



Standard Operating Procedure/ Guidelines for Emergency Response

February 2020

ACKNOWLEDGEMENTS

The perception about disaster and its management has undergone a change following the enactment of the National Disaster Management Ordinance, 2006/Act 2010. The definition of disaster is now all encompassing, which includes not only the events emanating from natural and human-induced causes, but even those events which are caused by accident or negligence. The important ingredients of an effective response system are integrated institutional arrangements, quick deployment of response forces and coordination and synergy among various agencies at various levels in dealing with any disaster. Most importantly, all the agencies and their functionaries must clearly understand their roles and responsibilities and the specific actions they have to take for responding to disaster or threatening disaster situations. The development of these standing operating procedure/ guidelines is a step towards the same direction.

These standing operating procedure/ guidelines is an outcome of collaborative efforts of National Disaster Management Authority and an Expert Team of Consultants from Asian Disaster Preparedness Centre. National Disaster Management Authority acknowledges the efforts of all its officers and other departments who proactively participated and has been helpful in formulation of these guidelines. Their continuous guidance and support during the process remained a great help to finalize the document.

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ACRONYMS

Admin	Administration
A&F	Administration and Finance
CAA	Civil Aviation Authority
CAP	Section
CBR	Central Board of Revenue
CDA	Capital Development Authority
DDMA	District Disaster Management Authority
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAD	Economic Affairs Division
EOC	Emergency Operation Center
FFC	Federal Flood Commission
FFD	Flood Forecasting Division
FTS	Financial Tracking Service
GBDMA	Gilgit Baltistan Disaster Management Authority
GHQ	General Headquarters
GIS	Geographic Information System
GLOF	Glacial Lake Outburst Flood
GOC	General Officer Commanding
HCT	Humanitarian Country Team
HFA	Hyogo Framework for Action
IASC	Inter-Agency Steering Committee
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
IHO	International Humanitarian Organization
INGO	International Non-governmental Organization
INSARAG	International Search and Rescue Advisory Group
IT	Information Technology
JACC	Joint Aviation Coordination Cell
JS HQ	Joint Staff Headquarters
KPK	Khyber Pakhtunkhwa
MCI	Metropolitan Corporation Islamabad
MIRA	Multi-Sector Initial Rapid Assessment
MO	Military Operation
MoD	Ministry of Defence
MoFA	Ministry of Foreign Affairs
Moi	Ministry of Interior
NDMA	National Disaster Management Authority
NDM Act	National Disaster Management Act
NDMC	National Disaster Management Commission

NDMF	National Disaster Management Fund
NDMO	National Disaster Management Ordinance
NDRF	National Disaster Response Force
NDRP	National Disaster Response Plan
NEOC	National Emergency Operations Center
NFI	Non-food Items
NGO	Non-governmental Organization
NHA	National Highway Authority
NHEPRN	National Health Emergency Preparedness and Response Network
NHN	National Humanitarian Network
NLC	National Logistics Cell
NOC	No Objection Certificate
PAF	Pakistan Air Force
PDMA	Provincial Disaster Management Authority
PEOC	Provincial Emergency Operation Center
PFD	Provincial Forest Department
PHF	Pakistan Humanitarian Forum
PIO	Public Information Officer
PMD	Pakistan Metrological Department
PMU	Project Management Unit
PNSC	Pakistan National Shipping Corporation
PPE	personal protective equipment
PPRA	Public Procurement Regulatory Authority
PRCS	Pakistan Red Crescent Society
PSC	Project Steering Committee
PTA	Pakistan Telecommunications Authority
SDMA	State Disaster Management Authority Azad Jammu & Kashmir
SITREP	Situation Report
SOP	Standard Operating Procedures
SPD	Strategic Plans Division
SUPARCO	Space and Upper Atmosphere Research Commission
UAN	Universal Account Number
UN	United Nations
UNHAS	UN Humanitarian Air Service
UNHC	United Nations Humanitarian Coordinator
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNRC	United Nations Resident Coordinator
USAR	Urban Search And Rescue
VIP	Very Important Person
VVIP	Very Very Important Person
WASH	Water Sanitation and Health

STANDARD OPERATING PROCEDURE/ GUIDELINES FOR EMERGENCY RESPONSE

1. Introduction

Pakistan is amongst the top ten disaster prone countries in the world and ranks 8th on the Global Risk Index. The country is vulnerable to many natural and human-induced disasters, which cause huge losses to human lives and damage to properties. Super Floods of 2010 alone affected around 20 million people, whereas earthquakes have also caused severe damage in the country, especially in the northern region. Droughts, sediment disasters, avalanches, glacier lake outburst floods (GLOFs) and cyclones are some other disasters that affected Pakistan from time to time. These recurring disasters have not only affected local communities but economic and social losses caused by these recurring disasters in Pakistan has amounted to billions of dollars, bearing a negative impact on socio-economic indicators.

The 2005 earthquake resulted in an accelerated effort to prepare a policy for disaster risk management (DRM) and associated measures. This resulted in the promulgation of the National Disaster Management Ordinance (NDMO) in 2006, which was later enacted as National Disaster Management (NDM) Act in 2010. The National Disaster Management Authority (NDMA) was created with a mandated to handle the complete spectrum of disaster management and to develop a national plan for disaster management in the country. Consequently, the National Disaster Response Plan (NDRP) 2010 was prepared by the NDMA, which was revised during 2019 to align the plan with regional and global frameworks.

NDRP 2019 clearly establishes the necessity of delivering a harmonized emergency response in line with national and international standards¹. As part of ongoing disaster preparedness efforts under NDRP 2019, this is imperative to deliver quality relief assistance to affected population in harmonized and synchronized manner where all the stakeholders are fully engaged and support each other to act as per well-defined procedures and clear set of responsibilities. In order to enhance operational efficiency for responding to a catastrophic situation in the country in the light of mechanism laid down in NDRP 2019, there is need to develop a set of standard operating procedures that guide the roles and responsibilities of statutory bodies to closely work with all the stakeholders including United Nations (UN) system, humanitarian agencies and other friendly governments on parallel basis. Since its emergence NDMA has already gained significant experience of handling large scale natural and human-induced disasters in the country. The past experience and institutional knowledge of responding a variety of disasters; provides the foundations of newly designed and adopted emergency response standing operating procedures (SOPs). This document encapsulates the whole spectrum of emergency response at national and sub-national levels through providing robust guidance to all the departments of NDMA, Provincial Disaster Management Authorities (PDMAs) and District Disaster Management Authorities (DDMAs) from notification of the emergency to delivery of relief assistance to the affected populations in close

¹ NDMA's National Disaster Response Plan 2019, p 17

coordination with all other stakeholders including provincial and local governments, UN bodies, national and international humanitarian actors.

2. Purpose and Scope

Due to its continued recurrence and cascading effects, both natural and human-induced disasters require a revised approach and acumen towards emergency response by adopting apt and updated procedures and policies. It is imperative to debrief the past instances and learn from both the failures and successes, so that losses and damages from future disasters can be truncated. Based on the lessons learned from previous incidents, NDMA has succeeded in establishing an effectively holistic emergency response mechanism. This document presumptuously makes an assertive attempt to formalize and record those procedures in a systematic manner, so that efficient, effective and integrated emergency response can be achieved.

NDMA, after having an extensive cross-sectoral consultative process by engaging all stakeholders, prepared NDRP-2019, delineated the process and mechanisms to facilitate coordinated response, inter alia, roles and responsibilities assigned to each stakeholder at various tiers. The NDRP-2019 ensures effective preparedness to respond to an emergency situation. These SOPs/ guidelines are the sequel of NDRP-2019, which further elaborates the actions to be taken and procedures to be followed for: -

- a) Activation of National Emergency Operation Center (NEOC)
- b) Launching appeal for foreign assistance
- c) Forest/wild firefighting
- d) Assistance to friendly countries
- e) Requisition for aviation support

The document aims to serve as an emergency response guide for the organizations under NDMA's stewardship, to respond emergency in an effective and well-coordinated manner. The document determines clear lines of communication and coordination actions limited to its scope and relevance to the above mentioned areas. The recommended actions are to be taken in shortest possible time in order to save lives, property and environment, and ensure supply of essential services and items to the affected population. Moreover, this document is designed to guide key stakeholders through the process of setting-up a national disaster response mechanism. This document shall be treated as classic guide for all decision makers to adopt particular set of procedures considering the nature of disaster. The ultimate purpose of these guidelines and SOPs is to help NDMA and other stakeholders to carry out informed, responsible and integrated decisions during humanitarian crises that may also adhere to internationally recognized humanitarian standards. These guidelines are meant to serve both as a guide for action and also as a tool to ensure transformation of existing guidelines and procedures into concrete response action.

3. Documents Referred

In order to prepare these guidelines following documents are referred: -

- a) NDM Act 2010
- b) National Disaster Management Plan (NDMP) 2012
- c) NDRP 2019
- d) Pakistan Floods 2010: Learning and experience
- e) Host Nation Support Guidelines for foreign assistance to Pakistan during disasters
- f) Strengthening national capacities for multi-hazard early warning and response system.
- g) Multi-sector initial rapid assessment (MIRA) guidelines

SECTION 1 - NATIONAL EMERGENCY OPERATION CENTER

1.1 Introduction

In Pakistan, the overall coordination of disaster management and response lies with the NDMA. In wake of any impending emergency or on declaration of emergency various agencies respond to take appropriate response measures. For the purpose of coordinating these activities, emergency operation centers (EOCs) are activated to ensure uninterrupted coordination and monitoring of emergency response activities, and maintain continuous liaison with relevant stakeholders including rescue and relief operations.

NEOC serving as incident command system, receiving early warning and issuing alerts to the all concern and coordinating humanitarian response activities. The NEOC also lead and ensure the coordination and management of relief operations in affected areas. As stipulated under “Categorization of Emergency” in NDRP 2019, NEOC shall be activated in case of Category-3 emergencies in particular, however, considering the nature and magnitude of the emergency and if requested by the provincial government(s), NEOC may also be activated for lower degree emergencies.

Full scale operationalization of NEOC is contingent as soon Category-3 & 4 disasters declared, albeit some are the preparedness specific activities shall be carried it by partially engaging NEOC sections for smooth execution of response activities.

1.2 Objectives. The NEOC serve as the hub for all activities and will be part of the NDMA office with full/part time staff and facilities for representatives from different ministries, departments, media and those humanitarian organizations who will join NEOC during the disaster time. NEOC will be equipped with all necessary facilities and headed by the Director Operations and supported team of officers/staff. The NEOC will be working round the clock during the disaster time and in the non-disaster time during normal office hours. The main objectives of the NEOC are to: -

- a) Disseminate warning on time.
- b) Issue instructions to all stakeholders.
- c) Communicate with stakeholders
- d) Coordinate with different stakeholders for effective response.
- e) Organize and manage emergency operations at national.
- f) Collect Information, undertake analysis and arrange dissemination.

1.3 Functions of NEOC. The main functions of the NEOC are: -

1.3.1 Pre-Disaster

- a) Prepare emergency preparedness and contingency plans at national level.
- b) Set up national emergency operations center and maintain state of readiness with all equipment in working order. Orient and train personnel of EOC on its operations.
- c) Prepare communication and transportation plan for potential disaster response.

- d) Coordinate with humanitarian organizations and related UN agencies to discuss their plans for preparedness and response for future hazards.
- e) Collect, consolidate, analyze and circulate information related to emergency operations to the key stakeholders.
- f) Issue warnings/ alerts to all concerned based on risk monitoring.
- g) Mobilize and deploy resources for initial response, maintain a manageable span of control, and optimize the use of resources.
- h) Coordinate/ monitor initial assessment for future response.
- i) Coordinate pre-positioning of relief items (food/ non-food items) if required.

