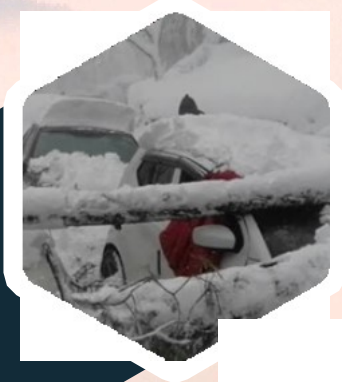




Government of Pakistan
Prime Minister's Office
National Disaster Management Authority (HQ)
Main Murree Road Near ITP Office,
Islamabad



NDMA Plan for Disaster Contingencies Winter - 2024 / 25



NDMA Plan for Disaster Contingencies - Winter 2024/25

1. **General.** Pakistan experiences a diverse winter season from **November to February**, characterized by snowfall, primarily in the Northern regions. This season brings various hazards such as avalanches, landslides, cold waves, blizzards, and fog across different parts of the country. In recent years, climate change-induced extreme weather patterns have further exacerbated these challenges, presenting unprecedented risks to communities and infrastructure.
2. The **National Disaster Management Authority (NDMA)**, under the mandates defined in **Clauses 9(a) and 9(b) of the National Disaster Management Act 2010 (Annexure A)**, holds a central role in overseeing disaster management activities. Guided by the **PR3 framework** (Preparedness, Response, Recovery, and Rehabilitation), NDMA ensures the effective coordination of disaster-related efforts. While the Act delegates disaster management responsibilities to provincial and federating units, NDMA facilitates a unified approach by issuing **guidelines, early warnings, and advisories** to federal and provincial departments, disaster management authorities, and rescue services. This enables timely mitigation measures and the development of contingency plans to address anticipated hazards.
3. In collaboration with federal and provincial stakeholders, NDMA has developed the **National Winter Contingency Plan 2024-25**. This comprehensive plan incorporates:
 - a. Input / Scenarios from the **NDMA NEOC Technical Team**.
 - b. **Forecasted Seasonal Outlook** issued by the **Pakistan Meteorological Department (PMD)**.
 - c. Consideration of the **likely impacts of climate change**.
4. The plan outlines detailed **guidelines for all tiers of disaster management** and other relevant stakeholders. These guidelines focus on:-
 - a. Mitigation of **potential winter hazards**.
 - b. Preparedness measures for the most likely and least likely scenarios.
 - c. Mounting a **timely and effective response** to disasters.
5. By adopting a collaborative and proactive approach, the **National Winter Contingency Plan 2024 / 25** aims to safeguard lives, livelihoods, and infrastructure during the winter season while ensuring a robust recovery and rehabilitation process, where required.
6. **Overview of 2024.** 2024 has been a year marked by a series of overwhelming natural disasters in Pakistan. Country faced significant challenges due to heavy rains, snowfall, floods, landslides, GLOF event and extreme weather events:-
 - a. **Early 2024 Floods and Landslides**
 - (1) **March / April 2024.** Heavy rainfall and hailstorms triggered widespread flooding and landslides, particularly in Khyber Pakhtunkhwa, Balochistan and Punjab.

NDMA Plan for Disaster Contingencies - Winter 2024/25

- (2) **Casualties and Damage.** These events resulted in numerous casualties, displacement of thousands of people, and significant damage to infrastructure, homes, and agricultural land.
- (3) **Government Response.** The government declared a state of emergency in affected / calamity hit areas, mobilizing relief and rescue efforts.

b. **Monsoon Floods 2024**

- (1) **July / September 2024.** 2024 monsoon season brought above average rainfall across the country less GB, AJ&K and in parts of KP, leading to flooding in Sindh and Balochistan provinces.
- (2) **Widespread Impact.** A large population was affected due to hill torrents and flash flooding, causing extensive damage to homes, crops, livestock, and critical infrastructure.
- (3) **Humanitarian Crisis.** The hill torrents, flash floods and riverine flooding in local nullahs triggered a humanitarian crisis, with many people displaced and in need of food, water, and shelter.
- (4) **International Aid.** International organizations and countries provided aid and support at community level to help address the humanitarian crisis.

7. In the face of these natural disasters, the NDMA took the lead in coordinating and responding to the crises. NDMA played a central role in these efforts, bringing together all relevant stakeholders, including government agencies, local authorities, and non-governmental organizations. This collaborative approach helped in ensuring timely and effective evacuations during key events in 2024.

8. Reflecting on the experiences of 2024, it is clear that proactive measures are vital to effectively prepare for the challenges of the upcoming winter season. In recognition of this, **NDMA** has taken significant steps to strengthen preparedness by issuing **advisories, alerts, and guidelines** to government departments, authorities, ministries, and communities across the country.

9. The issuance of the **National Winter Contingency Plan 2024 / 25** marks a pivotal advancement in disaster management. This comprehensive framework is designed to align all stakeholders with the **National Disaster Management Plan** and the **National Disaster Response Plan**, ensuring a cohesive approach to addressing potential winter hazards.

10. The plan provides clear directives for stakeholders to:-

- a. **Prepare for anticipated hazards**, mitigating risks through robust contingency planning.
- b. **Coordinate and execute timely responses**, ensuring resources and efforts are optimized.

- c. Implement **efficient and effective measures** to safeguard lives, infrastructure, and livelihoods.

11. By fostering collaboration and emphasizing proactive preparedness, the **National Winter Contingency Plan 2024 / 25** equips Pakistan to face winter hazards with greater resilience, ensuring that responses are both timely and coordinated to minimize impacts and expedite recovery.

12. **Aim.** To formulate “National Winter Contingency Plan - 2024 / 25” to aid in coordination of an effective response to the potential hazards associated with winter season.

13. **Scope.** The Plan shall encompass following: -

a. **Part I - General Aspects**

- (1) Hazard Profile.
- (2) Responsibilities and Sequential Actions.
- (3) Likely Response Challenges.

b. **Part II - Threat and Vulnerabilities**

- (1) PMD’s Winter Seasonal Outlook 2024 / 25.
- (2) Perceived Impact of Winter Seasonal Outlook 2024 / 25.
- (3) Major Conclusions from Winter Seasonal Outlook 2024 / 25.
- (4) Winter Season 2024 / 25 Contingencies.

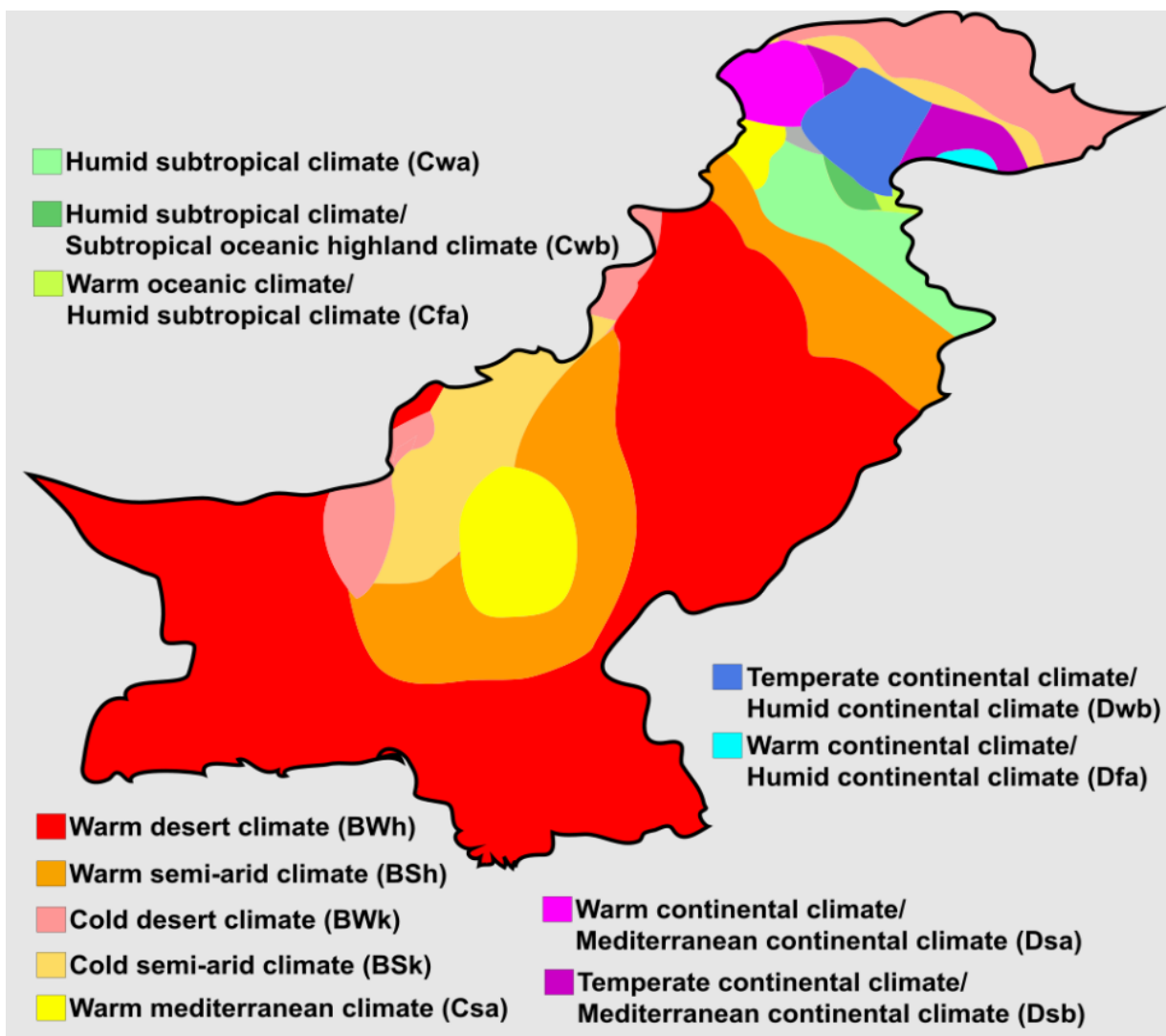
c. **Part III - National Response Guidelines for Winters 2024 / 2025**

- (1) Preparedness Phase.
- (2) Early Warning.
- (3) Response - Rescue, Relief & Early Recovery Phase.
- (4) Coordination Aspects.

