption and weakness of political leaders made the military ambition high and created scope for military intervention many times in state mechanism. As a result this country could enjoy the democratic environment from 1972-1975 and four months of Sattar's regime and after 9 years of Military dictatorship of General Ershad again this country could enjoy the democratic environment from 1991 to 2006. Finally this country witnessed another military intervene in terms of Caretaker government in year 2007-08. At present this country again entered in democratic governmental system. Since independence most of the time this country was ruled by military dictatorship. As a result it creates overall negative impact on the civil society. The civil society includes the political group, civil administration and humanitarian agencies. So civil-military relationship needs further explanation which has been described in the following manner.

3.3.1 Relation between Political Group and Civil-Military Administration

Bangladesh as a state lived in a military regime more than the democratic government from its independence. As a result the level of institutionalization of political parties and the functioning of democratic institutions were greatly upset. The Zia regime witnessed the ascendance of the military and the civil bureaucracy over the political elements. The bureaucratic elite who ruled Bangladesh, during the undivided Pakistan period and seemed to have lost its esprit de corps and relegated to second position and dominance in decision making arena. In order to restore the power and position of the steel frame, the new regime first abolished Presidential Order No.9 of 1972, which had provided for the dismissal of officials without assigning any reason. Furthermore many bureaucrats who had lost their job under this order in Mujib's regime were placed in many key positions by Zia's regime. The bureaucrats in Zia's regime were given the responsibility for formulating of various development strategy and policies. Since then all the key policy – making institutions were dominated by them. The military personals were involved in Aid of Civil power in Mujib's regime and found political leaders were involved with smuggling and corruption. This created dissatisfaction among the military personals towards political leaders at the very initial stage and it affected in a long run. During military regime the military and civil bureaucracy run the country avoiding the development of political parties and the creation of nation builders political leaders. This generates a generation vacuum for achieving a high-quality political leader for this nation; at the same time it creates a mistrust and lack of confidence among the political group towards military and civil bureaucracy. On one hand the military and civil bureaucracy

has less trust and respect towards politics, constitution and democracy, on the other hand the political parties were indulge themselves in politicized these elite groups to gain support from these elite groups to grasp the state power. As a result the relations turned in to a bad shape and which only created mistrust and suspicion among them. Still at present the relation of Military and civil administration with political groups has yet to develop.

3.3.2 Relation of Civil and Military administration

In Zia's regime the civil bureaucratic regained their power and achieved all the key position of the decision making institutions. In the overall power structure, the positions of the President, CMLA, DCMLA and the advisers to the President were crucial and 80 percent of them were held by the bureaucratic elite. Apart from this crucial positions held by the bureaucratic elite by 1980 former CSP officers numerically dominated most of the high level decision making posts of all major government institutions concerned with administration and economic management, including the highest key policy making institution like National Economic Council(NEC) and planning commission. Apart from this they were also placed in most of the top positions in the secretariat and public corporations. This country became almost an administrative state in Zia's regime. Where the civil- military bureaucracy ruled over the country and it turned into a praetorian model. After Zia's assassination, General Ershad took the charge of the country and ignored the general notion that the military elite can't run a country without the collaboration of the civil services. In Ershad regime in Bangladesh represented a unique example in the sense that it was often called a "Parliament of soldiers". The young officers from army were significantly participated in policy deliberations with senior officers and sometimes initiated policies. Under Martial law authorities, the maximum key positions of the governmental structures were captured by the military personal in all level of administration from the civil bureaucrats and they have no power on their hand. However some of the key cabinet positions like Finance and Planning, Agriculture and Industry were given to leading bureaucrats. This changing of power and control over the administration create frustration and dissatisfaction among the civil bureaucratic elite towards military administration. Thereby military administration creates another rivalry group against them. Since the regime of Ershad the civil administration lost their power over administration and maximum important positions were infiltrated by military bureaucrats is which still exists in present democratic government period.

The relation between military and civil administration was not healthy in Bangladesh. But at present the situation is changing. Because of natural disaster the Armed forces has deployed several times to play as a supportive role for the civil administration which creates a better understanding among them. At the same time the present military administration is now quite matured and professional more so serving in UN peacekeeping mission they gained lot of experience on working with civil administration. This experience helped them to create a healthy and comfortable relation with civil administration. On the other hand the close relation during in Aid of civil power removed the misconception of civil administration regarding military administration which they had received from their successors.

3.3.3 Relation between NGO's and Military Administration

NGOs are defined as "private organizations which conduct and pursue activities to relieve sufferings, promote the interests of poor, provide basic social services or undertake community development". In wider usage, the term **NGO** can be applied to any non profiting organization which is independent from the government. Based on their functioning NGOs can be divided in two distinct categories.

- **Operational NGOs** Such organizations work for the betterment of humanity through practical application of their resources and abilities. They undertake welfare measures, development projects and assists the governments and its agencies in rises **management**.
- **Advocacy NGOs** This type of NGOs is more focused and deals with a specific purpose with a view to defend and promote a particular cause. Commonly dealt issues are health, education and poverty. At times a no of advocacy NGOs may unite under a single operational **NGO** while advocating their particular cause. Physical application usually is not within the domain of such types. Operational NGOs find their roots in masses on contrary to the other type.

Their role in disaster management is of paramount importance. These can further be classified as under.

- **Community Based Organizations** These are normally membership organizations made up of a group of individuals who have joined together to further their own interests. Normally based on communal system such organizations are weak in resources and funds with prime dependence on charity and donations. However, having grass root foundations, if linked

with the two types being described below, communal organizations can be very effective.

- ***National Organizations*** Well financed and sufficiently equipped such organizations have national objectives. They primarily focus within the boundaries of a particular country, although at times may have international links. BRAC is the glaring examples.
- ***International Organizations*** Normally based in developed countries such organizations operate around the world particularly the developing countries. They have a wider scope and are linked to world fame bodies as UNO and World Bank. At times they play an intermediary role between these organizations, governments and small scaled NGOs.

Basing on their contribution to humankind during emergency response the NGO has got both the positive and negative attributes. These are discussed as follows:

Positive Attributes

- ***Strong Grass Root Links*** Gaining their strength from the masses these organizations are well linked in their areas of influence. Moreover, their selfless approach and unpaid working help them gain the sympathies of people.
- ***Innovative and Adaptable*** In most cases NGOs do not have a set agenda to operate. Their basic aim being to serve humanity they are capable to undertake varying nature of tasks.
- ***Sincerity of Purpose*** At occasions NGOs are blamed to have secondary objectives of self propagation. In certain cases it might be true, however, the basic purpose to serve humanity remains in built to any NGO.
- ***Expertise*** NGOs are usually well trained and have requisite expertise to apply their resources. They have the specialized man power and technical know how to implement their objectives.
- ***Cost Effective*** Charity and donations forms the base of their finances. This very system, make these outfits highly productive with almost negligible input.

Negative Attributes

- ***Limited Institutional Capacity*** In most cases the scope of NGOs particularly at national level and below does not match their organizational abilities. Their intended tasks are usually not within their own capabilities and

they normally need outside assistance from the government and local establishment.

- ***Resource and Financial Constraint*** Small scaled NGOs normally do not have sufficient funds and resources to manage their affairs. Absence of a regular source of income and mere dependence on donors and charity are their vulnerabilities.
- ***Isolated Working*** NGOs are very weak in inter communication and coordinated working, either with the government or with their fellow organizations. They have their own agenda and work with a particular mind set. In large scale disasters duplication and wastage of efforts are therefore a common doing.
- ***Limited Field Sustainability*** Dealing with disasters at occasions require prolonged field employment. The associated staffs of NGOs are normally not permanent. They are linked to some other jobs for their regular incomes. Long term employment of NGOs for field work is therefore a problem.
- ***Compatible Understanding*** Their direction and way of working is self assessed. They usually lack understanding of the broader social and economic context. The problem arises when they have to operate in coordination with the government and its agencies. Their limited focus and inability to view the overall framework not only limits their own output but is also a drag on others.

In Bangladesh the military administration has no direct link up with the NGOs. Although the NGOs are often identified with powerless groups, they themselves have become powerful and influential, especially because of their external source of financial support, cooperation and advocacy. In country like Bangladesh the numbers of registered NGOs are about 23000 and some of which are the largest and best known in the world. During emergency response operation most of the time the NGOs work independently. It has been found that they have rich database on their respective community and area where the governmental agencies don't have. They enjoyed better communication and sound management than that of Government one. Earlier stage the Government didn't integrate the NGOs in disaster management activities. As a result there was no scope for the Armed forces to come across with NGOs. But recently the donor countries increased their fund to local NGOs and the bilateral agencies from developed countries like Canadian International Developed Agency (CIDA), Norwegian Agency for Development Cooperation, Swedish International Development Cooperation (SIDA) and Danish Agency for Development Assistance are increasingly in favor of working with local NGOs in developing countries. In Bangladesh many of these influential bilateral agencies

which used to have direct relationship with the government are now in favor of in pursuing their objectives through local NGOs in sectors like development sustainability of the community by decreasing primary education, health care, capacity building, gender issue and the environment. The present scenario influences the government mechanism to incorporate the NGOs in disaster management plan. As a result it will create the scope for the Armed forces to work with the NGOs in upcoming days. But still in Armed forces they have some misconception or mistrust against NGOs activities and some of the members of the Armed forces has fear that working with NGOs may disclose the informational security to foreign countries or the NGOs may not have that capability or knowledge on disaster management. At present the NGOs are monitored and their activities are observed through NGO Affairs Bureau which established in 1990 and it is directly under Prime Minister Office. It also controls the registration of new NGOs in Bangladesh

3.7 Challenges for Implementation of ICS in Bangladesh

In incident command system (ICS) when the military administration will be going to work with the other agencies like the political group, civil administration or the NGOs during emergency operation they may face problems or limitations due to various reservation and challenges which has been described in the following sections.

3.7.1 Political groups

The long term military dictatorship, suppression of political parties and lack of respect towards political leader by the member of armed forces made the situation a conspicuous one at early stage of this country. Lack of knowledge on constitution, confidence on democratic governmental system and high ambitious inspires the military bureaucratic group to snatch power and intervene in politics number of time. This how on the long run it affects the political parties to grow misconception and mistrust against the military administration. In case of emergency situation may be related to natural disaster, the government political party suffered indecision because of fear of military intervenes to call for emergency during disaster. This delayed the emergency response operation in time and increased the sufferings and number of victims. And at the same time the Armed forces suffered from lack of confidence and loose its credibility to the nation. Again in planning the mistrust may lead the government political party to set the responsibility of the Armed forces in a manner that their services may not be better utilized. So to minimize those problems the Armed Forces must show its full respect towards the

democratic governmental system as well as the political elected representative. The Armed forces must have the confidence on the political system. And the professionalism of Armed forces personnel's will enable the political leader to have trust on Armed forces in emergency situation or any crisis time.

3.7.2 Civil Administration during Emergency Response Operation

We have all ready discussed the relation between civil military administrations in our country. Beside this issue both the administrations also having some institutional limitations which hinder the development progress during emergency response operation. One of the common and problematic issues between military and civil administration in developed and developing countries is command, control and co-ordination authority especially in joint operation during emergency response operation. The command, control and co-ordination authority may vary due to government structural but it exists almost in all the countries. In our SOD 2010 the command, control and co-ordination definition has given as follows

- **Command** The direction of members and resources of an agency in the performance of that agency's role and tasks. Command relates to agencies and operates vertically within an agency. Authority to command is established in legislation or by agreement within an agency.
- **Control** The overall direction of disaster response activities in an emergency or disaster situation. Control relates to situations and operates horizontally across agencies. Authority for control is established in legislation or in a response plan, and carries with it the responsibility for tasking other agencies in accordance with the needs of the situation.
- **Coordination** The bringing together of agencies and resources to ensure an effective disaster response. It is primarily concerned with the systematic acquisition and application of resources (organizational, personnel and equipment) in accordance with the requirements imposed by the hazard or impact of an emergency. It operates vertically within agencies as a function of the authority to command, and horizontally across agencies as a function of the authority to control.

At present existing governmental structure which creates challenges for the Armed Forces while working with civil administration during emergency response. These challenges are shown on the following table:

Table-3.1: The Challenges between Armed Forces and Civil Administration

Ser No	Challenges	Description	Remarks
01	Sharing resources with civil administration	There is no system in place for acquiring private resources (equipment, supplies manpower etc) by Armed Forces under normal civil law even when the Armed forces are deployed In Aid of Civil Power act and there is a severe need to help victims during emergency response.	
02	Lack of coordination with civil administration	(1) Not necessarily government agencies or civil society agencies follow orders from the AFD under normal civil law during placement of government Officers under military commander or in other type of resource allocation, distribution etc..	
03	Lack of database and need for accessing data bases of Government ministries	(1) At present no comprehensive data base is available to AFD and still there is no such system developed by which the civil and military or Armed Forces can exchange and share their database each other. (2) AFD does not have access to the databases of other government agencies	
04	Lack of proper methodologies for damage /need assessment	AFD officials are usually called upon to undertake rapid assessments soon after the disaster events. AFD does not follow any standard methodology for damage and need assessment and assessments are made very arbitrarily. The assessments method also not same with the concern ministries as well	
05	No methodology for vulnerability assessment	AFD professionals do not have any standard methodology for vulnerability assessment for buildings and other critical infrastructures and they don't follow any similar process with the concern ministries	

3.7.3 Setback between Armed Forces and Civil Administration during emergency operation

In emergency operation the Armed Forces and civil administration in our country are almost habituated with the experience of working together. Even though sometime we faced difficulties some of the arena which mentioned bellows

- Some of the case it has been found the military intervention creates negative impact on cooperation between civil and military administration.
- The way of working style some time creates misunderstanding to the civil authority.
- The lack of maturity of young military officers in dealing with the civil officers creates misconception towards military administration.
- In democratic government structure it is the civil administration that will have the supremacy over the military administration during emergency response operation, but due to attitude of the military officers and lack of well defined action frame work create misunderstanding.
- The different type of command structure sometime becomes a barrier to understand each other.
- The use of different type of communication also create problem to take necessary joint approach during emergency operations.

3.7.4 Organizational Structure between Armed Forces and Humanitarian agencies (NGO)

Military institutions place a high value on command and control, top-down hierarchical organizational structures and clear lines of authority, discipline and accountability. They place great value on logistics, and substantial resources are dedicated to the acquisition of assets and training of personnel to ensure that they can function independently under the most adverse circumstances. The military's approach to problem solving is generally directive and coercive. Humanitarian organizations are less hierarchical and more participatory in their style of decision making and operations than the military. They pay more attention to the process by which they accomplish operations, partly because they attach more importance to long-term impacts, but have fewer back-up resources and engage in less contingency planning to ensure that short-term objectives can be met quickly. These structural differences are particularly evident in the distinct approaches of the military and

civilian organizations to direct civilian assistance. The military's approach is informed by security rather than long-term development considerations. For instance, military infrastructure projects for the local civilian populations rarely consider the long-term management implications of what they construct or repair. Rather, such .civil affairs projects. (As they have been known in the United Kingdom and the United States) are essentially public relations exercises designed to reap hearts and minds returns to further a security objective. Thus the military short-term, non-participatory approach is often a source of operational tension with the civilian agencies engaged in similar activities informed by considerations of development

- ***Military command and control (C2)*** Military C2 is fundamentally a *support* instrument. It is designed as a coordination platform that vests significant decision-making power in commanders, intended to enable them to efficiently and successfully complete a mission or attain an objective. Military C2 is a structured, tightly coupled, hierarchical environment where concepts, such as command, repeat at different layers of hierarchy, though with changes in span of control, i.e. how many staff one commands, or in scope, i.e. from tactical to strategic. The key to success is swift, efficient, and cost-effective victory. While the actual definition of victory varies, it is generally considered to be changing enemy's behavior. It is also commonly accepted that the best way to overcome an enemy is by attacking its strategy. This approach frames military C2 in a temporal structure that is typically longer than is required for disaster response.

- ***Civilian command and control*** Civilian C2 is fundamentally a *functional* instrument. It is designed as a tool to maintain authority with emphasis on distributed decision-making that is intended to provide ample leeway for prevailing local customs, cultures, and needs. While there is an implied hierarchy, there is no formal overarching hierarchical organization and the relationships are loosely coupled. The hierarchy is typically enforced through financial bonds, treaties, lawsuits, bureaucratic controls, or through specific umbrella organizations created for a particular purpose. The key to success of civilian C2 is considered to be the full realization of the democratic process. While efficiency is desired, it is not the first priority and is often overshadowed by the desire to encourage debate and collaboration, as well as the goal of insuring participant equity and equal treatment. This approach also

frames the civilian C2 in a temporal structure that is typically longer than is required for disaster response.

3.7.5 Conflict between Military and NGOs in Emergency Response Operations

During humanitarian missions, humanitarian aid agencies and militaries share the common goal of getting the right amount of relief supplies to the right place at the right time. Even though both the elements face some troubles, which are mentioned below:

- ***Duration*** In disaster prone area the military or Armed Forces are deployed for short time duration and they have limited objectives. On the other hand the NGOs are working in an area for a long duration which enables them to understand the need assessment better than that of Armed Forces. The NGOs know better than the Armed Forces regarding “What, When and How the relief materials are needed by the affected people”. Some case it has been found the Armed Forces couldn’t utilize the NGOs properly for better management of relief distribution.
- ***Control*** Sometime the Armed Forces try to control the NGOs work without having clear idea on their activities. The NGOs work basing on some limited agendas and particular field of development project like sanitation, primary education, capacity building or health care etc. As an example during emergency response the Armed Forces may instruct the local NGOs to utilize their all effort to provide drinkable water, as they figure it out as priority one but the NGOs may not have the water purification plants as they were engaged with the gender issue project in that local area.
- ***Willingness*** Some of the NGOs work under direct supervision of donor countries and agencies they may not have the spirit or willingness to work with the government agencies including Armed forces. And it sometimes create difficulties in relief distribution because lack of cooperation in same area.
- ***Cheap popularity*** Some of the NGOs mainly work for cheap popularity with limited resources and they create critical situation during relief distribution some time in rescue and evacuation also.

3.7.6 Line of Communication

In emergency response operation Military and civil organization maintained different pattern of communication to maintain their flow of information, report and returns from command level to downwards. The military mainly posses high, sophisticated and secured equipment to maintain their command information from command level to downwards. And both the administration used different terminology in their daily functions to maintain their C2 and radio conversation as well. The military mainly maintain their communication following the battle procedure and specific encrypted data which is not accessible by any civil administration because of its high classified value. On the other hand the military are not trained and they have no scope or training to have the accessibility in the civil administration communication system. Again the humanitarian agencies got their own way to manage the communication system. In Bangladesh most of the humanitarian agencies are depended on the cell phone network and walki talki with limited range.

CHAPTER 4

CASE STUDY ON ICS IN DEVELOPED AND DEVELOPING COUNTRIES CONTEXT

4.1 ICS in Developed countries

In developed countries they are having well emergency management structured but in case of emergency response it has been observed that the whole system was not activated the way it should be. Several gaps are discovered later on specially the lack of define command and control authority, lack of good management system and duplication in relief distribution or evacuation and rescue plan. So they introduced the Incident Command System (ICS) in their disaster management process. And try to bring all the emergency responder in a same chain. And now it is successfully followed by all the developed countries like USA, Canada and Australia. In the developed countries context the ICS is mainly handled by the emergency service provider like Fire department or the civil administration. They are well experienced and trained to manage the disaster. When the entire civil administration couldn't handle the disaster with own capability they called the Armed Forces as a supporting role. Like Hurricane KATRINA or RITA in USA. In developed countries the civil infrastructure for managing any kind of disaster is strong and more capable than developing countries. So it gives less scope to Armed Forces to involve in the business. And well practice of democracy and democratic government structure made their civil organization more strong to handle the crisis. The following section the ICS of developed countries will be discussed.

4.1.1 Incident Command System in USA

The United States has got a large jurisdictional area comprises with 50 states and these states again divided into countries, cities, Township and villages. Some of the cities also part of the more than one area of jurisdiction. So the political division makes it more complicated during a natural or man made disaster for emergency responding when it includes more than one state or area of jurisdiction. Again Natural disasters (particularly earthquakes and hurricanes) have clearly demonstrated that no jurisdiction has sufficient emergency services to handle large-scale emergencies within their own resources. Even "small" emergencies frequently involve multiple departments from within either a single jurisdiction or assistance from adjacent mutual aid departments. To overcome this problem the USA government took the initiative for arranging some coordination or integrated approach between the states or more than one area of jurisdiction. So they

arrange some agreement like “Mutual Aid” in between states or the different areas of Jurisdiction for swift emergency management.

4.1.1.1 Mutual Aid

Although there had long been a general awareness that emergencies could easily overcome the internal resources of even the largest state, this key component of emergency preparedness had been handled in an unstructured fashion until relatively recently in the United States. “Mutual Aid” as used in the United States refers to a formal compact between jurisdictions that define the emergency services that the supporting jurisdiction(s) are willing to provide, the terms for reimbursement for services provided, and the legal authorities of the first responders when serving outside their home jurisdictions. The mutual aid compacts normally provide that a first responder working outside of his/her jurisdiction in the requesting host jurisdiction holds the same authority as a local first responder in the host jurisdiction and enjoys the same liability protection that they have when “in territory.” Thus, an Emergency Medical Technician or Firefighter from Maryland responding to an emergency in Virginia would have the same legal status as a Virginia Emergency Medical Technician or Firefighter. The most frequent exception to this general policy concerns law enforcement authority: special provisions are required when a police officer is working outside of his/her home state. Where routine cross border cooperation is anticipated, officers are frequently certified in both states. In the Washington, DC metropolitan area supporting police officers are individually deputized as US Marshals to grant them law enforcement authority in the host jurisdiction. Standardized, properly executed, and practiced, mutual aid systems are now recognized as essential. Bilateral mutual aid agreements, particularly involving fire departments, between adjacent jurisdictions, have been in place for many years. Many local jurisdictions have agreements in place, but they vary widely across the country. Moreover, many are not formal agreements, and do not addresses key issues such as liability and compensation or qualification portability. Basing on the experience and evaluation of the Mutual Aid process the USA government finally established the National Incident Management System.

