Government of Pakistan
Prime Minister's Office
National Disaster Management Authority (HQ)

"True strength isn't just surviving the disaster; it's building back stronger every time."

2026

SUMMER CONTINGENCY PLAN

From Reactive to Proactive Disaster Management

TABLE OF CONTENTS

ACRONYM

Acronym	Full Form
AJ&K	Azad Jammu & Kashmir
DDMA	District Disaster Management Authority
DM	Disaster Management
EOC	Emergency Operations Centre
FWO	Frontier Works Organization
GB	Gilgit-Baltistan
GBDMA	Gilgit-Baltistan Disaster Management Authority
GLOFs	Glacial Lake Outburst Floods
INGOs	International Non-Governmental Organizations
KP	Khyber Pakhtunkhwa
LEAs	Law Enforcement Agencies
LO	Liaison Officer
AMJ	April-May-June
MIRA	Multi-Sector Initial Rapid Assessment
MISP	Minimum Initial Service Package
NDMA	National Disaster Management Authority
NDMP	National Disaster Management Plan
NDRP	National Disaster Response Plan
NEOC	National Emergency Operations Centre
NFIs	Non-Food Items
NHA	National Highway Authority
NGOs	Non-Governmental Organizations
PDMAs	Provincial Disaster Management Authorities
PMD	Pakistan Meteorological Department
PRCS	Pakistan Red Crescent Society
PTA	Pakistan Telecommunication Authority
PTDC	Pakistan Tourism Development Corporation
SDMA	State Disaster Management Authority
SITREP	Situation Report
SMS	Short Message Service
SOPs	Standard Operating Procedures
USAR	Urban Search and Rescue
PPE	Personal Protective Equipment

OVERVIEW

1. Pakistan experiences **summer season from April to October** each year, characterised by **high temperatures and relatively low rainfall**. This period is associated with several **climate-induced hazards** including **heatwaves** which can trigger **forest fires, urban fires and health issues such as heatstroke**. Additionally, **rising temperatures accelerate glacial melt**, increasing risk of **glacial lake outburst floods (GLOFs) and flash floods**. **Sustained dry spells** due to minimal precipitation may also lead to **drought conditions**.

2. Beyond these common summer-related risks, the country is also susceptible to **extreme hydro-meteorological events**, which are exacerbated by **climate change**. These may include **hailstorms, thunderstorms, cloudbursts and tropical cyclones**. Moreover, climate change has resulted in **erratic weather patterns, a rise in hazard frequency/ intensity and compounded impacts of recurrent natural disasters**.

3. National Disaster Management Authority (NDMA) under clause 9(a) and 9(b) of National Disaster Management Act 2010 (***Annex-A***) deals with complete spectrum of disaster management (DM) activities in the paradigm of Preparedness, Response, Recovery & Rehabilitation (***PR3***). **NDM Act 2010** is so structured that DM is a subject devolved to the provinces and federating units. Nonetheless, NDMA coordinates and generates national response in face of large-scale calamity, renders guidance, early warnings, advisories and alerts to all concerned federal and provincial departments and stakeholders to initiate mitigation and preparedness measures for potential disaster risks and contingency plans for likely disaster situations arising out of anticipated hazards. Recognizing the threat posed by the recurrent disasters vis-à-vis vulnerabilities, NDMA is in the process of preparing a comprehensive **National Disaster Management Plan (NDMP) 2026-2030**, encompassing disaster interventions. NDMP is further **augmented by National Disaster Response Plan (NDRP) 2026**, which gives broad guidelines for response related activities. In the same context, issuance of "**NDMA Summer Hazards Contingency Plan**" is a yearly practice, undertaken before the start of every summer season.

4. Accordingly, "**NDMA Summer Hazards Contingency Plan 2026**" covering period from April to June 2026 has been prepared in coordination with all DM stakeholders, both at federal and provincial levels based on analysis of seasonal outlook by the Pakistan Meteorological Department (PMD) and relevant technical input from NDMA Tech Team. In this Plan, **guidelines have been outlined for all DM tiers and relevant stakeholders** for adopting a proactive approach towards all aspects of mitigation, preparations against the most probable and against possible worst-case scenarios to coordinate a timely response. This Contingency Plan is meant to be **read in conjunction** with NDRP-2026 and other relevant documents & plans.

5. **Aim**. To formulate "**NDMA Summer Hazards Contingency Plan April to June 2026**" for proactive preparations and effective response against likely hazards associated with summers.

6. **Scope**. The scope of the **"NDMA Summer Hazards Contingency Plan 2026"** encompasses a comprehensive framework for preparedness, anticipatory actions, response coordination and early recovery measures against a wide spectrum of summer-related hazards across Pakistan. This plan covers:-

a. **General Aspects** including national hazard and risk profile, institutional responsibilities and key operational challenges observed in past DM efforts.

b. **Threat and Vulnerability Assessment** based on seasonal outlook provided by PMD, including analysis of climatic patterns, projected impacts on key sectors (agriculture, water, health, infrastructure) and identification of high-risk regions.

c. **Hazard Contingency Scenarios** for major summer hazards such as heatwaves, flash floods, GLOFs, droughts, forest fires, windstorms, landslides, tropical cyclones and urban flooding.

d. **Anticipatory Actions and Preparedness Measures** at individual, community and institutional levels, focusing on risk reduction, early warning dissemination, resource mobilisation, infrastructure readiness and community engagement.

e. **Early Warning and Information Dissemination Mechanisms**, including roles of NDMA, provincial/ district authorities and coordination with relevant stakeholders for timely alerts and advisories.

f. **Response Framework** outlining tiered response mechanisms (district, provincial and national levels), including rescue, evacuation, relief operations, logistics management and inter-agency coordination.

g. **Relief, Rehabilitation and Early Recovery Measures**, including standards for relief distribution, protection of vulnerable groups, health response, damage and needs assessment and restoration of essential services.

h. **Coordination Mechanisms** among federal ministries, provincial authorities, armed forces, humanitarian organizations and development partners to ensure a unified and effective disaster response.

i. **Role of Armed Forces** in disaster response, including deployment strategies, logistics support, aviation assistance and coordination with civil administration in high-risk zones.

j. **Risk and Vulnerability Mapping** for major hazards to support evidence-based planning, prioritisation of districts and targeted interventions.

k. **Continuous Review and Updating Mechanism** to align contingency measures with evolving weather forecasts, emerging risks and operational lessons learned.

7. Plan shall encompass following:-

a. **General Aspect**

(1) Hazard Profile.

(2) Organizational/ Departmental Responsibilities.

(3) Likely Response Challenges.

b. **Threat and Vulnerabilities**

(1) Summer Seasonal Outlook 2026.

(2) Perceived Impact of Summer Seasonal Outlook 2026.

(3) Major Conclusions from Summer Seasonal Outlook 2026.

(4) Summer Season Hazard Contingencies.

c. **Anticipatory Actions & Response Guidelines for Summers 2026**

(1) Preparedness Phase.

(2) Early Warning Phase.

(3) Response - Rescue, Relief & Early Recovery Phase.

(4) Coordination Aspects.

d. **Pakistan Armed Forces Deployment**

(1) Core objectives.

(2) Major Summer Hazard Zones & Military Deployment.

(3) Key Military Capabilities Utilized.

e. **Risk/ Vulnerability Maps**

(1) Heatwave Hazard Vulnerability Map.

(2) GLOF Hazard Vulnerability Map.

(3) Forest Fire Hazard Vulnerability Map.

(4) Avalanche Hazard Vulnerability Map.

(5) Drought Vulnerability Map.

(6) Tropical Cyclone Vulnerability Map.

CHAPTER - I

GENERAL ASPECTS

1. **Pakistan Hazard and Risk Profile**. Hazard and risk profile of Pakistan for the summer season from April to June 2026 is outlined below. (Hazard Risk Maps for Summer Hazards are included in Chapter-IV of the plan):-

a. **Heatwaves**. Pakistan faces intense heatwaves during the summer season, with temperatures exceeding 50°C in certain areas. Heatwaves are defined as prolonged periods of extreme heat, posing significant risks to human health, livestock and agriculture. The provinces of Punjab and Sindh, with their dense populations and arid climate, are particularly vulnerable. The increasing frequency and intensity of heatwaves due to climate change further exacerbates this risk.

b. **Flash Floods**. Regions across Pakistan are prone to sudden and high-intensity flash floods, triggered by heavy rainfall. These floods caused extensive damage to infrastructure, agriculture and human lives. The Northern areas, including Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB) and Azad Jammu & Kashmir (AJ&K) are especially susceptible due to mountainous terrain and proximity to major rivers.

c. **GLOFs**. Pakistan's Hindukush, Karakoram and Himalayan Mountain ranges host thousands of glaciers, making the country vulnerable to GLOFs. These occur when glacial lakes rapidly release water, leading to catastrophic downstream flooding. The GB and KP regions are at the highest risk due to their rugged terrain and significant glacial presence.

d. **Forest Fires**. Forest fires are a major threat to Pakistan's ecosystems and biodiversity, especially during the dry summer season, with little to no rainfall. These fires often result from human activities, such as uncontrolled agricultural burning, campfires, discarded cigarettes and sometimes intentional burning of grasslands, which can spiral out of control. With 4.8 million hectares of forest, covering approximately 4.8% of the country's total land area, Pakistan is increasingly vulnerable to such fires.

e. **Tropical Cyclones**. Tropical cyclones are powerful storm systems that generate high winds, heavy rainfall, storm surges and flooding. These storms originate over warm ocean waters and can move inland, impacting coastal areas of Sindh and Balochistan. The frequency and intensity of cyclones have risen due to climate change, posing a significant threat to these regions.

f. **Tornadoes**. Though relatively rare in Pakistan, tornadoes are characterized by rotating air columns that cause high-speed winds, flying debris and infrastructure damage. The provinces of Punjab and Sindh are more prone to this phenomenon.