PART I - GENERAL ASPECTS

Hazard Profile

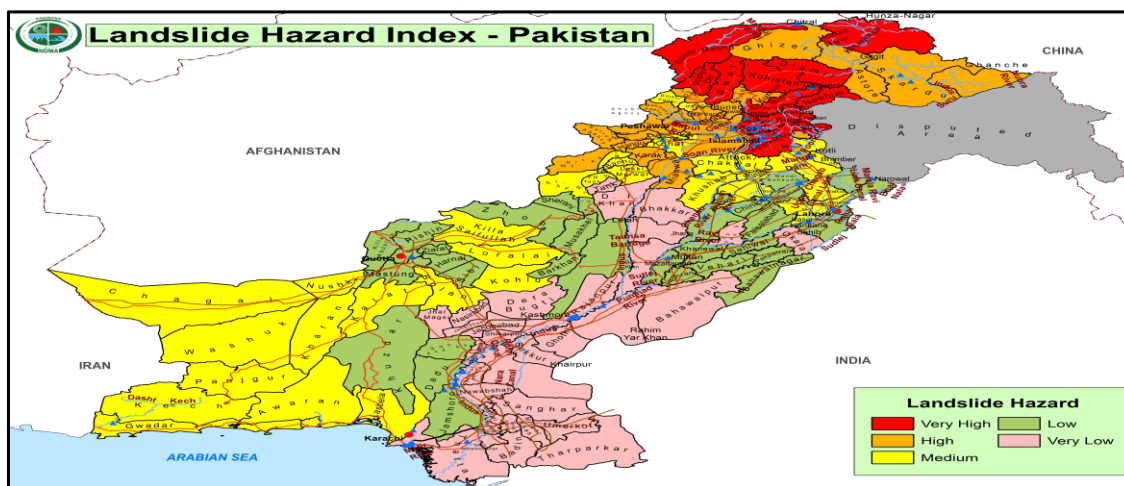
14. **Climatic Zones.** Pakistan is divided in five climatic zones (Map-I below) based on severity of winters by PMD. Impacts of likely winter hazards in each zone varies because of different levels of precipitation during the season. These zones encompass all provinces of the country; Balochistan, Khyber Pakhtunkhwa, Punjab, Sindh, Gilgit Baltistan and the State of Azad Jammu & Kashmir.



Map-I Climate Zone

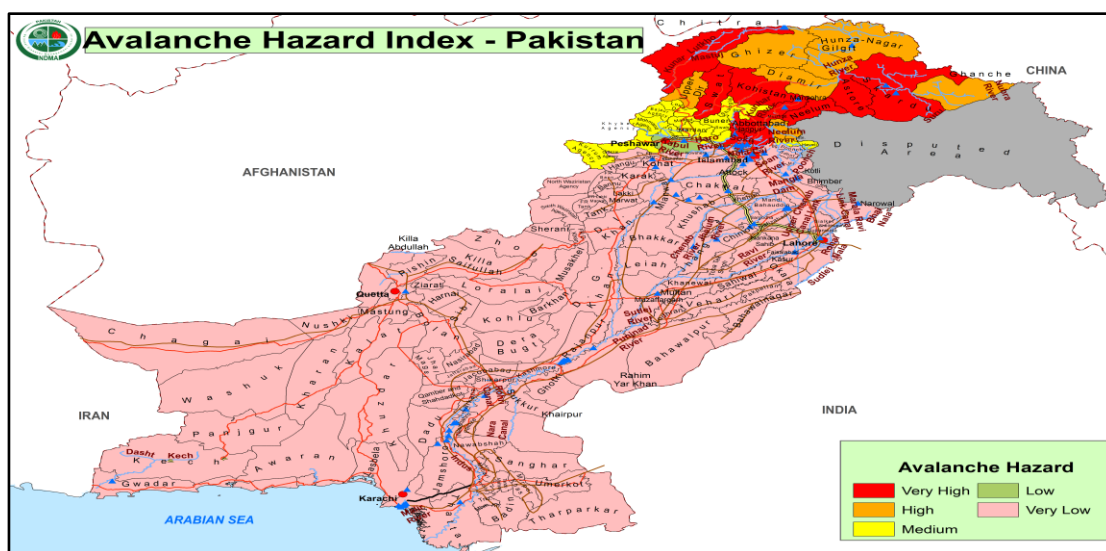
15. National Hazard & Risk Profile

- a. **Landslides.** Northern portion of Pakistan is at considerable risk of landslides. Sediment disasters (Map-II below); i.e., landslides are defined as the phenomena that causes direct or indirect damage to lives and property through a large-scale movement of soil and rock. Sediment disasters are likely to occur in mountainous areas of Pakistan due to the geological composition of mountain slopes and their inherent instability. Landslides mostly occur after heavy hydro-meteorological activity or seismic events which weaken the soil / ground. In particular, Balochistan, Khyber Pakhtunkhwa, Gilgit Baltistan and AJ&K are vulnerable to landslides because of their topography.



(Map-II District Wise Landslide Hazard Map)

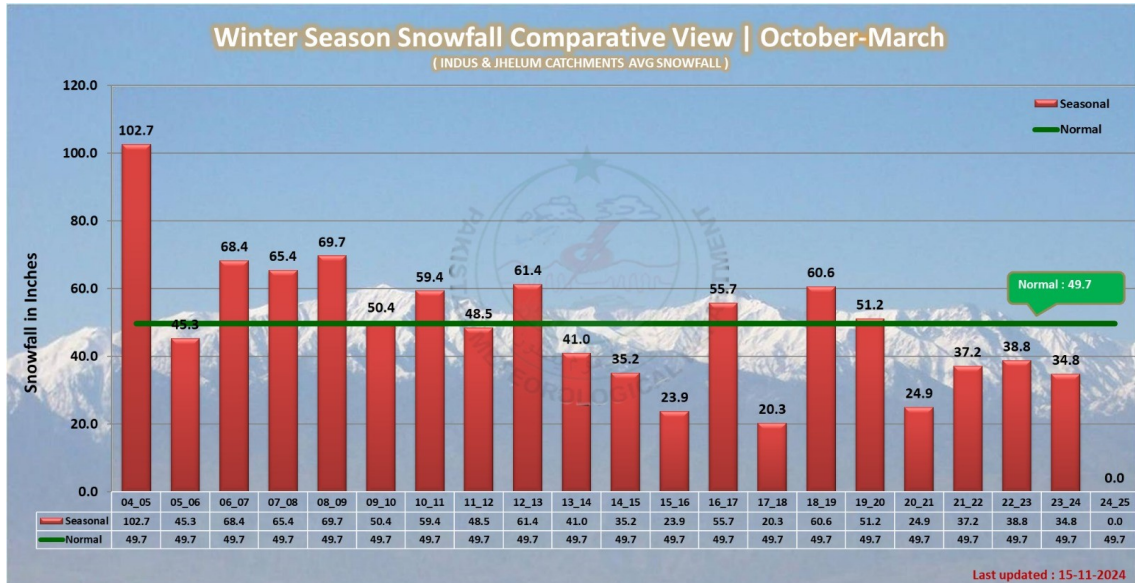
- b. **Avalanche.** Khyber Pakhtunkhwa, Gilgit Baltistan and AJ&K are vulnerable to avalanches on a seasonal basis. Local communities surrounding avalanche prone areas are vulnerable to this disaster. Avalanches are a kind of local natural disaster, and their impact is limited to the communities living within the downward path of the avalanche.



(Map-III District Wise Avalanche Hazard Map)

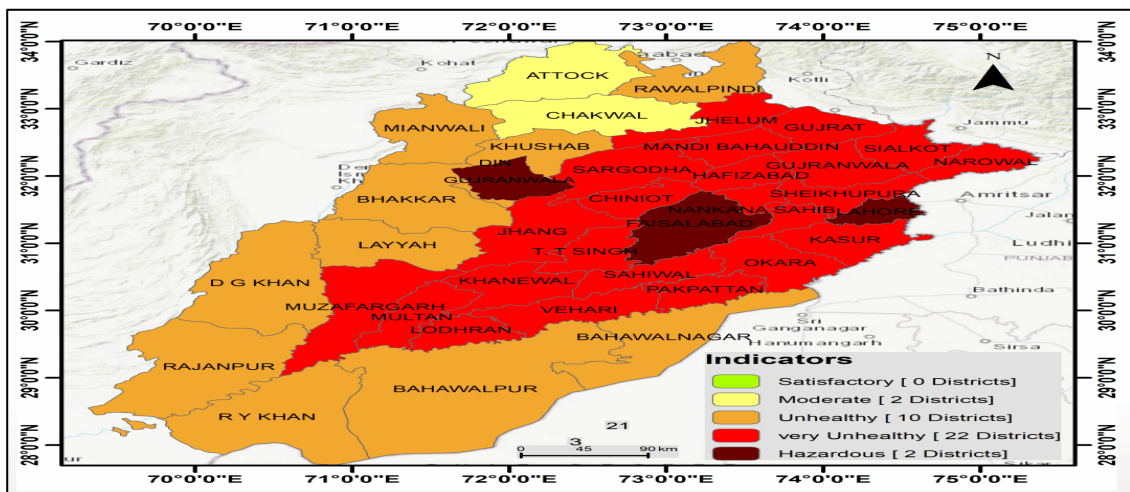
NDMA Plan for Disaster Contingencies - Winter 2024/25

- c. **Heavy Snowstorms / Blizzards.** Blizzards are severe snowstorms marked by strong, sustained winds and low visibility, often lasting for extended periods of 4 to 5 hours. Regions at risk of this hazard include the mountainous and hilly areas of Balochistan, Khyber Pakhtunkhwa, Gilgit-Baltistan, Murree region, and AJ&K.