4.1.1.2 The U.S. National Incident Management System

In March, 2004, the U. S. Department of Homeland Security (DHS) announced a mandatory, nationwide, National Incident Management System (“NIMS”). NIMS were issued February 28, 2003 under the authority of Homeland Security Presidential Directive

(HSPD)-5. "HSPD-5 requires all Federal departments and agencies to adopt the NIMS and use it in their individual domestic incident management and emergency prevention, preparedness, response, recovery, and mitigation programs and activities, as well as in support of those actions taken to assist State, local, or tribal entities. The directive also requires Federal departments and agencies to make adoption of the NIMS by State, tribal, and local organizations a condition for Federal preparedness assistance beginning in FY 2005." (U.S. Department of Homeland Security, 2004, cover letter by Secretary Tom Ridge) NIMS supplements, rather than replaces, the *National Response Plan* (NRP), and regional, State, and local response plans. The NIMS has two fundamental principles: (1) the system must be flexible, so that it can be used routinely by all types of domestic incidents, regardless of their cause, size, location or complexity; and (2) where appropriate, highly structured, standardized operational structures (U.S. Department of Homeland Security, 2004). There is a brief summary of emergency management roles at the local, tribal, State, and Federal levels, as well as the roles of private-sector organizations has been given. Emergency management is the coordination and integration of all activities necessary to build, sustain, and improve the capability to prepare for, protect against, respond to, recover from, or militate against threatened or actual natural disasters, acts of terrorism, or other manmade disasters.

4.1.1.3 Local Governments

Resilient communities begin with prepared individuals and depend on the leadership and engagement of local government, NGOs, and the private sector. Individuals, families, and caregivers to those with special needs should enhance their awareness of risk and threats, develop household emergency plans that include care for pets and service animals, and prepare emergency supply kits. Individuals can also volunteer in their communities. Local police, fire, emergency medical services, public health and medical providers, emergency management, public works, environmental response professionals, and others in the community are often the first to detect a threat or hazard, or respond to an incident. They also are often the last to leave an incident site or otherwise to cope with the effects of an incident. The local senior elected or appointed official (the mayor, city manager, or county manager) is responsible for ensuring the public safety and welfare of residents.

4.1.1.4 States, Territories, and Tribal Governments

States, territories, and tribal governments have responsibility for the public health and welfare of the people in their jurisdiction. State and local governments are closest to those impacted by incidents, and have always had the lead in response and recovery. During response, States play a key role coordinating resources and capabilities throughout the State and obtaining resources and capabilities from other States. States are sovereign entities, and the Governor has responsibility for public safety and welfare. While U.S. territories and tribal governments also have sovereign rights, there are unique factors involved in working with these entities. States have significant resources of their own, including State emergency management and homeland security agencies, State police, health agencies, transportation agencies, incident management teams, specialized teams, and the National Guard. The role of the State government in response is to supplement local efforts before, during, and after incidents. If a State anticipates that its resources may be exceeded, the Governor can request assistance from the Federal Government and/or from other States through mutual aid and assistance agreements such as the Emergency Management Assistance Compact (EMAC).

4.1.1.5 The Federal Government

The Federal Government maintains a wide array of capabilities and resources that can be made available upon request of the Governor. When an incident occurs that exceeds or is anticipated to exceed State, tribal, or local resources, the Federal Government may provide resources and capabilities to support the State response. For incidents involving primary Federal jurisdiction or authorities (e.g., on a military base or a Federal facility or lands), Federal departments or agencies may be the first responders and first line of defense, coordinating activities with State, territorial, tribal, and local partners. The Federal Government also maintains working relationships with the private sector and NGOs.

4.1.1.6 The Private Sector and NGOs

The private sector and NGOs contribute to response efforts through engaged partnerships with each level of government. Private-sector organizations and NGOs are encouraged to develop contingency plans and to work with State and local planners to ensure that their plans are consistent with pertinent plans, the NIMS, and this Framework. Private-sector organizations play an essential role in protecting critical infrastructure systems and implementing plans for the rapid restoration of normal commercial activities and critical

infrastructure operations in the event of disruption. The protection of critical infrastructure and the ability to rapidly restore normal commercial activities can mitigate the impact of an incident, improve the quality of life of individuals, and accelerate the pace of recovery for communities and the Nation. There are not-for-profit owners/operators of critical infrastructure and key resources (CIKR) facilities, notably in healthcare and power generation. NGOs also serve a vital role at the local, State, and national levels by performing essential service missions in times of need. They provide sheltering, emergency food supplies, and other vital support services. NGOs bolster and support government efforts at all levels

4.1.1.7 During Emergency Response

When notified of a threat or an incident that potentially requires a coordinated Federal response, the National Operations Center (NOC) evaluates the information and notifies appropriate senior Federal officials and Federal operations centers: the National Response Coordination Center (NRCC), the FBI SIOC (Strategic Information and Operations Center), the National Counterterrorism Center (NCTC), and the National Military Command Center. The NOC serves as the primary coordinating center for these and other operations centers. The NOC alerts department and agency leadership to critical information to inform decision making. Based on that information, the Secretary of Homeland Security coordinates with other appropriate departments and agencies to activate plans and applicable coordination structures of the *Framework* as required. Officials should be prepared to participate, either in person or by secure video teleconference, with departments or agencies involved in responding to the incident. The NOC maintains the common operating picture that provides overall situational awareness for incident information. Each Federal department and agency must ensure that its response personnel are trained to utilize these tools.

4.1.1.8 Operations Centers

Federal operations centers maintain active situational awareness and communications within and among Federal department and agency regional, district, and sector offices across the country. These operations centers are often connected with their State, tribal, and local counterparts, and can exchange information and draw and direct resources in the event of an incident.

4.1.1.9 *Baseline Priorities*

When an incident or potential incident occurs, responders assess the situation, identify and prioritize requirements, and activate available resources and capabilities to save lives, protect property and the environment, and meet basic human needs. In most cases, this includes development of incident objectives based on incident priorities, development of an Incident Action Plan by the Incident Commander in the field, and development of support plans by the appropriate local, tribal, State, and/or Federal Government entities.

Key activities include:

- ***Activating people, resources, and capabilities.*** Across all levels, initial actions may include activation of people and teams and establishment of incident management and response structures to organize and coordinate an effective response. The resources and capabilities deployed and the activation of supporting incident management structures should be directly related to the size, scope, nature, and complexity of the incident. All responders should maintain and regularly exercise notification systems and protocols.
- ***Requesting additional resources and capabilities.*** Responders and capabilities may be requested through mutual aid and assistance agreements, the State, or the Federal Government. For all incidents, especially large-scale incidents, it is essential to prioritize and clearly communicate incident requirements so that resources can be efficiently matched, typed, and mobilized to support operations.
- ***Identifying needs and pre-positioning resources.*** When planning for heightened threats or in anticipation of large-scale incidents, local or tribal jurisdictions, States, or the Federal Government should anticipate resources and capabilities that may be needed. Based on asset availability, resources should be pre-positioned and response teams and other support resources may be placed on alert or deployed to a staging area. As noted above, mobilization and deployment will be most effective when supported by planning that includes pre-scripted mission assignments, advance readiness contracting, and staged resources.

4.1.1.10 *Tribal, and State Actions*

In the event of, or in anticipation of, an incident requiring a coordinated response, local, tribal, and State jurisdictions should:

- Identify staff for deployment to the **emergency operations center (EOC)**, which should have standard procedures and call-down lists to notify department and agency points of contact.

- Work with emergency management officials to take the necessary steps to provide for continuity of operations.
- Activate **Incident Management Teams (IMTs)** as required. IMTs are incident command organizations made up of the command and general staff members and appropriate functional units of an Incident Command System organization. The level of training and experience of the IMT members, coupled with the identified formal response requirements and responsibilities of the IMT, are factors in determining the “type,” or level, of the IMT.
- Activate **specialized response teams** as required. Jurisdictions may have specialized teams including search and rescue teams, crime scene investigators, public works teams, hazardous materials response teams, public health specialists, or veterinarians/animal response teams.
- Activate **mutual aid and assistance agreements** as required.

4.1.1.11 Federal Actions

In the event of, or in anticipation of, an incident requiring a coordinated Federal response, the National Operations Center, in many cases acting through the National Response Coordination Center, notifies other Federal departments and agencies of the situation and specifies the level of activation required. After being notified, departments and agencies should:

- Identify and mobilize staff to fulfill their department’s or agency’s responsibilities, including identifying appropriate subject-matter experts and other staff to support department operations centers.
- Identify staff for deployment to the NOC, the NRCC, FEMA Regional Response Coordination Centers (RRCCs), or other operations centers as needed, such as the FBI’s Joint Operations Center. These organizations have standard procedures and call-down lists, and will notify department or agency points of contact if deployment is necessary.
- Identify staff that can be dispatched to the Joint Field Office (JFO), including Federal officials representing those departments and agencies with specific authorities, lead personnel for the JFO Sections (Operations, Planning, Logistics, and Administration and Finance) and the ESFs.
- Begin activating and staging Federal teams and other resources in support of the Federal response as requested by DHS or in accordance with department or

- Execute pre-scripted mission assignments and readiness contracts, as directed by DHS.

Some Federal departments or agencies may deploy to an incident under their own authorities. In these instances, Federal departments or agencies will notify the appropriate entities such as the NOC, JFO, State EOCs, and the local Incident Command. Below the diagram shows how the various jurisdictional areas are working under ICS while sending the request and receive the assistance.

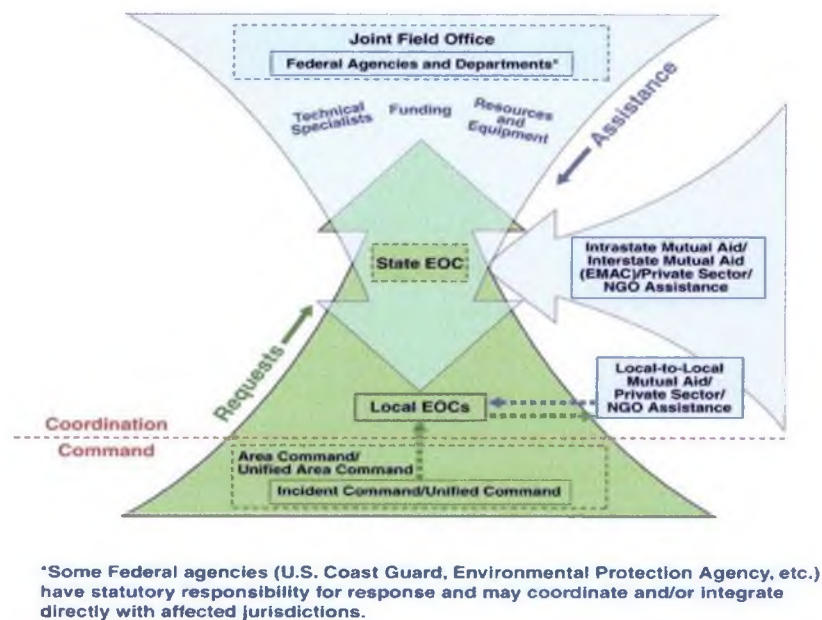


Figure 4.1: Flow of Requests and Assistance during Large-Scale Incidents (Source: National Incident Management System of USA, December 2008)

4.1.1.12 Emergency Support Function (ESF)

In USA the Federal has got its own Emergency Support Function (ESF) group for responding in any disaster where the assistance of Federal is in need. The ESFs are coordinated by FEMA (Federal Emergency Management Agency) through its National Response Coordination Center (NRCC). During a response, ESFs are a critical mechanism to coordinate functional capabilities and resources provided by Federal departments and agencies, along with certain private-sector and nongovernmental organizations. They represent an effective way to bundle and funnel resources and capabilities to local, tribal, State, and other responders. The ESF has elaborated in the following list.

Table 4.1: Emergency Support Function (ESF) (Source: National Response Framework of USA, January 2008)

Ser No	Sector	ESF Coordinator
01	Transportation & Infrastructure	Department of Transportation
02	Communication	DHS (National Communications System)
03	Public Works & Engineering	Department of Defense (U.S. Army Corps of Engineers)
04	Fire Service	Department of Agriculture (U.S. Forest Service)
05	Emergency Management	DHS (Federal Emergency Management Agency or FEMA)
06	Mass Care, Housing & Human Services	DHS (FEMA)
07	Resource Support	General Services Administration and DHS (FEMA)
08	Health & Medical Services	Department of Health and Human Services
09	Urban Search & Rescue	DHS (FEMA)
10	Oil & Hazardous Materials Response	Environmental Protection Agency
11	Agriculture, Natural Resources	Department of Agriculture
12	Energy	Department of Energy
13	Public Safety & Security	Department of Justice
14	Recovery & Mitigation	DHS(Department of Homeland Security)
15	External Affairs	DHS(Department of Homeland Security)

4.1.1.13 Joint Field Office (JFO)

The JFO is the primary Federal incident management field structure. The JFO is a temporary Federal facility that provides a central location for the coordination of Federal, State, tribal, and local governments and private-sector and nongovernmental organizations with primary responsibility for response and recovery. The JFO structure is organized, staffed, and managed in a manner consistent with *NIMS* principles and is led by the Unified Coordination Group. Although the JFO uses an ICS structure, the JFO does not manage on-scene operations. Instead, the JFO focuses on providing support to on-scene efforts and conducting broader support operations that may extend beyond the incident site. Personnel from Federal and State departments and agencies, other jurisdictional entities, the private sector, and NGOs may be requested to staff various levels of the JFO, depending on the requirements of the incident.

the overall effectiveness of the Federal incident management. When appointed, such an individual serves in the field as the PFO for the incident. A PFO is a senior Federal official with proven management experience and strong leadership capabilities. The PFO deploys with a small, highly trained mobile support staff. The same individual will *not* serve as the Principal Federal Official and the Federal Coordinating Officer at the same time for the same incident. The PFO does not direct or replace the incident command structure established at the incident.

4.1.1.15 Federal Coordinating Officer (FCO)

The FCO is a senior FEMA official trained, certified, and well experienced in emergency management, and specifically appointed to coordinate Federal support in the response to and recovery from emergencies and major disasters. In all cases, the FCO represents the FEMA Administrator in the field to discharge all FEMA responsibilities for the response and recovery efforts underway.

4.1.1.16 Defense Coordinating Officer (DCO)

DOD has appointed 10 DCOs and assigned one to each FEMA region. If requested and approved, the DCO serves as DOD's single point of contact at the JFO for requesting assistance from DOD. With few exceptions, requests for Defense Support of Civil Authorities (DSCA) originating at the JFO are coordinated with and processed through the DCO. The DCO may have a Defense Coordinating Element consisting of a staff and military liaison officers to facilitate coordination and support to activated ESFs. Specific responsibilities of the DCO (subject to modification based on the situation) include processing requirements for military support, forwarding mission assignments to the appropriate military organizations through DOD-designated channels, and assigning military liaisons, as appropriate, to activated ESFs.

4.1.1.17 Joint Task Force (JTF) Commander

Based on the complexity and type of incident, and the anticipated level of DOD resource involvement, DOD may elect to designate a JTF to command Federal military activities in support of the incident objectives. If a JTF is established, consistent with operational requirements, its command and control element will be co-located with the senior on-scene leadership at the JFO to ensure coordination and unity of effort. The co-location of the JTF command and control element does not replace the requirement for a DCO/Defense Coordinating Element as part of the JFO Unified Coordination Staff. The

DCO remains the DOD single point of contact in the JFO for requesting assistance from DOD. The JTF Commander exercises operational control of Federal military personnel and most defense resources in a Federal response. Some DOD entities, such as the U.S. Army Corps of Engineers, may respond under separate established authorities and do not provide support under the operational control of a JTF Commander. Unless federalized, National Guard forces remain under the control of a State Governor. Close coordination between Federal military, other DOD entities, and National Guard forces in a response is critical. Based on the scope and nature of an incident, senior officials from other Federal departments and agencies, State, tribal, or local governments, and the private sector or NGOs may participate in a Unified Coordination Group. Usually, the larger and more complex the incident, the greater the number of entities represented.

4.1.2 ICS in Canada

Disaster response in Canada is the responsibility of elected officials at municipal level. They are mandated by law to prepare for and respond to disasters, which might affect their public (EPC, 1992). Within that broad jurisdiction are elements of various other jurisdictions: fire, police, emergency medical services, health officials, dangerous good specialists, members of local industry and public officials from provincial and federal government departments. However, the ultimate responsibility for disaster response lies with elected officials, not of the Fire Chief, EMS personnel or Police Chief as many assume. The rare exceptions to the rule are disasters with broad geographical impact (i.e., those affecting a number of communities), or those events, which affect areas under provincial or federal jurisdiction.

An effective emergency management system must permit a team effort from those used to responding to emergencies on the one hand, and integrate the jurisdictional needs of the municipality's elected officials on the other. The system must factor-in the involvement of elected officials, who most likely have little experience with emergency response, and must ultimately lay the responsibility for response on their shoulders.

Within Canada three basic systems could be used to manage disasters. These systems include the following systems:

- The Incident Command System (ICS),
- British Columbia Emergency Response Management System (BCERMS)
- Emergency Site Management System (ESM).

These systems have some common elements, and some unique features. These three systems being essentially utilized within Canada to manage disasters at community or

municipal level. Within these systems there are variations reflecting provincial standards, organizational culture, and to a lesser degree the preference of those who employ these systems.

The ICS system is well known by most first responders in Canada, particularly those from the fire services. Responders at site level who wish to manage emergencies and follow an existing chain of command, frequently use the ICS system. Because of their prior knowledge of this system and its application ICS often becomes the preferred or default system for large scale emergencies. Unfortunately, many municipal officials may not have experience with the ICS system or be aware of the terminology and intricate command structure or reporting procedures. Their lack of understanding combined with their overall responsibility for an effective disaster management could lead to confusion, awkward shifts of command and control, and ultimately an uncoordinated response.

The ESM model was designed, to address this concern and clearly indicates the roles and responsibilities of municipal officials. The problem with this system however, is the lack of regular exposure to the process. Many communities and their diverse agencies do not regularly plan or train for disasters. Their three key response agencies (i.e., Fire, EMS, and Police) plan and regularly train their personnel. They also have regular exposure to emergencies and typically use the structure (i.e., ICS), which suits their respective professional needs during 'normal' emergencies. When these emergencies expand to require more agencies to work together, the three response agencies may be reluctant to switch to the ESM model. This reluctance may occur because the ESM system has not been properly practiced, or due to an initial commitment at the site to the ICS approach. In times of stress, and most disasters are stressful, people revert to what they know or are comfortable with rather than try new methods. Consequently, the ESM system, which otherwise would assist in coordination and communication, is left untried. This may be particularly confusing and frustrating for municipal officials who are not familiar with any of the existing roles and responsibilities. British Columbia may have developed a solution to the problem by customizing the ICS system to incorporate Municipal leaders and government officials with the intention of providing harmony. Although the system should provide effective emergency management practices within the province in which it was designed, it may cause significant conflicts in cross-border disaster situations when other provinces or states respond by using other systems. The BC system also requires fairly extensive training by all those who would perform a role in the various levels of activation.

4.1.3 ICS in Australia

In Australia the disaster management is carried out following the Australian Government Disaster Response Plan (COMDISPLAN) through the Australian Inter-Service Incident Management System (AIIMS) which was developed in Australia during the mid-eighties, its genesis being the American National Inter-agency Incident Management System. Since the introduction of AIMS the frequency and complexity of multi agency operations both within and across State borders have increased. AIMS can operate effectively in any type of incident imminent or actual, natural, industrial or civil and the many other situations in which emergency management organizations are involved. AIMS achieved by providing a common framework for organizations working in emergency management roles that assist the more effective and efficient control of the incident.

Once any disaster took place in a state in that case the State Governments have responsibility, within their borders, for coordinating and planning for the response to and recovery from disasters and civil emergencies. When the total resources (government, community and commercial) of an affected State cannot reasonably cope with the needs of the situation, the State Government can seek assistance from the Australian Government. The Australian Government accepts responsibility and prepares plans for providing Australian Government physical assistance in response to such requests. The Australian Government Disaster Response Plan (COMDISPLAN) provides the framework for addressing State requests for Australian Government physical assistance arising from any type of disaster or emergency.

The Attorney-General is designated as the Cabinet Minister with responsibility for disaster-related matters. Emergency Management Australia (EMA) is nominated as the agency responsible for planning and coordinating Australian Government physical assistance to the States under the Australian Government Emergency Management Policy Statement. Coordination of this assistance is carried out from the Emergency Management Australia Incident Management Facility (EMA IMF).

COMDISPLAN complements State emergency response arrangements and its effectiveness relies heavily on support from a number of Australian Government agencies. So that all agencies can respond in a timely manner, they should develop arrangements in support of COMDISPLAN, and provide EMA with a copy.