1.3.2 During Disaster

- a) Collect, consolidate, analyze and circulate information related to emergency operations to the key stakeholders.
- b) Screen and issue emergency warnings and information to the public concerning preparedness and safety.
- c) Mobilize and deploy resources for search and rescue, medical assistance and coordinate relief and logistic operations in the affected areas based on initial information.
- d) Facilitate MIRA assessment and preparation of initial damage and relief need assessment report in the affected area (s).
- e) Coordinate and provide technical support to the Provincial and District Emergency Operations Centers PEOC/DEOC) for emergency response if needed.
- f) Coordinate and monitor relief operations in consultation with federal/provincial ministries/ departments humanitarian organizations and bilateral & multilateral agencies for resource mobilization and deployment in the affected areas.
- g) Prepare & disseminate daily situation report for Prime Minister and all concerned based on the information received from PDMAs & Armed Forces and humanitarian organization and UN agencies if operating.
- h) Prepare press release and other information for general public & specific groups and organize regular media and public information briefings.
- i) Coordinate receipt, segregation, storage and release of Foreign assistance when received.
- j) Preparation and consolidation of reports, record keeping, public information and resource management at national level.

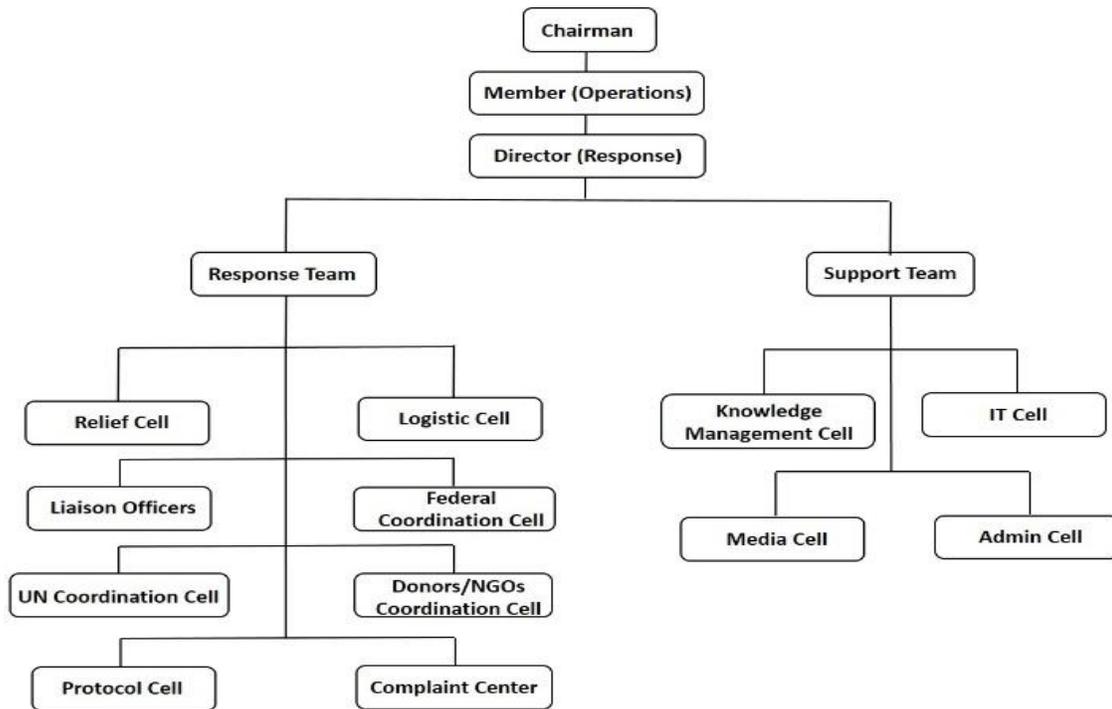
1.4 NEOC Structure

- 1.4.1 **Chief Coordinator.** The Member (Operations) as chief coordinator will be responsible to supervise and direct the NOCE. He will be assisted by the team assigned for smooth functioning of NEOC.

1.4.2 In-charge NEOC. The NEOC will be headed by the Director (Response) and supported by the officials from operations, Disaster Risk Reduction (DRR), Information Technology (IT), media, administration (admin) and finance directorates. Officials from Project Management Unit (PMU) and other programs will also be part of the team responsible to manage NEOC. Under the guidance of the Chief Coordinator, he is responsible for managing the NEOC and its operation in disaster and non- disaster time. Director (Response) is responsible to: -

- a) Ensure smooth functioning of the NEOC.
- b) Ensure information gathering and define technical information requirements in order to develop and advise possible emergency response.
- c) Liaise with different humanitarian organizations involved in the humanitarian response to understand and influence their changing interests and priorities, mobilize resources for emergency responses.
- d) Ensure that ministries/departments representative are informed during the alert stage of NEOC.
- e) Serve as primary contact person between NEOC, PEOC, ministries/department representatives, NGOs/INGOs and other humanitarian organization and media.
- f) Ensure that the NEOC is staffed with trained personnel, that communication is operational, and that appropriate pre-positioned data ad aids are available in the NEOC.
- g) Coordinate with provincial EOC for possible response and update Chief Coordinator accordingly.
- h) Prepare briefing for the Chief Coordinator, Chairman NDMA and National Disaster Management Commission (NDMC).
- i) Manage staff, processes, policies and systems in transparent manner for the center.
- j) Coordinate all the relief activities in the country and provide possible technical support to the disaster affected areas through the provincial EOC.

1.4.3 Organogram/ Structure. Comparative study of contemporary organizations revealed that no uniform composition/organogram of incident command system/emergency command system exist and it varies depending upon the roles & responsibilities of that particular organization. Based on the lesson learnt from Earthquake 2005, following structure was formulated during Floods 2010. The same structure was adopted with modification during the Floods 2011. The proposed structure is not exhaustive, yet based on past experience and can utilized as the base structure subject to further changes depending upon the category of disaster: -



a) **Response Team.** In order to ensure sustained execution of processes and systems in the event of a disaster that causes major disruption and devastation, response team shall consist of various cells which are explained in the following passages. The team is responsible to manage the disaster situation

- 1) **Relief Cell.** Responsible for managing the rescue and relief operation. Relief cell shall correspond with relevant departments/organizations at federal, provincial and district level to determine their needs in terms of relief assistance, and accordingly furnish such information to the logistic cell so that the required material can be transported to the affected population safely and in timely manner. Following are some of responsibilities of relief cell: -
 - a) Coordinate arrangements for evacuation where required.
 - b) Coordinate rescue operations where required.
 - c) Obtain needs in terms of relief assistance from all stakeholders.
 - d) Supervise transportation of relief items.
 - e) Coordinate and arrange aviation support for rescue, relief and transportation of relief items.
 - f) Coordinate with armed Forces for any assistance required and sharing of information.
 - g) Coordinate with Provincial EOCs for smooth distribution of relief items.
 - h) Arrange orientations/ briefings of foreign teams/contingent upon arrival.
 - i) Coordinate with PDMA's deployment of foreign teams/contingent upon arrival.
 - j) Oversee conduct of MIRA.

- k) Issue daily situation report (SITREP).
- 2) **Logistic Cell.** Will be responsible for procuring, storage and supply of relief items as directed by relief cell. Logistic cell will also be responsible for receiving, stocking and distribution of items donated by local philanthropist, foreign countries & donors either locally or transported through commercial/special aircrafts & ships. During Floods 2010 & 2011, a number of small teams were deployed at various airports and Karachi Seaport.
 - 3) **Liaison Officers.** Clues 9 (h) of NDM Act 2010, empower NDMA to requisition services of any person for any specific purpose or for general assistance. For smooth and better coordination with federal ministries/department and armed forces liaison officers can be requisition depending upon the category of disaster. During Floods 2010, a liaison officers each from Ministry of Foreign Affairs (MoFA), Ministry of Interior (MOI), Ministry of Health, Federal Flood Commission (FFC), Pakistan Meteorological Department (PMD), Space and Upper Atmosphere Research Commission (SUPRCO), National Highway Authority (NHA), operation branch of Army, Pakistan Air Force (PAF) & Navy, Engineer, Aviation, Medical and Logistic Directorates were assisting NEOC for coordination with their respective ministry/department/organization.
 - 4) **Federal Coordination Cell.** Will act as lynchpin between federal ministries and provincial department & NDMA. Will be responsible for inter-departmental and inter-provincial coordination with respective Federal Ministries/Divisions/Authorities, DMAs in the event of crisis is critically important.
 - 5) **UN Coordination Cell.** Responsible for coordination between NDMA and UN agencies. Coordinating and monitoring of relief operations, obtaining information and resolving any issues will be the main responsibilities of this cell.
 - 6) **Donors/NGOs Coordination Cell.** Contribution by donors, national and international humanitarian organizations remained pivotal during past emergencies. The cell will be responsible for coordinating all aspect and facilitating these organizations for their smooth functioning.
 - 7) **Protocol Cell.** May be established depending upon the quantum of disaster being handled. Will be responsible coordinating all in & out movement of visitors to NDMA. Additional responsibility to coordinate movement of visitors to provinces or disaster sites can also be assigned to the cell.
 - 8) **Complaint Cell.** NEOC shall develop robust complaint redressal mechanism, so as the disaster affected population or any other individual/organization may register their complaints related to relief assistance including quality, quantity, distribution procedure,

appropriateness, and any other factors related thereof. NDMA established the cell as part of NEOC during Floods 2010, consisting of an in-charge and four operators. Dedicated hotline UAN and other telephone numbers shall be setup to receive such complaints telephonically, however simple complaint form shall also be available on the website both in English and Urdu as the affected community may conveniently register their complaint. Complaint forms and procedure for complaint registration shall also be displayed at various sites at the disaster affected area. Following procedure may be adopted: -

Step	Activity Description	Timelines
Step 1	<ul style="list-style-type: none"> • Receipt of complaint through telephone, email & letter etc. • Recorded and handed over to in-charge NEOC 	
Step 2	Concerned cell shall examine the nature and gravity of the complaint and present the case to in-charge NEOC.	Within 6 hours
Step 3	in-charge NEOC evaluate the case to seek comments from relevant department/division/ministry if required.	Within 24 hours
Step 4	in-charge NEOC shall give its recommendation(s) based on the input received and those shall be conveyed to concerned department/section for improvement, whereas, decision shall be conveyed to the aggrieved person.	Within 24 hours

b) **Support Team.** Support team shall facilitate functioning of response team and shall consist of following cell, however cell may be enhanced or reduced depending upon the disaster situation: -

- 1) **Knowledge Management Cell.** Preservation of all knowledge & material produced during any emergency management and recording of best practices plays an important role in formulating lesson learnt for the disaster management in future. The cell will be responsible to record, preserve and archive all such documents. The cell shall liaise with SUPARCO and PMD for the provision of satellite images to obtain geographic information system (GIS) data for identifying, examining, assessing the magnitude of disaster. The cell shall also carry out comparative analysis of all data and reports before recording.
- 2) **IT Cell.** This cell shall extend IT support pertaining to incident management. Efficient functioning of all equipment including IT equipment and communication is the responsibility of IT cell. The cell will also be responsible for uploading information & updating NDMA website in consultation with all cell and in-charge NEOC.
- 3) **Media Cell.** Both the print and electronic media greatly contribute for information dissemination. International media can bring the crisis situation and the plight of the affected

people in front of the world, convincing them to help the crisis affected population. Media in Pakistan is categories in various forms however during emergency, considering the extreme urgency to access real-time updates electronic media including radio and social media hold supremacy over other sources. The media cell shall gather from in-charge NEOC and disseminates meaningful information in a timely manner about the emergency management. However, Chief Coordinator NEOC shall be the approving authority for all matters being released to national and international media. The cell will also monitor various sources of information including print, electronic and social media and other sources of public information to check the veracity of the information. The cell will organize press conferences and interviews of NDMA officials. The cell will also be responsible to update NDMA designated spokesperson and arranging his interaction with media.