Graph-I below depicts data of last 20 years of average snow fall during winters. {Graph-I Catchments Average Winter Season Snowfall (Inches) – PMD}

- d. **Smog.** Smog is a severe form of air pollution that intensifies in Punjab during the winter months, largely due to agricultural practices like crop-stubble burning, releasing large amounts of particulate matter and pollutants into the air. This issue is compounded by emissions from vehicles, industries, and other urban activities, creating a dense layer of polluted air that lingers due to colder, stagnant atmospheric conditions. The problem is further aggravated by cross-border crop burning in neighbouring regions of India, which contributes additional pollutants that drift into Pakistan, worsening the air quality. This dense smog not only reduces visibility, affecting transportation and daily activities, but also poses significant health risks.



(Map-IV District Wise SMOG Hazard Map)

- e. **Freezing Rain / Ice-storms.** It's a winter storm marked by the accumulation of freezing rain that forms a thick, often damaging layer of ice on surfaces. To be classified as an ice storm, ice accumulation generally needs to reach at least 0.25 inches (6.35 mm). This build-up coats everything it contacts - trees, power lines, roads, and buildings - resulting in a hazardous, slick glaze that can cause significant disruption and damage. Areas which can be affected by this include mountainous / hilly areas of Balochistan, Khyber Pakhtunkhwa, Gilgit Baltistan, Murree Region and AJ&K.
- f. **Hailstorms.** A hailstorm is a severe thunderstorm distinguished by the formation and descent of hail - balls or chunks of ice ranging in size from small pellets to large stones. Hailstones form within intense updrafts in storm clouds, where water droplets are lifted to freezing altitudes and freeze. As these hailstones are circulated within the storm, they gather additional layers of ice with each pass, growing larger until they become heavy enough to fall to the ground. These events can occur in any part of the country if appropriate hydro-meteorological conditions are met.
- g. **Fog.** Fog is a common occurrence that forms when water vapour condenses into tiny water droplets suspended in the air, creating a low-lying cloud. This fog can greatly reduce visibility, impacting outdoor activities, especially motor transport and aviation. Regions most affected by this phenomenon include the low-lying plains of Punjab, Khyber Pakhtunkhwa, Sindh, Islamabad and AJ&K.
- h. **Drought.** A drought is a prolonged period of insufficient rainfall that leads to water shortages, affecting agriculture, water supply, and the environment. In Pakistan, droughts can have severe consequences, especially in arid and semi-arid regions like Balochistan and Sindh, where water scarcity is already a pressing issue. The impact includes reduced crop yields and food insecurity, which can lead to economic losses for farming communities and increase reliance on imported food. Water shortages during droughts also strain urban and rural water supplies, affecting daily life and hygiene. Additionally, droughts can lead to environmental degradation, loss of biodiversity, and increased desertification, which can harm Pakistan's natural resources and make recovery more difficult.

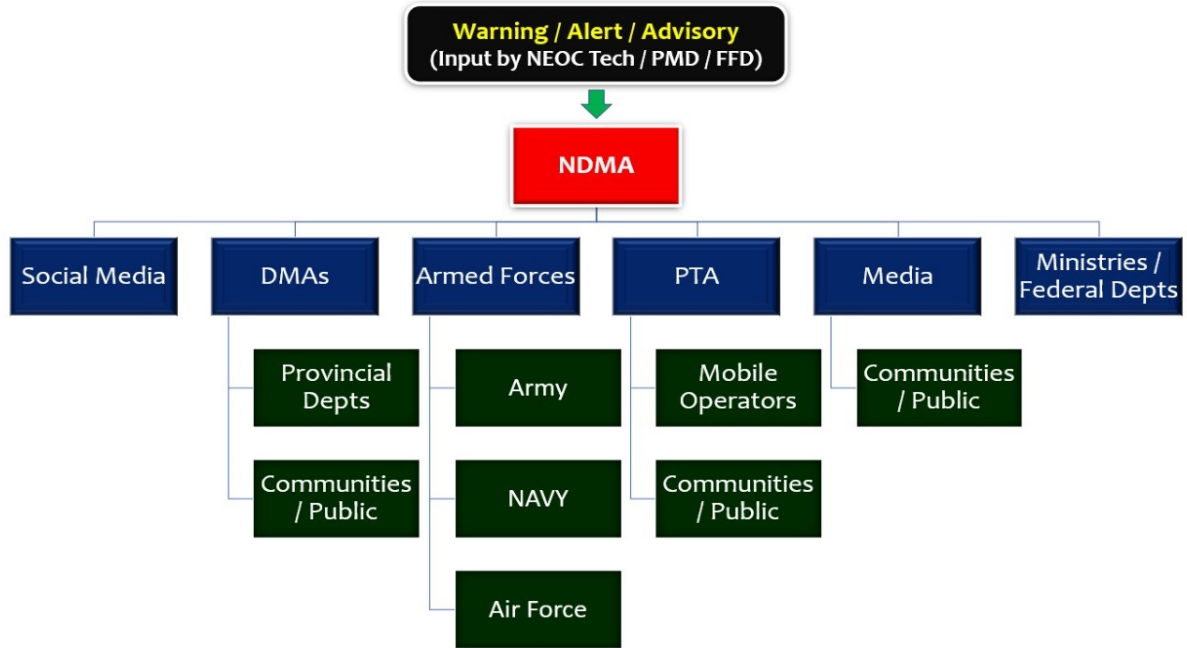


(Map-V District Wise Drought Hazard Map)

- i. **Cold-wave.** A cold wave is a weather phenomenon marked by a rapid drop in temperature within a 24-hour period due to cooling air. In Pakistan, a cold wave occurs when temperatures fall 4.5°C below the seasonal average. Such conditions require heightened precautions to protect agriculture and livestock from the intense cold and increase the demand for home heating.

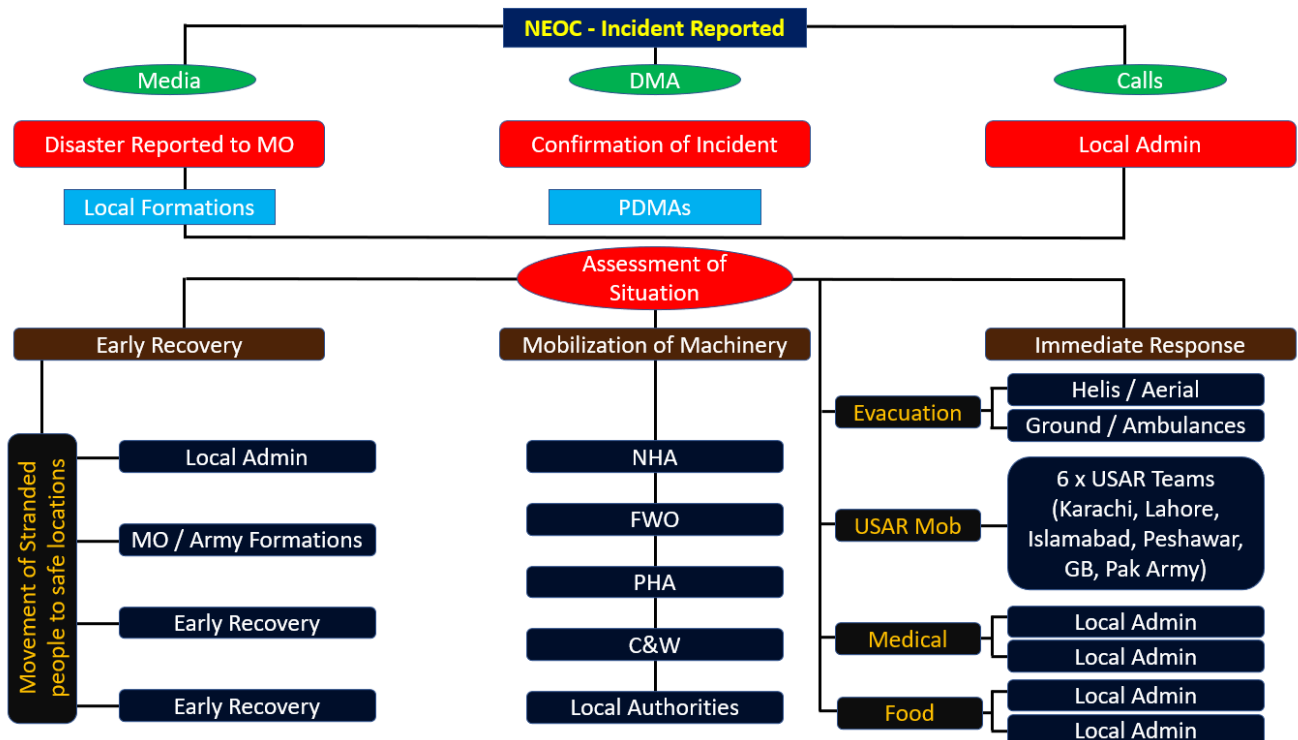
Responsibilities & Sequential Actions

16. **Responsibility Matrix.** Following graphical representation (Table-1) highlights the basic responsibilities of departments and is followed by sequence of actions by various stakeholders in line with their tasks and functions in case of emergency / disaster like situation. The actions under the contingency plan are set in motion as soon as an early warning / alert is issued by NEOC / PMD, based on developing weather system.



(Table - 1 - Responsibility Matrix)

17. **Sequence of Actions.** From occurrence / reporting of an incident sequence of actions envisaged from concerned stakeholders is depicted below (Table-2).