In the context of AIIMS the Australian government followed a different terminology like Incident Controller instead of Incident Commander and kept one safety advisor instead of a safety officer. The Incident Controller doesn't have the Liaison officer or Information

Incident controller increases the perimeter of his working field in three sections basing on the disaster scenario like Planning, Operation and Logistics Section but the financial section is in corporate with the logistics section. According to ICS the leading agency will nominate the incident commander but in AIIMS the control authority will nominate the Incident controller. And each state has got own specific incident controller who has powered by the Australian government. This incident controller can seek permission for help when the disaster scenario will be out of the control of that particular state. The current States authorities nominated to initiate requests under COMDISPLAN are:

Table 4.2: The current States authorities nominated to initiate requests under COMDISPLAN (Source: The Australian Inter – Service Incident Management System, Third Edition, Version 1, and 13 April 2004)

Ser No	Name of the State	Incident Controller (Authorized By Australian Government)
01	New South Wales State	Emergency Operations Controller
02	Victoria State	Emergency Response Coordinator (Chief Commissioner of Police)
03	Queensland	Executive Officer State Disaster Management Group
04	South Australia	State Coordinator
05	Western Australia	State Emergency Coordinator, Chairman State Emergency Management Committee (Commissioner of Police)
06	Tasmania	Executive Officer, State Emergency Management Committee and Executive
07	Northern Terri	Executive Officer, Northern Territory Counter- Disaster Council
08	Australian Capital	Territory Chairperson ACT Emergency Management Committee. (Commissioner Emergency Services Agency)
09	Norfolk Island Chair	Norfolk Island Emergency Management Committee
10	Cocos (Keeling) Islands	The Territory Controller, Cocos (Keeling) Islands
11	Christmas Island	The Territory Controller, Christmas Island
12	Jervis Bay	The Territory Controller, Jervis Bay

4.2 ICS in Developing Countries

In developing countries they are trying to formulate the ICS in their present Government context basing on the political perspective and cultural value. Because it is difficult to follow the same pattern or structure of ICS the way it is followed in developed countries. The developed countries like Sri Lanka, India and Bangladesh are introduced the system in their Disaster Management process. And India could progress more in this aspect they have already formulated the Incident response System (IRS) for integrating all the responder agencies in ICS. The developing countries have got more critical compare to Developed country. Because in developing countries the Armed Forces maximum time play the important role being a supportive role. Again the Armed Forces have got more influence over political Government. In 3rd world Countries number of time intervention by the Armed Forces made the relationship difficult between Armed Forces and Civil administration. All these factors are made difficult to introduce the ICS in developing countries. The ICS in developing countries especially in India, Sri Lanka and Bangladesh will be discussed in the following section.

4.2.1 ICS in India

The Government of India (GoI) in 2003 decided to adopt the Incident Command System (ICS) as practiced in USA. The ICS addressed most of the critical gaps in Indian disaster response mechanism even though there were certain Indian specific modifications which were necessary to be addressed. There was a need to prepare an Indian version which would fit into the Indian Administrative Structure. NDMA therefore took up the adaptation of the ICS which incorporate the existing administrative structure and the provisions of DM Act, 2005. The principles and features of ICS have been followed and comprehensive Guidelines have been prepared. This adapted version will be referred as the Incident Response System and will go by the acronym of IRS.

4.2.1.1 Definition and Context

The Incident Response System (IRS) is an effective mechanism for reducing the scope for ad-hoc measures in response. It incorporates all the tasks that may be performed during DM irrespective of their level of complexity. It envisages a composite team with various Sections to attend to all the possible response requirements. The IRS identifies and designates officers to perform various duties and get them trained in their respective roles. If IRS is put in place and stakeholders trained and made aware of their roles, it will greatly help in reducing chaos and confusion during the response phase. Every one will

know what needs to be done,

Who will do it and who is in command, etc. IRS is a flexible system and all the Sections, Branches and Units need not be activated at the same time. Various Sections, Branches and Units need to be activated only as and when they are required.

4.2.1.2 IRS Organization

The IRS organization functions through Incident Response Teams (IRTs) in the field. In line with our administrative structure and DM Act 2005, Responsible Officers (ROs) have been designated at the State and District level as overall in charge of the incident response management. The RO may however delegate responsibilities to the Incident Commander (IC), who in turn will manage the incident through IRTs. The IRTs will be pre-designated at all levels; State, District, Sub-Division and Tehsil/Block. On receipt of Early Warning, the RO will activate them. In case a disaster occurs without any warning, the local IRT will respond and contact RO for further support, if required. A Nodal Officer (NO) has to be designated for proper coordination between the District, State and National level in activating air support for response. Apart from the RO and Nodal Officer (NO), the IRS has two main components; a) Command Staff and b) General Staff. The structure is shown in Fig. 1.

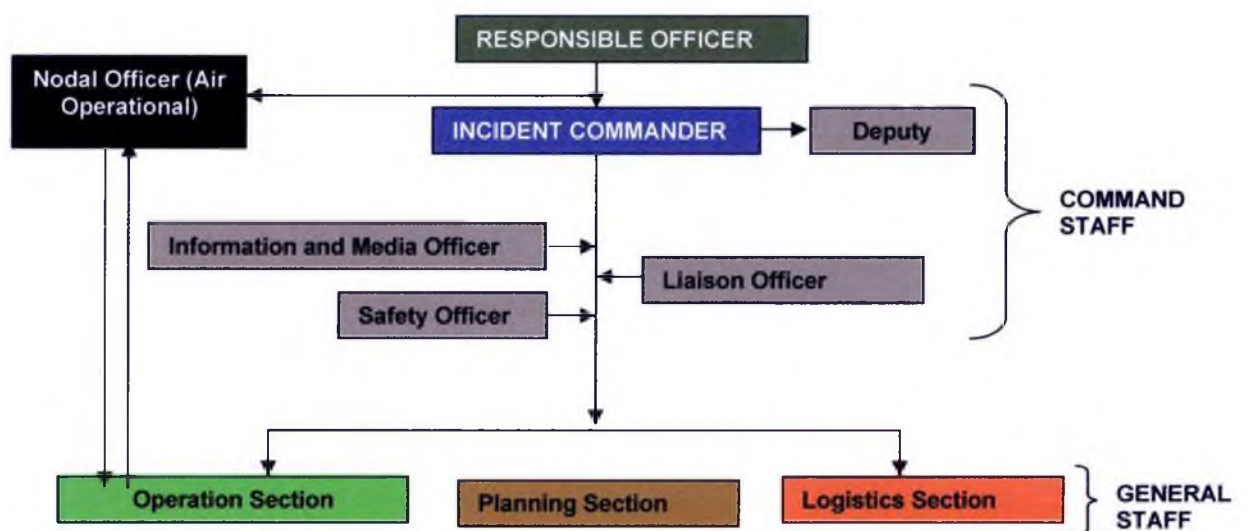


Figure 4.3: Organization of IRS (Source: National Disaster Management Guidelines Incident Response System by National Disaster Management Authority, Government of India July 2010)

Command Staff

The Command Staff consists of Incident Commander (IC), Information & Media Officer (IMO), Safety Officer (SO) and Liaison Officer (LO). They report directly to the IC and may have assistants. The Command Staff may or may not have supporting organizations under them. The main function of the Command Staff is to assist the IC in the discharge of his functions.

General Staff

The General Staff has three components which are as follows;

- ***Operations Section (OS)*** The OS is responsible for directing the required tactical actions to meet incident objectives. Management of disaster may not immediately require activation of Branch, Division and Group. Expansion of the OS depends on the enormity of the situation and number of different types and kinds of functional Groups required in the response management.
- ***Planning Section (PS)*** The PS is responsible for collection, evaluation and display of incident information, maintaining and tracking resources, preparing the Incident Action Plan (IAP) and other necessary incident related documentation. They will assess the requirement of additional resources, propose from where it can be mobilized and keep IC informed. This Section also prepares the demobilization plan
- ***Logistics Section (LS)*** The LS is responsible for providing facilities, services, materials, equipment and other resources in support of the incident response. The Section Chief participates in development and implementation of the IAP, activates and supervises Branches and Units of his section. In order to ensure prompt and smooth procurement and supply of resources as per financial rules.

4.2.1.3 Features of IRS

Management by Objectives Management by Objectives (MBO) covers four essential steps in IRS. These steps should be taken for the management of every incident regardless of its size or complexity:

- Understand Government policy and directions including relief code, evacuation procedures etc.;
- Establishment of incident objectives;

- Selection of appropriate strategies; and
- Performance of tactical moves (assigning the right resources, and monitoring performance, etc.).

Unity of Command and Chain of Command In IRS, Unity of Command means that every individual has a designated supervisor. Chain of Command means that there is an orderly line of authority within the ranks of the organization with a clear cut reporting pattern right from the lowest level to the highest. In the IRS, the Chain of Command is established through a prescribed organizational structure which consists of various layers such as Sections, Branches, Divisions, etc. This feature eliminates the possibility of receiving conflicting orders from various supervisors. Thus it increases accountability, prevents freelancing, improves the flow of information, and helps in smooth coordination in operational efforts.

Transfer of Command

The command of an incident initially is vested in the highest ranking authority in the area where the disaster occurs. The Transfer of Command in any incident may take place for the following reasons:

- When an incident becomes overwhelming for the IC and IRT;
- More qualified and experienced senior officers arrive at the scene;
- The incident situation changes over time, where a jurisdictional or agency change in command is operationally required; and
- Normal turnover of personnel in the case of long or extended incidents.

The various processes in IRS of briefing, debriefing, documentation through forms and formats, prove very useful during transfer of command. The IAP, assignment list, details of actions already taken, resources deployed, available, ordered etc. gives an immediate and comprehensive view of the incident status to the new comer.

Organizational Flexibility The IRS organization is a need based flexible organization. All the components need not be activated simultaneously. It would depend upon the nature and requirements of the incident. Each activated Section, Branch or Unit must have a person in charge to perform its role. In some cases, because of lack of personnel, a single supervisor may be made in-charge of more than one Group, Unit or Section. It should be clearly understood that in such cases the Groups, Units, Sections do not get merged / amalgamated. Their functioning would continue to be independent. Only the supervisory work / responsibility will be performed and discharged by the same

individual. The organizational elements that are no longer required should be deactivated to reduce the size of the organization and to ensure appropriate use of resources.

Span of Control Span of control refers to the number of elements (Section, Branch or Unit) that one supervisor can directly manage effectively. Ideally a supervisor should have five organizational elements under his control. However if the elements increase to more than five or are reduced to less than three, necessary changes in the IRS organizational structure should be carried out.

Area Command Area Command is an expansion of the Incident Response function, primarily designed to manage a very large number of incidents that has multiple IRTs assigned or area being isolated because of geographical reasons. It is established for overseeing response and to ensure that conflicts, jurisdictional or otherwise, do not arise amongst deployed responding teams.

Unified Command (UC) UC is a team effort that allows all agencies with jurisdictional responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies under one commander. This is accomplished through the UC framework headed by Governor / Lt. Governor (LG) / Administrator / Chief Minister (CM) and assisted by Chief Secretary (CS) without losing or abdicating agency authority, responsibility or accountability.

Integrated Communications Ability to communicate within the IRS structure is very important. Provision for a complete Communication Unit has been made in the LS. Several communication networks may be established depending upon the size, complexity of the incident, availability of various types of equipment and the simultaneous need to communicate by a number of responders and agencies. These may include Command Net, Operational Net, Logistics Net and Ground to Air Net. A suitable interoperable and compatible network between various agencies will have to be designed. This networking is also vital for the integration of agency capabilities like the NDRF, Armed Forces, etc. when they come in aid and support. The GoI is also concurrently working on a National Disaster Communication Network (NDCN) which will be useful in extreme disasters when all existing communication systems have failed.

4.2.1.4 The Incident Response Teams (IRTs) at State and District Levels

The IRT is a team comprising of all positions of IRS organization as shown in Fig. 3 headed by IC. The OS helps to prepare different tactical operations as required. The PS helps in obtaining different in formations and preparing plans as required. The LS

assesses the availability and requirement of resources and takes action for obtaining them. IRTs will function at State, District, Sub-Division and the Tehsil / Block levels.

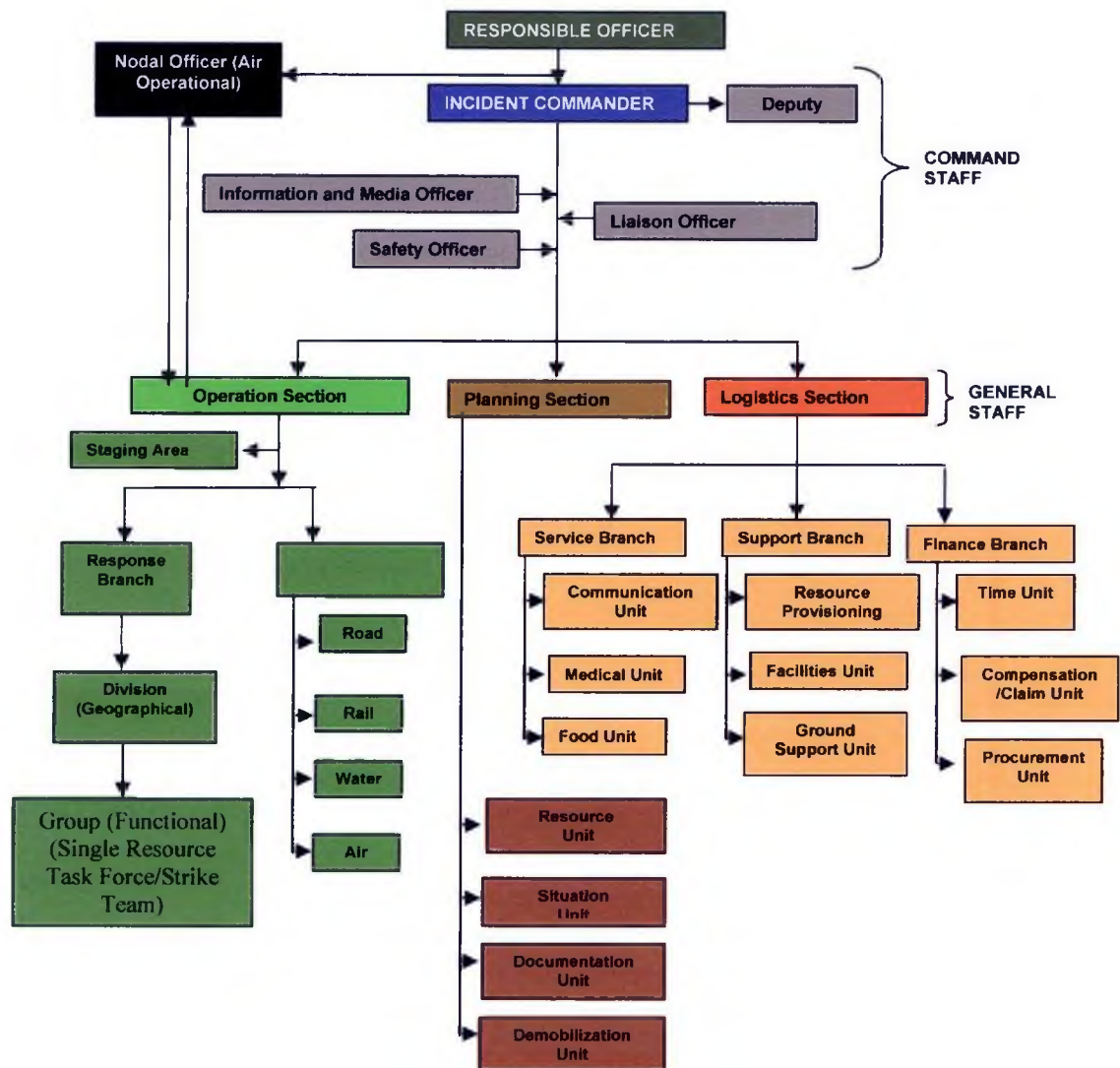


Figure 4.4: IRT Framework (Source: National Disaster Management Guidelines Incident Response System by National Disaster Management Authority, Government of India July 2010)

These teams will respond to all natural and man-made disasters. The lowest administrative unit (Sub-Division, Tehsil or Block) will be the first responder as the case may be. If the incident becomes complex and is beyond the control of local IRT, the higher level IRT will be informed and they will take over the response management. In such cases the lower level IRT will merge with higher level IRT. When a lower level of IRT (e.g. Block / Tehsil) merges with a higher level (e.g. Sub-Division, District or State)

the role of IC of lower level of IRT will change. When the Block level IRT merges with Sub-Division level IRT, IC of the Block level may play the role of Deputy IC or OSC or any other duty that the IC of higher authority assigns. This process will be applicable at all levels.

To sum up, IRS is a system of Management by Objectives through Incident Action Plan (IAP). It takes care of any expanding incident through an organizational structure of Command Staff, Sections, Branches, Divisions, Groups, Units, resources and span of control. Through Unified Command (UC) it allows all agencies having jurisdictional or functional responsibilities to jointly develop incident objectives and strategies. It has a clear cut process for personnel accountability, resource management, integrated communications and transfer of command. In line with the federal structure of the country, it should be clearly understood that response to any disaster will be carried out by the concerned States and Districts. The GoI will play a supporting role by way of assistance in the form of resources, manpower (NDRF, Armed & Para Military Forces), equipment and funds. At the GoI level, the NCMC or NEC will coordinate and provide the required resources. NDMA will also help in monitoring the coordination of response.

4.2.1.5 Response Mechanism

India has a well defined, robust and time tested administrative structure. Section 22(2), 24, 30 and 34 of DM Act 2005 has clearly laid down various duties relating to DM to be performed by various agencies. No single agency or department can handle a disaster situation of any scale alone. Different departments have to work together to manage the disaster. For proper coordination and effective use of all available resources, the different departments and agencies need a formalized response management structure that lends consistency, fosters efficiency and provides appropriate direction during response. Response Management constitutes the functions of planning, execution and coordination. While planning in the pre-disaster phase is the responsibility of various authorities created under the DM Act, the execution of the plans has to be carried out by the various line departments of the Government and the existing administrative structure in the District and State. For coordination and ensuring smooth execution of the plans, bodies like NDMA, NEC, SDMA and SEC have been created at the National and State Level. At the District level, planning, execution and coordination of all the activities have been vested in the DDMA itself.

The IRTs will be pre-designated at all levels. On receipt of early warning the RO may activate them. In case of occurrence of disaster without any warning, the local IRTs will respond and report to RO and request further support, if required. In view of the provisions of the DM Act 2005 and the administrative structure existing in the country at the District and State levels, the roles of the Chief Secretary (CS) and the District Magistrates / DC is all encompassing as regards response. In the IRS, a need was felt to clearly identify a designated authority responsible and accountable by law to respond to disasters and therefore a position of Responsible Officer (RO) has been introduced. Incident response management may however not always require the direct intervention of the RO. On the ground, the management will be done by the IC to whom powers will have to be delegated by the RO. The CSs and the District Magistrates/DCs will perform the role of ROs in their respective administrative jurisdictions and will be overall responsible for all response activities during any incident or crisis. The roles of CSs and District Magistrates / DCs have been distinguished in this chapter, so that there will be no ambiguity in the implementation of the IRS for incident response. As per the DM Act, it will be seen that the CS is the Chief Executive Officer (CEO) of the SDMA as well as Chairperson of the SEC. He is also the head of the administrative structure in the State. The District Magistrate / DC is the Chairperson of the DDMA and has been assigned all encompassing role of planning, coordination and execution of DM in his jurisdiction assisted by all line departments and local bodies. Though at the District level the Chairperson of the Zila Parishad has also been placed as the Co-Chairperson of the DDMA to elicit the community participation in DM, yet the responsibility for disaster response clearly lies with the District Magistrate/DC being the head of the District administration. It will only be the administrative machinery – CS, District Magistrate / DC and their team of officers who will be responsible and accountable for effective response in their jurisdictions. To elicit or mobilize the NGOs, PRIs and communities and other stakeholders for support at the District level, the Co-Chairperson of the DDMA may prove helpful.

4.2.1.6 Lead Agency / Nodal Department

The National Policy on DM 2009, has stated that emergencies requiring the close involvement of the security forces and/or intelligence agencies such as terrorism (counter-insurgency), and order situations, serial bomb blasts, hijacking, air accidents, CBRN, mine disasters, port and harbor emergencies, forest fires, oilfield fires and oil spills will continue to be handled by the extant mechanism i.e. NCMC and the resources available

with the DM Authorities at all levels with regard to cross cutting themes like medical, rescue & relief etc. will be made available to the Nodal ministries/agencies at times of such disasters / impending disasters. Apart from the above, the management of other major natural and manmade disasters will also require Lead and supporting agencies. Different disasters require different types of expertise for response. Thus, in case of rescue and relief in natural disaster, it will generally be the local Police and the NDRF / SDRF, in case of Fire it will be the Fire department, in case of drought it will be the Agriculture department, in case of Epidemics and other Biological disasters it will be the Health department that will have to play the lead role and the remaining departments will have to play the supporting role as per requirement and their core competencies. The Chief Coordinator at the national level and the ROs at the State and District level will ensure sensitization of the concerned departments in advance regarding their roles as lead and supporting agencies.

4.2.1.7 Coordination of Response at the District Level

The District Magistrate/DC is the head of the District administrative set up and chairperson of the DDMA as per the DM Act, 2005. He has been designated as the RO in the District. The heads of different departments in the District will have separate roles to play depending on the nature and kind of disaster. The roles and responsibilities of the members of the DDMA will be decided in advance in consultation with the concerned members. The roles of other line departments also have to be clearly delineated in various disaster situations in the District DM Plan which will be duly approved by the State Government, so that there will be no ambiguity about their functions during response. The District Magistrate / DC / RO will issue a Standing Order for formation of IRT at District headquarters / Sub-Division and Tehsil / Block levels. He will ensure that appropriate and experienced officers are selected for IRTs. The selection of the OSC will however depend on the nature of the disaster.

In case of flood and earthquakes reaching the affected area, rescuing the affected people and providing relief to them is the main task of the responders. People have to leave their home in a hurry and they are not able to take away their valuables. These abandoned houses become vulnerable. The relief materials while being transported also become prone to loot. In such cases, Police and the Armed Forces are the best suited to handle and lead the operations. In case of fire at District level, it will be the District Fire Officer who will be appropriate officer to handle the situation. In case of health related disaster, it would be the District Chief Medical Officer and so on. There could even be such

situations when the District officials may have no expertise in operationalising the response like CBRN disasters. For such disaster situations the OSC should be identified in advance, so that he could be easily mobilized to lead the OS as Section Chief. NDMA has already issued detailed guidelines on management of such response vide National Disaster Management Guidelines on the management of Nuclear and Radiological emergencies which should be followed. Other Section Chiefs will be selected according to the suitability and capability of the officer. In case of Sub-Division, Tehsil or Block, the respective heads, i.e. SDO, Tehsildar, and BDO will function as the IC in their respective IRTs and the OSC will be selected as per nature of the disaster.