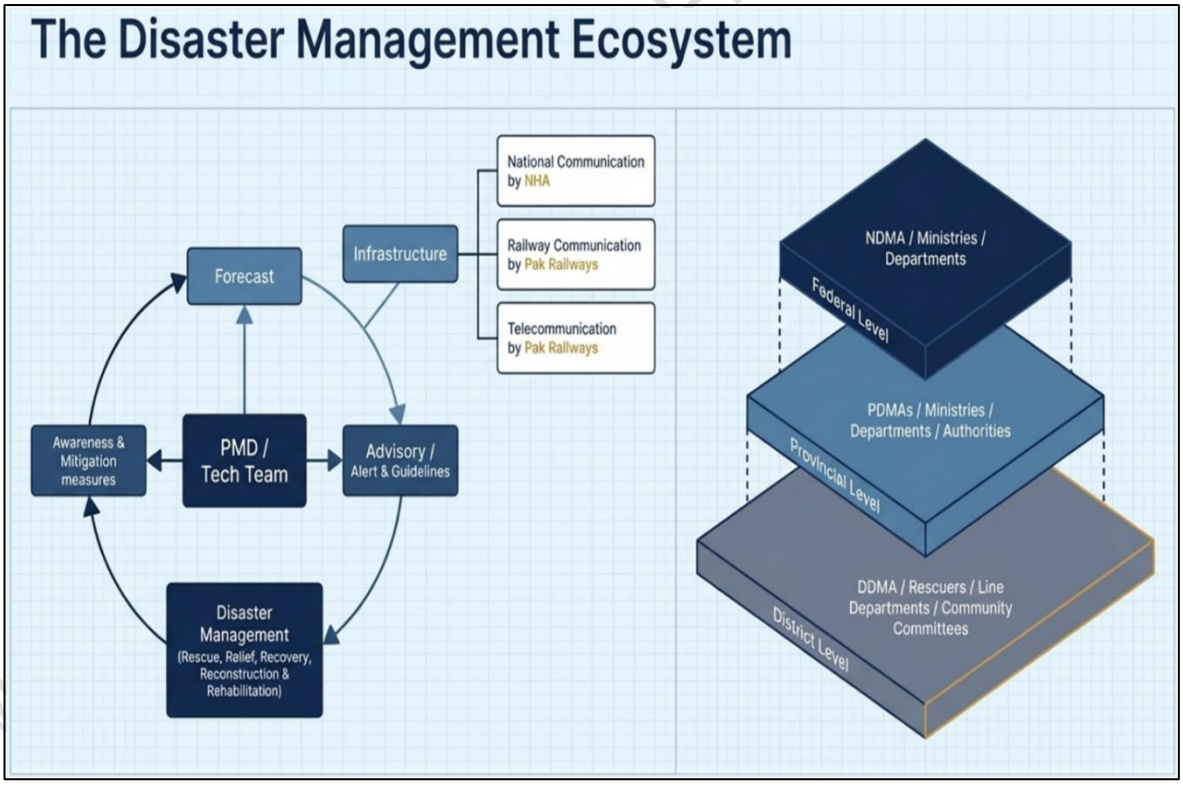
The changing climate patterns further heighten the risk of tornado occurrences.

g. **Droughts**. Droughts are prolonged periods of insufficient rainfall, leading to water shortages and crop failures. Pakistan's Southern and South-western regions, particularly Sindh and Balochistan, are most affected during the summer. These droughts are driven by climate change, deforestation and poor water management practices, causing severe socio-economic impacts.

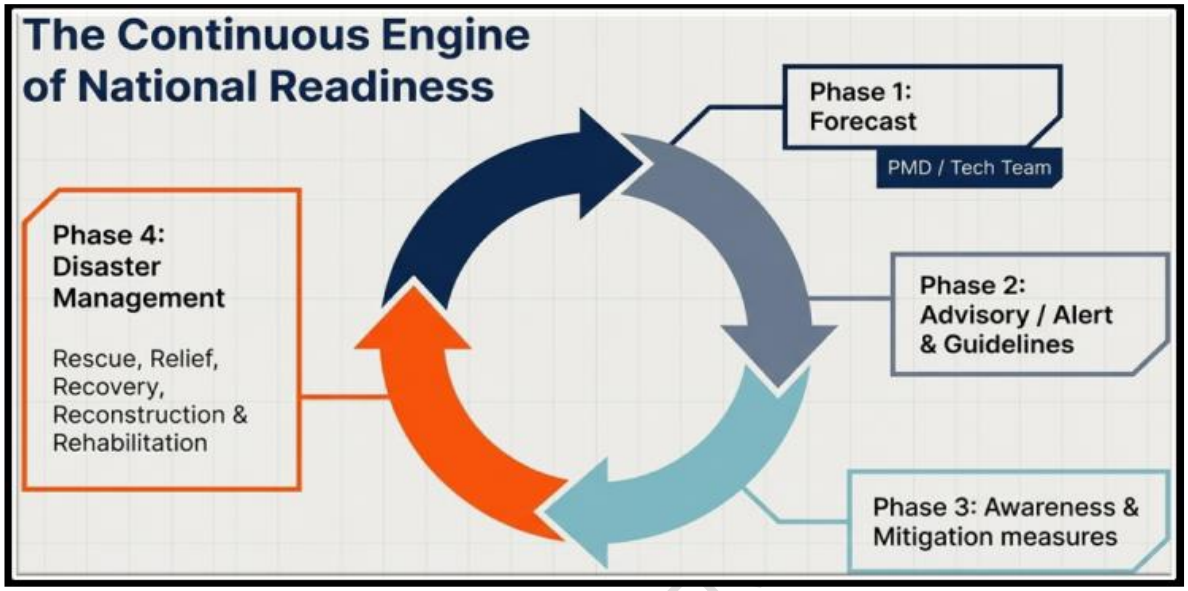
2. In conclusion, climate change and environmental degradation continue to intensify the frequency and severity of summer hazards in Pakistan, necessitating proactive DM strategies and enhanced resilience measures.

3. **Responsibilities and Sequential Actions**

a. **Responsibility Matrix**. Highlights the basic responsibilities of departments and is followed by sequence of actions by stakeholders in-line with their tasks and functions in case of emergency/ disaster like situation. The actions under the Plan are set in motion as soon as an early warning/ alert is issued by PMD/ NDMA, based on developing weather system.



b. **Sequence of Actions**. From occurrence/ reporting of an incident sequence of actions envisaged from concerned stakeholders is depicted below. To deal with likely challenges, responsibilities of national and Provincial Disaster Management Authorities (PDMAs) and departments are as under:-



(1) **Weather Forecast**. Technical input and hazard modelling against weather forecast issued by NDMA Tech Team would be updated as deemed appropriate. Furthermore, PMD will provide updated seasonal outlook every month or on required basis confirming NDMA long predictions. Updates on developing weather systems will be issued as early as possible to forewarn DM stakeholders and local communities.

(2) **Risk/ Vulnerability Assessment**. Respective District Disaster Management Authorities (DDMAs)/ PDMAs/ State Disaster Management Authority (SDMA)/ Gilgit-Baltistan Disaster Management Authority (GBDMA) to carry out risk and vulnerability assessment to identify areas requiring special attention and focus. NDMA Tech Team will undertake hazard modelling and assessments of projected/ forecasted risks. Moreover, timely stocking and supply of required amenities i.e., food, fuel, medicines etc to cater for any blockades/ disruption of supplies be ensured.

(3) **Reconnaissance of Vulnerable/ At-Risk Areas**. DDMAs/ PDMAs/ SDMA/ GBDMA and ICT administration to ensure timely reconnaissance of vulnerable/ at-risk areas ensuring participation of all responders in respective areas to include Rescue 1122, paramedics, fire brigades, Law Enforcement Agencies (LEAs), Armed Forces, National Highway Authority (NHA), Frontier Works Organization (FWO) and concerned line departments.