- 4) **Admin Cell.** This cell shall extend admin and logistics support to all officials working in NEOC. The cell shall arrange transportation, supplies, equipment, communication and IT support for NEOC. Timely availability of desired store and equipment would be important for smooth and efficient functioning of NEOC.

1.4.4 Store, Equipment and Communication. NEOC will be equipped with all facilities required to obtain, analyze and dissemination of information. The proposed list is as follow: -

- a) Desktop computers, laptops, printing, fax, scanning and photocopying machines
- b) Master maps, range of status boards and map boards.
- c) Telephones (landlines, cellular and satellite phones), telecommunication system (very high frequency wireless radio communication) and satellite phones;
- d) Internet facility, television sets and cameras
- e) Audio/video conferencing facilities; connection to external video links
- f) Access to weather information; seismic event information system
- g) Generators/uninterruptible power supply/power back-up system

1.4.5 Admin Support. Administrative support to NEOC during non-disaster or disaster situation will be of Admin and Finance (A&F) Wing of NDMA. All procurement related to NEOC shall be cleared by chief coordinator of NEOC. Provision of human resource from within NDMA or outside to form various teams shall also be the responsibility of A&F Wing.

1.5 Monitoring of Disasters

In collaboration with concerned departments, mechanism to monitor the disasters may be developed. Indicators corresponding to respective disaster may be determined and regularly analyzed by respective agencies. As soon such indicators touch the tipping points, NDMA may accordingly make decision. Such disaster monitoring

mechanism enable NDMA to decided, as soon it touches the threshold level, to accordingly initiate response activities.

During pre-disaster phase an advisory is issued by NEOC, this happens when an incident has grown into a crisis or emergency with a possibility to become full below disaster. During this phase continuous monitoring of situation such as identification of threat, hazard and risk and strategic forecasting shall be conducted by NEOC. For the purpose of disaster monitoring each disaster are classified under separate category, which include seasonal disasters (droughts, floods, cyclones, extreme temperature), evolving disasters (pandemics) and unpredictable disasters (earthquake, avalanche, GLOF, landslides).

1.5.1 Seasonal Disasters. Seasonal disasters recur with regular cycle, and these are tied with the seasonal changes i.e. whether conditions, precipitation etc., and at certain degree those can be predicted with proxy indicators. NEOC coordinating with concerned departments may anticipate, and ensue advance preparedness actions including contingency plans before the onset of disaster.

1.5.2 Floods / Flash Floods

- a) With regards to flood monitoring, NEOC shall coordinate with Flood Forecasting Division (FFD) and PMD for frequent updates.
- b) NDMA shall monitor the flood situation from June to September.
- c) In collaboration with PDMAs, monitor the flood situation and extend assistance as and when required.

1.5.3 Drought Monitoring

- a) Based on historical record, as referred in NDRP 2019, NEOC shall collaborate with National Centre for Drought/Environment Monitoring and Early Warning System to closely monitor the drought-prone zones i.e. Baluchistan, Sindh and Southern Punjab and monitor the annual rainfall pattern to speculate the drought probability.
- b) NEOC shall remain in contact with respective PDMAs and PMD to get updates, and as per defined threshold as soon full-blown emergency is declared, NEOC may be activated and initiate response activities in collaboration with PDMA.

1.5.4 Extreme Temperature

- a) NEOC throughout the summer season starting from March 31st to October 31st will frequently monitor the temperature on daily basis.
- b) NEOC shall record maximum and minimum temperatures acquiring such information from PMD.
- c) Report number of heat related illness and fatalities registered in various hospitals and health centers by coordinating with respective PDMAs deriving information from health department.
- d) Determine threshold level in collaboration with PMD and PDMA, and initiate response activities, if it overwhelms the capacity of provincial disaster management authority.

1.5.5 Epidemics and Pandemic-prone Disasters. Pakistan experienced epidemic in recent history, dengue outbreak was throbbing reminder. Evolution of such pandemics should be monitored to identify the tipping point, when the risk is heightened. NEOC in collaboration with National Health Emergency Preparedness and Response Network (NHEPRN), may agree to set indicators those shall be frequently monitored, and soon the situation touches upon the tipping point NEOC may be activated to provide emergency response.

1.5.6 Unpredictable Disasters. These types of disasters such as earthquake, avalanche, GLOF and landslides pose serious risk consistently over time. So far no technology exists to anticipate the occurrence of such disasters, yet governments make all possible arrangements to respond to such emergencies in shortest possible time to save precious lives, property and environment.

1.6 Activation and Stand-Down Procedures

The NEOC will remain the nucleus for all activities, therefore will function throughout the year in disaster and non-disaster times. During disaster times, the NEOC will coordinate relief and early recovery and non-disaster time emergency center will be working in emergency preparedness mode e.g. contingency planning etc. On declaration of emergency and in case of impending emergencies (floods, cyclone etc.) where information is received, analyzed and disseminated, NEOCs will be operationalized.

The NEOC will be part of the NDMA office with full/part time staff and facilities for representatives from different ministries, departments, media and those humanitarian organizations who will join NEOC during the disaster time. NEOC will be equipped with all necessary facilities. The NEOC will be supervised and directed by the Chief Coordinator (Member Operations). The NEOC will be headed by the Director Operations and supported by the operations, communication, public information, finance, administration and logistics support teams. The NEOC will be working round the clock during the disaster time and in the non-disaster time during normal office hours.

1.6.1 Activation and Stand-Down Procedures for NEOC. NEOC activation and stand down procedures during the various stages of emergencies are mentioned below: -

a) **On Receipt of Alert (Standby - Stage 1).** Director Response will collect information from PEOC/ DEOC about the damages, after analyzing the situation, advise/ recommend chief coordinator NEOC for alert or standby position of NEOC. Chief coordinator will update the Chairman NDMA and seek his approval for activation of NEOC. SOPs to be followed for this stage shall include following: -

- 1) Monitoring the situation
- 2) Alert the NEOC staff for operationalization of NEOC at short notice
- 3) Coordinate with key ministries, departments, Joint Service Headquarters (JS HQ), Armed Forces, National Logistic Cell (NLC) and humanitarian organizations
- 4) Closely coordinate with PEOC to get information and review it.

- b) **On Receipt of Warning (Stage 2).** NDMA will issue notification for full activation of the NEOC. Chief Coordinator will inform key ministries, FFC (only in case of floods), PMD, PDMAs, JS HQ (for information of tri services), Emergency Services, Civil Defense, NHN, Pakistan Humanitarian Forum (PHF), UN Agencies, Pakistan Red Crescent Society (PRCS) and media. NEOC will remain fully operational on 24/7 basis. SOPs to be followed for this stage shall include: -
- 1) Place NEOC on fully activation/ operational mode.
 - 2) Open all communication systems and links.
 - 3) Collect essential information including situation updates, details of resources etc., which will be required for relief operations.
 - 4) Inform all relevant ministries and departments and ask them to send their representatives / liaison officers to operate from the NEOC.
 - 5) Chief coordinator/ Chairman NDMA may meet the NDMC to update on the situation.
 - 6) Regular Information sharing with PEOCs.
- c) **Stand Down Procedure (Stage 3).** After reviewing situation and consultation with all concerned, Chief coordinator NEOC will recommend the Chairman NDMA for stand down. After getting approval of Chairman NDMA, chief coordinator NEOC will issue/ share notification of stand down to the key ministries and departments at federal/ provincial and to the PDMAs. SOPs to be followed for this stage shall include:
- 1) Director NEOC will debrief chief coordinator about stand down who will advise Chairman NDMA for approval of stand down.
 - 2) Director NEOC will disseminate notification to the relevant ministries, departments and other stakeholders.
 - 3) Final report on the emergency operations will be circulated to key stakeholders.
 - 4) Inform PEOC and DEOC for stand down and share final report with them.
 - 5) NEOC staff will work in normal mode.

1.6.2 **Timelines.** NEOC shall remain vigilant for rapid onset disasters and should take precautionary measures, particularly in case of predictable disasters.

Type of Disaster	Category	Response Time	Suggested Actions
Floods (rapid onset)	Predictable	72 hours before	<ul style="list-style-type: none"> • NEOC shall coordinate with respective PDMAs, and if required may deploy reinforcement, particularly armed forces equipped with relevant tools and equipment required for evacuation and initiating relief activities.
Rain/Snowfall (rapid onset)	Predictable	48 hours	
Cyclone (rapid onset)	Predictable	72 hours before	

			<ul style="list-style-type: none"> • NEOC shall frequently coordinate with FFD and FFC for accurate information regarding river flows, flood forecasting and early warning accordingly take necessary measures for response activities. • NEOC shall frequently coordinate with PMD to receive timely information and inform concerned PDMA for early warning.
Drought (slow onset)	Predictable	To be decided by Director Response	Based on the findings of the drought assessment report conducted by NDMA & UN Agencies. NEOC shall closely monitor the situation and considering the resource gap, shall respond accordingly.
Heatwave (slow onset)	Predictable	72 hours before	NEOC shall coordinate with PDMA and PMD and considering the intensity of the heatwave disaster shall take measures to coordinate.
Forest fire (rapid onset)	Unpredictable	To be decided by Director Response	Based on predefined classification, and on the request of PDMA or other concerned department may contribute in response activities.
Earthquake (rapid onset)	Unpredictable	Within 24 hours	Considering the magnitude of the damages, in case of category 3 and 4 disaster, NEOC shall immediately mobilize the resources
GLOF (rapid onset)	Unpredictable	Within 48 hours	Deploy emergency response team, in case requested by the concerned PDMA's.
Landslides (rapid onset)	Unpredictable	Within 24 hours	Deploy emergency response team, in case requested by the concerned PDMA's.

1.7 Situation Reporting

In the state of emergency, availability of correct information remains a challenge. Lack of timely and incorrect information compromises key leadership's ability to make informed decision and jeopardize effectiveness of response operations. Moreover, standardized reporting format will be very useful and helpful for the NEOC staff in compiling the reports received from all stakeholders.

Basic protocols and procedures shall also be defined for data management. For instance, who will provide what type of information? To whom such specific information shall be provided and for what purposes information will be utilized etc., as subsequently actions shall be taken based on such information. The information shall be analyzed to make it meaningful information and the same should be shared with decision-makers in order to make informed decision.

SECTION 2 - LAUNCHING APPEAL FOR FOREIGN ASSISTANCE

2.1 Introduction

In recent years Pakistan has been struck by a number of massive disasters. However, except for 2005 Earthquake, that killed 73,000 people, 2010 Super Floods that devastated one fifth of Pakistan, affecting almost 20 million people and 2011 Floods that impacted 5.4 million people, no other disaster have required that massive level of international assistance. Although Pakistan has developed substantial national and provincial capacities and is able to respond to the many types of potential disasters that can occur. However, the scale of a catastrophic event can overwhelm national capacities in any country. At such times, it may become necessary to request international assistance through the appeal process. Such appeals are launched by drawing results from rapid needs assessments and situational analysis, in order to protect lives, livelihoods and reduce further loss. Since appeals for foreign assistance are issued immediately after disaster strikes, and appeals are launched based on early estimates and best guesses, such appeals are subject to revision as the situation evolves and as more information emerges.