(Table - 2 - Sequence of Actions)

NDMA Plan for Disaster Contingencies - Winter 2024/25

18. To deal with likely challenges, responsibilities of national and provincial departments are: -
- a. **Weather Forecasts.** NEOC and PMD will provide updated seasonal outlook in November/ December 2024 while they shall update the outlook on required basis. Updates on developing weather systems will be issued as early as possible to forewarn DM stakeholders and local communities.
 - b. **Risk / Vulnerability Assessment.** Respective DDMA / PDMA to carryout risk and vulnerability assessment to identify areas requiring special attention and focus. Moreover, timely supply and storage of required amenities i.e., food, fuel, medicines etc to cater for any blockades / disruption of supplies.
 - c. **Reconnaissance of Vulnerable / At-Risk Areas.** DDMA / PDMA / SDMA / GBDMA and ICT administration to take lead in organizing and conducting reconnaissance of vulnerable / at-risk areas ensuring participation of all responders in respective areas to include Rescue 1122, paramedics, fire brigades, LEAs, Armed Forces, NHA, FWO and concerned line departments.
 - d. **Conduct of Mock Exercises.** All DDMA to plan and conduct mock exercises in respective areas to rehearse and synergize response measures among all stakeholders including selected communities / areas most vulnerable to winter hazards.
 - e. **Repair / Strengthening of Roads / Bridges / Railway Tracks.** NHA, FWO, Pakistan Railway, C&W and line departments to complete their restoration efforts in time, especially in the areas likely to be affected during coming winter season 2024 / 25. PDMA / GBDMA / SDMA and ICT Administration to ensure necessary coordination in this regard.
 - f. **Maintenance & Restoration of Communication Arteries.** PDMA to coordinate with respective DDMA to identify critical communication arteries and ensure their timely maintenance through concerned departments and place machinery at the critical points, already identified, to manage restoration efforts in case of further need. Ministry of Communications to ensure implementation of works required and take requisite actions through concerned departments.
 - g. **Coordination with Hotel & Transport Associations.** PTDC in collaboration with PDMA / SDMA / GBDMA & ICT Administration, hotel & transport associations to hold coordination conferences at DDMA / PDMA levels especially in areas likely to face influx of travellers / tourists during winter season. As an outcome of these conferences / coordination efforts, a set of guidelines / SOPs be issued to all stakeholders for accommodating and transporting stranded people during an emergency / disaster situation.

- h. **Synergized Planning**. PDMA / SDMA / GBDMA and ICT administration to ensure necessary coordination among all stakeholders. The plans must not cause duplication of efforts and have clear demarcation of responsibility among all stakeholders in consonance with their capabilities.
 - i. **Mass Awareness**. Press Information Department and MoIB are responsible for maximum disbursement of weather advisories / alerts utilizing all possible platforms in all regional languages. These press / TV / social media releases be shared with NDMA / PDMA / SDMA / GBDMA and ICT administration for further propagation through respective platforms. PDMA and respective DDMA to ensure sharing advisories / alerts of NDMA / PMD with communities for timely sensitizing people in 'at-risk areas' and with LEAs / traffic police for guidance of tourists / travellers.
 - j. **Maintenance & Restoration of Utility Services**. All concerned departments for electricity, telephone / cellular networks and natural gas will be responsible to devise respective contingency plans and ensure measures for immediate restoration of utility services as and when disrupted.
19. **Likely Response Challenges**. Aspects observed during year 2024 which need to be considered / addressed for efficient coordination and response are enumerated in ensuing paras.
- k. **Stocking of Essential Items**. All PDMA / SDMA / GBDMA and ICT administration should take proactive measures in developing stocks of essential items in areas which are likely to be cut-off in case of landslides, avalanches and unprecedented precipitations / snowfall.
 - l. **Lack of Planned Development**. Unplanned development, inadequate town planning, and non-conformity to risk assessments coupled with choked waterways and poor drainage is a perfect case for urban flooding in case of intense rains.
 - m. **Ad-hoc Functioning of District Disaster Management Authorities**. In some provinces, dedicated human resource has not been posted in DDMA. The gap at this critical tier of "first response" causes an immediate pull-on national resource. This significant limitation leads to weakening of DDMA as a crucial tier of disaster response in the process.
 - n. **Prepositioning of Resources**. Timely placement of resources and machinery like snow clearance and earth moving machinery at critical choke points and at-risk areas especially in the difficult terrain must be ensured. Non-availability of such equipment at a vulnerable location often leads to exaggerated emergency / disaster like situation.
 - o. **Involvement of LEAs / CAF in Planning**. Due to isolated planning by various departments, local administration finds it very difficult to implement the plans on ground. For efficient

enforcement, all LEAs / CAF available in the vicinity must be involved in the planning process from the onset.

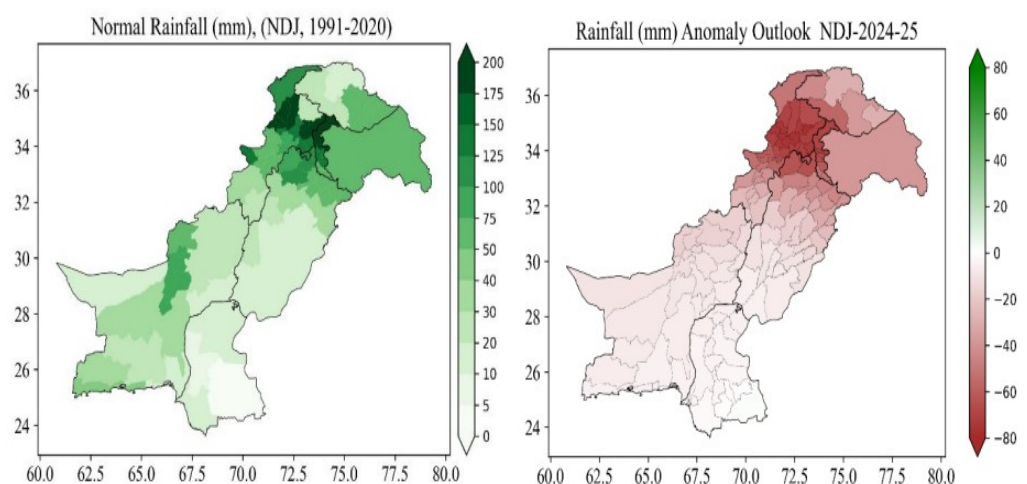
- p. **Social and Cultural Norms Inhibiting Disaster Response**. People in at-risk communities / from vulnerable areas generally resist evacuations till the very last moment and demand on-site relief instead at planned relief camps, which increases quantum of rescue and relief efforts. Similarly, keeping tourists and locals away from vulnerable / hazardous locations remains a challenge for local administrations and law enforcement agencies.
- q. **Risk Assessment / Multi Hazard Vulnerability Risk Assessment (MHVRA)**. There is a dire need to undertake a detailed hazard and risk assessment of respective areas / regions to associate correct priorities and carry out effective planning for the hazards.

PART II - THREATS AND VULNERABILITIES

20. PMD's Winter Seasonal Outlook 2024 / 25

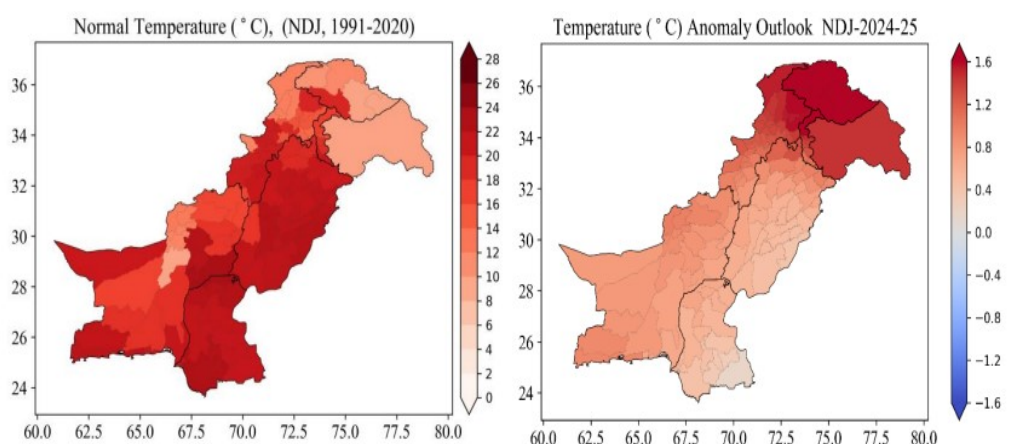
a. **Synoptic Situation.** During the season NDJ 2024 / 25, La Niña is favoured to emerge in November and is expected to persist from November - January 2025, whereas the Indian Ocean Dipole (IOD) index is predicted to return to near normal during November - December 2024. Based on the current atmospheric conditions, the climatic outlook for Pakistan for NDJ 2024 / 25 is as follows:-

(1) **Seasonal Outlook (Rainfall).** **Below normal rainfall** is expected in the country with maximum negative departure over Upper Khyber Pakhtunkhwa and adjoining areas of Kashmir and GB. However, in lower parts near normal rainfall is anticipated.



{Figure 1: Normal (1991-2020) rainfall and monthly anomaly outlook for NDJ 2024-25}

(2) **Seasonal Temperature Outlook.** Temperatures are forecasted to remain **above normal** nationwide with maximum departure over Upper Khyber Pakhtunkhwa and Gilgit-Baltistan.



{Figure 2: Normal (1991-2020) temperature and monthly anomaly Outlook for NDJ 2024-25}

21. Perceived Impact of Winter Seasonal Outlook 2024 / 2025

a. Agriculture

- (1) **Soil Moisture for Rabi Crop Sowing.** Below-normal rainfall will likely lead to reduced soil moisture in KP, Kashmir, and Gilgit-Baltistan, potentially impacting early Rabi crop sowing (e.g., wheat, barley) in these areas. Farmers may need to rely more on other means of irrigation where available.
- (2) **Water Supply for Agriculture.** The forecasted dry conditions could result in lower water availability for irrigation, especially in rain-fed areas. Near-normal rainfall in Southern regions may provide more favourable conditions for crop growth in Sindh and Southern Punjab.
- (3) **Pest and Disease.** The above-normal temperatures may promote pest and diseases in winter crops, necessitating proactive pest and weed management in regions where warmer, dry conditions could stress crops.

b. Health

- (1) **Smog and Air Quality.** Warmer and drier conditions may result in poor air quality, especially in plain and low-lying areas (especially urban areas), increasing smog formation. This can aggravate respiratory issues, impacting vulnerable groups including asthma and pulmonary disease patients.
- (2) **Fog Formation.** Night time conditions are favourable for fog formation in plains and valleys, particularly in central and Northern Punjab, lower KP and upper Sindh, affecting visibility on highways and potentially disrupting road and air travel. Travelers should be prepared for delays during morning hours due to fog.
- (3) **Water Resources - Reservoir and Irrigation Levels.** The below-normal rainfall may reduce water replenishment in reservoirs, impacting water availability for agriculture and the power sector. Water management authorities may need to monitor reservoir levels and manage distribution accordingly to ensure sustained supplies during the season.
- (4) **Energy Sector - Hydro-power Generation.** Reduced inflow from below-normal rainfall could affect hydropower production, especially in Northern areas reliant on seasonal water availability. Alternative energy sources may need to be prioritized to meet energy demands.