(4) **Conduct of Mock Exercises**. PDMAs/ SDMA/ GBDMA and ICT

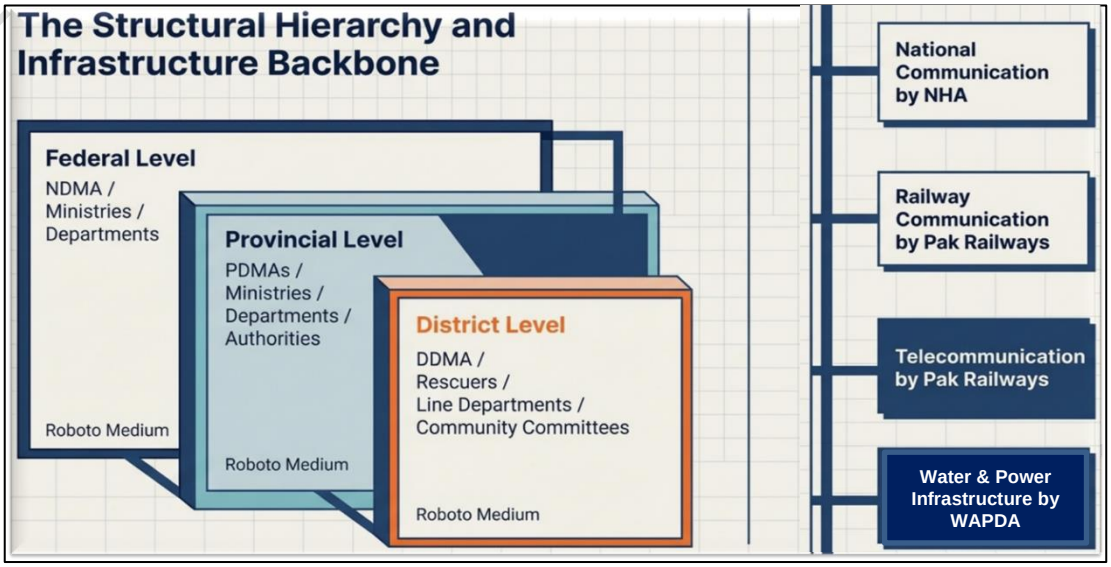
Administration to plan & conduct mock exercises to rehearse and synergise response measures among all stakeholders including areas most vulnerable to likely hazards.

(5) **Repair/ Strengthening of Roads/ Bridges/ Railway Tracks**. NHA, FWO, Pakistan Railway, Communication & Works and line departments to complete their maintenance/ restoration works in time, especially in areas likely to be affected during the summers. PDMAs/ GBDMA/ SDMA and ICT Administration to ensure necessary coordination in this regard.

(6) **Maintenance & Restoration of Communication Arteries**. PDMAs to coordinate with respective DDMAs to identify critical communication arteries and ensure their timely maintenance through concerned departments and place machinery at the pre-identified critical points to manage restoration efforts in case of need. Ministry of Communications to ensure implementation of works required and take requisite actions through concerned departments.

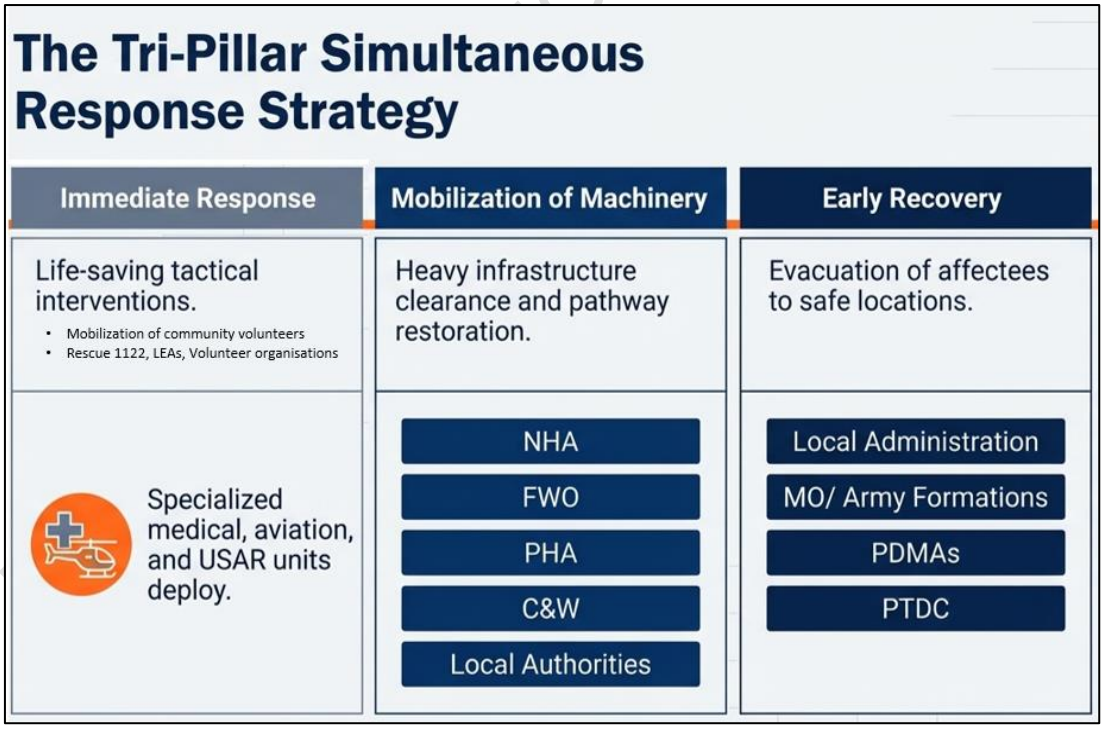
(7) **Coordination with Hotel & Transport Associations**. PDMAs/ SDMA/ GBDMA & ICT Administration in collaboration with Pakistan Tourism Development Corporation (PTDC), hotel and transport associations to hold coordination conferences at DDMA levels especially in areas likely to face influx of travellers/ tourists during summer season. As an outcome of these conferences/ coordination efforts, a set of guidelines/ Standard Operating Procedures (SOPs) be issued to all stakeholders for accommodating and transporting stranded people during an emergency/ disaster situation.

(8) **Synergised Planning**. PDMAs/ SDMA/ GBDMA and ICT Administration to ensure necessary coordination among all stakeholders, avoid duplication of efforts and have clear demarcation of responsibility among all stakeholders in consonance with their capabilities and mandates.



(9) **Mass Awareness**. Press Information Department and Ministry of Information & Broadcasting to plan and ensure maximum disbursement of weather advisories/ alerts utilising all possible platforms in all regional languages. The print/ electronic/ social media releases issued by NDMA/ PDMAs/ GBDMA/ SDMA and ICT Administration will be picked up for further propagation through all available platforms. PDMAs and respective DDMAs will ensure sharing of advisories/ alerts of NDMA/ PMD with communities for sensitizing people in at-risk areas and with LEAs/ traffic police for guidance of tourists/ travellers. NDMA Media Directorate/ RM&M Wing to ensure that full dissemination of public service messages, alerts and advisories is undertaken on all media platforms including electronic and social media. Tech EW NDMA to post alerts on mobile app.

(10) **Maintenance & Restoration of Essential Utility Services**. All concerned departments i.e., electricity, telecommunications and natural gas, will be responsible to devise respective contingency plans and ensure measures for immediate restoration of utility services as and when disrupted.