In order to response to the host nation government's request for assistance the Humanitarian Country Team (HCT) develop the response plan as a strategic plan to address the needs of the population in support to the government's relief interventions. The plan is formulated in consultation with the Government and lunched jointly by the Government and UN system. The section covers the process to be followed for formulation of appeal documents and the launch process.

2.2 Purpose of Appeal

The main purpose of the appeal is to seek international assistance in case of a catastrophic event that overwhelm national capacities in any country. The mechanism is based on response plan delineating roles and responsibilities of each stakeholder that is prepared based on the humanitarian needs assessment in critical life-saving sectors.

2.3 Types of Appeals

2.3.1 Flash Appeal. The flash appeal is a tool for structuring a coordinated humanitarian response for the first three to six months of a new emergency. The UN Humanitarian Coordinator (HC)/ Resident Coordinator (RC) triggers the process in consultation with the Government and it should be issued, as a rapid first edition, within a week of a triggering event. It contains an analysis of the context and of humanitarian needs (citing whatever specific needs assessments are available, as well as any other evidence such as informal reports, remote sensing, background data, and inference), response plans (at the general strategic level as well as sector plans including specific proposed projects), and information on roles and responsibilities. The decision to develop a flash appeal is based on a rapid appraisal of a disaster's scale and severity, compared to available government capacity. The flash

appeal outlines roles and responsibilities, specific sectoral response plans, and activities needing funding.

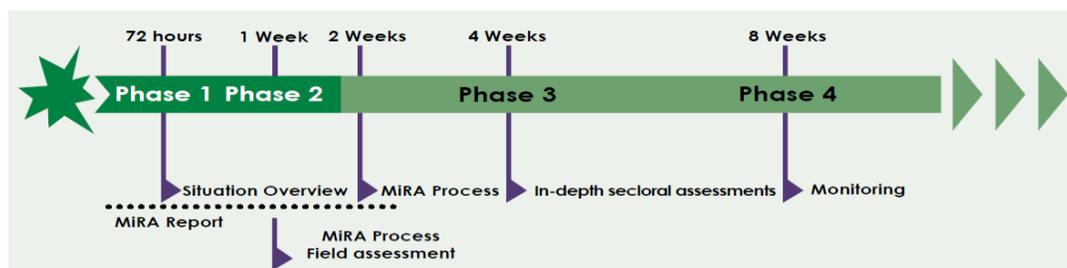
2.3.2 Consolidated Appeal. Is a reference document for humanitarian, development, multilateral, national, bilateral and non-governmental communities on the humanitarian strategy, programme and funding requirements in response to a complex emergency. The appeal contributes significantly to developing a strategic approach to humanitarian action, and fosters close cooperation between host governments, donors, aid agencies, and in particular between NGOs, the Red Cross Movement and UN agencies.

2.4 Request for Appeal

Though the General Assembly Resolution 46/182 states that an appeal should be developed in consultation with the government concerned. However, in Pakistan in case of major disasters request for international appeal has been done by the Government. Aside from the issue of “permission”, governments have an important role to play in appeals, commensurate with their lead role in any disaster response. Sector/cluster leads should work in close collaboration with the government; the appeal should map the sectors and areas that the government is covering, and the gaps that are to be filled by international organisations.

2.5 Development of Appeal Document and Procedure to Launch

2.5.1 Need Assessment. Though the relief process will immediately start after the onset of disaster by the Government. However, in order to launch an appeal, NDMA will coordinate the process of conducting needs assessments in coordination with various stakeholders. For the purpose of assessment, the Government of Pakistan in consultation with United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), designed the process of MIRA to identify strategic humanitarian priorities after the onset of disasters. Needs assessment shall be conducted by employing MIRA tool in conformance with MIRA assessment guidelines². Needs assessment shall be conducted to determine needs in the critical sectors i.e. food security, shelter, health and water, sanitation and hygiene (WASH). Following is the timeline for MIRA Process: -



2.5.2 Decision to Launch Appeal. Based on the MIRA assessment findings, input from technical agencies and discussion with stakeholders Chairman NDMA may recommend to the Government to launch an

²Guidelines for Multi-Sector Initial Rapid Assessment (MIRA), NDMA

international appeal. Quantum of disaster vis-a-vie own response capacity be analyzed while offering recommendation to launch an appeal. Subsequently, in case Government of Pakistan convince that the disaster is of sufficient proportion, the President or the Prime Minister shall launch an international appeal for funds from foreign donors and states. The decision will be taken in consultation with the Economic Affairs Division (EAD) and MoFA.

2.5.3 Sequence of Launching Appeal. As soon as the host government request for international assistance, flash appeal should be issued immediately with available information, inference and elemental joint planning, instead of waiting a few weeks until there is better information, detailed assessments and elaborate planning. As the humanitarian system, particularly donors, relies on flash appeals as proxies for estimating the scale, severity, nature and urgency of disasters. However, to assimilate emerging new information, ensure a strategic response thereto, and justify the funding requests, flash appeal can be revised about a month after the initial launch. Another incentive to revise flash appeals is that, according to the 'phased approach' guiding the inclusion of early recovery in flash appeals. The revision provides the opportunity introduce a broader range of early recovery projects - some of which could not be assessed or inferred fast enough for the first edition. In addition, it should be recalled that early recovery priorities are often linked to - and complement - governmental initial recovery plans, which usually take some time to be elaborated in coordination with the international responses.

2.5.4 Formulation of Appeal Document. The UN RC/HC, with support from OCHA, is responsible for the overall production, content and quality of the document. However, in case Pakistan, the documents will be formulated in consultation with NDMA who will set clear parameters for the scope, size of the appeal and the Government's priorities. On finalization of document it will be endorsed by MoFA and EAD without which the appeal will not be officially launched. The flash appeal is prepared in consultation with key humanitarian actors, which may include donors, UN agencies, NGOs, the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (IFRC), the national red cross/red crescent society, and other relevant actors. Cluster leads have a key role within the parameters of the appeal set by the RC/HC; bringing all organisations working significantly in their respective sectors of responsibility into the working group (i.e. the cluster), leading and coordinating the development of response plans, and leading the vetting of projects within their area of activity. All cluster will be co-led by the Government counterpart ministry/department at all level (i.e. national, provincial and district). The flash appeal may include projects from UN agencies, international organisations, NGOs and INGOs. It may include project partnerships with the national red cross or red crescent society of the country of operation. The

Government ministries cannot appeal for funds directly in a flash appeal, but can be partners in UN or NGO projects.

The project required to be included in the appeal will be developed/formulated by district cluster, endorsed by PDMA and finally approved by steering committee to be formed at national level. During Floods 2010 and Floods 2011, National Steering Committee was formed, co-chaired by Chairman NDMA & HC and comprised of representative from MoFA, EAD and Provincial/Regional/State DMAs. Committee will ensure that project formulated/funds asked are as per the Government priority and operational & overhead charges are kept to the minimum to ensure that maximum spending is for benefit of affectees.

2.5.5 Document’s Outline. The flash appeal document should follow the following structure. However, for more details flash appeal documents developed for Floods 2010 and 2011 may also be referred: -

- a) A narrative reviewing the context and the national and international response (including funding) to date;
- b) Figures on affected populations, including numbers and type of population affected by the emergency, disaggregated to the extent possible by gender and age, and in any other specific or relevant manner (e.g. number of persons displaced by the disaster, persons affected by province, livelihood, etc.), and specifying what is meant by “affected” in this case;
- c) Response plans incorporating information and findings from, for example, any assessments, pre-crisis baseline data (such as that available from government ministries or departments, or international programmes) or contingency plans. Response plans should state the needs, outline the strategy to respond to them, the activities that will be undertaken, and any indicators to measure progress;
- d) A mapping or tabulation of needs and coverage, including coverage by government, IRC, and international organisations. This can be organized by cluster and province wise.
- e) A summary box for each project.

2.5.6 Suggested Timeline and Workflow for Preparing Flash Appeal. Suggested timeline is enumerated below, that may vary according to the situation. However, undue delay is harmful to a flash appeal’s credibility.

Day 1	Flash appeal triggered by the UN RC/HC, in consultation with the HCT and the Government. The RC/HC assigns one organization to lead and coordinate the response in each cluster/sector. The Government also nominated co-chair for each cluster/sector. The RC/HC assigns an appeal focal point for consolidating inputs from agencies in the field if there is no OCHA presence in the affected country.
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Day 2	The RC/HC communicates the appeal's overall direction, strategy, and criteria for selection of projects to the HCT/cluster leads to ensure implementation of Government priorities. Rapid needs assessments or appraisals begin and all needs assessments are to be reported to relevant cluster/sector co-leads. Each cluster/sector group meets at the national level to map capacity and assign roles and responsibilities within the sector or area of activity.
Day 3	RC/HC's team drafts general sections of appeal document & decides on appeal duration in consultation with the Government and communicates to the HCT. Relevant organisations in each cluster/sector meet to analyse needs assessment information; agree on general response strategy; review and select their members' proposed projects; review pre-crisis baseline information, establish parameters for use of information available through inference and reasonable estimation. Cluster/sector co-leads coordinate and facilitate the consensus building on project inclusion, draft response plan section, incorporate the selected projects into the response plan section after endorsement by respective Provincial/Regional/State DMAs, and forward to UNOCHA or other designated focal point. UNOCHA/focal point compiles these with general sections to produce assembled appeal draft.
Day 4	National Steering Committee approve the project, RC/HC approve final field draft of the appeal, obtain endorsement from NDMA, MoFA & EAD and sends to UNOCHA Consolidated Appeal Process (CAP) Section (Geneva), including cover photo.
Subsequent Actions at OCHA and Inter-Agency Standing Committee (IASC) Agency Headquarters	
Day 1 (of receiving final draft)	CAP Section circulates final field draft to agency HQs, which have 24 hours to return comments on the document.
	Final comments from IASC headquarters due.
	OCHA Headquarters Desk Officer incorporates and reconciles headquarters' comments, and returns document to CAP Section.
Day 2 (of receiving final draft)	CAP Section performs final substantive review, style-checks, uploads changes onto financial tracking system (FTS), and formats the document.
The appeal is finalized: if a launch is planned this takes place at identified time/place(s). However, experience has shown that a launch meeting must not be scheduled until the final draft is received in Geneva; otherwise, the final document may not be ready for the launch.	

2.5.7 Launching of Appeal

- a) As soon as the appeal document is finalized by OCHA CAP Section (Geneva), UN RC/HC in coordination with NDMA may arrange a joint event either at national or international level. If

arranged locally, donors, UN agencies and other stakeholders are invited to the launch ceremony. Flash appeal for Floods 2010 was launched at Geneva, whereas for Floods 2011 ceremony was organized at Islamabad.

- b) Situation analysis to include affected population, Government response, focus areas and sector wise funding requirements may be presented during the launch ceremony.
- c) Appeal document shall also be uploaded on NDMA website containing ballpark figure highlighting imminent needs, enabling friendly countries and International Humanitarian Organizations (IHO) to accordingly pledge for assistance and allocate resources.