Winter Season 2024 / 25 Contingencies

22. **Visualized Scenarios**. Visualised contingency scenarios formulated by NEOC Tech team are: -

a. **Scenario - 1 (most likely) - Below Normal Rainfall / Snowfall**

- (1) **Rain / Snowfall**. Northern regions (KP, GB, Kashmir) are expected to experience below normal rainfall and snowfall, particularly in upper KP and adjoining areas of Kashmir and GB. However, near-normal rainfall is anticipated in lower regions.
- (2) **Southern Regions**. Southern Punjab and Sindh will likely experience below normal rainfall, while mountainous regions in Balochistan may see near-normal snowfall.
- (3) **Temperature Trends**. Nationwide, temperatures are predicted to remain above normal, with maximum temperature deviations expected in upper KP and GB.
- (4) **Fog / Mist**. Low-lying plains, especially in Punjab, are likely to experience fog and mist, reducing visibility.
- (5) **Dust-Storm Activity**. Windstorms, potentially carrying dust, may affect Southern Punjab and Northern Sindh, especially during dry spells.
- (6) **Extreme Winter Events**. There is potential for extreme winter weather in Northern regions, including blizzards, cold waves, ice storms, and hailstorms.
- (7) **Avalanche Risk**. Warmer-than-average temperatures in the North could elevate avalanche risk in mountainous areas.
- (8) **Smog-Affected Areas**. Smog is expected to persist in parts of Punjab, with cold, dry conditions exacerbating its severity.
- (9) **Air Quality Concerns**. Cold and dry weather will likely worsen air quality, particularly in urban and industrial areas of Punjab, where pollutants are more concentrated.
- (10) **Prolonged Smog Conditions**. Drier-than-normal conditions are anticipated to prolong smog events, further reducing air quality indices in affected areas, especially in Punjab.

b. **Scenario - 2 (less likely) - Near Normal Rainfall / Snowfall**

- (1) **Rain / Snowfall**. Northern regions (KP, Gilgit-Baltistan, Kashmir) are expected to receive near-normal rainfall and snowfall. Lower regions of Punjab and Sindh are also anticipated to experience near-normal rainfall, while mountainous regions in Balochistan may see typical snowfall for the season.
- (2) **Southern Regions**. Southern Punjab and Sindh will experience near-normal rainfall, while the mountainous regions of Balochistan are likely to receive average snowfall in line with seasonal expectations.

- (3) **Temperature Trends.** Nationwide, temperatures are forecasted to remain close to normal, with minor deviations expected in Northern areas like upper KP and Gilgit-Baltistan, where slightly cooler-than-usual conditions may prevail. However, these variations will not be extreme, and overall temperatures will follow regular seasonal patterns.
 - (4) **Fog/Mist.** Low-lying plains, particularly in Punjab, are expected to experience intermittent fog and mist, but this will remain typical for the season, without extended periods of dense fog or low visibility.
 - (5) **Dust-Storm Activity.** Windstorms, potentially carrying light dust, may occur occasionally in Southern Punjab and Northern Sindh during drier spells, but their intensity and duration are expected to be relatively low, with minimal impact on air quality.
 - (6) **Extreme Winter Events.** Extreme winter weather events such as blizzards, cold waves, ice storms, and hailstorms are unlikely during this season. Winter conditions in Northern regions are expected to remain within normal thresholds for the time of year.
 - (7) **Avalanche Risk.** Avalanche risk is expected to remain minimal in the mountainous regions of the North, with stable snow packs due to normal snowfall and moderate temperatures, reducing the likelihood of snow instability.
- c. **Scenario - 3 (least likely) - Above Normal Rainfall / Snowfall**
- (1) **Rain/Snowfall.** Northern regions (KP, Gilgit-Baltistan, Kashmir) are likely to experience above-normal rainfall and snowfall, particularly in upper KP and adjacent areas of Kashmir and Gilgit-Baltistan. This could lead to heavy and unseasonal snowfall in the mountains, potentially causing disruptions. Meanwhile, Southern regions may receive below-normal rainfall, exacerbating dry conditions in Sindh and Southern Punjab.
 - (2) **Southern Regions.** Southern Punjab and Sindh are expected to face drier-than-usual conditions, leading to water stress and possible drought risks. Balochistan's mountainous areas may experience significantly reduced snowfall, further impacting the regional water cycle.
 - (3) **Temperature Trends.** Temperatures across the country are expected to be well above normal, with particularly intense heat spells in Southern and Central regions. Upper KP and Gilgit-Baltistan could experience extreme temperature deviations,

with warmer-than-usual conditions contributing to rapid snowmelt, increasing flood risks in the northern regions.

- (4) **Fog/Mist.** Persistent and dense fog conditions are likely in low-lying plains, particularly in Punjab, severely reducing visibility for extended periods, leading to traffic disruptions and air quality deterioration. The prolonged nature of these fog events could impact daily life and agriculture.
- (5) **Dust-Storm Activity.** Strong and frequent windstorms, potentially carrying large amounts of dust, may affect Southern Punjab and Northern Sindh, especially during the dry spells. These dust storms could significantly reduce air quality, visibility, and disrupt transport and agriculture.
- (6) **Extreme Winter Events.** The Northern regions, particularly the higher elevations of KP and Gilgit-Baltistan, could experience extreme winter weather, including intense blizzards, cold waves, and ice storms. These extreme conditions could lead to road blockages, power outages, and disruptions in essential services, particularly in remote mountainous areas.
- (7) **Avalanche Risk.** Due to significantly warmer-than-average temperatures in the North, there is an elevated risk of avalanches in mountainous regions. Rapid snowmelt combined with heavy snowfall could destabilize snow packs, leading to dangerous conditions and potential casualties.
- (8) **Smog-Affected Areas.** Smog levels in Punjab, particularly in urban centres, are expected to reach dangerous levels due to a combination of cold, dry weather and stagnant air. The prolonged smog events could severely affect public health, especially in areas with high pollution levels, leading to respiratory issues and a sharp decline in air quality indices.
- (9) **Air Quality Concerns.** The combination of extreme temperatures, persistent smog, and dry conditions will lead to significantly deteriorated air quality across Pakistan, particularly in urban and industrial areas. This could exacerbate respiratory and cardiovascular health problems, particularly in vulnerable populations.
- (10) **Prolonged Smog Conditions.** The cold, dry conditions will extend smog events for longer periods, with the air quality in affected areas remaining hazardous for weeks. This extended exposure could significantly affect the health of millions, especially in Punjab and other urban centres.
- (11) **Landslide.** Above normal precipitation may trigger landslides and mud slides events in mountainous regions.

PART III - NATIONAL RESPONSE

GUIDELINES FOR WINTERS - 2024 / 25

23. National and provincial response guidelines for winters' contingency scenarios are as per the Seasonal Winters' Outlook 2024 / 25 generated by NEOC and PMD, comprising different phases, which are covered in following paragraphs.

Preparedness Phase

24. **Major Actions.** Following measures are essential for proactive preparations by all stakeholders:-

- a. **Resource Mapping.** Resource mapping of respective Provinces / State and its timely intimation to NDMA.
- b. **Placement of Earth Moving Machinery.** Placement of earth moving machinery at vulnerable areas for timely clearance of roads from landslides / debris.
- c. **Coordination Conferences.** Special conferences by relevant stakeholders on occurrence of any extreme events will assist timely decision-making process.
- d. **Conduct of Mock Exercises and Reconnaissance.** It is critical for all responders to carryout reconnaissance of the vulnerable areas to develop acquaintance with the area and gather local information.
- e. **Provision of Timely Information.** Timely provision of occurrence based SITREP by PDMA's / GDMA / SDMA / ICT. PDMA's / GDMA / SDMA / ICT to make use of NDMA's standardized SITREP format, which has been forwarded already to all stakeholders.
- f. **Updating of Database.** DDMA's to update miscellaneous data which may be needed during disaster response e.g., database of volunteers, miscellaneous resources, medical / health facilities, stocking level of warehouses etc.
- g. **Baseline Data.** For calculating accurate effects/ impacts of disasters/ emergency impacts, it is essential to have baseline data for comparison with post emergency/ disaster situation.
- h. **Awareness Campaign.** Every possible mean; especially the one more effective in respective regions, must be utilised for raising awareness among masses.

25. **Measures against Winter Hazards.** Following protective measures based on past experiences will help to mitigate disaster / losses: -

- a. Preparation of hazard maps of major cities, districts and known vulnerable areas based on recorded history for sensitization, awareness, early warning and evacuation of vulnerable communities.

- b. Identification of vulnerable areas especially near communication arteries and population.
- c. Awareness and sensitizing local community and tourists of possible risks and adherence to laid down guidelines.
- d. Community based early warning system as part of response mechanism be instituted in landslide / avalanche prone areas by nominating local notables to ensure that alerts are timely disseminated. Measures may include use of watchmen, loudspeakers / megaphones, loudspeakers of Mosques, whistles, SMS alerts, telephone and any other arrangements of similar nature.
- e. Capacity building of Municipal Corporations with due attention to availability of requisite number of heavy-duty machineries for pre-placing / deployment at most vulnerable areas.
- f. Widening, dredging and de-silting of water channels to prevent waterlogging and saturating soil.
- g. Removal of encroachments / hinderances to provide full access / way to traffic and rescue personnel with their machinery when in case of need.
- h. Serviceability and operability of available machinery with sufficient fuel etc.
- i. Provision of backup electricity arrangements in form of generators.
- j. Establishment of committees for planning and implementation of contingency plans at municipal level.
- k. Provision of dedicated manpower for DM management.
- l. Identification of likely evacuation sites and relief / medical camps.
- m. Coordination with all stakeholders for keeping communication arteries open and immediate mobilization of required machinery in time of need.
- n. Identification and coordination with local health officials for stocking medicine, in case of being cut off or likely outbreak of health emergency, especially against diseases likely in winters.
- o. Availability of paramedics and ambulances with respective district health departments.
- p. Coordination with private and government hospitals to prepare a synergized plan for meeting emergent requirements.
- q. Measures for creating redundancy in utility supply to inaccessible areas especially drinking water.
- r. Pruning of trees especially ones close to roads, electricity supply lines, homes and other infrastructure.