4. **Key Challenges Observed in DM**. Several operational and systemic challenges observed during past disaster responses require attention to enhance preparedness, coordination and response efficiency during the summer hazard season. Key issues include:-

a. **Gaps in Early Warning Dissemination to Local Communities**. Despite improvements in forecasting systems, timely dissemination of early warning alerts to vulnerable communities remains inconsistent. In many cases, warnings do not reach local populations, reducing the effectiveness of anticipatory actions.

b. **Weak Integration of Forecast-Based Anticipatory Action**. Although meteorological forecasts are increasingly accurate, the linkage between forecasts and early response mechanisms remains limited, delaying the activation of preparedness measures such as evacuation planning and resource mobilization.

c. **Rising Urban Heat Island Effect in Major Cities**. Rapid urbanisation, loss of green spaces and increasing concrete infrastructure have intensified heatwave impacts in major urban centres, increasing risks of heat-related illnesses and mortality among vulnerable populations.

d. **Limited Availability of Cooling Infrastructure During Heatwaves**. The absence of sufficient public cooling centres, shaded spaces and drinking water facilities during extreme heat conditions significantly increases health risks, particularly for outdoor workers, elderly citizens and low-income communities.

e. **Inadequate Preparedness for GLOFs**. High-altitude regions face growing risks from unstable glacial lakes. However, many vulnerable valleys still lack monitoring systems, early warning infrastructure and community preparedness mechanisms.

f. **Weak Coordination Among Multi-Stakeholder Response Agencies**. DM in Pakistan involves numerous ministries, departments and humanitarian partners, which often leads to coordination gaps, duplication of efforts and delays in response operations.

g. **Insufficient Health Sector Preparedness for Climate-Related Emergencies**. Health facilities in high-risk districts often lack surge capacity, heatstroke management units, mobile medical teams and contingency planning for mass casualty incidents during extreme weather events.

h. **Increasing Exposure of Tourists to Natural Hazards**. Growing tourism in Northern areas has increased the exposure of visitors to flash floods, landslides and extreme weather events. Lack of hazard awareness among tourists and insufficient regulation of high-risk areas complicate emergency response efforts.

i. **Vulnerability of Critical Infrastructure to Extreme Weather**. Transport routes, bridges, power infrastructure and communication networks remain vulnerable to floods, landslides and heat stress, which can disrupt rescue operations and humanitarian assistance.

j. **Insufficient Use of Technology for Real-Time Situational Awareness**. Although multiple monitoring portals and satellite systems exist, integrated digital platforms for real-time hazard tracking, data sharing and decision-making across all tiers of DM are still evolving.

k. **Limited Community-Based Disaster Risk Reduction (CBDRR)**. Local

communities often lack adequate training, evacuation planning and volunteer networks, which weakens the first line of response during emergencies.

l. **Increasing Climate-Induced Displacement and Livelihood Losses**. Recurring disasters are forcing vulnerable communities to migrate or relocate, creating new social and economic pressures and increasing long-term humanitarian needs.

m. **Financial Constraints for Local Disaster Preparedness**. Limited dedicated funding at provincial and district levels restricts the ability of local authorities to maintain emergency stocks, deploy resources quickly and sustain preparedness activities.

n. **National Logistics Stocking Policy**. Deficiency in maintaining relief item stocks as per National Stocking policy by PDMAs/ SDMA/ GBDMA.

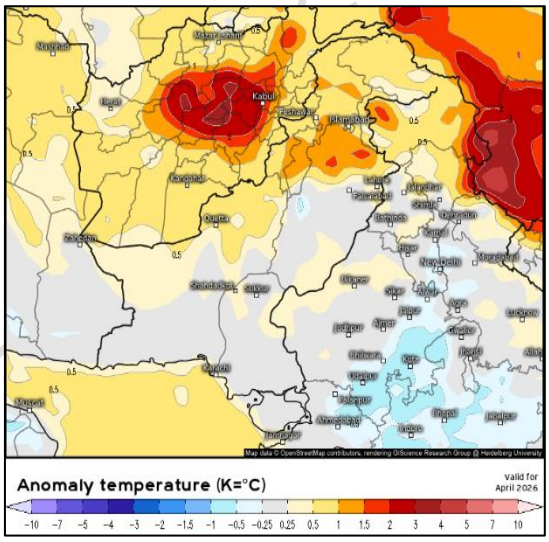
CHAPTER - II

THREAT AND VULNERABILITIES

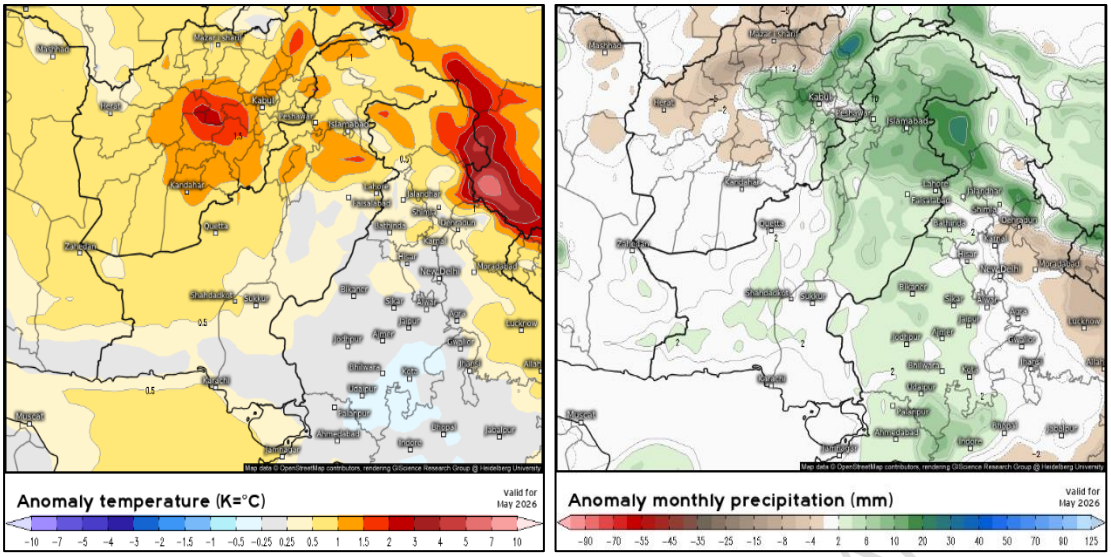
1. **Disaster Early Warning (DEW-2) Report 2026 Seasonal Summer Outlook**. Seasonal Outlook for Summer 2026 covers the period from **April to June (AMJ)**. AMJ 2026 season is anticipated to bring near-normal to marginally above-normal rainfall across the country, with greater probability of increased precipitation (10 to 30 mm or more) in April-May influenced by Westerly disturbances. June shows a drier tilt. Mean temperatures are forecasted to remain above normal across Pakistan, with maximum positive anomalies over Northern regions GB, AJ&K, Northern KP (+0.5°C to >+5°C) and South-Eastern Pakistan (Sindh). Strong positive temperature anomalies especially in Northern and North-Western areas and shifting precipitation patterns from wetter North in April-May to drier conditions in June over Central/ Southern regions.

a. **Monthly Breakdown**

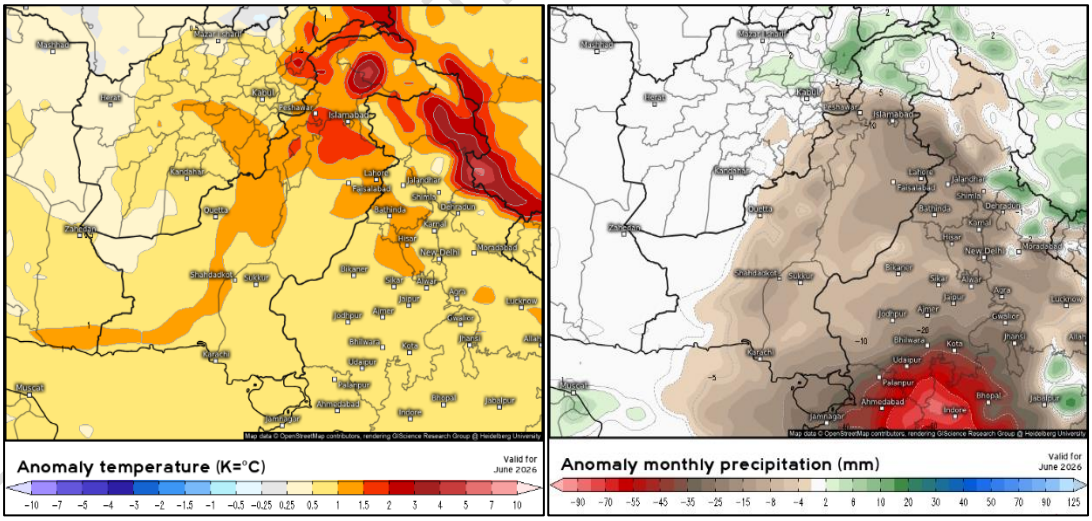
(1) **April 2026**. Rainfall across the country is expected to remain near-normal to slightly above-normal overall with wetter conditions prevailing during the first two weeks, followed by a reduction in rainfall activity in the later half of the month. Temperatures are projected to be above normal in the Northern regions and near normal in the South with anomalies ranging from +0.5°C to +4°C and the highest deviations likely in the North. Convective activity is expected to be more active initially, gradually weakening toward the end of the month.



(2) **May 2026**. Near-normal rainfall with pockets of above-normal activity in the North and West (strong positive anomalies in Northern KP/ GB/ AJ&K). Temperatures above normal will increase surface heating and convective instability, leading to localised thunderstorms and possible hailstorms.



(3) **June 2026**. Rainfall is expected to be near-normal to below-normal, especially over Northern and Central regions with deficits of -10 to -30 mm in Central and Southern areas. Reduced rainfall combined with rising temperatures creates favourable conditions for heatwaves and forest fires, particularly heat waves in urban centres. Temperatures are projected to remain above normal with persistent heat stress and strong positive anomalies over Northern and Eastern regions.