During the pre-disaster period, the RO will ensure capacity building of all IRT members in their respective roles and responsibilities as discussed in the subsequent chapters. The complete IRS organizational structure at District level is depicted in Fig. 5. The structure depicted above may be activated as and when required. For monitoring and support of the incident response, the RO will involve all required ESF and headquarter IRT to support the on scene IC. In case when central teams (NDRF, Armed Forces) are deployed, the RO will ensure resolution of all conflicts. For this purpose he may attach a representative of such agencies in the EOC where all conflicts can easily be resolved at the highest level. The teams so deployed will have to work in OS in the form of Single Resource, Strike Teams or Task Forces under the supervision of OSC. The IC will also exercise close supervision for resolution of all conflicts, if required. The IC will work in close coordination with EOC and report to RO. The RO will ensure that the strategic goals are achieved through the implementation of the IAP by the IRTs working in the field.

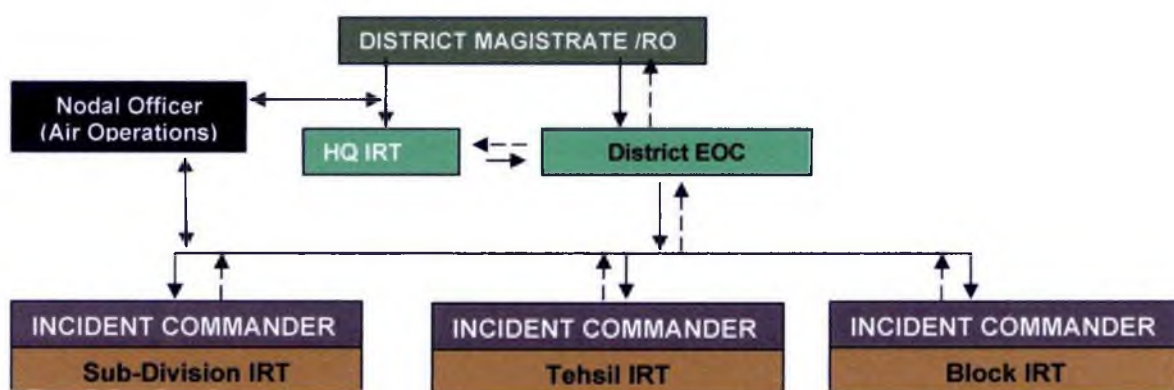


Figure 4.5: IRTs at District Level (Source: (Source: National Disaster Management Guidelines Incident Response System by National Disaster Management Authority, Government of India July 2010)

4.2.1.8 *Roles and Responsibilities of District Magistrate as RO*

The District Magistrate / RO will ensure his following responsibilities:

- Ensure that IRTs are formed at District, Sub-Division, Tehsil/Block levels and IRS is integrated in the District DM Plan as per Section 31 of the DM Act, 2005. This may be achieved by issuing a Standing Order by the RO to all SDOs, SDMs and Tehsildars/ BDOs;
- Ensure web based / on line Decision Support System (DSS) is in place in EOC and connected with Sub-Division and Tehsil / Block level IRTs for support;
- Ensure that toll free emergency numbers existing for Police, Fire and Medical support etc. are linked to the EOC for response, command and control. For e.g., if there is any fire incident, the information should not only reach the fire station but also the EOC and the nearest hospital to gear up the emergency medical service;
- Obtain funds from State Government as recommended by the 13th FC (Annexure – XVI) and ensure that a training calendar for IRTs of District is prepared and members of IRTs are trained through ATIs and other training institutions of the District;
- delegate authorities to the IC;
- Activate IRTs at District headquarter, Sub-Division, Tehsil / Block levels, as and when required;
- Appoint / deploy, terminate and demobilize IC and IRT(s) as and when required;
- Decide overall incident objectives, priorities and ensure that various objectives do not conflict with each other;
- Ensure that IAP is prepared by the IC and implemented;
- remain fully briefed on the IAP and its implementation ;
- Coordinate all response activities;
- Give directions for the release and use of resources available with any department of the Government, Local Authority, private sector etc. in the District;
- Ensure that local Armed Forces Commanders are involved in the planning process and their resources are appropriately dovetailed, if required;
- ensure that when Armed Forces arrive in support for disaster response, their logistic requirements like camping grounds, potable water, electricity and requirement of vehicles etc. are sorted out;
- Appoint a NO at the District level to organize Air Operations in coordination with the State and Central Government NO. Also ensure that all ICs of IRTs of the District are aware of it;

- Ensure that the NGOs carry out their activities in an equitable and non-discriminatory manner;
- Deploy the District Headquarter IRTs at the incident site, in case of need;
- Ensure that effective communications are in place;
- Ensure that telephone directory of all ESF is prepared and available with EOC and members of IRTs;
- Ensure provision for accountability of personnel and a safe operating environment;
- In case the situation deteriorates, the RO may assume the role of the IC and may seek support from the State level RO;
- Mobilize experts and consultants in the relevant fields to advise and assist as he may deem necessary;
- Procure exclusive or preferential use of amenities from any authority or person;
- Conduct post response review on performance of IRTs and take appropriate steps to improve performance; and
- Take other necessary action as the situation demands.

4.2.1.9 Role of Special Force instead of Regular force

The Indian Government has made decision to establish NDRF and SDRF for minimizing the dependency to the Armed Forces as well as avoid the conflict regarding command control authority between civil and military administration. It will also facilitate the Armed Forces to engage their own primary task. The NDRF is a national resource it's a force which is highly trained on Disaster Management and emergency response operation. At present Indian government established 8 battalions, 02 each from the Border Security Force (BSF), Central Police Reserve Force (CRPF) and Indo- Tibetan Border Police (ITBP). All the Battalion are equipped and trained to combat for all natural disaster including four battalions in combating nuclear, biological and chemical disasters.

4.2.1.10 State Disaster Response Force (SDRF)

GOI has taken an effort to create response capabilities from within the state existing resources. To start with, each State may aim at equipping and training a few companies in smaller states or one battalion equivalent force in the case of bigger states. They will also include women members for looking after the needs of women and children. National Disaster Response Force (NDRF) battalions and their training institutions will assist the States/UTs in this effort. The States/UTs will also be encouraged to include DM training

in the basic and in-service courses of their respective Police Training Colleges for gazette and non-gazette police officers. In India the Bihar will be the first state to have its own State Disaster Response Force (SDRF). This SDRF will be manned by 1,157 persons, drawn particularly from Army and Navy. They will be enrolled in SDRF as a contractual basis. Initially the SDRF will have six companies; each will have three platoons which would be called teams.

4.2.2 ICS in Sri Lanka

In July 2005, the Sri Lanka Disaster Management Act No.13 of 2005 was enacted which provides the legal basis for instituting a disaster risk management system in the country. The National Council for Disaster Management (NCDM) is a high-level inter-ministerial body. The chairman and vice chairman of the NCDM is H.E. the President and Honourable Prime Minister respectively. Other members are Leader of the Opposition, Ministers in charge of 20 selected subject areas, Provincial Council Chief Ministers and five members of the Opposition. The Act also provides for establishing the Disaster Management Centre (DMC) under the Council to be the apex body for the purpose of planning, co-coordinating and implementing of certain natural and other forms of disasters in Sri Lanka.

In Sri Lanka the incident command system (ICS) concept is still on paper. They yet to incorporate this system in their disaster management plan. But the Ministry of Disaster management and Human Rights they are arranging number of workshop for developing an action framework basing on their governmental structure. On 24-28 April 2006 there was a workshop held at Earl's Regency Hotel, Kandy, Sri Lanka. This workshop was implemented by the United States Department of Agriculture, Forest Service (USFS). The program is supported by The United States Agency for International Development (USAID). The Disaster Management Centre (DMC), Ministry of Disaster Management and Human Rights, Sri Lanka is the facilitating institution implementing the program. In this workshop the government officials from different ministries were present. This workshop facilitated them for developing a structure of Incident Command System (ICS) for Sri Lankan perspective without disturbing the present Government structure.

4.2.2.1 Incident Command System Adaptation

To understand whether all the functional areas of ICS were applicable in Sri Lanka the groups were asked to answer 3 questions: 1 what functional areas are appropriate for Sri

Lanka? 2. What functional areas are not appropriate for Sri Lanka? 3. What adaptation can be made to better meet the needs of Sri Lanka?

4.2.2.2 Logistics Section

All the functional area under the logistics section is applicable to Sri Lanka but there needs to be some adaptations based on country context. Service Branch Director, Support Branch Director could be amalgamated. Sub units in functional areas could be reduced, but need a dedicated study before implement.

The logistics section need to divide into six main areas: communication, medical, food, supply, facilities and ground support. Figure shows the recommended organizational chart for the logistics section.

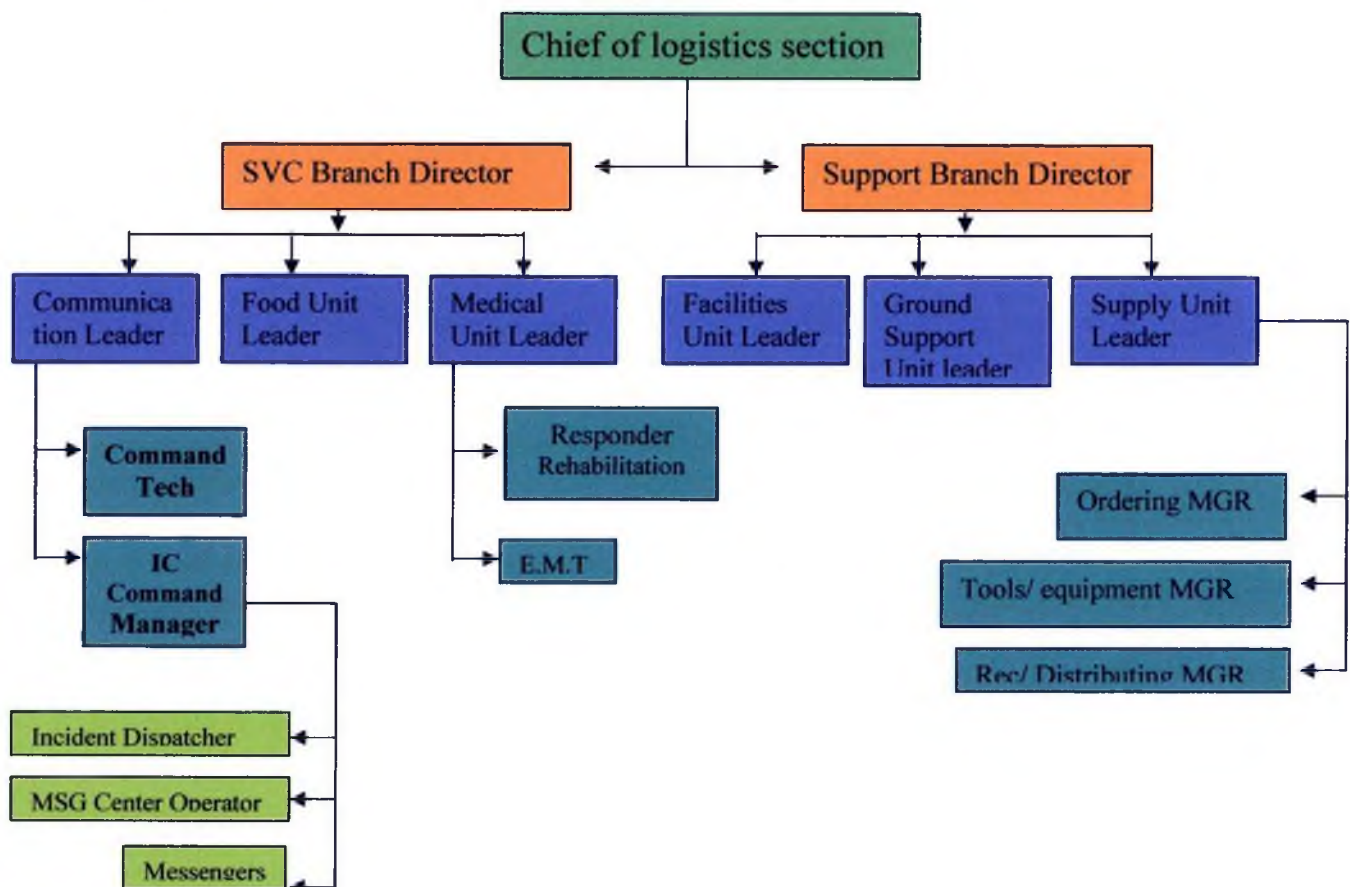


Figure 4.6: Logistics section organizational chart (Source: Incident Command System for Disaster Management, U.S. Indian Ocean Tsunami Warning System (IOTWS) Program, April 2006)

4.2.2.3 Planning Section

Planning section needs to design base on the ground reality of Sri Lanka. Group proposed to divide planning section into four units: resources, situation, demobilization and documentation. The situation unit needs to combine with political activities at the grass root level, NGOs/ CBOs, Gramma Niladharis, Samurdhi Official and Religious Leaders.

Figure below shows the units under planning section:

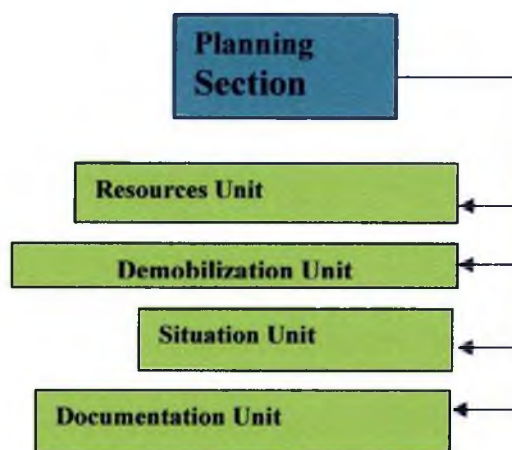


Figure 4.7: Units under Planning Section (Source: Incident Command System for Disaster Management, U.S. Indian Ocean Tsunami Warning System (IOTWS) Program, April 2006)

Three planners could be engaged under planning from three different organizations. Group suggested Disaster Management Center or DMC/DMU can be IC, Relief and rehabilitation can be NDMC and Divisional and District Secretary of GA will work on administration. If there is single divisional incident secretary of the division can manage the incident, but if multiple divisions involved need to handle by the additional district secretary. Political factors need to be considered at every level as there are some striving forces working in the country and those factors can not be eliminate (neither giving them total control). Thus need to involve them in the consultation process for better planning and management.

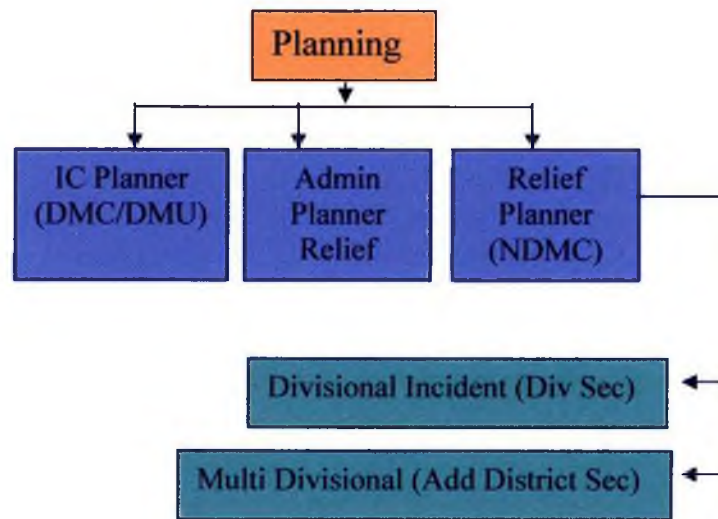


Figure 4.8: Personnel in the planning section (Source: Incident Command System for Disaster Management, U.S. Indian Ocean Tsunami Warning System (IOTWS) Program, April 2006)

4.2.2.4 Operations Section

All parts of functional area under operations section are applicable to Sri Lanka. There needs to be some revision in the staging area components. A manager needs to be appointed in the staging area and he/she must be from Sri Lankan Forces. Staging area needs to be more disciplined than others and lots of materials need to be handled efficiently. The staging area needs to divide in three sub manager areas (i.e. personnel, equipment and medical/welfare). Figure shows the organizational chart for operation area.

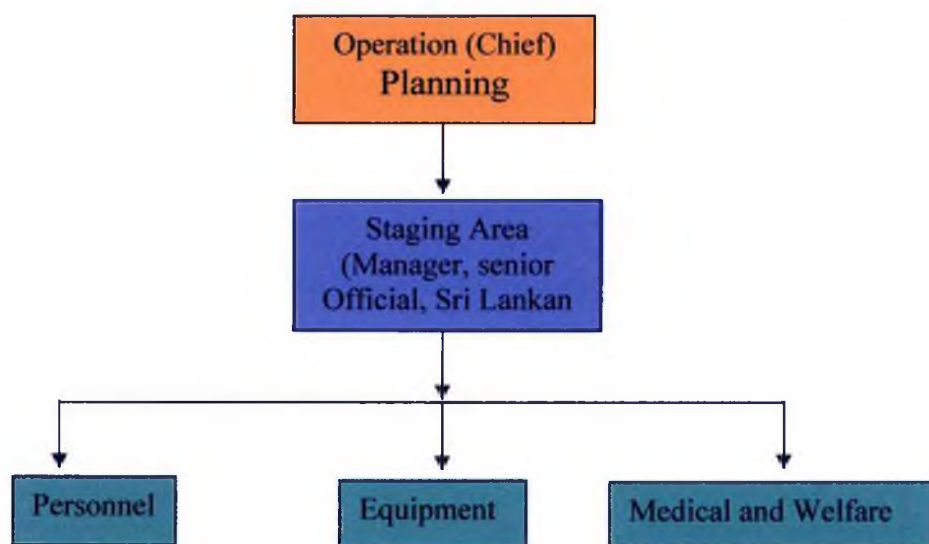


Figure 4.9: Operational organization chart (Source: Incident Command System for Disaster Management, U.S. Indian Ocean Tsunami Warning System (IOTWS) Program, April 2006)

To better meet the needs of ICS in Sri Lanka basic awareness for public and their representative (e.g. civil society) are required. There is a need to develop a mechanism to

provide well trained (ICS), pre-selected and specialized people at different levels with identifying types (e.g. I, II, III). Disaster Management Council (DMC) should play important role as the focal point to maintain a database for trained ICS persons to use them efficiently in any incident.

4.2.2.5 IC and Command Staffs Section

In the context of Sri Lanka only the government agents District Secretary (e.g. DS) can lead the kind of situations presented as they are the responsible official. But government representative can't handle all situations every time efficiently. Incident Commander should be one who has proper training and management capacity. But the government has an administrative structure and it's not possible to change that structure. Thus Incident commander can work directly under the district secretary or the responsible official of the government's current structure. In the context of safety measures, it's not a major concern in the Sri Lankan context. Thus safety factors need to be considering in ICS.



Figure 4.10: IC and Command Staffs (Source: Incident Command System for Disaster Management, U.S. Indian Ocean Tsunami Warning System (IOTWS) Program, April 2006)

4.2.2.6 Finance/ Administration Section

All functional areas are applicable and are being practiced through the current administrative systems in Sri Lanka. However using the ICS model as a guide it can be further improved for more efficient and effective. There needs to be some adaptation in the procurement procedures part of the ICS as Sri Lanka has very limited resources, capabilities and capacities.

4.3 Incident Command system and Military Chain of Command in Bangladesh perspective

Military forces will always remain under the operational and administrative control of the military chain of command, and these forces are subject to redirection or recall at any time. The ICS “unified command” concept is distinct from the military chain of command use of this term. And, as such, military forces do not operate under the command of the Incident Commander or under the unified command structure. And in case of disaster response the military administration or Armed forces will always play a supportive role rather than a leading. But they have to work with the civil administration that will follow the ICS/UC and there might be a situation come when the Armed forces has to play a leading role. In such case basing the deployment mode the action framework for military administration may vary. Another reason is that country like developed countries where the governmental agencies like civil defense or the Fire department are well equipped and trained to handle any shorts of disaster. And disaster like Katrina in USA may occur once in a decade where the US Armed forces had to deploy.

In case of Bangladesh the intensity and frequency of disaster are more. And maximum case these disaster are the beyond the capability of civil administration. Armed forces or military administration has to deploy and play a key role or main responder in most of the time. As a result the Armed forces need to work with other governmental agencies where the Armed forces took the key position in planning and execution, providing maximum equipment, carried out rescue, evacuation and massive engineering works as well. In such a case to drive the whole emergency response operation in same chain of system with the other agencies the Armed forces need to follow the ICS pattern in its chain of command too. The following section depicts some deployment model of Armed forces.

4.4 Deployment Models of Armed Forces in different scenario

The manner in which military forces are deployed in a humanitarian role can affect overall success and performance. Several distinct models can be identified.

- **Detached deployment of military assets:** This is the most common model - - the military establishment simply donates commodities or lends equipment and the necessary personnel to man them. Civilian control over deployment is inherent in this model and the most successful applications of military assets usually follow.
- **Use of military units to augment civil manpower (In Aid of Civil Power):** Use of military units to provide additional manpower usually

occurs during or immediately after a disaster. Popular roles are flood and fire fighting, debris clearance, post-disaster security and control. The guiding principle here is that military personnel should be used only to provide extraordinary services during the emergency and/or to supplement civil work if there is a manpower shortage. The military should never be used to do work that large numbers of disaster victims could be paid to do. Survivors, especially low-income families, need alternative work opportunities and large-scale public works programs are a major source of post-disaster employment.

- **Use of military units as a substitute for civilian workers:** In crises, it is often proposed that the military take over certain functions from civil authorities, ranging from operating municipal water systems to deliver drinking water. As a general rule, this is an unsuitable role for the military. Few officers have the proper training and military take-over may only delay a return to normalcy.