- s. Emergency contact numbers of local and other emergency services must be displayed at various locations and made part of all coordination meetings for maximum awareness.
- t. Fixing of loose billboards, hoardings, sign posts and other similar fixtures must be ensured.
- u. Encouragement of communities to remain indoor and restrict movement immediately upon development of weather and especially when a weather advisory / alert is issued.
- v. Vulnerability based stocking be carried out under local administration and line departments.
- w. Utilization of all possible platforms for spreading required information and keep local radio stations involved in relaying critical information.
- x. Pictorial guidelines and alerts will be issued on NDMA's mobile application for general public.

Early Warning

26. **Early Warning / Advisories.** NDMA and PMD will be the focal organizations for providing weather based early warnings (NEOC/ PMD will be the primary source of weather information and will issue all official weather forecasts and early warnings). NDMA will issue advisories/ guidelines /instructions for all DM stakeholders, while provincial / district DM authorities and line departments will be responsible for issuing and implementing area / region specific instructions for effective coordination / actions: -

- a. Seasonal outlook will be updated by NEOC/ PMD, at least once a month, especially highlighting a major departure from original outlook.
- b. Weather updates will be issued as per developing situation by NEOC/ PMD.
- c. Specific weather advisory of NDMA and PMD will be issued by respective PDMA's to disseminate warning to district authorities / relevant stakeholders via **Fax / Email / Telephone / SMS / WhatsApp Message / X** and will be immediately uploaded on their website / portals and may also be incorporated into the NDMA's mobile application (Pak NDMA Disaster Alert) to reach a wider audience.
- d. NDMA and PMD will also release breaking caption / news or tickers to all major TV stations / channels including PTV. Moreover, PMD has also constructed a fully equipped studio for TV broadcast in its own building. Radio broadcasts will also be used from national and FM radio stations to keep the public aware of any upcoming disaster and related advisories.
- e. PMD will nominate a focal person authorized to deal with weather and flood forecast which will be notified to all concerned and will be readily available to all stakeholders, when required.

- f. NEOC and PMD will also critically analyse and share any possibility of blizzards & cold waves in the country and will timely intimate the same to NDMA and other relevant stakeholders.

27. Community Early Warning through Advisories

- a. Public Service Messages (PSMs) through print / electronic media must be generated forthwith by PDMA / SDMA / GBDMA, DDMA and relevant ministries and departments.
- b. Bill-boards, posters, banners, brochures and warning signs may be used to educate / warn people of at-risk areas.
- c. All concerned departments and local communities must be apprised about the forecast and it's likely unfolding at the onset.
- d. Community must be informed about safer places, relief camps and evacuation plan by concerned departments.
- e. To ward off "**False Warning**", all DM authorities will ensure implementation of Clause 35 of NDM Act 2010.
- f. Community based indigenous early warning system must be institutionalized as part of response mechanism in areas vulnerable to landslides and avalanches by following means:-
 - (1) Placing of around the clock lookouts especially at night or during the period of intense rain / snow.
 - (2) Use of sirens or announcements on loud speakers from Mosques and vehicles for mass awareness and sensitizing local communities. These measures will be ensured by all DDMA.
 - (3) Lightening of fire and drum beating by the people living at higher places in such areas.
 - (4) Practicing of evacuation drills.
 - (5) Conduct of mock exercises and reconnaissance of vulnerable/ at-risk areas.
- g. Issuance of SMS Alerts through PTA in only affected & threatened areas using GIS fencing.

Response - Rescue, Relief and Early Recovery Phase

28. Tiers of Response. Drawing on the lessons learned from past contingencies, disasters and recognizing the structural challenges in our response mechanisms, the following tiered response approach has been developed to enhance our ability to mitigate the impact of future events: -

- a. 1st Tier. Local emergency response by DDMA with the support of district / provincial / Armed Forces resources.
- b. 2nd Tier. Provincial effort in support of district authorities.

- c. **3rd Tier.** NDMA response (national efforts / resources) in support of Province(s), GB, AJ&K and ICT with / without external assistance.

29. **Disaster Management (DM) Planning**

- a. PDMA's to ensure resource mapping of volunteers {Civil Defence, Pakistan Red Crescent Society (PRCS), Boy Scouts & Girl Guides}, UN Agencies, NGOs / INGOs and ambulances at district level.
- b. Coordination must be carried out with Civil Defence, PRCS, Pakistan Boy Scouts Association and Pakistan Girl Guides Association at district level to provide support at various relief camps under the overall guidance and supervision of the district administration.
- c. Location of relief camps must be earmarked and necessary administrative arrangements be made accordingly. It must be incorporated on past experiences and should be need based. Relief camps should be accessible / closer to main arteries so that relief goods are easily delivered to the affected people.
- d. Fool proof measures be planned against rains / flash floods in relief camps established for Temporarily Displaced Persons (TDPs).
- e. Resource Mapping and prepositioning of dedicated earth moving machinery at landslide / avalanche erosion prone highways / link roads and isolated mountainous areas of KP, AJ&K and GB by respective Governments. Ministry of Communications, NHA, FWO, respective Communication and Works Departments and other relevant organizations to ensure such arrangements alongside Bailey Bridges and enhanced number of maintenance teams at all critical sections especially regions highlighted in hazard maps.
- f. Contingency Plans be updated by all concerned based on NDMA's National Contingency Plan-Winters 2024 / 25 and respective SOPs. **Provincial/ State/ GB and ICT plans will be shared with NDMA and relevant stakeholders by First week of December 2024.** All provincial/ State/ GB authorities will be responsible to collect / analyse respective DDMA plans.
- g. To identify most vulnerable communities for sensitization, awareness, early warning and evacuation in emergency, district hazard maps must be updated down to the union council level.
- h. Planning for the needs and concerns of vulnerable groups be made on the basis of available authenticated gender, age and disabled disaggregated data at district level.

30. **Mitigation Works / Schemes.** All projects and schemes underway must be completed immediately. PDMA's / SDMA / GBDMA and ICT administration to formulate monitoring mechanism

for immediate completion, where possible and taking required measures for maximum safety where the projects / schemes are likely to complete later (during / after the season).

31. **Rescue Measures**

- a. Availability and serviceability of rescue equipment will be ensured by all concerned.
- b. Respective departments / organizations / parent ministries / federal departments will be responsible to carryout audit of equipment held with sub-departments and expedite measures to make up deficiencies through procurement / coordination.
- c. Equipment be strategically placed, as to respond to contingencies in different regions.
- d. Availability of trained operators be coordinated and ensured during entire season.
- e. Readiness of Urban Search and Rescue (USAR) teams will be ensured for rescue operations in collapsed buildings / landslides in respective province or other provinces (when requisitioned).
- f. Availability of staff of all relevant departments especially hospitals and emergency services on holidays and during active weather systems must be ensured.
- g. PDMA's / SDMA / GBDMA and ICT administration will incorporate input from Rescue 1122, emergency services, civil defence, volunteers and police / law enforcement agencies during planning process for effective coordination during response/ rescue operations.
- h. PDMA's / SDMA / GBDMA / ICT administration will coordinate with respective governments / departments for aerial support for immediate evacuation.
- i. Aviation effort can be requisitioned through NDMA. Expenditures will be borne by respective province / region.

32. **Salient Preventive Measures**

- a. Communities at-risk / vulnerable to landslides / avalanches, seasonal nullahs / river plains must be identified by local administration in collaboration with communities.
- b. Evacuation plans and identification of relief camps must also be carried out in coordination with local communities to maintain awareness and facilitate early evacuations when required.
- c. Travellers be advised to maintain a bag containing important utility items like first aid kit, medicines, dry ration, water, charged torch, radio set, mobile phone, power-bank, cells / batteries, match box, candles, charged batteries, mosquito repellent / net, warm clothes, plastic sheet and important documents including CNIC and some cash money should always be taken along during trips.

- d. Preventive measures, including vaccination programs, should be undertaken to mitigate the risk of infectious diseases, such as cholera, viral infections, and other seasonal illnesses.
- e. Animal vaccination along with arrangements of fodder be made in time.

33. **Rescue Operations**

- a. Forced evacuation must be planned in case of limited warning time, by utilising all available resources at provincial / district levels.
- b. DDMAAs as first responders should mobilize communities for disaster response. This will encourage community involvement, strengthen their own efforts and also address the issue of absence of human resource.
- c. Priority in rescue / evacuation will be given to vulnerable groups (age, disabled, women and children).
- d. Ministry of Communications, NHA, FWO, Pakistan Railways, PTA and Pakistan Post will restore the communication infrastructure / alternate routes / means of delivery, as early as possible.
- e. SUPARCO will provide satellite imageries and assessment of projected developments, where possible. Pre, during and post season snow cover and its impacts will also be compiled and shared with NDMA and relevant ministries / departments.
- f. Traffic arrangements; creating diversions and guidance for tourists, be made for regulating traffic on national and provincial arteries in case of damage to infrastructure by floods.
- g. Disaster tourism must be curbed.

34. **Parameters of Deploying Machinery & Rescue Operations**. Need based rationalization of quantity of heavy machinery deployment be carried out based on factors mentioned below to ensure optimal response against envisaged threat through availability of sufficient reserves at required tier of response: -

- a. PDMAAs / SDMA / GBDMA / ICT administration to devise internal tiers for response and deployment for deployment and response in coordination with rescuers / responders, volunteers, line departments, internal resources, traffic police, LEAs and local Pak Army Formations.
- b. Respective provinces to ensure establishing the requirement and coordinating availability of machinery vis-à-vis threat / vulnerability / risk assessment.
- c. All supporting agencies to maintain the capability based on the need of the provinces.