2. **Seasonal Summer Outlook 2026**. Seasonal Outlook for Summer 2026 covers the period from April to June **(AMJ)**:-

a. **Synoptic Situation**

(1) During December, January & February (**DJF**) **2025-26**, cumulative rainfall remained **below normal across most parts of Pakistan**.

(2) Systems also generated **moderate to locally heavy snowfall over higher elevations**, maintaining **persistent cold conditions**.

(3) **Temperatures remained above normal across most parts of the country**, with **maximum anomaly over GB**.

b. **Seasonal Outlook**. Based on global and regional patterns and models, the outlook is as under:-

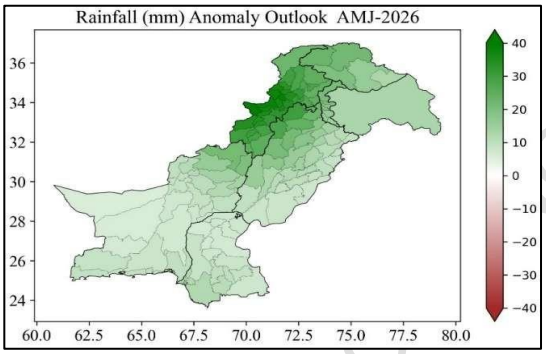
(1) Outlook developed using **nine global seasonal prediction models combined through Multi-Model Ensemble (MME)**.

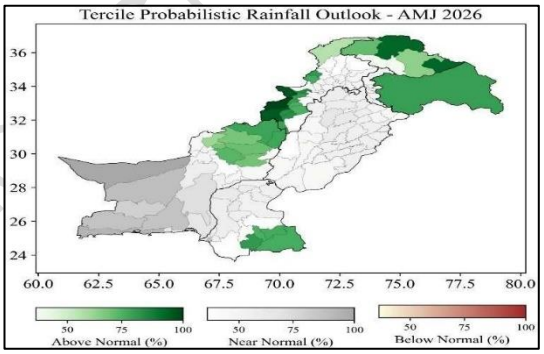
(2) **Indian Ocean Dipole (IOD) is currently neutral and expected to remain neutral during the season**.

(3) **El Niño-Southern Oscillation (ENSO)** is currently **neutral** but expected to **shift toward a positive phase by the end of the season**.

(4) **Normal to slightly above-normal** rainfall is projected over the country, with the maximum **positive anomaly expected over Western regions, particularly Central to Southern parts of KP** and **adjoining areas of Western Punjab, Western GB and Northern Balochistan**.

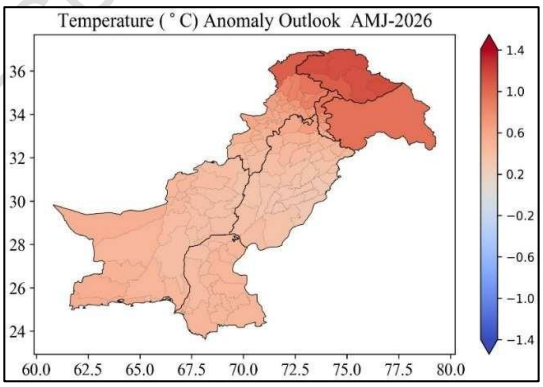
(5) **Above-normal** rainfall across Western **KP, GB** and **Eastern Sindh**.

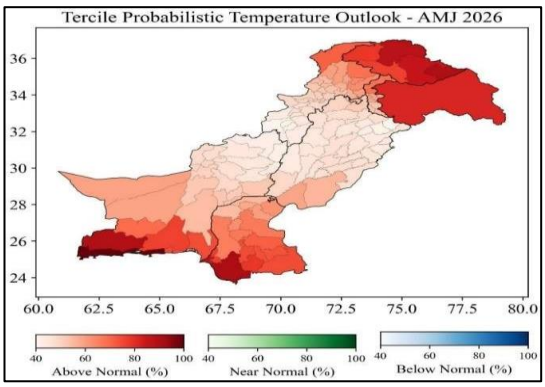




(6) Mean temperatures are expected to remain **above-normal** throughout the country, with maximum departure over **Northern areas** of the country particularly **GB, AJ&K** and **Northern KP**.

(7) **Above-normal** temperatures across the country, with the highest likelihood over Northern Pakistan, including **GB, AJ&K** and along the **Costal belt**.





c. **Likely Impacts**

(1) **Improved soil moisture** from rainfall may support **grain-filling and maturity stages of Rabi crops**, improving yields.

(2) **Reduced irrigation requirements** due to improved rainfall conditions.

(3) **Higher temperatures may shorten the Rabi crop season** in plains of Punjab and KP.

(4) **Early pollen peak** likely in major cities such as **Islamabad/ Rawalpindi and Lahore**, potentially affecting allergy sufferers.

(5) Rainfall after mid-April may extend the pollen season **Above-normal temperatures may accelerate pest and disease development** in Rabi crops.

(6) **Near-normal rainfall in catchments may improve reservoir water levels**, supporting agriculture and hydropower.

(7) **Strong winds, dust storms and hailstorms** may occur due to temperature gradients.

(8) **Heatwave conditions may develop** over plains of **Southern Punjab and Sindh**.

(9) **Above-normal temperatures in GB** and **upper KP may accelerate snowmelt**, increasing the risk of **GLOF**.

3. **Perceived Seasonal Impacts - Summer 2026**. Perceived impacts of summer climatic conditions throughout the country are as below:-

a. **Agriculture Sector**

(1) **Near-normal to slightly above-normal rainfall during the spring season** is expected to improve **soil moisture availability**, particularly benefiting the **grain-filling and maturity stages of Rabi crops** such as wheat and pulses.

(2) **Higher-than-normal temperatures** across the plains may **accelerate crop maturity**, potentially shorten the crop cycle and affect final yields in some areas of **Punjab and KP**.

(3) Elevated temperatures may also **increase the prevalence of pests and crop diseases**, leading to potential yield and quality losses if timely monitoring and control measures are not implemented.

(4) Favourable soil moisture conditions may support **early land preparation and sowing of Kharif crops**, including cotton, rice and maize.

(5) However, **heat stress conditions** during early summer may negatively impact **livestock productivity**, including milk production and animal health.

b. **Water Resources and Reservoirs**

(1) **Near-normal rainfall in major catchment areas** combined with **accelerated snowmelt in Northern mountainous regions** may contribute to **improved inflows into major reservoirs**.

(2) Increased inflows are likely to support **better water availability for irrigation and hydropower generation** during the early summer period.

(3) However, rapid snowmelt due to **above-normal temperatures in Northern areas such as GB and Upper KP** may increase **river discharge levels**, requiring careful reservoir management.

(4) Improved reservoir storage may help meet **agricultural irrigation demands during the Kharif season**.

c. **Glacier and Mountain Hazards**

(1) Above-normal temperatures in high-altitude regions may **accelerate glacier and snow melt**, increasing the likelihood of **GLOFs** in glaciated valleys.

(2) Increased meltwater flows may also elevate **flash flood risks in downstream mountain communities** and river basins.

d. **Heatwave and Public Health Impacts**

(1) **Above-normal temperature conditions** increase the likelihood of **early and more intense heatwaves**, particularly over the plains of **Southern Punjab and Sindh**.

(2) Prolonged heat conditions may lead to increased **heat-related illnesses and heatstroke cases,** greater **stress on electricity demand** due to cooling requirements and increased **water demand** in urban areas.

e. **Air Quality and Allergies**

(1) Warmer temperatures may contribute to **early and intense pollen seasons** in urban centres such as **Islamabad, Rawalpindi and Lahore**.

(2) Rainfall events occurring after mid-April may **prolong the pollen season**, potentially affecting individuals suffering from **allergies and respiratory diseases**.

f. **Extreme Weather Events**

(1) Increased temperature gradients during the transition from spring to summer may trigger **strong winds, dust storms and occasional hailstorms**.

(2) These events may damage standing crops and orchards, disrupt transportation and power infrastructure and reduce visibility and air quality.

g. **Energy and Infrastructure**

(1) Higher temperatures may lead to **increased electricity demand for cooling**, potentially stressing the energy supply system.

(2) Dust storms and high winds may cause **locals power disruptions and infrastructure damage**.

4. **Major Conclusions - Seasonal Summer Outlook 2026**. Considering NDMA Tech Team input and PMD's Seasonal Outlook for Summer (AMJ) past experiences and predominant factors of global climate change, the following can be concluded:-

a. **Near-normal to slightly above-normal precipitation** is expected across most parts of the country, with **maximum positive anomalies over Southern KP, Central Punjab and Northern Balochistan**. While improved rainfall may benefit agriculture and water availability, **localised water stress may still occur in arid and semi-arid regions**, necessitating efficient water resource management.

b. **Above-normal temperatures** are expected across the country, with **maximum departures in Northern high-altitude areas (GB, AJ&K and Upper KP)**. This may lead to:-

(1) **Accelerated snow and glacier melt**, contributing to **increased river flows and improved reservoir levels**, supporting irrigation and hydropower.