- **Use of the military in security and police roles:** Perhaps the most common role for national military units in civil emergencies is as an extension of local police forces. With proper training and subordination to civilian authority, this is an effective role for national units. The keys are training and subordination. Undisciplined and overly-threatening forces can inadvertently create their own sets of problems. Foreign forces should never be used to augment local forces in this role; the local population will see this as a provocation.

- **Substitute for Civil administration:** The Armed forces are deployed as a substitute for the whole civil administration during catastrophe like earthquake or Cyclone when the whole civil administrations are collapsed. That is a national level disaster in such case the Armed forces play the leading role until the civil administration takes over the responsibility. In that case the area are announced by the President of the country as a disaster affected area and Armed Forces are task for the limited period of time to bring the law and order situation in normal and help the civil administration for control over the area.

CHAPTER 5

ICS IN BANGLADESH: FINDINGS FROM INTERVIEWS

5.1 Tools and Method

ICS is now become the most important tool for managing any type of disaster in the world. ICS is a standardized management tool for meeting the demands of small or large emergency or non- emergency situation. This ICS is recently introduced in our revised Standing Orders on Disaster 2010. The ICS can play a pivot role in our country as emergency response tool. But like other developing countries we also have some limitation or need adjustment to introduce the ICS in our country. Sri Lanka or India has already progressed more in this aspect and they are trying to incorporate the system without disturbing their existing Government structure. This research is mainly carried out to propose an action framework for Bangladesh Armed Forces to work under ICS at district level. Still in our country the concept is very new and we couldn't develop any working structure for Civil and Military administration to work under ICS jointly.

Further there are number of ideas and logic regarding the following factors like:

- The Command and Control authority
- The Delegation of Authority
- The terminology command, control and coordination
- The role of Armed Forces in various disasters like flood, landslide, fire breakout or the earthquake

The research method is carried out based on interview as the subject is very new in Bangladesh and still we don't have any research paper on the same subject. The interviewers are selected from different sector and based on working experience on emergency response activities in Bangladesh. The initial planning was made to collect 18 interviews from different sector but time constraint made it 10. There was a set of questions prepared beforehand and basing on the question paper the interview was taken.

5.2 Findings from Expert Interviewees

The interviews were taken based on some selected topics which are important factors for preparing the proposed structure of ICS at district level. The interviewees were asked the question on those topics and asked to give their comments or suggestions basing on their own working experience and knowledge. All the interviews are on individual basis and try to find out the crux ideas or suggestions basing on particular subject from each

interview.

5.2.1 Command and Control authority

The command and control authority is an important factor in our country because of various reasons. Basing on this issue there are different thoughts coming from different professional background. These are:

- Majority portion of the interviewer has mentioned that the Armed Forces shouldn't handover the command and control authority over the Civil Administration at district level. Rather they should work as supportive role or some of the cases they may work under the civil administration.
- Some of the interviewer expressed their mind that some of the rare cases like Earthquake or any serious catastrophic situation when the entire Civil Administration are collapsed, the Armed Forces can control over the entire situation and continue until the Civil Administration could regain control over the area. But that has to be supported by constitutional order given by the President and for limited time being.
- Some of the interviewees mentioned that the command, control and coordination terminology should be understood clearly by all levels. And especially the command and control authority most of the time creates ambiguity among Civil Administration and Armed Forces. It will be better to establish a parallel or balanced command control authority in between Civil Administration and Armed Forces at district level during emergency response.
- In our country aspect it has been found that at district level the Armed Forces are well experienced than the DC, so it will be better that the well experienced and professional person from Armed Forces can act as Incident Commander at district level.
- Some of the interviewer mentioned that the DC is well oriented with his area of Jurisdiction than that of the Commander from Armed Forces. He also knows all the governmental and Non Governmental agencies which are working in his area, so it will be better to give the responsibility for coordination to DC. The planning of rescue, evacuation and relief distribution can be done by the Armed Forces commander at district level.
- As an incident commander the Armed Forces commander should work parallel to DC and before taking any decision he should discuss with the DC and maintain a well coordination all the time. The Armed Forces should carry out ICS training at

unit commander (Lieutenant Colonel) level, so that they act as an incident commander at district level.

- The defense minister (Prime Minister) should delegate the command and control (C2) authority to Principal Staff Officer (PSO) of AFD who is a lieutenant General rank. The PSO, AFD should nominate the ICS trained officer at District level who will act as an Incident Commander (IC). And the nomination should be done before the disaster takes place. The nomination should be done basing on the following criteria:

- a) Training on ICS
- b) Previous experience on disaster management

- The dependency on Armed forces should be gradually decreased and at the same time the capacity and efficiency of the Civil administration should be enhanced for managing any kind of Disaster. In disaster management entire process or the ICS the integration of civil administration should be incorporated in such a way so that the efficiency of the Government and other related agencies can be gradually upgraded.
- A local chairman is more oriented than a TNO or an Armed Forces commander in an upazilla level. And this is applicable in all levels. In district level the area of jurisdiction is very large. So the upazilla is an ideal unit to establish any ideal model. To activate a proper ICS system at upazilla level still the area is large where number of agencies will be activated. So a unified command (UC) group should be established at Upazilla level. At upazilla the UC should be formed up by three men. They are as follows:
 - The Local government high officials (TNO at Upazilla level)
 - The Local Armed Forces Commander (Nominated by Armed Forces Division)
 - The Local elected political body (The upazilla Chairman)
- If in upazilla level the elected political body integrated in decision making process he can organize his party people as well as the local people for any humanitarian activities and the governmental high official can supervise the legal aspects. And the overall operation, rescue and relief distribution activities can be coordinated by the local Armed Forces Commander.
- According to above statement in case of District level the UC group can be formed as follows:
 - The Deputy Commissioner

- The Local Armed Forces Commander (Nominated by Armed Forces Division at district level)
 - The Local elected political body at district level (At district level in our country we don't have any define political elected body. So in that case there might be one option that the political party can nominate the responsible elected political leader for particular district)
- The integration of political leader has great impact on disaster management process especially it will have an important role on ICS. During emergency response the political leader are the main driving forces that can organize the local affected people and gave them consolation and inspire for fight against the disaster. The local political leader can play an important role to manage the local volunteer in case of any emergency response operation within a short notice.
 - At district level the Armed Force Commander can act as an operational commander and DC can act as a coordinator for providing all available resources to Armed Force representative for performing his smooth operational activities in his district.
 - Some of the interviewer mentioned that at district level when the civil administration is failed or unable to handle the disaster scenario they asked the support from Armed Forces. So it indicates or creates scope for the Armed Forces Commander for acting as an incident commander at district level but on the other hand the DC is the highest body from the Government sector as well as the chairman of the District Disaster Management Committee. So to minimize this conflict or the confusion regarding command control authority the DC can delegate the authority to Armed Force Commander for the period of emergency response phase or a limited period of time.
 - Some of the interviewer mentioned that at district level the Armed Force Commander should not take the charge of Incident Commander rather it should be manned by Deputy Commissioner. He gave an example that in 2007 there was a landslide occurs at LEBU BAGHAN near Chittagong Cantonment the Army was rushed to the spot and took the control over the incident. And unofficially they started to act as a leading agency. But according to Disaster Management act the City Corporation should handle the scene as a leading agency. But they failed to ensure it as well as the Army also didn't follow the process. So this is a clear violation of normal rules which was imposed by the Government. He also

mentioned that when the civil administration will completely failed to handle the scene and asked help from the Armed Forces only then they can act as an Incident Commander on behalf of the DC and for the prescribed time only.

5.2.2 Civil- Military Relationship (CMR)

The Civil-Military relationship is a very important factor for determining the ICS structure at district level in Bangladesh Perspective. Because in ICS this two components has to work very closely so basing on that issue the interviewer were asked suggestions and they provide the following ideas :

- The relation between Armed Forces and civil administration is healthy and comfortable and it proved during AYLA and SIDR disaster. In our country irrespective of military dictatorship or intervene in politics by Armed Forces, the people have good faith and confidence on Armed Forces in case of natural disaster.
- Number of intervention from military dictatorship in our country made the CMR somehow complicated and it can clearly understand when the question come who will take the control over the scene. Example of the landslide at LEBUBAGHAN, when the Army took the control over the situation and later on when the City Corporation came to the scene but out of fear they didn't take the control over the scene from the Armed Forces Commander.
- Some of the interviewees mentioned that the civil and military administration can work together basing on good faith and confidence. They also mentioned that still in our country we don't have any define and well coordinated effort for the development of the CMR
- Some of the interviewees mentioned that for successful implementation of ICS during emergency response we need a healthy comfortable relationship between Armed Forces and Civil Administration. They feel to incorporate distinct policy in this aspect.

5.2.3 The Skill and efficiency of the Armed Forces

The interviewees were asked the suggestions or comments regarding the skill and management proficiency of the Armed Forces in case of emergency response. Majority has shown the positive attitude and agreed that in Bangladesh still Armed Forces has enjoyed the superiority in this regard. The suggestions from the interviewees are shown as follows:

- The presence of Armed Forces ensures the accountability and reduces the rate of corruption. It indicates that people may have some fear on Armed Forces, in some case it may positive or negative as well.
- The operation plan for rescue or evacuation or the relief distribution plan are made by the Armed Forces and maximum times these plan are approved by the civil administration without any interfere.
- The people of our country have got the confidence more in Armed Forces than any other agencies or NGO. People think that when Armed Forces took the control over the situation the possibility of corruption decreases. And Armed Forces have got more mobility, Good communication, well coordinated approach and it's a disciplined force. Because of these contribution people feel more confidence on Armed Forces
- The high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is very essential for caring out any assessment. And NGOs can play a better role in that aspect.
- Armed Forces can successfully coordinate all operation like rescue, evacuation and relief. In Bangladesh the Armed Forces has got the confidence from the general mass and they believed that only the Armed Forces can distribute the relief material without any interference from political party or corruption.
- Depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces. Still this organization can take lead in any disaster in Bangladesh.
- Armed Forces enjoyed less political interference than any other organization in Bangladesh. And thereby the Armed Forces can ensure the relief distribution plan in time.
- The high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is very essential for caring out any assessment. And NGOs can play a better role in that aspect. He also mentioned that the Armed Forces have got the skill and ability for managing the disaster and they enjoyed more experience than any other government officials and organization.
- That Armed Forces commander should seek help and technical knowledge from expertise while preparing the emergency response plan and thereby the plan will be more workable and soundproof.

- Most of the time the Fire service acts as a first responder in case of fire breakout or building collapse in urban areas mainly. Initially it acts as a leading agency but when the magnitude is more than the capacity of the Fire service it's always the Armed Forces who takes control over the situation as an example of destruction of Garments factory at SAVAR and MOKHALI and fire break out incident at NIMTOLI or NTV office at KAURAN BAZAAR.
- Some of the interviewees mentioned that the confidence of the local people may not be focused to Armed Forces all time. From his experience he mentioned that the confidence mainly depends on the situation and performances of the organization.

5.2.4 Integration of NGOs in ICS

The interviewees were asked their comments on integration of NGOs in ICS in Bangladesh. Majority has shown their positive attitude but some of them disagreed with that. Maximum has mentioned that the NGOs have the contribution for the development of this country but the progress was not satisfactory comparing to their received donation and ability. The role of NGOs are never addressed officially by the Government thereby they also failed in some of the cases to magnify their efforts in emergency response. The comments from interviewers on NGOs are given below:

- In Bangladesh the NGOs are playing an important role from the very beginning but there was no joint effort by NGOs, Armed Forces and Civil Administration so far. Lack of accountability and corruption of Government ministries influence the donor countries to increase aid to the NGOs thereby they become an important factor for the ICS.
- The political leader has got more influence on civil administration but less on Armed Forces. In case of NGOs it depends upon their size and shape and connectivity with powerful donor agencies.
- The NGOs will be more comfortable under supervision of Armed Forces instead of the civil administration during emergency response. Because the Armed Forces have got more skill than the civil administration, they are cooperative and well disciplined force. The NGOs are getting more help and support from Armed Forces as they have the capability to provide all shorts of elements like boat in case of water way communication.

- The NGOs who all are having a well accountability procedure and vast network they could play a significant role better than that of concern Government ministries.
- Some of the interviewees are against the NGO's integration in Disaster management system because the NGO in Bangladesh has never played their positive role and the beneficiaries never get the proper help from them. And now a day the NGO's has got trends to influence the government policy and agenda in every sector. At present the NGO's activities have expanded in alarming stage as its network is almost bigger than the government one. And some places it becomes a challenge for the government service provider to achieve the confidence from the local.
- Some of the interviewees are strongly against the incorporation of NGO in revised SOD 2010 because he believed that the integration of local people in disaster management plan will be right step. The dependency on Armed Forces in all disaster should be avoided by training the local people and forming up a civil defense force in all upazilla level. This civil defense will be stronger than that of a NGO in case any disaster. This trained civil defense force can also trained the local people in peace time for fighting against the natural disaster.
- Fire service could train and equipped a good number of volunteers with the support of some international NGOs and UNDP. These volunteers will enhance the overall performance of the Fire service during emergency response.
- The NGOs can contribute a lot as they have continues relation with the locality so they can provide better knowledge and workable database to Armed Forces. But the supervision of NGOs should be in such a way so that it can regulate his usual service they way it should be. The strict control of the NGOs may hinder the normal progress or development of the disaster management system.
- The incorporation of NGO in ICS is a positive step towards a well disaster management plan. In ICS, the NGOs can better play under super vision of Armed Forces than the civil administration because of the following reason:
 - The command and control shape is well defined and structured than any other organization in Bangladesh
 - The Armed Forces never compromises with any indiscipline act or with comfortable which is very important for the humanitarian activities.
 - This organization has shown the utmost sincerity and dedication in past disaster scenario.

- The integration of NGOs in ISC will help the Armed Forces to get more information regarding locality. Also the technical knowledge and expertise from NGOs can provide necessary support for preparation of evacuation, search and rescue planning. The integration of NGOs will give a scope to them for better performances with other organization and contribute their effort towards humanitarian activities
- Some of the interviewees mentioned that in Bangladesh the NGOs still couldn't put better performances because of absence of combined approach. He also mentioned that in emergency response phase the Armed Forces can better manage the logistical side whereas the NGOs can provide better community service. The community based development activities or any operation or relief distribution the NGOs can provide better service to Armed Forces.
- The NGOs especially BRAC, MUSLIMS AID, OXFAM and the other international NGOs they are well equipped and having good relation with government ministries. The integration of NGOs are well explained in recent revised SOD 2010 before hand they have included in our disaster management plan but in reality it has been found they are not cooperating well sometime. When any responsibilities are given to them they are ignored if it is not tally with their own agenda or objectives.
- Some of the interviewees mentioned that the accountability and absence of control indulged the NGOs with corruption. Other than some well managed international NGOs rest of them are fail to prove their efficiency. They suggested that those NGOs which are involve with the disaster management plan and its development can be monitored by Disaster Management Bureau (DMB). And in case of disaster these NGOs can be coordinated or monitored at district level by concern local DMB office and thereby the local NGO's accountability can be insured. He mentioned in this aspect one director separately can be appointment in DMB for monitoring the activities of the local NGOs over the country. At district level the Armed Forces Commander can take support from the local DMB office for coordinating the local NGOs for formulating a joint distribution of relief material as well as other logistical item
- Some of the interviewees mentioned that the NGOs will be more manageable by civil administration than that of the Armed Forces. He mentioned that the civil administration can coordinate the NGOs activities in a better way at a district level as they close relation with them compare to Armed Forces.

5.2.5 Development of ICS in Bangladesh

The interviewees were requested to give their comments regarding the development of ICS in Bangladesh. They have been asked which are the factors may hinder the progress for integration of ICS in Bangladesh perspective. Their valuable comments or suggestions are given below:

- The major obstacles to introduce the Incident Command System in Bangladesh are the none-cooperative attitude and Ego problem. The inexperience government officials sometime deny decentralizing his command and authority.
- Some of the interviewees mentioned that the major obstacles to introduce the Incident Command System in Bangladesh are the none-participation of local elected body at all level and for the development of ICS we need to introduce the civil defense force instead of NGO's in revised SOD 2010.
- In ICS the emergency operation center (EOC) plays an important role but in our country still the policy maker couldn't reach a solution regarding the location of the EOC. The location of Emergency Operation Center (EOC) and delegation of Authority in ICS are the major exist conflict. The overall manager of EOC must be a technical expertise and well experienced on ICS rather to be a bureaucrat.
- The ICS is very new in our country and still we couldn't developed any define policy on ICS knowledge. In Bangladesh the government couldn't clearly defined the command and control authority in ICS context. We still don't have any establishment or facility for impart training or knowledge on ICS to concern persons.
- The NGO's are more ahead to embrace the system of ICS in their organization and when the Government ministries and Armed Forces still didn't prepare any ICS structure for their organization. The BRAC which is an international NGO and they have already prepared the ICS structure for their own institution.
- The major obstacles to introduce the Incident Command System in Bangladesh are the absence of legal framework to implement this system in our disaster management process.
- Still we don't have any Disaster Management Act by which the Government can implement the ICS in various agencies. The Government of Bangladesh (GOB) still couldn't introduce any effective policy by which the community involvements can be insured in ICS system. The ICS can play a better role in case of emergency response but the entire disaster management can be well

coordinated by incorporation of Disaster Management Act and Disaster Management plan with the contingency plan of various organizations.

5.3 Summary of Findings

The summary of findings is given below:

- The maximum interviewees mentioned that there should be balanced of command and control at district level. The Armed Force Commander may become the IC but at the same time it has to be followed by a constitutional process and for limited time.
- The IC should be a trained personal on ICS and experienced on disaster management process.
- The IC from Armed Forces should have the command control authority over their troops and rest of the coordination at district level should have done by the DC.
- The elected political figure like MP should be introduced in ICS structure for acting as an organizer for forming up the local volunteers and motivating the local people, raising their demand and need to authority.
- The NGOs should be controlled by the DMB at district level. The DMB will have the accountability of the NGOs which are involved with the development of the DM.
- The NGOs should contribute their technical knowledge for planning and operation during emergency response to Armed Forces.
- The IC shouldn't directly control the NGOs. This part can be done by DMB and they can ensure the active support from the NGOs.
- The operational and logistics section should be controlled by the Armed Forces.
- The finance branch from Logistics Section should only be controlled by the DC or any nominated person by DC.
- Government should introduce the DM act and policy for developing the action framework for the Armed Forces.
- The Government should introduce number of training and workshop for the development of ICS.
- The Armed Forces, Civil administration should introduce the training on ICS for their concern officer.

CHAPTER 6

PROPOSED ACTION FRAMEWORKS OF ARMED FORCES IN ICS

6.1 Proposed Incident Command System Model at District level

When the incident is small in size, the command group may be small basing on that incident. In that case the incident command group may be formed by the Incident Commander (IC) along with him there might be one or more Deputy Incident Commander to assist the IC or release him for monitoring other activities. In case of Bangladesh the population density is large compared to developed countries. The same magnitude incident in a developed country may not be equal for Bangladesh because of the intensity of the incident. As an example if there is a fire break out incident taking place in Canada the affected people will be very less as there houses are located having enough space and the inhabitants are also less per square kilometer (only 3.4). The same incident if happened in Bangladesh the affected people will be more because the population density per square kilometer is more (1,127) in our country. Again the houses are congested in our country which helps the fire to spread in a large area within a short notice. So in our country perspective most of the incidents are large and involve a number of agencies in emergency response operation.

Here we will only consider the district level In Bangladesh the entire district are quite small compare to its population size. In any emergency response operation it needs a huge effort by number of agencies to rescue evacuation and support the affected people especially at district level. The following section there will be three proposed model for ICS at district level will be represented basing on the following factors like:

- Suggestions of the interviewees
- Example of the neighbors' countries
- Based on the main structure of the Incident command system

6.1.1 ICS model -1 (Delegation of Authority)

There is a District Disaster Management Committee (DDMC) at the District level. The DDMC consists of the Deputy Commissioner of the District as the chairperson and members comprising all District level department heads, NGO leaders and civil society members. District Relief and Rehabilitation Officer (DRRO) acts as member secretary of the committee. Members of Parliament act as advisors of the committees. In the proposed ICS model the DC will be act as a superior officer because he is the highest government official as well as he is the chairperson of the District Disaster Management Committee

(DDMC) at district level. When any disaster occurred he will activate his DDMC. He will activate his own ICS structure at district level. Basing on the prepared contingency plan for managing the disaster at district level he will act as an incident commander if he is trained on ICS or someone nominated as a Responsible Officer (RO) from Government at district level. A Nodal Officer (NO) has to be designated for proper coordination between the District and National level in activating air support for response. When the situation is going out of control or the capability of the civil administration at district level. The DC/RO may call for support from state level or Armed Forces. After arrival of the Armed Forces, the DC/RO may delegate his authority to the representative from Armed Forces provided that he is well trained and experienced regarding ICS. The representative or the officer from Armed Forces will take the charge of Incident Commander from DC/RO. He will restructure the ICS by incorporating the military components on that. As an example the operation section can be manned by the District fire service officer for the rescue and evacuation as first responder. Afterwards the Armed Forces commander may take the charge of that section but the rest of the member from district level may stay there to assist him.

Likewise all the section will be reactivated and reorganize when the Commander from Armed Force will take the charge of Incident Commander on behalf of the DC/RO. But he will prepare his Incident Action Plan (IAP) and Incident Objectives concerning with DC/RO. DC/RO will inform his own authority regarding progress of the incident and the activities following his own channel of command. At district level the operation and logistics section should command by the Armed Force Commander as maximum resources and manpower will be utilized from Armed Forces. In case of planning section one representative from Armed Forces should be the member for provide necessary information regarding the capability of the Armed Forces. The NGOs and political elected person from the DDMC will incorporated in their designated place. The NGOs can play a better role providing necessary database of local population and technical knowledge for smooth planning of rescue, evacuation and relief distribution. They can help to prepare the initial and detail need assessment with joint effort with other Government agencies and Armed Forces. The local elected political figure from the DDMC can be act as an advisor or they can raise the demand of the local affected people while planning for relief especially. They can motivate the people to withstand with the disaster. In time of emergency response the volunteers are blessing and disturbing elements both. It is the manager who can utilize these elements in a better way. Because in time of emergency the volunteers can be prepared with short notice and they can work

as substitute for the ICS personal and manage time for rest which is very essential for them. So the political elected figure can be act a well manager to coordinate and organized the local people within a short notice in this regard. The political figure and NGOs can provide their valuable support and advice in planning and operation section. And rest of the command staff can be nominated by IC from both civil administration and Armed Forces. The general staff can be formed up from civil administration and Armed Forces both basing on the purpose of the particular section. The logistics section will have a separate branch like finance branch which will maintain all the financial issue related with emergency response operation. So there will be no separate finance and admin section under IC, it will be deviated a bit with main ICS structure.