- d. PDMA's / SDMA / GBDMA and ICT administration must prioritise districts as High Threat (Priority-I), Medium Threat (Priority-II) and Low Threat (Priority-III) based on following aspects: -
- (1) Historical record of last 30 years.
 - (2) Population density.
 - (3) Urban / rural divide.
 - (4) Type of hazard-based vulnerability.
 - (5) Degree of vulnerability and exposure e.g., population centres in proximity of landslide / avalanche prone areas.
 - (6) Reaction time for deployment.
- e. Response action will have following sequence: -
- (1) **1st Tier - Immediate Response (Immediate but Not Later than 30-40 Minutes)**. By District Administration through Rescue 1122 (if held), Police or trained Volunteers (if held), Civil Defence etc.
 - (2) **2nd Tier - Build up Response (Immediate but Not Later than 1-2 Hours)**. By Armed Forces / Civil Armed Forces in vicinity, when requisitioned. Alongside, PDMA's may shift the resources of respective province from other less threatened districts.
- f. **Priority of Districts**. The priority will be established by respective provinces after due deliberation / consultation and will share with all stakeholders for standardized planning. The priority should be based on districts with historic record and occurrences with greater frequency and magnitude: -
- (1) Priority - I Districts (High Threat).
 - (2) Priority - II Districts (Medium Threat).
 - (3) Priority - III Districts (Low Threat).

35. **Relief Operations**. All stakeholders should incorporate NDMA's Guidelines on Multi-Sector Initial Rapid Assessment (MIRA), Minimum Standards of Relief in Camp and Ex-gratia Assistance to the persons affected by natural and man-made disasters, in their respective plans. Moreover, special attention may also be given to following: -

- a. A standardized food pack must be designed as per local requirements to meet the needs of affected persons. Energy biscuits and other such food items which are not part of the daily diet of local community, be avoided. Instead, items like rice, wheat bags, ghee and milk for babies etc should be included.

- b. Water purification tablets and filtration systems for the provision of clean drinking water to affected people must be stocked in advance.
- c. Relief management is the most significant part of response to any disaster. The main purpose of the relief management is to provide life sustaining commodities to the affected communities through a fair and organized system; therefore, distribution method should be decided in consultation with local communities.
- d. Based on past experiences, need must be formalized and the list of relief goods should be available with all DDMA's and displayed on websites to facilitate donors to provide need-based relief goods in emergency.
- e. Relief packages should be according to the region's cultural context and food requirements be ensured for lactating mothers, pregnant women, infants, children and elderly persons. Stockpiling and contingency planning should incorporate special needs of older persons and persons with disabilities particularly with regards to special equipment such as wheel chairs etc and must be able to cater for the needs of family, as a whole.
- f. Trained community level teams should assist in planning and setting up emergency shelters, distributing relief among the affected people, identifying missing people and addressing needs of education, health care, water supply, sanitation and food etc of the affected community. Relief teams should also engage active women from within the community in distribution of food in the relief camps.
- g. Minimum Initial Service Package (MISP) is an international standard of care which is normally implemented at the onset of every emergency to reduce mortality, morbidity and disability among populations (particularly women and girls) affected by crises. This can be achieved by increasing the provincial and district capacity to implement the MISP during disasters, creating a data bank of trainers and trainings, strengthening the coordination stakeholders for responding in a timely and effective manner.
- h. To ensure the continuity of quality education, even during emergencies, it is crucial to establish robust emergency preparedness plans within the education sector. By implementing minimum standards and guidelines, we can mitigate the impact of disasters and maintain structured learning for all students.
- i. Dignity of all the affected persons should be especially ensured during all relief phases of rescue / relief / early recovery etc.
- j. Disease early warning system to be put in place by provincial health departments, once situation arises. National Health Emergency Preparedness and Response Network

(NHEPRN) should establish liaison and necessary coordination with provincial health authorities. District and city administration should prepare for upcoming season in advance in coordination with health departments.

- k. Health authorities must ensure stockpiling of medicines, vaccines in all health facilities with placement at lowest possible tier for distribution.
- l. Supply chain of relief goods must be maintained and followed in true letter and spirit. DDMA's are the first tier supported by PDMA's to provide immediate relief. Similarly, second tier (PDMA's supported by NDMA) should be ready to render assistance once the stocks of DDMA's are exhausted. Third Tier of NDMA supported by national resources to extend relief support required by the provinces / regions:-
 - (1) NDMA maintains its stocks at strategic locations.
 - (2) PDMA's are responsible to collect the stocks once released by NDMA from a particular location.
 - (3) NDMA stocks will be requisitioned only in case of extreme emergency and with sufficient reaction time.
 - (4) Distribution of NFIs at site must be avoided. People must be motivated to come to relief camps.
 - (5) At no point of time would NDMA's stocks placed in mutually shared warehouses to be utilized without prior approval of NDMA.

36. **Relief Goods - Non-Food Items (NFIs)**

- a. Logistics caseloads will be worked out on average relief rendered during hazards experienced in respective districts/ regions / provinces by all PDMA's/ SDMA/ GBDMA and ICT administration.
- b. Stockpiling of relief goods (NFIs) on envisaged caseload will be ensured at district level by Provincial / State / GB DMA's.
- c. An effective mechanism of supply chain management must be established including prequalified suppliers for provision of food items, relief goods (NFIs) and transport contractors for emergency transportation.
- d. Federating Units including AJ&K and GB must ensure stocking of sufficient quantity of wheat and food items in vulnerable areas, owing to possible disruption of road links.
- e. **Canteen Stores Department (CSD)** will forward resource mapping along with inventory of items, contingency plan including capability of mobile utility stores to NDMA, PDMA and all concerned DDMA's by 2nd week December 2024. USC will further ensure maintenance of

sufficient stock levels and supply chain to support community in all flood prone areas especially far-flung areas of KP, GB, AJ&K and Balochistan.

37. **Early Recovery / Damage Assessment.** MIRA is the first step of the Assessment & Monitoring Framework designed to identify strategic humanitarian priorities including scale of a disaster, priority areas of assistance and identify gaps in disaster response after the onset of natural disasters or complex emergencies. NDMA and UNOCHA have developed MIRA with the aim of sharing common procedures and assessment methodology for needs data collection as under: -

- a. In case of need, MIRA module will be deployed for which PDMAs / DDMA's will be required to provide requisite human resource, trained for the module.
- b. Rapid assessment will be carried out by NDMA / PDMAs / UN / INGOs / NGOs to identify needs and priorities of affected and vulnerable communities.
- c. Initial report will be shared with Disaster Management Authorities within one week and final report within two weeks.

38. **Needs & Concerns of Vulnerable Groups.** Following aspects must be kept in special focus during all stages of emergency/ disaster situation: -

- a. Relief sites and camps should ensure attention to women's security / privacy needs like separate wash-rooms with locks, adequate lights, water and sanitation facilities etc.
- b. Women's fair and equitable access to basic services should be ensured, particularly in health and hygiene.
- c. Female doctors and psychosocial support personnel should be made available for women and children.
- d. Mobile medical units equipped with safe delivery, post-natal facilities and referral should be in place.
- e. Camp management agency should ensure that the registration, profiling and mapping systems record disaggregated data on age, gender and vulnerabilities so as to identify people with specific needs at the earlier stages of entering in the camp site and throughout the duration of camp stay.

Coordination Aspects

39. **Inter Provincial / Regional Coordination.** During management of disasters, inter provincial / regional coordination mechanism is essential to acquire assistance for affected areas especially in far flung regions for immediate availability of nearby resources in shortest possible time thus reducing sufferings of distressed population. Information about resources of neighbouring provincial / regional

government departments must be coordinated by DM stakeholders based on their respective vulnerability and these aspects need to be incorporated in contingency/ response plans.

40. **Coordination Spectrum**

- a. All stakeholders will monitor situation by activation of Emergency Operation Centres (EOCs). EOCs will be activated by NDMA, PDMA / SDMA / GBDMA / ICT and DDMA, Line departments / concerned ministries, LEAs and Pakistan Armed Forces and all relevant stakeholders as per respective SOPs.
- b. All stakeholders will nominate respective Liaison Officers for NEOC by 30 November 2024.
- c. Daily coordination conference will be organized by NDMA in case of an emergency / disaster in NEOC at 1000 hours. All LOs will attend and brief the conference.
- d. Information about any significant event will be interpreted and shared by PMD with NDMA.
- e. All significant information will be immediately passed to NEOC by respective PDMA.
- f. Facility of a Cloud Based Video Conference System e.g., Google Meet, Microsoft Team, WebEx & Zoom etc is available at NDMA. Necessary hardware (Cameras) and Software are held with PDMA / DM stakeholders to connect to the NDMA. Same may be utilized for effective communication when required. Necessary details of the system are as under: -
 - (1) Point of Contact: E&M and Response Directorate.
 - (2) Alternate Skype ID: ndmapk
 - (3) Prior coordination for setting up of video conference besides its testing is required as per SOP.
- g. **Coordination with UN Agencies and INGOs / NGOs**
 - (1) Support of UN Agencies and INGOs / NGOs will be utilised in a coordinated manner, mostly in preparedness, relief, post disaster assessments and rehabilitation phases.
 - (2) Each organization capabilities must be ascertained to ensure its optimal utilisation.
 - (3) Need based employment of UN Agencies will be regulated by NDMA and PDMA.
 - (4) NGOs / INGOs duly cleared / approved by concerned ministries will be allowed to assist in relief operations.

41. **Reports and Returns**

- a. All PDMA / SDMA / GBDMA and ICT Administration will ensure training of staff to feed data on the portal and same will be utilised for forming cumulative SITREP during the season.
- b. NDMA and PDMA will update the situation on respective websites daily.