(2) **Higher likelihood of GLOFs** in vulnerable valleys of **Northern KP and GB**.

(3) **Weakened snow masses and rainfall interactions** may trigger **isolated flash floods, landslides, or avalanches** in susceptible mountainous areas.

c. There remains a **significant likelihood of isolated extreme weather events**, including **heatwaves, thunderstorms, hailstorms, dust storms and strong winds**. **Proactive measures**, such as pre-positioning earth-moving machinery, emergency food and medicines and Petroleum, Oil and Lubricants (POL), must be undertaken in at-risk regions to mitigate potential impacts.

d. **Dust-raising winds, hail, or heavy localised rainfall** may cause **damage to crops, property and infrastructure**. **Mitigation measures** should be implemented by all relevant authorities and stakeholders.

e. **Timely issuance of qualitative and probabilistic weather forecasts** by concerned with **early warnings by NDMA, PDMAs, GBDMA and SDMAs,** will be critical to ensure **effective preparedness and risk communication** in at-risk areas.

f. **Field reconnaissance and vulnerability mapping** should be conducted to identify weak points in infrastructure, flood-prone zones and avalanche-prone slopes, enabling **timely implementation of mitigation measures**.

g. **All relevant stakeholders must conduct mock drills or table-top exercises** to **strengthen coordination, preparedness and response mechanisms** in anticipation of extreme events.

h. Given the **dynamic nature of seasonal forecasts**, concerned departments will issue **monthly updates for Summer 2026**. All authorities must **continuously review and revise contingency plans** to align preparedness measures with the latest weather outlook and ensure **timely mitigation actions**.

5. **Summer Hazard Contingencies**. Visualised Summer Contingency Scenarios derived from Seasonal Outlook for Summer 2026 (AMJ) are as under:-

a. **Heatwaves**

(1) Seasonal outlook indicates **above-normal temperatures** across most parts of the country, increasing likelihood of moderate to severe **heatwave** episodes, particularly over Sindh, Southern Punjab, Balochistan and parts of KP.

(2) Persistent **high-pressure systems and prolonged dry spells** may lead to temperatures rising **4-7°C above seasonal averages**, posing risks to public health, agriculture and energy demand.

(3) Major metropolitan areas such as Karachi, Lahore, Islamabad and Peshawar etc may experience intensified heat stress due to the **Urban Heat Island effect**, increasing the risk of heatstroke and dehydration.

b. **Flash Floods/ Hill Torrents**

(1) Near-normal to slightly above-normal rainfall combined with localized heavy precipitation events may trigger **flash floods in mountainous and semi-arid catchments**, particularly in KP, Northern Balochistan and GB.

(2) Sudden intense rainfall in short durations may generate **hill torrents in Balochistan and D.G. Khan/ Rajanpur regions**, posing risks to settlements and infrastructure downstream.

(3) Urban drainage systems may be overwhelmed during short but intense rainfall episodes, resulting in **localised urban flooding in major cities**.

c. **GLOF**

(1) Rising temperatures in Northern Pakistan may **accelerate glacier and snow melt**, increasing the likelihood of GLOF events in glacial valleys of GB and Upper KP.

(2) Sudden breaching of unstable glacial lakes may generate **flash floods downstream**, threatening villages, roads, bridges and hydropower infrastructure.

d. **Dust Storms/ Severe Windstorms**

(1) Extreme surface heating and pressure gradients during summer may trigger **dust storms, squalls and strong windstorms**, particularly over Punjab, Sindh and Southern KP.

(2) High-velocity winds may damage weak structures, uproot trees and disrupt electricity supply by damaging transmission lines.

e. **Forest and Wildland Fires**

(1) Prolonged dry conditions, high temperatures and lightning strikes may increase the likelihood of **forest and wildland fires** in forested regions of KP, Islamabad Capital Territory, AJ&K and GB.

(2) Forest fires may spread rapidly due to **strong winds, dry vegetation and steep terrain**, posing risks to biodiversity, local communities and tourism infrastructure.

(3) Three types of forest fires can occur in vulnerable forested areas and it's not uncommon to have all three occur simultaneously. Details as below:-

(a) **Crown Fires**. Crown fires burn trees up their entire length to top. These are the most intense and dangerous wildland fires.

(b) **Surface Fires**. Surface fires burn only surface litter/ duff. These are easiest fires to put out and cause the least damage to forest.

(c) **Ground Fires**. Ground fires occur in deep accumulations of humus, peat and similar dead vegetation that become dry enough to burn. These fires move very slowly, but can become difficult to fully put out or suppress. Fuel (shrubs, dead leaves, fallen pine needles, or underbrush), topography and weather drive a fire's behaviour and changes to any of three may cause a ground fire to emerge as a surface fire or a surface fire to escalate into a crown fire or vice versa.

(d) **High Winds**. Risk exists for forest fires to rapidly spread with high winds which are prevalent in hilly/ mountainous forested areas of the country.

f. **Tropical Cyclones and Coastal Hazards**

(1) Hydro-meteorological conditions over the **Arabian Sea and Northern Indian Ocean** may favour the development of **tropical cyclones**, which can affect coastal areas of Sindh and Balochistan including Karachi and Makran coast.

(2) Associated hazards may include **storm surge, heavy rainfall, coastal flooding and disruption of maritime activities**.

g. **Windstorms**

(1) There is a risk of windstorms in plain areas of KP, Punjab and Sindh.

(2) Highspeed winds pose **may knock down billboards/ hoardings** in urban areas as well as trees and powerlines.

h. **Urban Fires**

(1) Due to the **extreme heat/ high temperatures** which can be further exasperated by **"Urban Heat Islands Effect"** in major urban areas of the country, there remains a risk of urban fires in various municipalities which poses a clear threat to residential, commercial and industrial areas.

(2) Secondary fire risks in urban settings include the risk of combustive materials including petroleum and natural gas in the immediate vicinity of an urban fire.

i. **Urban Flooding**

(1) Rapid urbanisation, encroachments along natural drainage channels and inadequate drainage capacity increase the risk of **urban flooding during heavy rainfall events**.

(2) Major urban centres such as Karachi, Lahore, Rawalpindi, Peshawar and Quetta etc remain particularly vulnerable to **short-duration high-intensity rainfall events**.

j. **Droughts/ Water Stress**

(1) Despite episodic rainfall, prolonged dry spells and rising temperatures may lead to **localized drought conditions**, particularly in arid and semi-arid regions of Sindh, Southern Punjab and Balochistan.

(2) Reduced soil moisture and declining groundwater availability may affect **agricultural productivity, livestock and drinking water supply**.

k. **Landslides/ Avalanches**

(1) Intense rainfall, snowmelt and slope instability may trigger **landslides in mountainous regions of KP, GB, AJ&K and Northern Balochistan**.

(2) Landslides may disrupt **transport routes such as Karakoram Highway, tourist corridors and local access roads**, affecting mobility and emergency response.

(3) Risk of **avalanche in vulnerable mountain areas** due to rising temperatures, snowpack on mountain sides may begin to lose integrity, which can lead to avalanche event that may impact settlements in vicinity.

l. **Tourism-Related Disaster Risks**

(1) The summer season witnesses increased tourism in Northern areas, Gallyat increasing the exposure of visitors to hazards such as **flash floods, landslides, road accidents and extreme weather conditions**.

(2) Congestion and unregulated tourism in fragile mountain ecosystems may complicate evacuation and emergency response operations during disasters.

CHAPTER - III

ANTICIPATORY ACTIONS & RESPONSE GUIDELINES FOR SUMMER 2026

1. Anticipatory actions for disasters involve measures taken in advance to mitigate the impact of potential disasters. These actions can include emergency preparedness, planning, early warning systems, community education and training, infrastructure improvements and disaster simulations or drills. The goal is to reduce vulnerabilities and enhance resilience in the face of future disasters.

2. Towards this end, suggested anticipatory actions and response guidelines for summer hazards are enumerated in ensuing paras as per Seasonal Summer Outlook (AMJ).