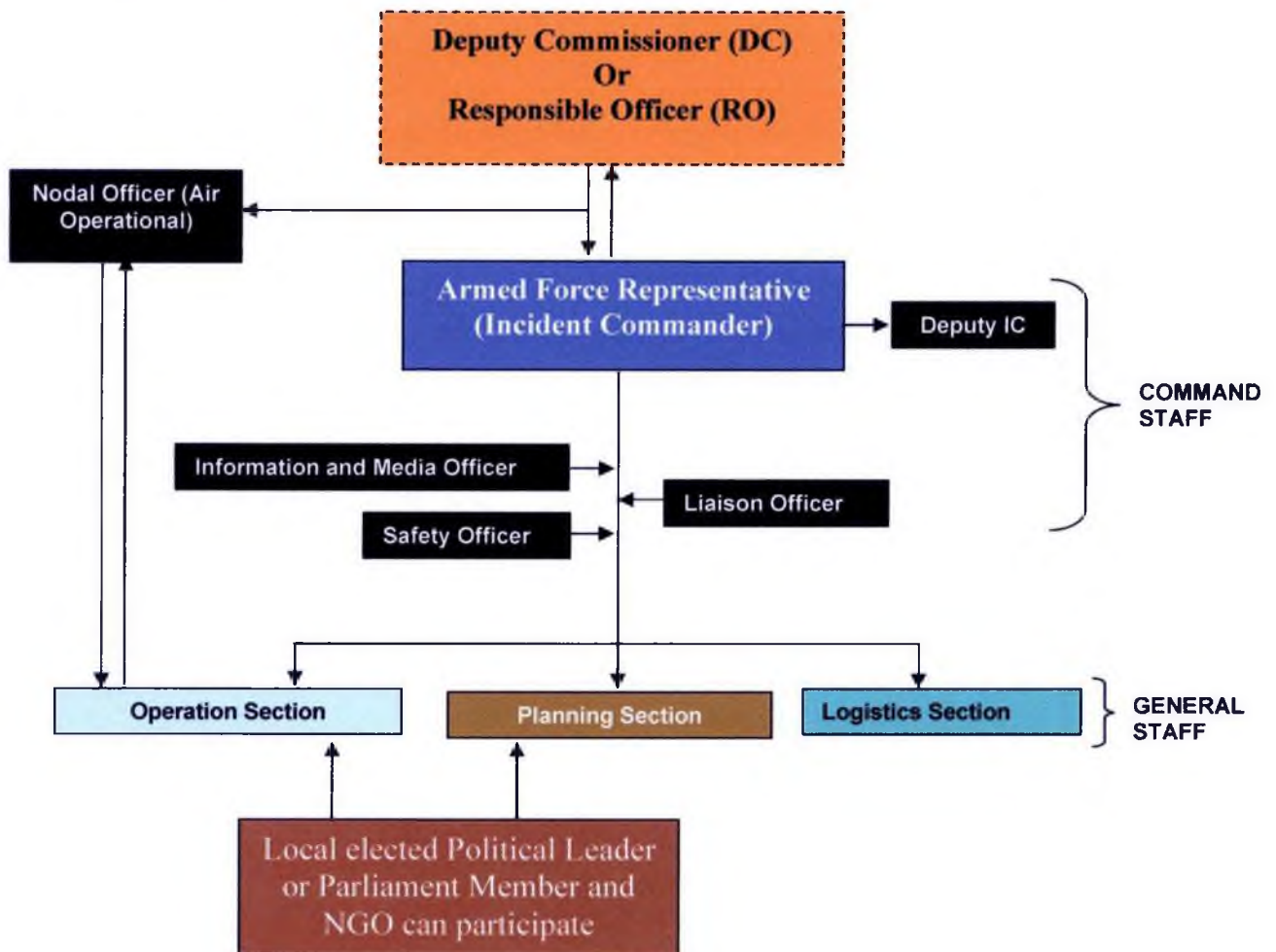


Figure 6.1: Proposed ICS model -I

6.1.1.1 Advantage of ICS model-1

The proposed ICS model-1 has the following advantages:

- This model doesn't disturb the present exist governmental structure.
- In this model the Armed Forces representative act as an Incident Commander on behalf of the DC, so the Armed Force remains as a supporting role.
- The elected political leader and concern NGOs are well incorporated in planning and operation section which will increase the efficiency of the proposed ICS.
- The proposed ICS incorporate the finance and admin section as a part of finance branch under logistic section which will minimize the extra manpower and makes the ICS structure simpler.
- Inclusion of the NODAL officer for coordination and conducting air operation will help the rescue and relief operation easier.

6.1.1.2 Disadvantage of ICS model-1

The proposed ICS model -1 has the following disadvantages:

- The Armed Force act as a supporting role during emergency response operation and it remain under direct command and control of the defense minister through Armed Forces Division (AFD). So it can't work under DC at district level.
- The Armed Force commander can't act as an Incident commander until he get the training on the ICS
- Still in Bangladesh we don't have the training on ICS for the AFD personal.
- The Armed Force commander may not have well knowledge and relation with NGOs/Political leader so it will be difficult for them to get full support from the NGOs.
- If the DC is not trained on ICS then the responsible officer (RO) nominated from the Government may not be well oriented with rest of the Government and Non Governmental agencies who all are working in that district.
- The incorporation of elected political leader and NGOs at section level (Operation and Planning) may downgrade their status and importance in ICS.

- Direct dealing with the political leader and NGOs may not bring satisfactory result for the IC (Armed Forces Representative) as the military has limited scope to develop good relationship with them.

6.1.1.3 Suggestion for Proposed ICS model-1

The proposed ICS model -1 needs to introduce the training on ICS especially to personal (Rank of Major and Lieutenant Colonel) from AFD. The same training should give to all the DC's periodically. The RO should be nominated or designated by the Government before the disaster so that the RO can orient himself with his area of responsibility (AOR). The control of NGOs can be done by the local Disaster Management Bureau (DMB) at district level. DMB will only deal with those NGOs who all are working on Disaster management related project. The involvement of political leader can be done in higher level as they are the elected person in that area. Basing on their status they can provide their support through coordination with DC and IC.

6.1.2 ICS model -2 (Parallel command and control authority)

In The proposed ICS model – 2, the DC and the representative from AFD will act parallel as a District coordinator and as an Incident Commander respectively.

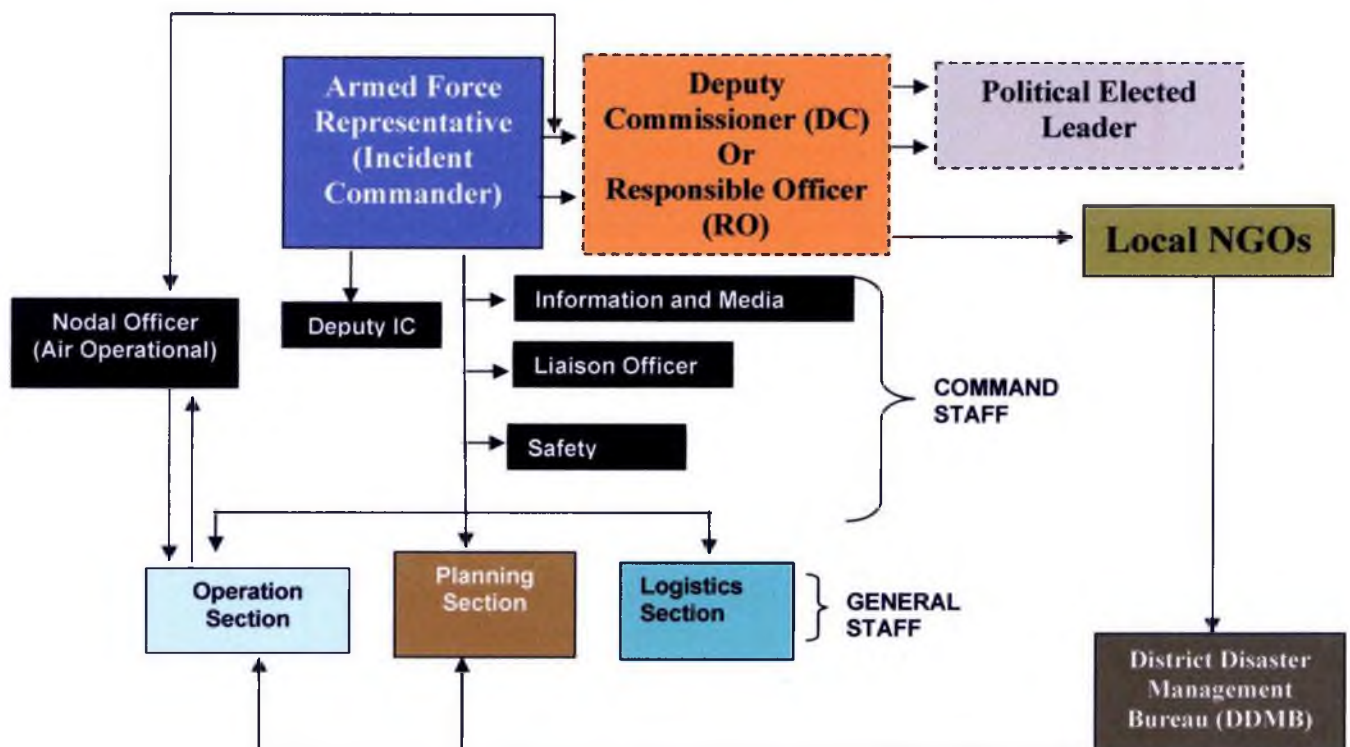


Figure 6.2: Proposed ICS model -2

When the catastrophe will be beyond the district's capability DC will then ask the support from the AFD. So it will give scope to the Armed Force Commander to act as an IC at district level or when the DS will be failed to manage the disaster then he will delegate the authority to Armed Force Commander to work independently. Armed Force commander will be act as an IC and at the same time he will take necessary help and support from the DC as he has good relation and control over the governmental ministries in his area of jurisdiction. The IC or the commander from AFD will keep contact with DC and before taking any decision he will discuss with the DC. And rest of the part like activation of ICS will be carried out according to instructions from IC. And selection of command staff and general staff will be according to ICS model-1. In this model the role of NGOs and political elected figure will be a bit different. The political elected figure or the leader will direct contact with the DC and provide necessary support or raise the local people demand to authority. The NGOs will not directly involve with the Armed Forces personal in Planning or Operation section like ICS model-1 rather they will delegate their support and technical knowledge through the Disaster Management Bureau (DMB).

6.1.2.1 Advantage of ICS model-2

The proposed ICS model -2 has the following advantages:

- At district level both the governmental Administration like military and civil administration enjoy the parallel authority on its own men and material.
- The command control authority remains with AFD.
- The DC will act as District Coordinator and provide all necessary support to IC from Armed Forces division.
- The Operation section and logistics section will be manned by AFD and the other related agencies will provide their support through the coordination process by DC.
- The DC will make a bridge with the IC (AFD Personal) and Political elected leader.
- The NGOs will be control and coordinated by the district Disaster Management Bureau (DMB) for smooth functioning.

6.1.2.2 Disadvantage of ICS model-2

The proposed ICS model -2 has the following disadvantages:

- The DC will not enjoy the superior authority like ICS model-1.
- The Armed Force Representative may not have the training on ICS which will
- Hinder the progress of ICS.
- The command control authority will be in charge of AFD representative which is not commensurate with the present Government structure at district level.
- The NGO s may face bureaucratic problem with DMB which may delay the process
- Direct contact with Political leader may influence the DC for undue privilege like more share of relief in his own men or area. And disturb the relief plan of the district.

6.1.2.3 Suggestion for Proposed ICS model-2

The proposed ICS model-2 has got some disadvantages which may create some problem in command control authority in model – 2. To avoid those problems the following procedure can be carried out.

- The Armed Forces Division should introduce the training on ICS in unit level as soon as possible.
- The DMB should have the database regarding the local NGOs who all are working on disaster management related issues.
- The DMB should have all the technical data and accountability of local NGOs, so that can ensure the best possible service from NGOs.
- The Government should augment the DMB's manpower to manage the local NGOs at district level
- The incorporation of political leader should introduce in planning and decision making process. And thereby it will minimize the interference of the political leader while distribution of relief material.
- The integration of DC, IC and elected political leader at district level should form a group. Thus it will help them to prepare the Incident Action Plan (IAP) and objective of the Incident.
- When the political leader will be a part of the decision making group or part of ICS structure he will have less scope of interference in planning of

relief distribution.

- In the group the presence of Armed Force personal may have some influence over the political leader in our country perspective. And it will create confidence to DC dealing with political leader.

6.1.3 ICS model -3 (Unified Command Group)

The proposed ICS model-3 will form a unified command group at district level. Because at district level in Bangladesh the incident size and shape is large this involves number of agencies. So this unified command group will help the ICS to develop an IAP and Incident based objectives at district level. Maximum interviewer expressed their mind that the three components at district level are very important these are the DC, Armed Force Commander and political leader. In unified command group the IC will be the Armed Force commander as he is arriving when the civil administration is not capable of managing the disaster. In such a case the delegation of authority of ICS also commensurate with the ICS concept. In Unified Command group the DC will act as coordinator as he is well oriented in his area of jurisdiction. The IC will be performed by the Armed Forces Commander or representative as maximum time the personal from Armed Force possess the experience of managing the disaster. And the elected political leader can act as advisor; he can manage the volunteer group in need within a short notice. The local elected political figure at district level is the Parliament Member (MP). We believe it is not realistic to expect a MP to suddenly materialize after a catastrophe. By the same token, it is unrealistic to attempt to train every MP in the nuance of the DM ACT, ICS and SOD or emergency response. The MP is changed each after 5 years. So it will be difficult to train the MP on ICS. In other hand the MPs fundamentally, has a policy and strategic role in their area of jurisdiction. And the DCs are mainly the manager of their area of jurisdiction. Yet after a disaster, the political leader or MP becomes the face of their local area and, both for the people affected and the rest of the country. Keeping in mind that the survivors of the event will likely have access to at least radio, local MPs performance has an enormous impact on how the community as a whole behaves. The only objective here is to help, console and calm the masses at the face of a very devastating catastrophe. A significant portion of this can only be done by the local MP or political elected leader or he or she *is* the face and voice of the affected community during the critical initial stages of the event. Therefore this unified command group includes the local MPs for their important role. Beside that in our country it has been

common practice that the political leaders are trying to interfere the relief distribution and it creates difficulties for the administration.

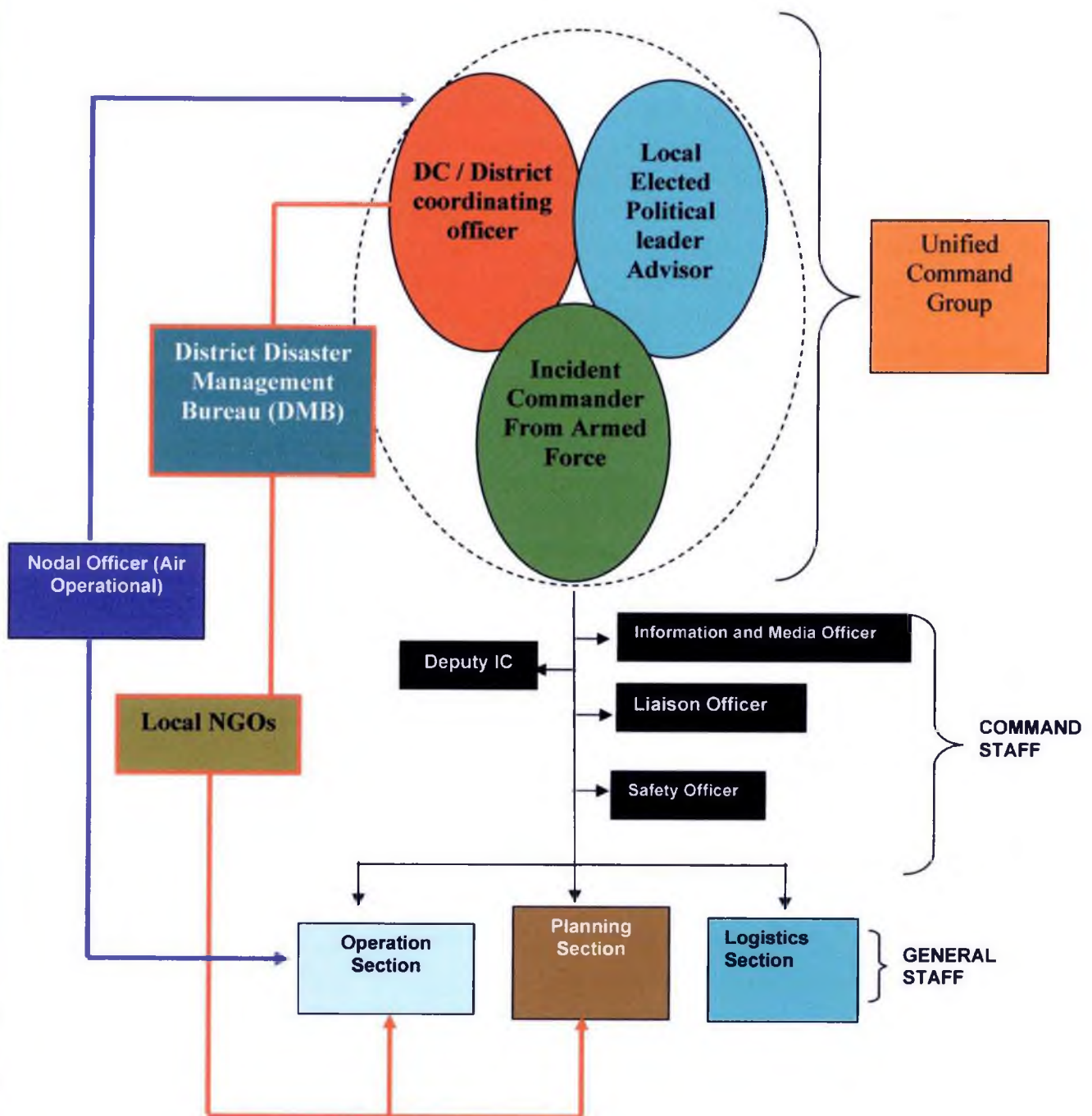


Figure 6.3: ICS model -3

To overcome the problem the incorporation of political leader in unified command group will make them more responsible. When any disaster will take place and this unified command group will be activated and sit in a common forum. They will prepare the initial need assessments with support from the technical expertise where the DC, IC and the political leader will give their inputs. Basing on this need assessment the planning and operation section will prepare their plan and carry out the execution part. Initially it may create some difficulties but in the long run the political interference will be less.

During emergency response period the volunteer community is both a blessing and a problem at the same time. On the one hand, the availability of additional manpower can relieve professionals to focus more on rescue efforts. On the other hand, the volunteers must be organized and often re-trained in short orientation sessions, before deployment. The unified command group can play a vital role in this aspect. The political leader from the unified command group can organize the volunteer at district level. They can motivate the people from their own party as well from locality and arrange short training before the deployment. They can contribute a lot to form up the civil defense force at district level which can be a local resource for the district.

From the practice it has been found that the Armed Force has an important role in every disaster in case of Planning, Operation and logistics. So it will be justified to make an Incident Commander from AFD personnel. But at the same time the IC will take all necessary action or decision after coordination with DC and elected political leader in unified command group. It will be better for IC to share his responsibility as a form of coordination with other member in unified command group at district level. The NGOs will be better utilized if they are controlled and monitored by the local DMB officers in connection with DC. Because they have the better knowledge regarding NGOs and they know each of the NGOs agenda and capability. So they can provide better inputs to IC regarding planning of relief and other operation activities. In this aspect the DMB needs the authority for controlling the local NGOs who all are working on disaster related issues.

There should be a nodal officer who will coordinate the Air Operation activities in connection with IC and DC at district level. He will act as an Air operation coordination officer at district level. He will get the demand of the Air support from the Operation section and concerning with IC and DC he will ensure this demand. The DC will have an

important role in unified command group otherwise he also play the role of incident commander for the Government organization (GO) and Non Government Organization (NGO) or agencies who all are working in his area of jurisdiction. He will mainly coordinate all the GO, NGO and provide all the necessary support for the IC. He will have the communication with IC as well as his higher authority for informing the progress of the emergency response activities in his district.

In this model the Operation section and logistics section should be manned by the Armed Forces and a representative from Armed Forces can be participated in the planning section for providing the necessary inputs. The political leader can send his representative to provide their information to planning section. The DMB should nominate the representative from local NGOs who can provide information from the NGOs community. The command staff will be selected by the IC himself from Civil or Military Administration (AFD) both. The same way the general staff will be included with their respective agencies. The logistics section will have a separate branch for finance and administration. This branch should handle by the respective government organization at district level. And DC can have the access to monitor and control of that particular branch.