2.5.8 Funding and its Tracking. Fund tracking can be ensured through the FTS, which is a global, real-time database which records all reported international humanitarian aid. FTS also indicate that to what extent populations in crisis receive humanitarian aid in proportion to needs. FTS is managed by OCHA and all FTS data are provided by donors or recipient organisations. FTS is an invaluable tool for revising flash appeals as the system allows to review the whole range of projects submitted in the original appeal, and apply different means of analysis - requirements and funding received by clusters/sectors, by location, by priority, or appealing agency; when funding arrived.

2.6 Humanitarian Assistance Other than Appeal

As soon as the appeal is launched by the Government, friendly countries may offer assistance directly to the affected country other than contributing in appeal process. Foreign assistance could be in-kind support, monetary assistance and human resource i.e. search and rescue teams, field hospitals/medical teams, aviation support and technical experts & specialist teams. However, in order to get what is really required coordination with respective countries and international organizations those willing to offer humanitarian aid must be ensured by NDMA through MoFA.

2.6.1 Declaring the Support Required. The need must be clearly spelled out and advertised. NDMA may decide and communicate the requirement to all concerned. The requirement must be uploaded on NDMA website and may also send written requests to MoFA for sharing the information with all embassies/consulate of the friendly countries in Pakistan and respective governments through Pakistani missions abroad. Parameters of support must be evidently indicated in the request, some of the important consideration are as under: -

a) Human Resource and Equipment

- 1) Aid workers from armed forces personnel, must be kept to the minimum.
- 2) Core skills and qualifications of each member of all response teams must be notified to NDMA for approval before deployment to Pakistan.
- 3) The search and rescue teams must be International Search and Rescue Advisory Group (INSARAG) qualified.

- 4) Any search and rescue animals entering the country must have up-to-date certification papers.
- 5) Dual purpose technical equipment must be avoided.
- 6) Weapons of any kind are prohibited from being brought into the country.
- 7) Bring in integral communication equipment may not be allowed. In case of specific need for field operations clearance by the Pakistan Telecommunications Authority (PTA) will be obtained.
- 8) Prior to deployment of aviation assets to disaster-affected areas, coordination of routes and type of aviation support must be agreed.
- 9) Goods must be packed, categorized and clearly marked with details of ingredients.
- 10) culturally suitable cloths etc. may be provided.

b) Food and Non-food Items

- 1) Only requested relief items must be provided/accepted.
- 2) Food items being provided/donated must be Halal.
- 3) All food items must have an expiry date/period of at least one year.
- 4) Pakistan to support the recovery of the local economy, reduction in shipping costs, and ease of logistics.

c) Medicine/Medical Equipment

- 1) Only requested medicine/medical equipment must be provided/accepted.
- 2) Contraband medicine/medical equipment must be avoided.
- 3) All medicines must have an expiry date/period of at least one year.
- 4) Detailed description of medicine/medical equipment if being provided by non-English speaking countries must be provided.

2.6.2 Management of International Assistance. There are numerous organizations those play vital role along with NDMA while facilitating foreign assistance. Coordination with all stakeholders for smooth management of assistance remains the responsibility of NDMA. Suggested measures are as under: -

a) In Cash Support

- 1) Account details must be advertised on NDMA website.
- 2) All in cash support must be accepted in National Disaster Management Fund (NDMF) being managed by NDMA.
- 3) EAD shall make necessary arrangements with State Bank of Pakistan to facilitate the flow of donation in to Pakistan.

b) Goods/In-kind Support

- 1) Coordinate with customs authorities for necessary clearance as per information donor country/organization.

- 2) Coordinate Federal Board of Revenue (FBR), Customs Wing for the entry of humanitarian goods in Pakistan and exemption of customs duties and levy before arrival of such goods at the designated port.
- 3) Coordinate with Ministry of Maritime Affairs for waivers of port and demurrage charges for foreign relief goods or imported by Government of Pakistan for the humanitarian relief assistance.
- 4) Coordinate with concerned ministry for the inspection of the goods arriving in Pakistan to ensure the quality and compatibility with the needs of the affected communities, and comply with national or international standards.
- 5) Coordination with Civil Aviation Authority (CAA) and Ministry of Maritime Affairs and Karachi/Bin Qasim Port for further facilitation in terms of disembarkation of relief goods.
- 6) Coordinate with Ministry of Information and Broadcasting to give media coverage during the relief assistance receiving ceremony.
- 7) Coordinate with FBR to obtain letters for exemption of taxes and duties by the Government of Pakistan, and furnish same to donor organization/ international humanitarian organization for their facilitation.
- 8) Coordinate for the hiring of custom clearing agent before arrival of donation.
- 9) Coordinate with CAA in case goods are delivered by air to manage airport cargo handling agencies for waiving of service charges.
- 10) Coordinate/arrange receipt, segregation, storage and dispatch of relief store through logistic cell

c) **Human Resource/Equipment**

- 1) Arrange detailed briefing for incoming missions/teams/individual. All such briefings must include briefing on the rules & obligations, culture and customs, religious beliefs of the nation and designated areas of operation before proceeding with response activities.
- 2) Humanitarian aid providers must submit the list of personnel and operational support facilities before assistance arrive in Pakistan.
- 3) Coordinate with Animal Quarantine Department, Ministry of Food Security and Research, in relation to the import of search and rescue animals to ensure that their certification is valid and facilitate timely clearance processes to ensure speedy deployment.
- 4) Coordinate with JS HQ for on ground assistance/support for military contingents or assets coming to Pakistan. However, NDMA will be responsible for their deployment as per the need.
- 5) Coordinate with Ministry of Health Services Regulation and Coordination/Provincial Health departments for deployment of foreign hospitals/medical teams arriving for health response.

2.6.3 Administrative Arrangements. Relief assistance is managed by NDMA on behalf of Government of Pakistan, and such arrangements are government by guidelines formulated and issued by NDMA. Some of the important area highlighted below: -

a) Visas Facilitation

- 1) Humanitarian responders, prior of travel, should approach Pakistan Mission in home country to apply for visa. NDMA shall put such guidelines and requirements on its website to avoid ambiguities. However, in certain cases NDMA may facilitate aid worker in acquiring visa by coordinating with MoI and Pakistan Mission abroad.
- 2) If required NDMA in consultation with MoI may request the Government for extending “visa on arrival facility” for aid worker.

b) Clearance for Flying and Landing. NDMA shall coordinate with Ministry of Defence (MoD) for the provision of clearance to foreign military aircrafts over flying and landing to/from Pakistan territory as per the procedure defined through diplomatic channels.

c) No objection Certificate (NOC) for Restricted Areas. MoI shall prepare detailed guidelines defining the procedure, requirements and timelines for all the foreign missions visiting Pakistan, to obtain NOCs to visit restricted areas. NDMA while facilitating such foreign missions should ensure that responding organization/personnel have obtained desired NOCs and fulfil the desired requirements.

2.7 Coordination

In order to avoid duplication and overlapping those results in wastage of resources coordination mechanism already in vogue must be utilized. Frequent coordination meeting shall be organized by NDMA inviting all concerned ministries, Armed Forces, UN agencies and humanitarian organizations contributing for humanitarian response to share the developments and prepare joint plan of operation. NDMA shall frequently review progress with reference to joint operational plan, evaluate the results and accordingly fine-tune the response. NDMA to ensure that reporting template developed must be used by all the stakeholders to maintain consistency and for the ease of consolidation, as informed decisions could be made in the shortest possible time.

2.8 Monitoring, Reporting and Evaluation

NDMA shall frequently monitor the international humanitarian assistance. Standard reporting formats for periodic and final reports shall be developed and shared with all, as it may analyze the data for the purpose of evaluation and accordingly take corrective measures for improvement. NDMA through PDMA/DDMA shall monitor the response activities to ensure its effectiveness, transparency, impartiality and aid distribute is in line with international humanitarian standards. Consolidated monitoring and evaluation report may be formulated and publish on its website while circulating among all stakeholders, as experience feedback for all humanitarian actors.

2.9 Termination of Assistance

NDMA shall frequently monitor the situation, and set an indicative timeline for the termination of emergency response phase. The Government of Pakistan will decide on the advice of NDMA when the local capacity is able to manage without further foreign assistance. NDMA will accordingly notify all foreign responders of the final date and handing over arrangement to national organisations before depart. NDMA will request reports from all response organisations to assist in the development of Lessons Learned. Prime Minister Office may issue letter of appreciation to the head of foreign governments and UN agencies for their generous support. Whereas, NDMA may issue letter of appreciation to the head of IHOs for their contribution.

SECTION 3 - GUIDELINES FOR WILD-LAND/ FOREST FIRE

3.1 Introduction

Pakistan is a country with low forest cover; there are only 0.03 hectares of forest per capita compared to the world average of one hectares. With the annual population growing, the forest area per capita is declining. The area of public forests cannot be expanded and trees grown on private land contribute substantially to the nation's wood production; this will increase in the future³. Pakistan covers an area of 87.98 million hectares; this includes 4.57 million hectares of forests, constituting 5.2 percent of the total land area. Most of these forests are found in the northern part of the country. Forest sector is the main source of timber, paper, fuel wood, latex and medicines. Moreover, 2 billion people rely on forest indirectly, while for 13 million people forests are direct source of income⁴.

Forest fires are frequent in Pakistan and about 50,000 hectares of forests are approximately affected annually. Scrub forests, because of their location and climatic conditions, are most prone to fires and about 2.1 percent of the area is burnt annually. Climatic conditions, the presence of combustible material and human activities are the main causes. Forest fires usually break out during the dry and hot summer and autumn months and moreover local people mostly set fires for mischief or to burn the ground vegetation to improve grazing conditions. Other causes are accidental (unextinguished cigarette ends, camp fire cinders or rifle shots during celebrations). The cross-border fire exchanges along the line of control in Kashmir is the main reason for forest fires in Azad Jammu and Kashmir. In 2019 along, more than 100 incidents of forest fires have been reported in Khyber Pakhtunkhwa and another large fire incident was reported near Margalla Hills National Park spread over 12,605 hectares, which caused considerable damage to flora and fauna in the hills.

In the event of fire incident although Provincial Forest Department (PFD) with support of fire brigade and other emergency services are primarily responsible to respond, nevertheless, considering the scale of fire at times support from NDMA/PDMAs could be sought. However, in case of Margalla Hills wildfire/ forest fire most of the time it requires involvement of NDMA to mobilize fire services, engagement of law enforcement agencies if required and aerial firefighting resources from Armed Forces to protect lives and property. Coordination is also done by NDMA; therefore, these guidelines are restricted to deal emergency in case of single handedly Margalla Hills wildfire/ forest fire.

3.2 Forest Fire and its Components

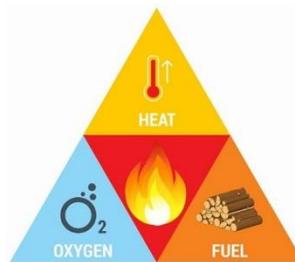
Forest fire may be defined as an unclosed and freely spreading combustion that consumes the natural fuels. Combustion is another word for fire. When a fire burns out of control it is known as wild fire. Almost everyone

³ National Forest Policy Review

⁴ Analyzing Institutional Set-up of Forest Management in Pakistan

basically knows what a fire looks and feels like, but in reality fire consists of four parts i.e. gas, flame, heat and smoke.