3. **Preparedness Phase**. Preparations for both natural and man-made disasters involve several key steps and considerations, some guidelines for the preparatory phase are as under:-

a. **Risk Assessment**. Conduct updated multi-hazard risk assessments to identify vulnerable districts, river basins, hill torrent corridors, urban flood pockets, GLOF-prone valleys, landslide zones, heatwave hotspots and exposed populations so that planning and resource placement remain risk-informed.

b. **Emergency Plan**. Review and update emergency response plans in light of projected rainfall, heat, wind and snowmelt conditions, clearly defining roles, responsibilities, activation thresholds, evacuation arrangements and resource mobilisation procedures.

c. **Infrastructure Preparedness**. Assess and reinforce critical infrastructure likely to be affected during Summer 2026, including dams, embankments, irrigation structures, bridges, roads, drainage systems, power infrastructure, communication nodes, health facilities, water supply systems and exposed public buildings.

d. **Resource Mapping**. Undertake province-wise and district-wise resource mapping and communicate the same in a timely manner to NDMA, including availability of machinery, rescue teams, boats, shelters, stocks, communications equipment, health facilities and logistics assets.

e. **Early Warning Systems**. Ensure that early warning arrangements remain fully functional for rainfall, flash floods, hill torrents, GLOF, landslides, windstorms, heatwaves and related hazards, with clear dissemination protocols up to the community level.

f. **Community Engagement**. Engage local communities, volunteers, Non-Governmental Organizations (NGOs), community-based organisations, women-led organisations, disability-led organisations and local leaders in preparedness planning, awareness drives, local risk mapping and response readiness.

g. **Resource Allocation**. Allocate adequate personnel, equipment, stocks and finances for preparedness, response and immediate relief, especially in districts with higher projected exposure including Southern KP, Central Punjab, Northern Balochistan, upper catchments and glacier-fed valleys.

h. **Public Communication**. Implement a clear and timely public communication plan for Summer 2026, including advisories, warnings, safety instructions, evacuation messaging and response contacts through television, radio, mobile alerts, social media and mosque announcements.

i. **Placement of Earth Moving Machinery**. Place earth-moving machinery and road clearance assets at vulnerable locations to enable rapid clearance of landslides, debris, fallen trees, blocked culverts and damaged road sections.

j. **Coordination Conferences**. Hold regular coordination conferences and pre-monsoon review meetings among all relevant stakeholders for timely decision-making, deconfliction of responsibilities and readiness checks.

k. **Conduct of Mock Exercises and Reconnaissance**. Carry out reconnaissance of vulnerable areas and conduct simulation exercises for flash floods, GLOF, urban flooding, landslides, heat emergencies and evacuation scenarios.

l. **Provision of Timely Information**. Ensure timely provision of occurrence-based SITREPs (SITREP format is attached as ***Annex-B***) by PDMAs/ GBDMA/ SDMA/ ICT Administration using NDMA's standardised reporting formats so that compilation, analysis and response remain uniform and timely.

m. **Database Update**. DDMAs should update databases of volunteers, rescue assets, warehouses, health facilities, camp locations, vulnerable settlements, contact lists and local response capacities required during emergencies.

n. **Baseline Data**. Maintain updated baseline data for population, crops, livestock, infrastructure, WASH systems, schools and health facilities so that impacts can be assessed accurately after hazard events.

o. **Awareness Campaign**. Use every available means to raise awareness among the public on monsoon hazards, heat stress, flash flood safety, GLOF safety, storm safety and evacuation protocols.

p. **Completion of Mitigation Projects**. Ensure completion of all ongoing mitigation works before the peak summer hazard period where possible, including desilting, drainage clearance, slope stabilisation, embankment strengthening, protective walls, firebreak improvement and local flood protection measures.

q. **Coordination with Armed Forces/ CAFs/ LEAs/ Line Departments/ Rescue Services**. All DM stakeholders should maintain close coordination with Armed

Forces, CAFs, LEAs, line departments and rescue services to ensure a synchronised response mechanism.

r. **Inclusive Community Engagement**. Undertake grassroots level preparedness through localised awareness initiatives, hazard audits, volunteer mobilisation and inclusion of vulnerable groups so that community-based readiness is practical and usable.

s. **Evacuation Planning and Identification of Safe Areas.** Prepare detailed evacuation plans, identify safe routes and shelters, map transport support for high-risk settlements and conduct local evacuation drills before the onset of peak hazard periods.

t. **Continuous Monitoring and Evaluation**. Establish continuous monitoring, review and lesson-learning mechanisms so that changing hazard signals, operational gaps and district-level needs can be acted upon without delay.

4. **Anticipatory Actions against Summer Hazards**. Following Anticipatory Actions may betaken by individuals and relevant departments to mitigate losses from summer hazards:-

a. **Heatwave**. Seasonal outlook indicates likely heatwave development over Southern Punjab and Sindh. Heatwaves Guidance is enclosed at ***Annex-C***.

(1) **Individual/ Community Level Anticipatory Actions**

(a) Always stay tuned to local weather forecasts and remain aware of upcoming weather/ temperature changes.

(b) Minimise outdoor activities, especially during the hottest parts of the day, typically from late morning to early evening.

(c) Regularly check on elderly neighbours, young children and individuals with chronic illnesses to ensure they are coping with the heat.

(d) Minimise direct exposure to the sun and spend time in shaded/ well-ventilated/ air-conditioned spaces.

(e) If you do not have access to shaded/ well-ventilated/ air-conditioned spaces, choose places you could go for relief from direct heat during the warmest part of the day. In some cases, areas like malls, libraries and offices buildings can provide immediate relief in case of emergency.

(f) Stay hydrated by drinking water and electrolyte-rich fluids throughout the day.

(g) Know the symptoms of heat-related illnesses and the appropriate responses.

(h) People with underlying health conditions must take extra precautionary measures as advised by doctor.

(i) In case symptoms of heatstroke appear in anyone (yourself or family member) immediately locate your nearest heatstroke centre/ hospital/ clinic/ Basic Health Unit (BHU)/ Regional Health Unit (RHU) and available mode of transport to reach there in shortest timeframe.

(j) Reduce and slow down physical activity, stay indoors if possible and avoid exhaustive activity during the hottest part of the day.

(k) Take frequent rest breaks if you work outdoors.

(l) Never leave children unattended/ alone in parked vehicles with running air-conditioning. Stationary vehicles are more prone to developing a fault and may result in creating an emergency.

(m) People who are elderly, children, sick or having underlying health condition are more likely to be a victim of heatstroke.

(n) Educate community members about the risks of heat waves and encourage them to take preventive measures to stay safe.

(2) **Organisational Level Anticipatory Actions**

(a) NDMA/ PMD/ PDMAs/ Ministry of Health/ Provincial Health Departments to ensure monitoring of temperatures and humidity levels and disseminate weather advisories/ forecasts/ precautionary measures for the public.

(b) NDMA/ PDMAs and health authorities to develop Union Council level Heatwave Response Units to effectively, timely and locally respond to heatwave affected populations.

(c) NDMA/ PDMAs to establish and maintain Control Rooms for information and coordination during heatwave season. It is imperative that relevant staff is trained in heat-related response and rehabilitation efforts.

(d) Establish community cooling centres in public buildings where people can seek refuge from the heat if they do not have access to air conditioning at home.

(e) Advocate for the creation and maintenance of green spaces and shaded areas in communities to provide relief from extreme heat.

(f) Provide support and resources to vulnerable populations, such as the homeless and low-income individuals, to ensure they have access to adequate shelter and hydration during heat waves.

(g) Ministry of Information and Broadcasting to raise heat health awareness campaigns in the country before summer season.

(h) Building and works departments to incorporate white/ reflective materials

to build houses, roofs, pavements and roads, thereby counteracting the heat island effect and increasing the overall albedo of the city.

(i) Health authorities and NDMA/ PDMAs to educate public on the early signs and symptoms of dehydration and subsequent evolving signs and symptoms of heat/ sun stroke including muscle cramps, nausea, committing, light-headedness and heart palpitations.

(j) Health authorities, PDMAs and district administration to arrange first aid points in case of emergency stocked with sufficient essential medical supplies such as intravenous fluids and equipment for heatwave related illnesses.

(k) Agriculture/ Irrigation departments to advise farmers to manage crop water responsibly and harvest wheat as required.

(l) Provincial Forest Departments/ Public Health Engineering (PHE)/ Housing & Urban development (HUD) to encourage green spaces by planting shade trees in cities.

(m) Build the capacity of government officials and emergency responders on heatwave preparedness and response through trainings/ exercises.

(n) Limit outdoor work and encourage employers to provide appropriate protective measures for outdoor workers.

(o) Establish cooling centres stocked with cool drinks and heatwave related resources.

(p) Federal/ provincial health department and relevant authorities to ensure adequate water supply to prevent dehydration.

b. **Forest Fire**. Above-normal temperatures and dry conditions in some areas may elevate fire risk, particularly in forest and rangeland areas. National Forest Fire Guidelines and Public Guidance are attached as ***Annex-D***.

(1) **Individual/ Community Level Anticipatory Actions**

(a) Create clear spaces around residential areas by clearing flammable vegetation and debris from immediate vicinity including roofs and sewerage lines.

(b) Use fire-resistant materials to build or renovate homes and keep a safe distance between homes and forests.

(c) Create an emergency evacuation plan and practice it with family members.

(d) Keep important documents, such as insurance policies and identification papers, in a fireproof safe or away from vulnerable area.

(e) Prepare an emergency kit with essential items such as water, non-perishable food, first-aid supplies and a battery-operated radio.