6.1.3.1 Advantage of ICS model-3

The proposed ICS model has got the following advantages:

- The Unified Command group is ensured the equal participation of the DC, IC and elected local political leader role in ICS.
- The Unified command group ensures the proper planning and operation of the emergency response activities.
- The Unified Command group ensures the accountability and balanced of command, control authority between three components like Civil and Military administration (AFD) and Political party as well.
- The presence of Armed Forces personal in Unified Command group helps to make a balanced between political leader and DC.
- The active participation of local elected political figure in Unified Command Group will ensure the forming up the civil defense force at district level, which will be a trained force in the process of time. In future it will enhance the capability of District's capability to manage any disaster

- The political figure in unified command group will ensure that the demands of local people are fulfilled by the service provider.
- The political leader can play a vital role to motivate the affected people in crisis time and can help the Armed Forces to control the law and order situation in the affected area.
- The DMB can help the Armed Force Commander providing the NGOs support in time and correctly.
- The DMB can nominate the right man to represent the NGOs community at district level.

6.1.3.2 Disadvantage of ICS model-3

The proposed ICS model has got the following disadvantages:

- The Unified Command group is very new concept in our country. So it will take time to understand by all.
- The presence of Political leader in Unified Command Group may create some problem at the beginning but it will be minimized in the long run
- The political leader may influence the planning for relief distribution basing on vote bank issue and others.
- The political figure may try to incorporate his party supporter as volunteers in ICS structure and disturb the distribution of relief material.
- The political leader may influence the local people for his own political interest and which may create negative impact towards the ICS personal.
- The NGOs may show nonparticipation attitude towards DMB due to bureaucratic interference or problem.
- The separate branch in logistics section for the finance which will be manage by the respective civil authority may create some problem as the logistic section will be controlled by the Armed Forces.

6.1.3.3 Suggestion for Proposed ICS model-3

The proposed ICS model-3 has got some disadvantages to avoid those problems the following suggestion can be followed:

- The political leader can be trained at district level to make aware about their responsibility in Unified Command Group.

- The finance branch can be set up as a section and it can be managed by the government official nominated by DC.
- The DMB should develop a healthy relation with NGOs at district level.
- DMB should control and have the accountability of the local NGOs with matured management.
- The AFD should nominate the Armed Forces representative at district level with the qualification on ICS training and experienced on disaster management.
- The DC should have training on ICS for smooth coordination with other agencies.
- Prior to any disaster there should be a good number of training, workshop and model discussion on ICS at district level which will help the responder agencies to know each other capability and developing a good relation among them.
- All the responder should introduce the ICS in their agency which will help them to accumulate their ICS structure with the ICS of the District during emergency response period.

6.2 Proposed Communication system for ICS model-3

Successful communications and information management require that emergency management/response personnel and their affiliated organizations use standardized communications types. The following is a list of standardized communication types:

- **Strategic Communications:** High-level directions, including resource priority decisions, roles and responsibilities determinations, and overall incident response courses of action.
- **Tactical Communications:** Communications between command and support elements and, as appropriate, cooperating agencies and organizations.
- **Support Communications:** Coordination in support of strategic and tactical communications (for example, communications among hospitals concerning resource ordering, dispatching, and tracking from logistics centers; traffic and public works communications).
- **Public Address Communications:** Emergency alerts and warnings, press

Information flow among all stakeholders is crucial, but interoperability presents additional challenges when nongovernmental organizations (NGOs), the private sector, and critical infrastructure owners and operators are considered. All relevant stakeholders should be involved in meetings and planning sessions in order to formulate more thorough and integrated communications plans and strategies. Technology and equipment standards also should be shared when appropriate, to provide stakeholders with the opportunity to be interoperable and compatible. Basing on the following consideration for proposed ICS model -3 the following communication system can be followed:

The Prime Minister (PM) will be the national focal point for disaster management process. She/He is the chairperson of the National Disaster Management Committee. And by virtue of his appointment she/he also holds the defense minister appointment in Bangladesh. The communication system will follow the diagram as it mentioned above. The DC from the Unified Command Group at District level will get the instructions from the prime minister through NDMC and DMB. The Political leader will get the PM's political agenda regarding disaster from his political party. The IC or the representative from Armed Forces will get their instruction in both the way. As a member of the NDMC and as a member of the Armed Forces the PSO will get the instruction from NDMC and Defense ministry both. The Unified Command Group will follow their own line of communication for receiving and delivering the information. The interoperability will be maintained in the Unified Command Group for better coordination and controlling the entire ICS management at district level.

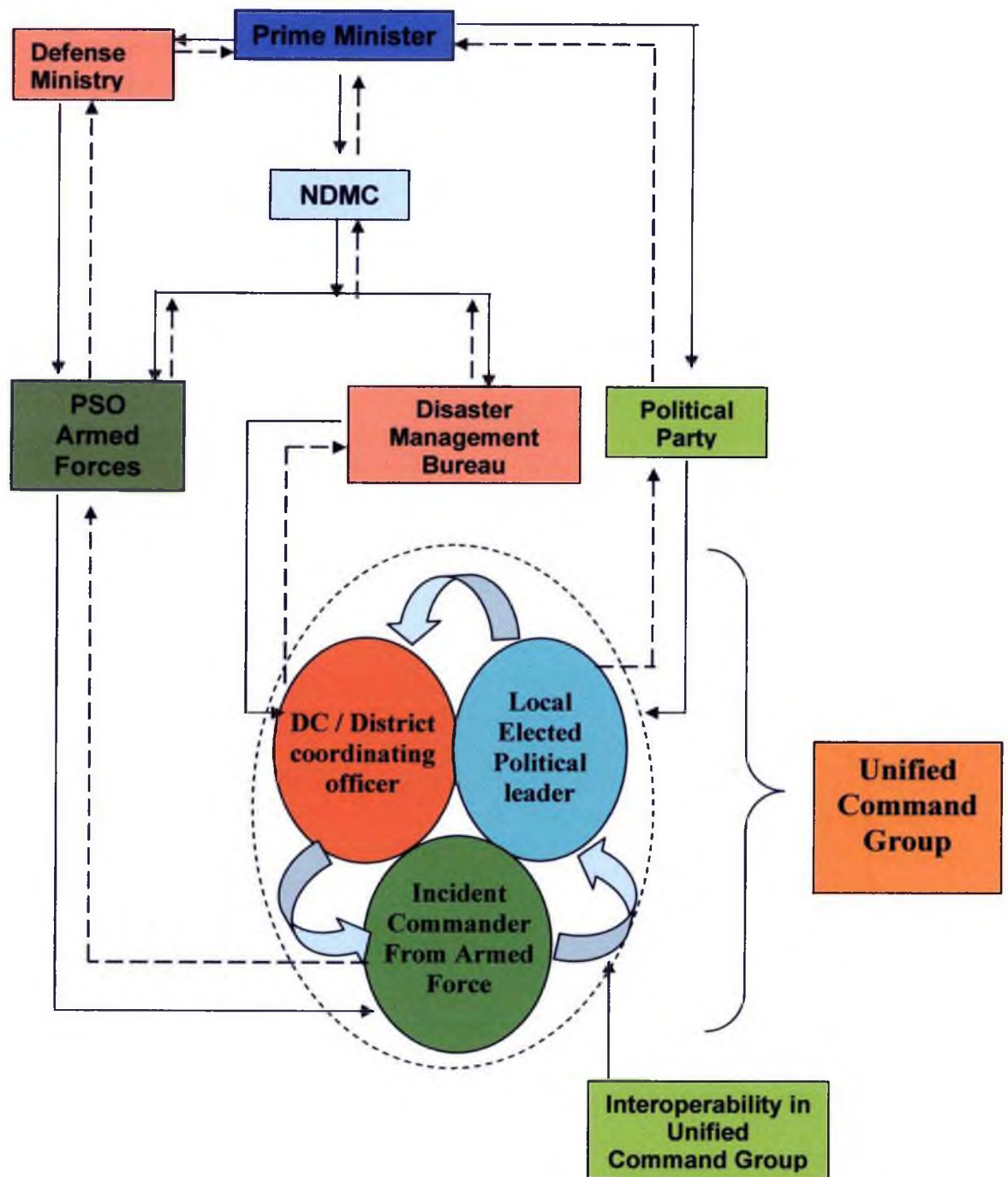


Figure 6.4: Passage of Information for ICS model-3

The IC will also introduce the interoperability among the difference responders who will work in various sections. For an example in Logistic section there might be mix of elements like Ordnance elements from Armed Forces, technical specialist from Government elements or NGOs. In that case the Branch In charges should have the

similar type of communication equipment for sharing information and instructions among them

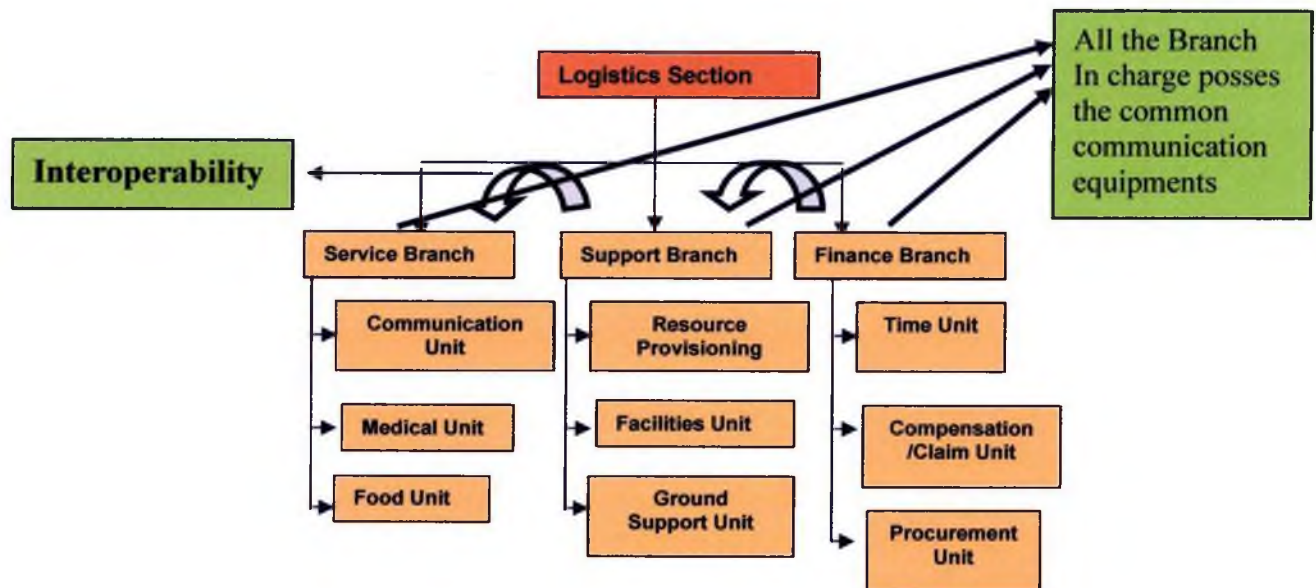


Figure 6.5: Communication within a Section

The entire ICS should develop a common communication system. They should use common terminology and avoid different type of sign for marking various areas. Specially while working with civil administration the Armed Forces should have some alternative communication which will help them to communicate with their counterpart. The Armed Forces should not use the military terminology while working with civil administration. The entire ICS should develop some alternative measures in case of failure of normal communication line. The alternative communications network may have wireless, satellite phones, cell phones, radios etc.

6.3 Recommendations

The above mentioned proposed ICS model represents the command, control and coordination in a different way. Among those the ICS model-3 is the most suitable structure for ICS at District level. And this structure fulfills the demand of necessity and it doesn't disturb the present government structure. The Unified Command Group also ensures the balance of authority within three most important factors at District level. In our country this concept still is very new and we yet to develop any defined structure where the Armed Forces and Civil Administration can work together. In Bangladesh perspective it has been found that the terminology of command and control is creating

ambiguity among the different organizations but the coordination terminology is more suitable. Basing on that concept the ICS model tries to establish a framework where the coordination is the main driving force. The following recommendations are shorted out for implementation of proposed ICS model -3:

- The political leader can be trained at district level to make aware about their responsibility in Unified Command Group.
- The finance branch can be set up as a section and it can be managed by the government official nominated by DC.
- The DMB should develop a healthy relation with NGOs at district level.
- DMB should control and have the accountability of the local NGOs with matured management.
- The AFD should nominate the Armed Forces representative at district level with the qualification on ICS training and experienced in disaster management.
- The DC should have training on ICS for smooth coordination with other agencies.
- Prior to any disaster there should be a good number of training, workshop and model discussion on ICS at district level which will help the responder agencies to know each others capability and developed a good relation among them.
- All the responders should introduce the ICS in their agencies which will help them to accumulate their ICS structure with the ICS of the District during emergency response period.
- The local volunteer can be organized and trained with the guidance and support of the local elected political leader and thereby this volunteer can form strong civil defense force at District level and minimize the dependency on the Armed Forces.
- The Government should introduce policy regarding the communication and usable common word for disaster. Government should introduce the Disaster Management Act and policy. Basing on what the structure of ICS can be developed.
- The Government should give the authority to DMB to monitor and have accountability of the NGOs who all are specially working on disaster related issues.

CHAPTER 7

CONCLUSIONS

The Armed Forces is an important element for the modern world in case of any operation that might be the war or any type of natural disaster. The operation readiness, logistic support and high mobility have proved its worthiness in any situation. In developed and developing countries the Armed Forces participated in many occasions and worked jointly in emergency response operation. The distinct chain of command and discipline make the Armed Forces differences from the civil administration. But it feels necessity to develop some management system which can help both the civil and military administration for joint operation. The USA Fire Department of California in 1970 first developed the system named Incident Command system (ICS) which help them to fight against the wild fire successfully. The ICS has got defined chain of command and specific responsibilities for each individual which is similar to Military chain of command. Actually the ICS was developed from the military mechanism of command and control.

It has got the similarity with military pattern of command and control. But as a starting point, it is critical for the military to understand the civilian approach to organizational management and how ICS fits into the civilian world. To be blunt, there is no common doctrine or hardly anything that would be recognized as such for day-to-day operations. Leadership and management are unique to each institution and office. In our country the ICS is a new concept, still we are lacking behind from others. India and Sri Lanka already prepared their policies and DM Act. Basing on that they are now developing the ICS for their Country. India has introduced Guideline for Incident Response System. In our country we don't have any paper on that.

In our country the frequency and intensity of the disaster is high and involvement of Armed Forces is increasing. Still we don't have any developed ICS for our country as well as we don't have any defined ICS structure for conducting smooth joint operation of Civil and military elements. In maximum time it has been found that the Armed Forces are taking initiative to respond any type of disaster violating the normal rules. On the contrary the Government agencies are showing inactiveness out of fear of military or their unwillingness to be active. So in this regard we need a defined structure of ICS where the action framework will automatically detect the individual responsibility and procedure of dealings with the emergency response activities. In our country the Armed Forces are

deployed normally basing on district level. So this paper is trying to propose an action framework for the Armed Forces personal at district level in the context of ICS. This paper is trying to focus on the important factors like CMR and role of NGOs and the role of DC on present Government structure with the connection of political leader.

In Bangladesh the ICS should be developed as soon as possible in every organization. Bangladesh Government should develop policy on the relationship between Armed Forces and Civil society. The DM act should be developed a policy on communication system in ICS should be introduced in our country. The Government of Bangladesh should form civil volunteers who can act as emergency responders at district level. The Government should gradually make some district resources like State Disaster Response Force (SDRF) in India. The SDRF is now playing an alternative role of Indian Armed Forces. The ICS is entirely a management system or tool, so this tool can be made in a way so that it can be well merged with all the emergency responders without any trouble and enhance their capability to contribute more in any disaster.

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ANNEXURE

Case study -1

Interviewers Name: A1.

Profile: A1 is an environmentalist, who obtained PhD in Hydrogeology in 1986 from Azerbaijan State University, Baku, USSR. He has working experience with UN, UNDP, Ministry of Food and Forest.

Interview date and time: 06 November 10, 0900-1030 hrs

Duration: 1 hrs 30 minutes.

Analysis of Interview:

Command and Control: A1 specifically gave his opinion that military or Armed Forces should work under the Government representative at all level. He also mentioned that in many cases it has been found that military or the Armed Forces played the leading role especially in emergency response period but it will be better for all if the District Commissioner (DC) or Thana Nirbahi Officer (TNO) act as a superior officer respectively at District or Upazilla level. He mentioned that if the situation needs in that case the Armed Force can directly control the entire activities providing that the Army commander has nominated by the DC or TNO for a specific time period.

Civil Military Relation (CMR): A1 mentioned that the presence of Armed Forces ensures the accountability and reduce the rate of corruption. It indicates that people may have some fear on Armed Forces, in some case it may positive or negative as well. But overall CMR is healthy and comfortable for conducting a well planned emergency response activity during Disaster.

Relation between Civil Administration, Military Administration and NGO's: The relation between civil administration and military is moderate and has got less influence by civil bureaucrats when the Armed Force is act as a leading agency. The NGOs are working

independent in their respective Area of Responsibility (AOR). The operation plan for rescue or evacuation or the relief distribution plan are made by the Armed Forces and maximum times these plan are approved by the civil administration without any interfere.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned. In Bangladesh the NGOs are playing an important role from the very beginning but there was no joint effort by NGOs, Armed Forces and Civil Administration so far. And he mentioned clearly by setting his personal working experience in World Bank that the donor countries become happy to see if Bangladesh Government could consumed its total foreign aid 20 to 30 percent. Lack of accountability and corruption of Government ministries influence the donor countries to increase aid to the NGOs. But again he mentioned that all the NGOs are not same, some may doesn't have the well accountability procedure.

Confidence of General Mass during emergency response: AI mentioned that the people of our country have got the confidence more in Armed Forces than any other agencies or NGOs. He mentioned that people think that when Army took the control over the situation the possibility of corruption decreases. And Army has got more mobility, Good communication, well coordinated approach and it's a disciplined force. Because of these contribution people feel more confidence on Armed Forces.

Political Interfere: AI mentioned that the Bangladesh present perspective its very natural to interference of the political leader specially in relief distribution. The political leader has got more influence on civil administration but less on Armed Forces. In case of NGOs it depends upon their size and shape and connectivity with powerful donor agencies. Even though the political leaders try to influence the local NGOs some time.

Skill and Management ability of Armed Forces: He mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is

Supervision of NGOs:

He mentioned that the NGOs will be more comfortable under supervision of Armed forces instead of the Civil administration during emergency response. Because the Army has got more skill than the civil administration, they are cooperative and well disciplined force. The NGOs are getting more help and support from Army as they have the capability to provide all sorts of elements like boat in case of water way communication.

NGOs Performance:

He mentioned that the NGOs who all are having a well accountability procedure and vast network they could play a significant role better than that of concern Government ministries.

Development of ICS in Bangladesh:

He mentioned that the major obstacles to introduce the Incident Command System in Bangladesh are the none-cooperative attitude and Ego problem. He also mentioned that the inexperience government officials sometime deny decentralizing his command and authority.

Case Study-2

Interviewers Name: A2.

Profile: A2, he was the former UN disaster planner and water expert who work and research on flood and managing the disaster. At present he is working as a Senior lecturer in BUET and BRAC.

Interview date and time: 02 December 10, 1700-1820 hrs

Duration: 1 hrs 20 minutes.

Interview Analysis:

Command and Control: A2 specifically gave his opinion that military or Armed Forces should work under the Government representative at all level. He also mentioned that in many cases it has been found that military or the Armed Forces played the leading role especially in emergency response period but it will be better for all if in Upazilla level beside the Thana Nirbahi Officer (TNO) the elected government body like the Upazilla Chairman also incorporated in decision making group at Upazilla level. He mentioned that if the situation needs in that case the Armed Force can directly control the entire activities providing that the Army commander has been nominated for that particular area by the Government before the disaster takes place and he should work as a commander for a specific time period. He also mentioned that at Upazilla level the TNO, Armed Forces commander at Upazilla level and the Upazilla Chairman these 03 men should work as in a coordinated way and the Armed forces commander may act as a chief coordinator in that case if the situation needs.

Civil Military Relation (CMR): A2 also mentioned that the presence of Armed Forces ensures the accountability and reduce the rate of corruption. He said that the presence relation between Armed Forces and civil administration is not bad.

Relation between Civil Administration, Military Administration and NGO's: A2 mentioned that the relation between civil administration and military is moderate. He was against the NGO's integration in Disaster management system because basing on his long experience he mentioned that the NGO in Bangladesh has never played his positive role and

the beneficiaries never get the proper help from them. And now a day the NGO's has got trends to influence the government policy and agenda in every sector. At present the NGO's activities have expanded in alarming stage as its network is almost bigger than the government one. And some places it becomes a challenge for the government service provider to achieve the confidence from the local.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned. A2 is strongly against the incorporation of NGO in revised SOD 2010 because he believed that the integration of local people in disaster management plan will be right step. The dependency on Armed Forces in all disaster should be avoided by training the local people and forming up a civil defense force in all upazilla level. This civil defense will be stronger than that of a NGO in case any disaster. This trained civil defense force can also trained the local people in peace time for fighting against the natural disaster.

Confidence of General Mass during emergency response: A2 gave emphasis to Armed forces specially to coordinate all operation like rescue, evacuation and relief. He said that still in Bangladesh the Armed Forces has got the confidence from the general mass and they believed that only the Armed Forces can distribute the relief material without any interference from political party or corruption.

Political Interfere: A2 mentioned that only Armed Forces is the only organized and disciplined force in Bangladesh which is free from all interference.

Skill and Management ability of Armed Forces: He mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces. Still this organization can take lead in any disaster in Bangladesh.

NGOs Performance: He mentioned that the NGOs has got some success or good performance in early disaster but in overall picture this NGO is still not achieved that efficiency in Bangladesh to manage the disaster alone.