3.2.1 Components of Forest Fire. Fire is the naturally occurring companion of energy released in the form of heat and light, when oxygen combines with a combustible or burnable material at a suitable high temperature (about 617 degrees Fahrenheit, temperature or 325 degrees Celsius, for wood to burn). There are basically three components, fuel, heat and oxygen that are needed in right combination to produce fire. On combination of these components, it produces the “fire triangle”. By nature, triangle needs three sides, missing of any of the one side will collapse the triangle. The same is true for fire. Take away any of the three components of fire - fuel, heat or oxygen, the fire collapses. Firefighters to suppress the fire, try to do just that and remove one of the three essential components of fire. Below figure shows the fire triangle⁵: -



Fire Triangle of Forest Fire

3.2.2 Fuels for Forest Fire. Among the three components required for fire, the basic necessity to initiate and

continue a forest fire is the presence of suitable fuel. Forest fire has different kind of fuels. The important among them are as follows: -

- a) **Ground Fuels.** Ground fuel involves all the combustible material below the loose litter of the surface. The ground fuel always supports the glowing combustion and not the flame. They don't ignite till the moisture content drops very low (less than 20 percent). The combustion become very persistent once the ground fuels have ignited.
- b) **Surface Fuels.** All the combustible material on the forest floor is included in surface fuels. This type of fuel is the most common types of fire fuels. This may include tree leaves and the fine litter, grasses, weeds, ferns and the other herbaceous plants, low brush, seedlings and saplings of trees, fine deadwood on the forest floor, large logs & stumps and roots of trees. These fuels ignite very readily and provide the basic combustible material for the forest fires.
- c) **Aerial Fuels.** All the combustible dead or live material located in the understory and above the forest canopy is included in this type of fuels. These fuels are separated from the ground by

⁵ Forest Encyclopedia Network & Ward, 2001

more than a meter. The aerial fuels provide much needed combustible material for the spread of forest fire.

3.3 Types and Causes of Fire

Forest fires are not always same; they may differ, depending upon its nature, size, spreading speed, behavior etc. Basically forest fires can be sub grouped into following four types depending upon their nature and size: -

3.3.1 **Surface Fires.** Is the most common forest fires that burn undergrowth and dead material along the floor of the forest. It is the type of fire that burns surface litter, other loose debris of the forest floor and small vegetation. In general, it is very useful for the forest growth and regeneration but if grown in size, this fire not only burns ground flora but also results to engulf the undergrowth and the middle story of the forest.

3.3.2 **Underground Fire.** The fires of low intensity, consuming the organic matter beneath and the surface litter of forest floor are sub-grouped as underground fire. In most of the dense forests a thick mantle of organic matter is found on top of the mineral soil. This fire spreads in by consuming such materials. These fires usually spread entirely underground and burn for some meters below the surface. This fire spreads very slowly and in most of the cases it becomes very hard to detect and control such type of fires.

3.3.3 **Ground Fire.** These are fires in the sub surface organic fuels, such as duff layers under forest stands, arctic tundra or taiga, and organic soils of swamps or bogs. There is no clear distinction between underground and ground fires. The smoldering underground fires sometime changes into ground fire. This fire burns root and other material on or beneath the surface i.e. burns the herbaceous growth on forest floor together with the layer of organic matter in various stages of decay. They are more damaging than surface fires, as they can destroy vegetation completely.

3.3.4 **Crown Fire.** Crown fire is the most unpredictable fires that burn the top of trees and spread rapidly by wind. In most of cases these fires are invariably ignited by surface fires. This is one of the most spectacular kinds of forest fires which usually advance from top to down of trees or shrubs, more or less independently of the surface fire.

3.3.5 **Firestorms.** Among the forest fires, the fire spreading most rapidly is the firestorm, which is an intense fire over a large area. As the fire burns, heat rises and air rushes in, causing the fire to grow. More air makes the fire spin violently like a storm.

3.3.6 Besides these, the fire may further be categorized based on their peculiar behaviour. There is specialized vocabulary used by the wild fire community for describing different types of fire behavior. For better understanding and effect response, knowledge of these is important.

- a) A fire is said to be **running** when it is spreading rapidly.
- b) It is **creeping** when it is spreading slowly with low flames.

- c) A fire is **smoldering** when it burns without a flame and is barely spreading.
- d) A fire is said to be **spotting** when it is producing sparks or embers that are carried by the wind or by the combustion column caused by the fire and start new fires beyond the main fire. The new ignition points are called spot fires.
- e) A fire is **torching** when it moves from one crown to another fire into the crowns of individual trees, but not necessary from one crown to another.
- f) It is **crowning** when it spreads from tree to tree usually in conjunction with, but sometimes completely independent of, the surface fire.
- g) A **flare-up** is a sudden acceleration of fire spread or intensity, of relatively short duration for a portion of the fire.
- h) A **blowup**, on the other hand is a dramatic change in the behavior of the whole fire, the point of rapid transition to a severe fire.

More than ninety-five percent forest fires are caused either by the negligence or unknowingly by the human being. The rest of the fires are caused by natural reasons i. e. lightning, extreme rise in the temperature etc., which are very rare. In general, all over the world the main causes of forest fires are anthropogenic. The natural causes of forest fires are common in remote areas only. Following are some of the causes: -

Natural	Anthropogenic	
	Deliberate Causes	Accidental Causes
<ul style="list-style-type: none"> • Lightning • Friction of rolling stone • Volcanic explosion • Rubbing of dry bamboo clumps 	<ul style="list-style-type: none"> • Shifting cultivation • To flush growth of leaves • To have good growth of grass and fodder • To settle score with forest department. Or personal rivalry • To clear path by villagers • To encroach upon the forest land • For concealing illicit felling • Tribal traditions/customs 	<ul style="list-style-type: none"> • Collection of non-timber forest Produce • Burning farm residues • Driving away wild animals • Throwing burning cigarettes • Camp fires by picnickers • Sparks from vehicle-exhaust • Sparks from transformers • Uncontrolled prescribed burning • Resin tapping • Making charcoal in forests • Sparks from cooking near the forest • Heating tarcoal for road construction in forest

3.4 Pre-fire Incident Preventive Measure

A well-considered strategy and flexible mechanism are necessary in order to make forest fire disaster management a reality. In order to reduce the losses and damages to be incurred, prevention is the most economical and viable option, moreover, an appropriate managing system for forest fire is also required which involves not only the Government machinery but also common people who should be part of preventive planning. A comprehensive planning, preparation and effective communication among firefighting department

& other stakeholders and timely & coordinated response to fire incident will considerably reduce the probability of massive loss to life, property and environment. Following are the recommended preventative measures: -

3.4.1 Fire Protection Plan. A fire protection plan is must to carry out preparedness and response activities. Forest Department of Environment Directorate, CDA with responsibility of fire prevention and firefighting, must formulate a comprehensive protection plan. A well-developed plan must include: -

- a) An assessment of the threat to human life, property, forest, other wooded land and other land assets and values, in conjunction with the management objectives for the area.
- b) Prevention activities to reduce the hazards and potential losses.
- c) Distribution of area into different blocks and allocation of resources accordingly.
- d) Appropriate modern early warning system of wild-land fire danger.
- e) Fire suppression response that reflects the threat, the safety of firefighting personnel and the public, and the impact on the environment.
- f) Management structure.
- g) Plan of deployment of trained, well equipped, assessed and accredited personnel.
- h) Rehabilitation of disturbance resulting from suppression works and rehabilitation activities.

3.4.2 Fuel Management. Out of three integral components of fire i.e. heat, oxygen and fuel; better fuel management practices may reduce the vulnerability of an area to fire. In conducting fuels management operations, the following should be considered: -

- a) Fuels management programs need to be planned to provide protection to human life and property, by reducing the potential hazards associated with wild-land fires and at the same time maintaining the environmental integrity of the landscape and preserving cultural resources.
- b) Reducing fuels through mechanical or physical means or through the use of prescribed burning to management objectives must satisfy legal requirements and be thoroughly planned.
- c) Basing prescribed burning operations on clearly defined objectives and prescriptions, providing a safe working environment, and minimizing the risk of fire escape.
- d) Incorporating during the fuels management planning process, the principles of environmental care, in accordance with approved standards, prescriptions and guidelines.

3.4.3 Public Awareness. Forest Department may initiate awareness/education through mass media radio, television, newspaper, and various other mediums to reach to local community or any specific groups residing within or in the outskirts, and for visitors to adopt proper fire safety measures e.g. when smoking in forest, dispose of cigarettes and matches properly or don't throw flammable into trash bin etc. Display of warning notices, hoardings and signboards as precautionary measure to prevent fire incidents by declaring

smoking prohibited in the forest areas is likely to reduce the fire incidents. Social media channels may also be used to raise awareness particularly for tourists visiting forest areas for picnic or hiking purposes.

3.4.4 Early Warning. An elaborate early warning system must be established. Community residing inside and around the forest should be educated to inform any fire incident immediately on the prescribed hot numbers. Forest department should make such arrangements by involving forest department staff/employees to timely suppress the fire.

3.4.5 Monitoring. An elaborate picket/post system must be set up by the CAD Forest Department to monitor any untoward activities in the zone. These picket/post can also be assigned the responsibilities of providing early warning and initial firefighting. These should also maintain close liaison with the community residing in the area for the purpose of reporting any fire incident and theft etc.

3.4.6 Capacity-building in Fire Management. Another area of importance is capacity building in fire management. Capacity building of individuals must be enhanced through training of its officials and other staff of the department. Training should include planning, management and ground level firefighting courses. Provision of firefighting tools and small machinery may be provided to picket/post for initial firefighting by them. Forest department may also arrange fire prevention training sessions for school and college students as part of the prevention efforts.

3.4.7 Coordination with Provincial Forest Department, KP. Coordination with Provincial Forest Department, KP is also essential for monitoring and early warning purposes. Coordination for firefighting in case of incident on or near the boundary is also essential.

3.5 Roles and Responsibilities

Roles and responsibilities of various stakeholders with regards to forest fire management are as under, however, the responsibilities are not limited to those covered in under mentioned paras, as only broad responsibilities have been stated in the in succeeding paragraphs.

3.5.1 CDA Forest Department

- a) Formulate Action/Response plan in conjunction with all stakeholders and disseminate to all concerned.
- b) Ensure distribution of area into blocks and take appropriate measures to curtail/restrict fire from spreading to other block (s).
- c) Ensure fuel management to avoid any untoward incident.
- d) Establish a comprehensive early warning system.
- e) Conduct regular public awareness campaigns especially in summer season to educate general mass.
- f) Guard and monitor activities of locals and visitors to ensure safeguard against any fire incident through regular patrolling of the forest area.

- g) Maintain close liaison with all Islamabad/Rawalpindi Fire Brigade Departments and Rescue 1122 for assistance when required.
- h) Maintain close liaison with NDMA to seek assistance from Armed Forces and Ministry of National Food Security and Research/Provincial Agriculture Departments to utilize their aircrafts to drop fire retardant if needed.
- i) Ensure availability of sufficient water for use by the first responders.

3.5.2 Fire Brigade (s) and Rescue 1122

- a) Support forest department in emergency firefighting and rescue services when asked for.
- b) Ensure availability of suitable personal protective equipment (PPE) and other equipment to enable an adequate response.

3.5.3 NDMA

- a) Ensure formulate of Action/Response plan by Forest Department, CDA and its implementation in true letter and spirit.
- b) Monitor and supervise response by concerned departments in case of fire incident.
- c) Assistance forest department in provision aircrafts to drop fire retardant if needed from Armed Forces and Ministry of National Food Security and Research/Provincial Agriculture Departments.
- d) Ensure and coordinate with respective departments for evacuation of the affected population if required.
- e) Coordinate with Police Department and Civil Defence to administer law and order situation during the incident.
- f) Coordinate with emergency and hospital for provision of ambulances for transporting the injured or dead bodies to the designated hospitals.
- g) Coordinate with District Administration to manage relief if required.