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- c. SUPARCO will provide the imageries of developing situations on daily basis or immediately availability (affected due to cloud cover etc).
- d. To ensure a coordinated response, National Humanitarian Network (NHN) / Pakistan Humanitarian Forum (PHF) / UN Agencies and PRCS will share location of their stocks and human resource mapping with NDMA / PDMAs by **10 December 2024**.
- e. All PDMAs / relevant stakeholders will share telephone directory of respective Provinces / Regions with NDMA and host it at respective website by 10 December 2024.

42. **Assistance / Coordination with Ministries / Departments**. Following ministries / departments are requested for assistance as mentioned against each: -

- a. **Ministry of Defence (MoD)**. Conduct of relief / rescue operations through Pakistan Armed Forces (helicopters, troops & rescue equipment) when required.
- b. **Ministry of Interior (MoI) & Anti-Narcotics Force (ANF)**. Availability of aviation assets for emergency response, at a short notice.
- c. **Pakistan Electronic Media Regulatory Authority (PEMRA)**. Airing of public service messages for community awareness on all media channels during prime hours.
- d. **Pakistan Telecommunication Authority (PTA)**. To facilitate generation of SMS alerts for early warning, emergency relief and evacuation to required populace.
- e. **Pakistan Tourism Development Corporation (PTDC)**. Provision of timely weather / flood related information to tourists including protection from dangers of flash floods, landslides, GLOF events etc and help evacuation of stranded tourists through local Government / Pakistan Armed Forces.
- f. **Ministry of Communication (MoC)**. To conduct assessment for early restoration of communication infrastructure and remain prepared to shift earth moving machinery to affected areas.
- g. **Ministry of Railways (MoR)**. To monitor railway tracks on regular basis and assist transportation of relief goods to affected areas.
- h. **Press Information Department (PID)**. Assist in running of awareness campaign through electronic and print media.
- i. **Ministry of National Health Services, Regulation & Coordination (MoNHSRC)**. Coordination for deployment of medical teams and equipment.

43. **Requisitioning of Armed Forces**. Armed Forces will be requisitioned subject to provision of rules / regulations by PDMAs / DDMA only in case of emergency. Aviation support will be coordinated

centrally by NDMA based on request of provinces and regions when called to assist in “Aid to Civil Power” under Article 245 of Pakistan’s Constitution. Authorities utilizing services from Armed Forces will **bear the cost of assets used** which will be processed immediately after their employment. Armed Forces will be employed for following: -

- a. Rescue and relief operations by Field Units of Pakistan Army, Pakistan Navy and Pakistan Air Force.
- b. Aviation support including provision of C-130 by Pakistan Air Force.
- c. Support of rescue and medical teams of Armed Forces.
- d. Medical support teams of all three services.
- e. Search and rescue in urban areas collapsed structures and landslides / avalanches by USAR team of Pakistan Army.

44. **Information Management**

- a. NDMA, Provincial / State / GB DMAs will update respective websites on daily basis during entire season.
- b. In case of a significant activity / event, it will be updated on 6 hourly bases.
- c. Print and electronic media / internet be utilized for dissemination of timely and accurate information.
- d. Regular press releases, media tickers and press briefings will be ensured to present real time picture of ongoing activities, developing situations and losses / damages, if any.
- e. To ensure post transmission record as well as redundancy, information will be disseminated through SMS, emails, fax and telephones.
- f. SMS / WhatsApp Groups of relevant stakeholders will be made to ensure real time information sharing.
- g. This plan is also available at NDMA website www.ndma.gov.pk.

Conclusion

45. In the context of the upcoming Winter Season 2024-2025, Pakistan finds itself situated in a region where the frequency of extreme weather events has witnessed a concerning uptick in recent years. It is noteworthy that despite contributing less than 1% of global greenhouse emissions, Pakistan ranks as the seventh most vulnerable state to the adverse impacts of climate change. These realities underscore the urgent necessity for an efficient, proactive, and well-coordinated response mechanism, a collaborative effort that brings together all stakeholders.


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46. Drawing from past experiences and considering the higher number of extreme climatic events experienced in 2023, the imperative to address this challenge is now more pronounced than ever. It is evident that climate-related hazards pose significant risks to both the populace and vital infrastructure in Pakistan.

47. To mitigate these risks and enhance resilience in the face of a rapidly changing climate, the focus must be on preparedness, timely early warning systems, and the development of a well-orchestrated response strategy capable of adapting to evolving situations.

48. As we look ahead to the Winter Season 2024-2025, we must recognize that the challenges presented by climate change are dynamic and multifaceted. Collaborative efforts, knowledge sharing, and a collective resolve to safeguard the lives and property of our citizens will be paramount in navigating the challenges that lie ahead. This necessitates the active participation and commitment of government agencies, local communities, non-governmental organizations, and international partners to work together effectively in a concerted response to climate-related hazards. By doing so, we can collectively strive to build a more resilient and sustainable future for Pakistan.

Government of Pakistan
Prime Minister's Office
National Disaster Management Authority
Islamabad
Dated: 12 December 2024


Brigadier
For Chairman NDMA
(**Kamran Ahmed**)
Tel: 051-9030843
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Distribution List. Attached.

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15.	DG PDMA, Balochistan, Quetta	1
16.	DG PDMA, Khyber Pukhtunkhawa, Peshawar	1
17.	DG SDMA AJ&K, Muzaffarabad	1
18.	DG GBDMA, Gilgit	1
19.	DC, Islamabad	1
20.	Director Emergency & Disaster Management, CDA Islamabad	1
21.	DG Rescue 1122 Punjab, Lahore	1
22.	DG Rescue 1122, Balochistan, Quetta	1
23.	DG Rescue 1122, Khyber Pakhtunkhwa, Peshawar	1
24.	DG Rescue 1122 AJ&K, Muzaffarabad	1
25.	DG Rescue 1122 Gilgit Baltistan, Gilgit	1
<u>Developmental & Implementation Partners</u>		
1.	Resident Coordinator, UNRC, Islamabad	1
2.	Country Head, WHO, Islamabad	1
3.	Country Head, UNWOMEN, Islamabad	1
4.	Country Director, UNHABITAT, Islamabad	1
5.	Country Head, PHF (Pakistan Humanitarian Forum), Islamabad	1
6.	Country Head, IOM, Islamabad	1
7.	International Committee of the Red Cross (ICRC), Islamabad	1
8.	Country Director, UNOCHA, Islamabad	1
9.	Country Director, WFP, Islamabad	1
10.	Country Director, UNHCR, Islamabad	1
11.	Country Director, UNDP, Islamabad	1
12.	Country Director, UNICEF, Islamabad	1
13.	National Humanitarian Network (NHN), Islamabad	1

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Ser	Department / Agencies	No of Copies
14.	Chairman, Pakistan Red Crescent Society (PRCS) National Headquarters, Islamabad	1
<u>Pakistan Armed Forces</u>		
1.	Crisis Management Cell, JSHQ, Chaklala, Rawalpindi	3
2.	Military Operations Directorate, General Headquarters Rawalpindi (For Distribution to Field Formations / Commands / Headquarters)	15
3.	Director (Operations), Naval Headquarters, Islamabad	3
4.	Maritime Security Agency	2
5.	Director (Operations), Air Headquarters, Islamabad	3
6.	Director General, Strategic Plans Division (SPD), Rawalpindi	1
7.	Arms Branch, Engineers Directorate, General Headquarters, Rawalpindi	3
8.	Director General, National Logistic Cell, Rawalpindi	1
9.	Headquarters Punjab Rangers (Operations Branch), Lahore	1
10.	Headquarters Sindh Rangers (Operations Branch), Karachi	1
11.	Headquarters Frontier Corps (Operations Branch), KP (North), Peshawar	1
12.	Headquarters Frontier Corps (Operations Branch), KP (South), D.I. Khan	1
13.	Headquarters Frontier Corps (Operations Branch), Balochistan (North), Quetta	1
14.	Headquarters Frontier Corps (Operations Branch), Balochistan (South), Turbat	1
15.	Frontier Constabulary, Peshawar	1
16.	Commanding Officer, 6 Army Aviation Squadron, Islamabad	1
17.	Headquarters Anti Narcotic Force (Operation Branch), Rawalpindi	1
<u>Internal</u>		
1.	PS to Chairman, NDMA	1
2.	Chief of Staff, NDMA	1
3.	Director General, NEOC, NDMA	1
4.	Member (A&F), NDMA	1
5.	Member (DRR), NDMA	1
6.	Executive Director (ED RM&M), NDMA	1
7.	Executive Director (IA&PD), NDMA	1
8.	Executive Director (PCC), NDMA	1
9.	Executive Director (Tech E&M), NDMA	1
10.	Executive Director (Plans), NDMA	1
11.	Director Senior Capacity Building Specialist (NIDM / PMU / Media)	1
12.	Director (Response), NDMA	5

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Ser	Department / Agencies	No of Copies
13.	Director (Logistics), NDMA	1
14.	Director (R&R), NDMA	1
15.	Director (Administration), NDMA	1
16.	Director (Finance), NDMA	1
17.	Director (Procurement), NDMA	1
18.	Project Manager (GCC), NDMA	1

NDM ACT 2010 CLAUSE-9

Powers and Functions of the National Disaster Management Authority. The National Authority shall:-

- (a) Act as the implementing, coordinating and monitoring body for disaster management;
- (b) Prepare the National Plan to be approved by the National Commission;
- (c) implement, co-ordinate and monitor the implementation of the national policy;
- (d) lay down guidelines for preparing disaster management plans by different Ministries or departments and the Provincial Authorities;
- (e) provide necessary technical assistance to the Provincial Governments and the Provincial Authorities for preparing their disaster management plans in accordance with the guidelines laid down by the National Commission;
- (f) co-ordinate response in the event of any threatening disaster situation or disaster;
- (g) lay down guidelines for or give directions to the concerned Ministries or Provincial Governments and the Provincial Authorities regarding measures to be taken by them in response to any threatening disaster situation or disaster;
- (h) for any specific purpose or for general assistance requisition the services of any person and such person shall be a co-opted member and exercise such power as conferred upon him by the Authority in writing;
- (i) promote general education and awareness in relation to disaster management; and
- (j) perform such other functions as the National Commission may require to perform.