Development of ICS in Bangladesh: He mentioned that the major obstacles to introduce the Incident Command System in Bangladesh are the none-participation of local elected body at all level and introduce the civil defense force instead of NGO's in revised SOD 2010. He mentioned that a local chairman is more oriented than a TNO or an Armed Forces commander in an upazilla level. And this is applicable in all level. He especially gave emphasis on Upazilla level because in district level the area of jurisdiction is very large. So the upazilla is an ideal unit to establish any ideal model. To activate a proper ICS system at upazilla level he said the incident command group or unified command group should be formed up by three men . They are as follows:

- 1) The Local government high officials (TNO at Upazilla level)
- 2) The Local Armed Forces Commander (Nominated by Armed Forces Division)
- 3) The Local elected government body (The upazilla Chairman)

A2 gave an example on Republic people of China. In China the communist party has got its elected men at lower government jurisdictional areas, where they work along with governmental officials. The party people mainly work basing on the party political idolism and agenda as well as the local people demand. And the governmental official's duty is to fulfill these agendas by following the governmental policies and rules and regulation. So this combined approach of elected figure or political representative and government officials successfully accomplish the goal of the government. So A2 told if in upazilla level the elected political body integrated in decision making process he can organize his party people as well as the local people for any job and the governmental high official can supervise the legal aspects. And the overall operation, rescue and relief distribution activities can be coordinated by the local Armed Forces Commander.

Case Study-3

Interviewers Name: A3.

Interview date and time: 19 December10, 1545 -1700 hrs.

Duration: 1 hrs 15 minutes.

Interview Analysis:

Command and Control: A3 mentioned that in case of any disaster the command should be under the command of Armed Force Commander but the control and coordination should be managed by civil administration. He also mentioned basing his own working experience in emergency response that at higher level there is no ambiguity regarding the delegation of authority or the command control issues but it exists at lower level.

Local Elected/ Political Leader: A3 mentioned that the integration of political leader has great impact on disaster management process especially it will have a important role on ICS. During emergency response the political leader are the main driving forces that can organize the local affected people and gave them consolation and inspire for fight against the disaster. The local political leader can play an important role to manage the local volunteer in case of any emergency response operation within a short notice.

Civil Military Relation (CMR): A3 expressed his positive attitude on existing CMR in the country. He said that the present CMR is ensuring better disaster management during emergency response.

Relation between Civil Administration, Military Administration and NGO's:

The relation between civil administration and military is moderate and has got less influence by civil bureaucrats when the Armed Force is act as a leading agency. The NGOs are working independent in their respective Area of Responsibility (AOR). The operation plan for rescue or evacuation or the relief distribution plan are made by the Armed Forces and maximum times these plan are approved by the civil administration without any interfere. But

A3 expressed his mind that Armed Forces commander should seek help and technical knowledge from expertise while preparing the emergency response plan and thereby the plan will be more workable and soundproof.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned. In Bangladesh the NGOs are playing an important role from the very beginning but there was no joint effort by NGOs, Armed Forces and Civil Administration so far. And he mentioned by setting his personal working experience in Fire service that with the support of some international NGOs and UNDP they could trained and equipped a good number of volunteers which will enhance the overall performance of the Fire service during emergency response. He mentioned that they are preparing 200 local trained volunteers for each local Fire service station when the crisis time will arise the responsible officer from local Fire service will organized these volunteers with the help of local political leader within a short notice. These 200 local volunteers will form 5 groups for caring out search, rescue, evacuation and First Aid. Each group will comprise of 40 members.

Confidence of General Mass during emergency response: He mentioned that still the people of Bangladesh has more confidence on Armed Forces than any other organization in the country. He mentioned from his experience that maximum time the Fire service acts as a first responder. Initially it acts as a leading agency but when the magnitude is more than the capacity of the Fire service its always the Armed Forces who takes control over the situation as an example of destruction of Garments factory at SAVAR and fire break out incident at NIMTOLI.

Political Interfere: A3 mentioned that interference is always there in both cases like civil or military administration but its obvious that the interference is less in case of Armed forces when take control over the relief distribution. In case of NGOs it depends upon their size and shape and connectivity with powerful donor agencies. Even though the political leaders try to influence the local NGOs some time.

Skill and Management ability of Armed Forces: He mentioned that still the Armed forces have got the leading role in any type of disaster in Bangladesh. Basing on its high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is very essential for caring out any assessment. A3 mentioned that the NGOs can play a better role in that aspect.

Supervision of NGOs: He mentioned that the NGOs can contribute a lot as they have continues relation with the locality so they can provide better knowledge and workable database to Armed Forces. But the supervision of NGOs should be in such a way so that it can regulate his usual service they way it should be. The strict control of the NGOs may hinder the normal progress or development of the disaster management system. He also mentioned that the NGOs can better play under supervision of Armed Forces than civil administration.

NGOs Performance: A3 mentioned that the performance of the NGOs is appreciable but still it's not magnificent compare to government ministries.

Development of ICS in Bangladesh: A3 particularly mentioned that location of Emergency Operation Center (EOC) and delegation of Authority in ICS are the major exist conflict. He gave opinioned that the overall manager of EOC must be a technical expertise rather to be a bureaucratic.

Case Study-4

Interviewers Name: A4.

Profile: A4, he was a professor of Department of Geology in Dhaka University. He has working experience in UNDP also. He is one of the national expertises on earthquake in our country. At present he is working as an urban risk reduction specialist in Comprehensive Disaster Management Programme (CDMP).

Interview date and time: 20 December 10, 1400-1530 hrs

Duration: 1 hrs 30 minutes.

Interview Analysis:

Government Representative: A4 specifically gave his opinion that military or Armed Forces should not work under the Government representative during emergency response. And the overall control over the situation should be manned by a well experienced and a person with technical knowledge on that. During emergency response the command and control become a common issue which creates conflict and sometime ambiguity. He mentioned that the command and control of the Armed Forces and civil administration should be balanced and parallel so that it doesn't create any ambiguity among the civil and military administration especially at district level.

Civil Military Relation (CMR): A4 said regarding CMR that the present CMR is healthy and comfortable in our country. He added more that the civil and military administration can work together basing on good faith and confidence. He also mentioned that still in our country we don't have any define and well coordinated effort for the development of the CMR. He said that for successful implementation of ICS during emergency response we need a healthy comfortable relationship between Armed Forces and Civil Administration. He feels to incorporate distinct policy in this aspect.

Relation between Civil Administration, Military Administration and NGO's: A4 mentioned that the relation between civil administration and military is moderate and has got

less influence by civil bureaucrats when the Armed Force is act as a leading agency. He mentioned that NGOs which are working in our country their role and activities couldn't be flourished without the support from government ministries. Sometimes it has been found that NGOs are showing better performance than that of government ministries at local level. But at the greater aspect still the government ministries are better than that of NGOs.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. A4 mentioned that the incorporation of NGO in ICS is a positive step towards a well disaster management plan. He also mentioned that in ICS the NGOs can better play under super vision of Armed forces than the civil administration because of the following reason:

- The command and control shape is well defined and structured than any other organization in Bangladesh
- The Armed Forces never compromises with any indiscipline act or with comfortable which is very important for the humanitarian activities.
- This organization has shown the utmost sincerity and dedication in past disaster scenario.

He mentioned that the integration of NGOs in ISC will help the Armed Forces to get more information regarding locality. Also the technical knowledge and expertise from NGOs can provide necessary support for preparation of evacuation, search and rescue planning. He mentioned that the integration NGOs will give a scope to NGOs for duel performances with other organization and contribute their effort towards humanitarian activities.

Confidence of General Mass during emergency response: A4 said that the general mass has got the highest confidence on Armed Forces. And Armed forces have more experience than government officials in case of managing disaster. And the proper distribution of relief materials in affected area in respect of distance or difficulties made the Armed Forces closer to the general mass of Bangladesh.

Political Interfere: A4 expressed his opinion that Armed Forces enjoyed less political interference than any other organization in Bangladesh. And thereby the Armed Forces can ensure their relief distribution plan in time.

Skill and Management ability of Armed Forces: A4 mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is very essential for carrying out any assessment. And NGOs can play a better role in that aspect. He also mentioned that the Armed Forces have got the skill and ability for managing the disaster and they enjoyed more experience than any other government officials and organization.

Delegation of Authority: A4 mentioned that the Armed Forces have got the skill and ability for managing the disaster and they enjoyed more experience than any other government officials and organization. He also mentioned that in district level the Armed Forces Commander should work as an incident commander and not on behalf of the Deputy Commissioner (DC) rather as independently. As an incident commander the Armed Forces commander should work parallel to DC and before taking any decision he should discuss with the DC and maintain a well coordination all the time. Regarding delegation of authority he mentioned that the Armed Forces should carry out ICS training at unit commander (Lieutenant Colonel) level, so that they act as an incident commander at district level. The defense minister (Prime Minister) should delegate the command and control (C2) authority to Principal Staff Officer (PSO) of AFD who is a lieutenant General rank (equivalent to Secretary). The PSO, AFD should nominate the ICS trained officer at District level who will act as an Incident Commander (IC). And the nomination should be done before the disaster take place. The nomination should be done basing on the following criteria:

- a) Training on ICS
- b) Previous experience on Disaster management

Supervision of NGOs: He mentioned that the NGOs will be more comfortable under supervision of Armed forces instead of the civil administration during emergency response. Because the Army has got more skill than the civil administration, they are cooperative and well disciplined force. The NGOs faced bureaucratic problem while dealing with the civil administration.

Development of ICS in Bangladesh: He mentioned that the ICS is mainly a management system by which an incident can be covered in a well manner and it is a part of

the disaster management process. The ICS is very new in our country and still we couldn't developed any define policy on ICS knowledge. In Bangladesh the government couldn't clearly defined the command and control authority in ICS context. We still don't have any establishment or facility for impart training or knowledge on ICS to concern persons.

Case Study-5

Interviewers Name: A5.

Profile: A5 has got the long experience of working with national and international humanitarian organizations home in abroad. He worked under OXFAM in Vietnam for a long time and Myanmar after the cyclone NARGIS. A5 at present is working as a disaster response management specialist under Comprehensive Disaster Management Programme (CDMP) which is funded by UNDP and this programme is the part of Ministry of Food and Disaster Management Ministry.

Interview date and time: 20 December 10, 1535-1700 hrs

Duration: 1 hrs 25 minutes.

Interview Analysis:

Government Representative: A5 strongly gave his opinion that the Armed forces should remain under command and control of Civil Administration. He particularly mentioned that in case of Flood and Cyclone the Armed force should remain under command of civil administration but in case of only earthquake it should be the Armed force that should command and control the entire situation.

Civil Military Relation (CMR): A5 said the CMR in our country is partially well and it depends on the situation.

Relation between Civil Administration, Military Administration and NGO's: The relation between civil administration and military is moderate but it depends on personal basis also.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned. In Bangladesh the NGOs are playing an important role from the very beginning but there was no joint effort by NGOs, Armed Forces and Civil Administration so far. And he mentioned clearly by setting his personal working

experience in various humanitarian organization that in Bangladesh the NGOs still couldn't put better performances because of absence of combined approach. He also mentioned that the in emergency response phase the Armed Forces can better manage the logistical side where as the NGOs can provide better community service. The community based development activities or any operation or relief distribution the NGOs can provide better service to Armed Forces.

Confidence of General Mass during emergency response: A5 mentioned that the confidence of the local people may not be focused to Armed Forces all time. From his experience he mentioned that the confidence mainly depends on the situation and performances of the organization.

Political Interfere: A5 mentioned that the Bangladesh present perspective its very natural to interference of the political leader specially in relief distribution. The political leader has got more influence on civil administration but less on Armed Forces. In case of NGOs it depends upon their size and shape basically on local NGOs the political interference is more and international NGOs is totally free from this kind of activities.

Skill and Management ability of Armed Forces: He mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but they have lack of technical knowledge and the local database which is very essential for caring out any assessment. And NGOs can play a better role in that aspect. Other than the NGOs the integration local community can also play a better role to enhance the efficiency of the Armed Forces.

Supervision and Performance of NGOs: A5 mentioned that the NGOs will be more comfortable not the under supervision of neither Armed forces nor Civil administration. It only depends on good manager. A well coordinated effort and positive approach can ensure the good performance of the NGOs.

Development of ICS in Bangladesh: A5 mentioned that the major obstacles to introduce the Incident Command System in Bangladesh are the absence of legal framework to implement this system in our disaster management process. He also said that still we don't

have any disaster management act by which the Government can implement the ICS in various agencies. He also mentioned that the Government of Bangladesh (GOB) still couldn't introduce any effective policy by which the community involvements can be insured in ICS system. He suggested that ICS can play a better role in case of emergency response but the entire disaster management can be well coordinated by incorporation of Disaster Management Act and Disaster Management plan with the contingency plan of various organizations.

Case Study-6

Interviewers Name: A6.

Profile: A6 is an officer from Bangladesh Navy. At present he is working under Operation and Planning Directorate at Armed Forces Division. This directorate mainly working on disaster management related activities with the cooperation of DMB and CDMP.

Interview date and time: 12 November 10, 0900-1030 hrs

Duration: 1 hrs 30 minutes.

Interview Analysis:

Government Representative: A6 said that the Disaster Management process in Bangladesh should remain under the supervision of Civil Administration. The Armed Forces only can play a supportive role when they will be called under the act of "In Aid of Civil Power". He mentioned that the dependency on Armed forces should be gradually decreased and at the same time the capacity and efficiency of the Civil administration should be enhance for managing any kind of Disaster. In disaster management entire process or the ICS the integration of Civil administration should be incorporated in a such a way so that the efficiency of the Government and other related agencies can be gradually upgrade.

Civil Military Relation (CMR): A6 mentioned that the presence existing CMR is well balanced and it's enough for managing any disaster in our country

Relation between Civil Administration, Military Administration and NGO's: The relation between civil administration and military is healthy in our country. The less scope of working with military made NGOs little bit difficult for developing relation with Armed Forces in our country.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned but still they are not that much capable to handle any situation alone. Some NGOs has got professional expertise they can pour their technical knowledge to support the Armed Forces personal for preparing the plan of rescue or evacuation.

Confidence of General Mass during emergency response: Because of well organized team effort and disciplined activities makes the Armed Forces closer to the people. The people have shown more confidence than any other organization to Armed Forces in the history of the disaster in our country.

Political Interfere: A6 mentioned that the Bangladesh present perspective it has been found that sometime the political leaders are trying to interfere specially in relief distribution. It happened in many of cases when the relief distribution is done by the civil administration and less in case of Armed Forces. In case of NGOs it depends upon their size and shape and connectivity with powerful donor agencies. Even though the political leaders try to influence the local NGOs some time.

Skill and Management ability of Armed Forces: A6 mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, they may be take the leading role in any emergency response phase but it also may vary due the type of the disaster and situation. The Armed Force in Bangladesh still enjoyed the privilege to prepare the evacuation, rescue and relief distribution plan. In maximum time the plans are prepared by the Armed Forces alone and it accepted by all relevant government officials.

Supervision of NGOs: He mentioned that the NGOs can work with comfortable under supervision of both Armed forces and civil administration during emergency response.

NGOs Performance: He mentioned that the NGOs still couldn't show a better performance the way it supposes to be. The NGOs never showed a better result comparing to Government agencies in Bangladesh

Development of ICS in Bangladesh: He mentioned that the ICS will play a pivot role to develop the disaster management system in Bangladesh.

Case Study-7

Interviewers Name: A7.

Profile: A7 , is now working as a Directorate General of Disaster Management Bureau. He is a well professional man in his service. In his career he served in various important government appointments. At present he is working as DG of DMB for development of the disaster management process in Bangladesh.

Interview date and time: 03 December 10, 1500-1630 hrs

Duration: 1 hrs 30 minutes.

Interview Analysis:

Government Representative: A7 mentioned that at district level the Armed Forces Commander or the Deputy Commissioner (DC) no one should enjoyed the entire command and control over the entire elements. To support his comments he raised his logic that the Armed Force commander didn't know the entire area, the position and quantity of governmental resources compared to DC. So it will be wiser if the DC take the charge of coordination of all the governmental ministries in his jurisdictional area. And in our country perspective the authority for command and control will create more ambiguity among the civil administration and Armed Forces; rather we can use the word of coordination. All the efforts at district level should be manned by a coordinated way. He also mentioned that the DC should be act as a focal point at district level. The Armed forces commander can enjoy the command and control authority over his men and resources only and rest of support they can achieved from DC. At district level the Armed Force Commander can act as a operational commander and DC can act as a coordinator for providing all available resources to Armed Force representative for performing his smooth operational activities in his district.

Civil Military Relation (CMR): He mentioned that the relation between Armed Forces and civil administration is healthy and comfortable and it proved during AYLA and SIDR disaster. In our country irrespective of military dictatorship or intervene in politics by Armed Forces, the people have good faith and confidence on Armed Forces in case of natural disaster.

Relation between Civil Administration, Military Administration and NGO's: A7

mentioned that in our country Armed Forces have got less scope to work with the NGOs thereby they couldn't develop good relation with NGOs. On the other hand as a government official he found sometime it becomes quite difficult working with local NGOs. He reasoned out that the local NGOs don't follow proper accountability and they are more curious to advertise their humanitarian activities for receiving more donations from foreign donors. But he said the NGOs especially BRAC, MUSLIMS AID, OXFAM and the other international NGOs they are well equipped and having good relation with government ministries. A7 also mentioned that integration of NGOs are well explained in recent revised SOD 2010 before hand they have included in our disaster management plan but in reality it has been found they are not cooperating well sometime. When any responsibilities are given to them they are ignored if it is not tally with their own agenda or objectives.

Integration of NGOs in National Disaster Management Plan: The revised SOD 2010 has introduced the Incident Command System in Bangladesh recently. In ICS the incorporation of NGO has been mentioned. A7 mentioned that accountability and absence of control indulged the NGOs with corruption. Other than some well managed international NGOs rests of them are fail to prove their efficiency. He suggested that those NGOs which are involve with the disaster management plan and its development can be monitored by Disaster Management Bureau (DMB). And in case of disaster these NGOs can be coordinated or monitored at district level by concern local DMB office and thereby the local NGO's accountability can be insured. A7 mentioned in this aspect one director separately can be appointment in DMB for monitoring the activities of the local NGOs over the country. At district level the Armed Forces Commander can take support from the local DMB office for coordinating the local NGOs for formulating a joint distribution of relief material as well as other logistical item.

Confidence of General Mass during emergency response: A7 mentioned that the people of our country have got the confidence more in Armed Forces than any other Government agencies or NGOs. Less scope of corruption, accountability and less interference by the political leader made Armed forces more compatible to the people of country.

Political Interfere: A7 mentioned that the political leaders of Bangladesh are used to interfere in relief distribution. The political leader has got more influence on civil administration but less on Armed Forces. And they also influence the relief activities of NGOs.

Skill and Management ability of Armed Forces: He mentioned that depending on the high mobility, distinct chain of command and accountability increases the performance of the Armed Forces, but it is not only the Armed Forces, the local people contribution also enhance the management ability of Armed Forces. Armed Forces have lack of technical knowledge and the local database which can be manage well with the support from NGOs. A7 mentioned that it will be a difficult part for Armed forces to prepare the rescue and evacuation plan without the support from technical expertise from Government ministries or NGOs.

Supervision of NGOs: He mentioned that the NGOs will be more manageable by Civil administration than the Armed Forces. He mentioned that the civil administration can coordinate the NGOs activities in a better way at a district level.

NGOs Performance: He mentioned that other than the NGOs who all are having a well accountability procedure and vast network they could play a significant role but in any case not better than that of concern Government ministries. He also added that the rest of the NGOs are not well equipped and they are not actually helping the poor people rather they are more interested about their advertisement for acquiring more donation.

Development of ICS in Bangladesh: He mentioned that the major obstacles to introduce the Incident Command System in Bangladesh are the none-cooperative attitude, Ego problem and willingness.

Case Study-8

Interviewers Name: A8.

Profile: A8 is a specialist on Disaster management and climate change. A8at present he is working in a renowned UN organization in Bangladesh. He is a well experienced person in the field of humanitarian operation.

Interview date and time: 05 December 10, 1600-1730 hrs

Duration: 1 hrs 30 minutes.

Interview Analysis:

Government Representative: A8 mentioned that at district level when the civil administration is failed or unable to handle the disaster scenario they asked the support from Armed Forces. So it indicates or creates scope for the Armed Forces Commander for acting as an incident commander at district level but on the other hand the DC is the highest body from the Government sector as well as the chairman of the District Disaster Management Committee. So to minimize this conflict or the confusion regarding command control authority the DC can delegate the authority to Armed Force Commander for the period of emergency response phase or a limited period of time.

Civil Military Relation (CMR): He mentioned that the relation between Armed Forces and civil administration is comfortable though there was number of intervention from the military administration but in case of disaster scenario still the CMR is excellent in our country.

Case Study-9

Interviewers Name: A9.

Profile: A9 is a specialist on Poverty Environmental and Climate Mainstreaming. Dr He is a well experienced person in the field of humanitarian operation.

Interview date and time: 05 December 10, 1600-1730 hrs

Duration: 1 hrs 30 minutes.

Interview Analysis:

Government Representative: A9 mentioned that at district level the Armed Force Commander should not take the charge of Incident Commander rather it should be manned by Deputy Commissioner. He gave an example that in 2007 there was a landslide occurs at LEBU BAGHAN near Chittagong Cantonment the Army was rushed to the spot and took the control over the incident. And unofficially they started to act as a leading agency. But according to Disaster Management act the City Corporation should handle the scene. But they failed to ensure it as well as the Army also didn't follow the process. So this is a clear violation of normal rules which was imposed by the Government. He also mentioned that when the civil administration will completely failed to handle the scene and asked help from the Armed Forces then they can act as an Incident Commander on behalf of the DC and for the prescribed time only.

Civil Military Relation (CMR): He mentioned that number of intervention from military dictatorship in our country made the CMR somehow complicated and it can clearly understand when the question come who will take the control over the scene. He gave the same example of the landslide at LEBUBAGHAN. When the Army took the control over the situation and later on when the City Corporation came to the scene but out of fear they didn't take the control over the scene from the Armed Forces Commander.

Capability of NGO in the context of ICS in Bangladesh: He mentioned that in our country the NGO's are more ahead to embrace the system of ICS in their organization and when the Government ministries and Armed Forces still didn't prepare any ICS structure for their organization. He gave the example of BRAC which is an international NGO and they have already prepared the ICS structure for their own.