3.6 Procedure to Respond Wildfire

The initial response to the fire incident required to be swift and determinant. CDA Forest Department is primarily responsible for responding to any fire incident. However, assistance if any can be sought if required, NDMA will facilitate forest department in acquisition of aircraft etc. if needed.

3.6.1 Situation Analysis. On receipt of information, forest department shall analyse the situation and mount the response accordingly. In case of any difficulty in acquiring information, NDMA can facilitate collection of information aerial surveillance and satellite images. Forest Department control room should be activated immediately to monitor the situation and response activities. National emergency operation center can also be activated if required.

3.6.2 Issue Emergency Alert. On receipt of information from forest department NDMA shall issue emergency alert to all concerned. However, assistance will only be sought when situation warrant and out

of capability of forest department. Necessary alerts for general public and locals residing in the area shall also be disseminated by NDMA through their website and electronic and print media.

3.6.3 Review Response Activities. NDMA shall continuously review response activities, examine the scale of damages and jointly plan for future plan. This can be ensured by convening regular meetings of all concerned stakeholders. In case evacuation/relocation of affected population is required, necessary arrangements to include camps, provision of basic services must be ensured through district administration. NDMA shall also coordinate with respective humanitarian agencies if further assistance needed.

3.7 Coordination and Reporting

3.7.1 Coordination. Prime responsibility of coordination within the CDA and with Metropolitan Corporation Islamabad (MCI) Fire Brigade rest with CDA Forest Department. However, in case of services required from PDMA Punjab, Rescue 1122, Armed Forces and humanitarian agencies (if needed), NDMA shall facilitate forest department. Coordination with media and other sources for incident coverage and awareness shall be carried out by NDMA.

3.7.2 Reporting

- a) All organization/department involved in responding to fire incident shall prepare periodic reports on standard reporting formats, as prescribed by NDMA.
- b) NDMA shall collate such periodic reports, and convene review meetings based on the findings of the report, and decided for future course of action.
- c) NDMA will regularly issue SITREP for media and general public and higher-ups including Prime Minister's Office about the latest situation.
- d) NDMA shall also issue updates on its website to keep general public and humanitarian organizations abreast of the developments.

3.7.3 Up and Down Scaling the Emergency Operations. NDMA may keep desired human resources standby in case available forest department staff is overwhelmed to suppress the fire. NDMA may ask Armed Forces for additional human resource, other relevant departments i.e. health department, ambulance services, and law enforcement agencies, for rescue, evacuation of endangered population and providing first aid to the affected people.

SECTION 4 - ASSISTANCE TO FRIENDLY COUNTRIES

4.1 Introduction

Disasters have become increasingly destructive all over the globe. These disasters have not only disrupted the normal course of life of affected communities and countries but have also posed heavy losses especially in Asian Region. Majority of countries are exposed and vulnerable to a wide range of disasters be it climate-related or human-induced due to many reasons such as orogeny, large population, unplanned urbanization/ settlement, rapid exploitation of natural resources, etc. In many respects, Asian Region is the global epicenter for disasters. In 2015, the Nepal earthquake killed more people than any other disaster. Four of the top five most disaster-hit countries of the world are in Asia namely China; India; Philippines; and Indonesia. After endorsement of HFA, most of the countries setup institutional mechanisms to deal with disaster. However, in the recent past disaster overwhelmed the response capacity of many countries, which necessitated to request foreign assistance.

Pakistan being a responsible country in the region either responded to such request or extended humanitarian assistance to number of regional/non-regional countries to support government to response to disasters. In recent years, the Government of Pakistan has rendered humanitarian support to Bangladesh in 2007, China & Myanmar in 2008, Japan & Turkey in 2011, Bosnia in 2014, Afghanistan & Nepal 2015, Sri Lanka in 2010 & 2016 and Iran in 2017 & 2019. The assistance was provided in shape of search and rescue team, field hospital, medicines, food and non-food either on the request of affected country or as a goodwill gesture. Humanitarian assistance is beneficial to disaster victims and can play an important role in the development of the country if it is properly coordinated and responds to real needs. The foreign assistance by the friendly countries is accepted only after a systematic evaluation and clearances as it brings together a complex array of coordination, logistics processes, security, and procedures. The assistance can be provided using various means of transport, which involve differ procedures and formalities. Therefore, clarity on when to take this step and how to manage it, is critical. This section of the SOPs is designed to provide the guidelines for all decision makers with regards to roles and responsibilities, processes and coordination procedures to be followed for rendering assistance to friendly. This section is duly aligned with some of the documents already in practice by NDMA as an effort to bring more clarity, consistency and efficiency while providing humanitarian assistance to friendly countries in order reduce mortality, morbidity and disability among populations (particularly women and girls) affected by crises.

4.2 Determining the Needs

Humanitarian assistance can be provided either on the request of the disaster hit country or Government of Pakistan may offer such assistance without solicitation request. Following procedure shall be adopted, however preparation will be simultaneously to reduce the response time: -

4.2.1 Assistance Requested by Disaster hit Country

- a) In case requested through respective diplomatic/political channel, for particular humanitarian assistance, MoFA, being initial contact point shall examine the request, inter alia, diplomatic

relationships with requesting country, and forward such request to NDMA for perusal. However, in case request received in NDMA, MoFA will be consulted for further action.

- b) In case the disaster hit country has not requested for any specific item (s), assistance to be provided can be decided based on the type of disaster i.e. urban search and rescue (USAR) team can only be offered in case of earthquake. Assistance being provided will be communicated to their embassy in Pakistan through MoFA.
- c) NDMA shall examine the request vis-à-vis analyzing in-house resources, expertise and capacities and prepare summary for approval by the Prime Minister.
- d) Summary if approved by the Prime Minister, NDMA in collaboration with MoFA shall initiate the case and make necessary arrangements. However, in case of emergency, verbal approval will be sought followed by formal approval.

4.2.2 Assistance without Solicitation

- a) In case, Government of Pakistan considers supporting disaster hit country, NDMA shall initially evaluate the situation based on the preliminary information and recommend specific assistance that can be provided.
- b) Information will be shared with country's embassy through MoFA for their consideration and if required approval from host government.
- c) As soon as acceptance is received, NDMA shall prepare a summary for approval by the Prime Minister.
- d) Summary when approved, NDMA through MoFA shall intimate the concerned country for relief assistance being provided.

4.3 Approval Process

In any of the situation mentioned in para 4.2, a formal approval of the Government of Pakistan will be required. The approval process shall be initiated by NDMA and may be routed through all concerned depending upon the involvement of ministry i.e. in case additional funding is required for procurement etc. Ministry of Finance needs to be engaged. A summary for the approval of the Prime Minister shall be prepared, which should include following: -

- a) Brief description on disaster situation and losses.
- b) Assistance requested or being offered without solicitation.
- c) Assistance received by Pakistan from the country during any disaster.
- d) Assistance asked for or to be provided without solicitation. In both case recommended list of items should be included.
- e) Mode of transport and approval of using PAF aircraft with approximate expenditure details.
- f) Financial aspects such as

- 1) Requirement of funds needed either for procurement or recouping NDRF if expenditure being born from the fund.
 - 2) Personal accompanying both from NDMA and aircraft crew and approximate expenditure on travel and daily allowance etc.
 - 3) Domestic and international transportation and loading charges if any.
 - 4) Packing and packaging charges etc.
- g) Tentative time of dispatch.

4.4 Procedure

Following procedure shall be followed, however most of the work will be simultaneous as different wings/sections will be undertaking these activities.

4.4.1 Procurement/ Packing

- a) Logistic cell shall do reconciliation of items available in the stock vis-à-vis quantity of items committed or intended to be dispatched before initiating the procurement process.
- b) In case of non-availability of items in warehouse, Procurement Section (A&F Wing) shall initiate procurement of relief aid items as per police in vogue.
- c) Procurement and transportation guidelines as stipulated in section 2(o) & (r) of NDMA Guidelines on Stocking, Maintenance and Supply of Relief & Rescue Items shall be followed with true letter and spirit.
- d) As a guiding principle, priority will be given to requests related to lifesaving and critical need activities.
- e) Procurement and logistic cell shall also ensure that cargo to be transported has been appropriately packed/packageged and able to withstand road/air/sea transportation hazards and weather conditions.

4.4.2 Acquisition and Transportation Process. Following actions shall be taken by NDMA: -

- a) Share in advance the list of items including ingredients; if possible, with receiving country. Extra care should be taken to include items those are culturally appropriate and according to the norms of that country to whom these are being provided.
- b) Coordinate with concerned country to agree on designation port (seaport, airport or road head, as the case may be) and convey the specifications of cargo to be transported including quantity, weight and volume along with preferred date of dispatch and expected date of arrival.
- c) Liaise with the designated focal person for necessary arrangements. Respective country shall be informed in advance to take the responsibility for the handling-in and off-loading of the consignment and shall assist for the security and custom clearances.

- d) Ensure that all customs formalities are met prior to transportation. NDMA shall coordinate with Ministry of Maritime Affairs and Customs department for necessary security and custom clearances and any other formalities.
- e) Coordination with respective department, who shall deliver the items i.e. PAF, Pakistan National Shipping Corporation (PNSC) or NLC as the case may be for prior pre-departure arrangements to reduce chances of unnecessary interruption and delay. The cargo load and size must be shared for determining the type & number of aircraft/ship/transport.
- f) Notify and update the concerned focal person about the transportation status and acquire any additional information and/or clarification prior of processing transportation.
- g) In addition, Section 3 (s), of NDMA Guidelines on “Stocking, Maintenance and Supply of Relief & Rescue Items” stipulating overseas operations of relief goods shall also be referred too.

4.4.3 Administrative Arrangements and Clearance. Following actions shall be taken by NDMA: -

- a) PAF shall be asked to initiate and obtain air space clearance from the country (s) whose air space will be used. Arrangement for refueling in route if required shall also be coordinated.
- b) Refueling, boarding and lodging arrangement at the destination if required, shall be coordinated through Pakistan Mission or Defence Attaché
- c) In case of road transport, security/safety of convey, both for inland and other country (s) shall be coordinated before commencing the move.
- d) Banner/streamer of an appropriate size with marking and monograms shall be placed/attached on every pack and in case of road transportation it may also be fixed on each track.
- e) In case of road movement, communication arrangements shall be tied up with NDMA representative if accompanying or with drivers to track the movement.
- f) Focal persons nominated by the host country’s embassy in Pakistan shall be kept in loop and if required, assistance must be sought for logistics and other arrangements.

4.4.4 Handing over Ceremony. Handing over ceremony can take place either in Pakistan or at the destination, depending upon the situation and prevailing environment in the host country. Following actions shall be ensured: -

a) Inland Handing Over

- 1) Liaison with host country in Pakistan through MoFA or focal person for nomination of representative, timing and location of ceremony.
- 2) Coordinate for nomination of Government representative for handing over ceremony.
- 3) Coordinate with Ministry of Information and Broadcasting for media coverage.
- 4) Coordinate with PAF authorities for entry and security of dignities, staff and media persons.

- 5) Ensure banner/streamer placed/attached at appropriate place and are visible while media coverage is being done.
- 6) Prepare list of inventory/ packaging list and seek an acknowledgement from the officer/ official of the recipient country.

b) Handing Over at Destination

- 1) Liaison with host country through Pakistan Mission for presence of representative for handover ceremony. Timing of the ceremony etc. must also be coordinated.
- 2) Coordinate with MoFA for nomination of head of mission or representative for handing over the relief items.
- 3) Coordinate with Pakistan Mission in host country for arranging media coverage.
- 4) Ensure banner/streamer placed/attached at appropriate place and are visible while media coverage is being done.
- 5) Prepare list of inventory/ packaging list and seek an acknowledgement from the officer/ official of the recipient country.

4.5 After Mission Report

Detail report covering all aspects of the relief mission shall be formulated. The report must capture the gaps observed and challenges faced during all stages of the relief mission. All wings/sections remained involved in the execution of the mission shall be consulted for a comprehensive feedback. Report should also recommend/suggest the improvement required for any such mission in the future. Report shall also be shared with all concerned.

SECTION 5 - REQUISITION FOR AVIATION SUPPORT

5.1 Introduction

Aviation support plays a vital role in the rescue and relief operation, particularly in the emergency phase to access cut-off areas. Initial 48 hours are considered to be most crucial in terms of life-saving, as affectees needs medical assistance, food supply etc. which is only made possible by timely deployment of relief workers and relief goods in the calamity-hit areas. During 2005 Earthquake, aviation support was used for damage assessment, transport of rescue and medical personnel, evacuation of injured and supply of relief goods. Aerial machines (helicopters and C-130s) were extensively used. Helicopters conducted about 28,639 sorties; as well as transporting some 6,000 tons of relief goods/rations to the forward areas and also evacuated 17,150 casualties. The Air Force carried out 491 sorties to move goods from Karachi to Islamabad, and to drop them into the affected areas⁶. Likewise, during relief operation of Floods 2010, 96 helicopters and 23 aircrafts were used for evacuation of injured & stranded in flood-hit area, transportation of relief goods, aerial survey of affected areas and arrange visits for high profile officials and dignitaries⁷.

During any mega disaster in the future, aviation support will continue to play a pivotal role during emergency period to reach the disaster-affected zones in shortest possible time, when access through road infrastructure becomes limited. NDMA being the nodal agency is responsible for mobilizing, coordinating and utilizing the aviation support during any emergency, therefore this section of SOPs provides a guideline with regards to requisition for aviation support from other departments/organization.

5.2 Use of Aviation Assets During Emergency/Disasters

Aviation assets can be used for multiple tasks; however, it will largely depend on the type and quantum of disaster, accessibility issues and road condition/access. Following is the suggested usage of helicopters and aircrafts: -

- a) Aerial survey/reconnaissance of affected areas to determine the loss/damages
- b) Evacuation of injured personnel/ seriously affected populace
- c) Search and rescue
- d) Transportation of relief goods
- e) Aerial drop of relief goods and equipment
- f) Transportation of relief workers
- g) Facilitate VVIP/VIP visits of dignitaries to affected areas

⁶ Earthquake - 8/10, Learning from Pakistan's Experience

⁷ Pakistan Floods 2010: Learning and experience

5.3 Determination of Need

Requirement and type of aviation support needed will vary according to the task to be performed. Though the technical details will be worked out by the department/organization depending upon the task assigned to them by NDMA, however as a planner it is imperative to know the resources and the lifting ability of helicopters and aircraft available on the inventory of various department/organization. Following table shows the types of machines available, whereas carrying capacity of these are attached at annex "A".

5.3.1 Rotary Wing

Organization	Type of Aircrafts							
Army	Fennec	Jet Ranger	Ecureuil	UH-1H Huey	AW-139	Bell-412	Puma	MI-17
PAF	Alouette-III	AW-139	MI-171					
Navy	Alouette-III	Z-9	Sea King					
Strategic Plan Division	Bell-412							
Anti-Narcotic Force	MI-17							
Askari Aviation	MI-17							
Cabinet Division	AW-139							
Agha Khan Foundation	AW-139							
Bahria Foundation	AW-139							

5.3.2 Fix Wing

Organization	Type of Aircrafts						
Army	C-206	C-208 B	KA-300	Gulfstream 450	Cessna		
PAF	Phenom 100	Citation XL	Y-12	Gulfstream 650	Casa	Saab 2000	C-130
Navy	ATR-72						
Mol	Cessna						

5.4 Requisition of Aviation Support

Chapter XI, clause 38 of NDM Act 2010, empowers the national authority for requisition of resources needed for the purpose of prompt response. National authority may by order in writing requisition of such resources from any organization. As the act, only explain the process regarding payment of compensation in case of requisition of any premises and does not elucidate that who will bear the expenditure in case aviation assets are requisitioned by the authority. Therefore, to avoid any inconvenience at the later stage, it is suggested that Prime Minister's approval for utilizing aviation support and expenditure related to it may be obtained concurrently through a summary. The summary must indicate the responsibility of organization for provision of crew, expenditure on to be born and maintenance of the aircraft.

Decision about deployment of machines and tasks to be performed shall rest with NDMA. NDMA shall prepare precise requirement in terms of purpose i.e. transportation of relief goods including geographic locations, air drop, transportation of human resources, indicative period, quantity, type and nature for which air support is needed. Demand-driven approach shall be adopted, enabling air support provider to spare relevant aviation asset for respective activity. Since most of the aviation assets are controlled by the service headquarters therefore, PDMA for aviation support, may request NDMA. Type and number of aircrafts shall be the responsibility of the provider organization based on the roles assigned by NDMA. NDMA therefore should prepare its plans/ task cycles at least 24 hours prior of deployment.

5.5 Operation Control and Coordination

For the purpose of operational control and day to day coordination a Joint Aviation Coordination Cell (JACC) shall be formulated to coordinate aviation assets movement. During Floods 2010, JACC headed by General Officer Commanding (GOC), Army aviation commanded was established. A representative from all aviation support provider organization, NDMA and representative of Military Operation (MO) Directorate were also part of the JACC. In case of aviation supports from foreign country (s) and UN, their representative may also be included in the JACC. NDMA may alter the JACC's composition considering the complexity and scale of disaster. JACC's main functions shall include following but not limited to: -

- a) Obtain location-wise input from NDMA on the type and quantity of relief goods needed and prepare & disseminated a joint air task order (schedule) to all concern and monitor its execution.
- b) Ensure the availability of air machine depending on the task and relief destination.
- c) Coordinate air traffic related to rescue and relief operations within the country.
- d) Formulate temporary airspace management procedures, if required and air traffic coordination/ arrangements for safe relief operations.
- e) Ensure serviceability of helipads/landing strips through ground forces operating in the areas.
- f) Coordinate with Civil Aviation Authority (CAA) for use of air ports if to be used.
- g) Coordinate with NDMA logistic cell for loading of relief goods.
- h) Obtain and maintain the data from FABs of relief goods transported and share the same with all concerned.
- i) Acquire feedback from the various aviation agencies involved to refine and improve operations.

5.6 Termination of Aviation Support

Use of air machine shall be for specified period as it entails huge expenditure. The road condition may be evaluated regularly to determine the continuity of such air support. As soon as the ground situation improves and roads are clear, aviation support may be discontinued and further relief may be transported through using road transport. Termination of aviation support could also be phase wise depending upon the situation and accessibility to an area through road.

5.7 Managing Aviation Support from Abroad

2005 Earthquake and Floods 2010, witnessed aviation support from different countries and UN System. Decision to accept such support rest with the Government of Pakistan who shall decide based on the recommendations of NDMA/MoFA. However, all such support shall be coordinated by NDMA after fulfilling necessary codal formalities. Necessary arrangements for the clearance to foreign aircrafts over-flying or landing to/from Pakistan territory shall also be coordinated by NDMA as per set procedure through diplomatic channels. However, the operation control and employment of these air machine shall be the responsibility of JACC. For seamless operation flowing may be ensured: -

- a) NDMA shall coordinate for necessary diplomatic clearance through concerned ministries, security agencies and embassies as per set rules and procedures.
- b) NDMA shall also facilitate issuance of visa, access to airfields for surveys and custom waivers etc.
- c) JACC shall ensure issuance of maps etc. to the foreign crew to facilitate flying operation.
- d) JACC shall ensure the employment of foreign asserts in non-sensitive areas, however if unavoidable NDMA shall coordinate the concerned agency for clearances to fly over the 0restricted/ sensitive areas.
- e) To avoid any unforeseen situation/guard the information and to assist in communication with the field operators, a safety pilot/navigator should accompany every foreign helicopter/aircraft to facilitate operations in the sensitive areas or brief the foreign aircrew where special landing procedures are required. This arrange will be necessary if crew can't speak English language.
- f) JACC shall ensure a short training for foreign aircrew to acquaint them with Pakistani safety and security procedures if required.
- g) JACC shall ensure the provision of necessary communication facilities to foreign missions if required, after necessary clearness from competent authority through NDMA.

SECTION 6 - LESSON LEARNT REVIEWS

6.1 Learning from experiences is considered as an integral part for improving the response activities. Since no such standardized approach exists to conduct such reviews, NDMA should prepare its own approach based on international best practices. Many organizations also conduct literature review to identify best-practices. Such reviews may be conducted by adopting both qualitative and qualitative methods for improving emergency response arrangements and to evaluate the most robust methodologies for emergency response.

NDMA should ensure widest participation of all stakeholders during reviews, making these events meaningful engagement not only to the extent of review, but based on experiences revive the coordination arrangements to make emergency response efforts more efficient and effective.

In addition, such reviews bestow opportunity for continuous quality improvement, in order to lessen the recurrence probability of common mistakes during future emergencies. Fundamental questions to conduct such review may include:

- a) **What Happened?** This shall contain detailed information about the incident in chronological order. This shall put special emphasis on factual information.
- b) **What Went Well and Why?** The organization may evaluate the effectiveness of the methods and approaches adopted in terms of what was effective and what was not effective. This may further investigate generic emergency preparedness capacities and capabilities, coordination and communication mechanisms including information sharing and dissemination channels etc. Reviews should include what approaches worked and what were the factors, and what did not work and identify the reasons. This shall help to formulate future strategies to ensure success rate during future emergencies.
- c) **What can be Improved and How?** During this process, stumbling blocks and pitfalls shall be identified, so that these can be avoided in future. Policies, approaches, methods and ways of working needs to be reviewed and necessary changes may be brought in order to mitigate problems identified in order to improve emergency response.
- d) **Whether Necessary Changes are Made?** This shall include extended coordination with relevant authorities/ departments and organizations as based on the reviews and feedback, whether concerned departments brought those changes in place in order to bring improvement in services. Hence, it is equally important to ensure that based on lessons learned, desired changes are materialized in the form of real improvements in emergency response capacities or capabilities.

CARRYING CAPACITY - HELICOPTERS AND AIRCRAFTS

Aircraft	Seating Capacity	Maximum Pay Load (Kgs)	Remarks
Rotary Wing			
• Fennec	3	2,250	Under-slung load
• Jet Ranger	4	400	
• Ecureuil	4	310	
• Z-9	4	1,900	
• UH-1H Huey	6	546	
• Alouette-III	6	750	
• Sea King	6	450	
• AW-139	12	2,500	
• Bell-412	12	680	
• Puma	14	1,200	
• MI-17/171	28	4,000	
Fix Wing			
• C-206	2	560	
• Phenom 100	4	755	
• Citation XL	8	1,000	
• KA-300	8	1,100	
• Cessna	9	694	
• C-208 B	9	1,200	
• Gulfstream 450	11	2,700	
• Gulfstream 650	19	2,948	
• Y-12	19	3,000	
• Casa	35	6,000	
• ATR-72	45	435	
• Saab 2000	58	5,500	
• C-130	92	19,090	