(f) Participate in community fire prevention drills and become familiar with fire safety tips.

(g) Report any signs of a forest fire immediately to local authorities.

(2) **Organisational Level Anticipatory Actions**

(a) Local Administrations/ DDMAs to devise a forest fire action plan with clear responsibilities, roles and activation triggers for all stakeholders.

(b) Collaborate with local forestry departments, fire departments and other agencies to create a unified response to forest and coordinate fire-fighting efforts available in each district.

(c) Conduct regular training and drills for emergency responders on forest fire preparedness and response.

(d) Use technology, such as early warning systems, remote sensing, to detect forest fires early.

(e) Maintain fire lines, fire roads and fire hydrants to provide access to areas threatened by forest fires.

(f) Dissipate information to the public about forest fire risks and prevention measures through broadcast/ print/ social media, community outreach programs and public education campaigns for responders and residents in fire-prone regions, which should be updated regularly.

(g) Forestry Departments to routinely update and implement forest management plans to mitigate the risk of forest fires.

c. **Urban Fire** Heat, overload on electricity systems and unsafe wiring may raise urban fire risk during the warm season.

(1) **Individual/ Community Level Anticipatory Actions**. In addition to points highlighted against forest fires and already issued urban fire guidelines of NDMA, following checklist actions may be incorporated in respective plans:-

(a) Check electrical wiring and appliances regularly to ensure they are in good working condition.

(b) Avoid overloading electrical outlets and extension cords.

(c) Keep flammable materials such as curtains and papers away from heat sources.

(d) If possible, install smoke detectors on your property and maintain these regularly.

(e) Use surge protectors within homes and businesses to prevent

unnecessary spikes in voltage and reduce risk of fire.

(f) Only smoke within designated areas.

(g) Report any signs of a fire immediately to local authorities.

(h) Do not use elevators during a fire.

(i) Stay low to the ground and cover your mouth and nose with a wet cloth if there is smoke in air.

(j) Turn off gas and electricity from the main switch if you are leaving your home during a fire.

(k) Keep and maintain fire extinguishers around the house, especially near vicinity of heat/ fire sources.

(2) **Organisational Level Anticipatory Actions**

(a) Ensure that firefighting equipment and vehicles are in good working condition and that there is sufficient stock of fire extinguishers, hoses and other equipment.

(b) Coordinate with local agencies, such as the fire departments and Rescue 1122, to create a unified response to urban fires.

(c) Develop and implement building codes and standards to reduce the risk of urban fires.

(d) Conduct regular inspections of commercial and residential buildings to ensure these are following fire safety regulations.

(e) Provide information to the public about urban fire risks and prevention measures.

d. **GLOF**. Above-normal temperatures over GB and Upper KP may accelerate snowmelt and contribute to glacier-related hazards:-

(1) **Individual/ Community Level Anticipatory Actions**

(a) Identify and establish safe evacuation routes and shelter locations.

(b) Keep yourself informed about the potential risk of GLOFs in your area and stay updated on weather forecasts and warnings from PMD/ NDMA and other DM agencies.

(c) Do not venture near glacial lakes, especially during periods of high rainfall or rapid melting, as GLOFs can be triggered without warning.

(d) Pay attention to warning signs and evacuation orders issued by relevant authorities/ DDMAs and follow their instructions.

(e) Keep an emergency kit with essential items such as first-aid supplies, water, food and a flashlight in case of a GLOF.

(f) Develop an emergency plan with your family or group and know how to

evacuate to safe areas quickly.

(g) Familiarise yourself with evacuation routes in your area and follow them when required.

(2) **Organisational Level Anticipatory Actions**

(a) Monitor water levels, weather conditions and movement of glaciers and ensure warnings are timely dissipated for all concerned.

(b) Establish communication networks to enable timely dissemination of warnings, alerts and subsequent emergency response instructions.

(c) Timely identify glacial lakes and their outburst potential to determine high-risk areas and activate emergency response plans.

(d) Build the capacity of local communities and authorities for disaster risk reduction including evacuation drills and emergency response training.

(e) Identify and establish safe evacuation routes and shelter locations.

(f) Provide trainings and drills to search and rescue teams and ensure they have adequate equipment to respond to GLOF emergencies.

(g) Collaborate with forecasting departments to ensure accurate and timely weather forecasts and alerts are available for all DM responders.

(h) Regularly maintain and repair infrastructure such as bridges, roads and buildings to ensure their resilience against GLOFs.

(i) Develop flood protection measures such as embankments, diversion channels and retaining walls.

(j) Include GLOF risk reduction measures in regional development plans.

(k) Conduct public awareness campaigns to educate communities about GLOFs and how to prepare for them.

(l) Monitor and evaluate preparedness measures to identify gaps and areas for improvement.

(m) PDMA KP is closely monitoring **GLOF** sites, especially vulnerable locations in coordination with district administrations of **Chitral Upper and Lower, Swat, Upper Dir, Lower Dir and other flood-prone district**. Regular coordination is being maintained with the relevant district authorities to ensure early reporting, preparedness and timely response in case of any potential glacial lake activity.

e. **Flash Flood/ Hill Torrent/ Localised Heavy Rain**. Projected rainfall anomalies over Southern KP, adjoining Central Punjab and Northern Balochistan require heightened readiness for flash floods, hill torrent activity and localised heavy rain impacts, while near-normal rainfall elsewhere still warrants local preparedness

during severe weather spells:-

(1) **Individual/ Community Level Anticipatory Actions**

(a) Keep track of weather to stay informed about the potential risk of flash floods and hill torrents.

(b) If you are in a high-risk area, be prepared to evacuate quickly. Know your evacuation route and move to a safer location.

(c) Do not attempt to cross flooded areas on foot or by vehicle.

(d) If you are in a low-lying area, move to higher ground.

(e) Stay away from fallen power lines or lines that are in contact with water as they are a serious hazard.

(2) **Organisational Level Anticipatory Actions**

(a) Ensure installation/ maintenance of flood gauges in strategic locations along rivers and hill torrent paths to monitor water flow levels, enable effective monitoring and forecast possible flash floods/ hill torrents.

(b) Maintain adequate rescue equipment including inflatable boats, life jackets and ropes. Rescue teams trained in water rescue and first aid techniques.

(c) Construct retaining walls and embankments along rivers and hill torrents. Drainage channels should be built to divert water away from populated areas/ infrastructure.

(d) Local Administration to issue evacuation plans that include identifying safe routes, shelters and transportation. These plans can be further communicated through public awareness programs and community elders/ community response teams.

(e) Public awareness campaigns need to be conducted, which include information on how to recognise the signs of flash floods and hill torrents, what to do in case of emergency and how to access respective emergency departments.

(f) Support diversification of livelihoods to reduce economic impact of flash floods/ hill torrents by promoting small scale agriculture, livestock rearing and other income generating activities that are less vulnerable to flash floods.

(g) Key mitigation interventions by GBDMA include the allocation of Rs. 69.53 million during FY 2025–26 for dredging of nullahs and channelization of waterways to enhance water carrying capacity and reduce flood risks. These efforts aim to protect settlements, agricultural

land, and critical infrastructure.

f. **Landslide/ Avalanche**. Rainfall episodes, slope instability and accelerated snowmelt can increase the risk of landslides in Northern and hilly areas, while residual avalanche exposure may persist in high-altitude zones during the early season:-

(1) **Individual/ Community Level Anticipatory Actions**

(a) Know the risk of avalanches and landslides in your area and be aware of possible signs/ triggers. Check local reports and forecasts frequently.

(b) Stay away from areas that are prone to avalanches and landslides such as steep slopes, gullies and cliffs.

(c) Avoid travelling during periods of heavy rainfall, high winds and rapid temperature changes. Pay attention to changing weather conditions as they can affect the stability of the soil and snow.

(d) Choose safe routes that avoid areas that are prone to avalanches and landslides. If you are unsure about the safety of a particular route, choose an alternative route and seek guidance from DDMA/ LEAs.

(e) Avoid traveling alone, as it can be difficult to rescue yourself in the event of an avalanche or landslide. Always travel with at least one other person and have an emergency contact you could call during an emergency.

(f) If caught in an avalanche, try to stay on the surface of the snow by swimming or rolling. If you are buried during a hike, use your avalanche beacon to help rescuers locate you. If caught in a landslide, move away and to higher ground immediately and alert others if possible.

(2) **Organisational Level Anticipatory Actions**

(a) Update hazard vulnerability mapping of avalanche and landslide prone areas to identify high-risk areas and enable public officials to develop and enforce effective mitigation measures.

(b) Install early warning systems for both avalanches and landslides in areas with high risk. These systems can help provide timely warnings to the public, giving them time to evacuate or take other necessary precautions.

(c) Conduct public education campaigns to raise awareness of the risks associated with avalanches and landslides and provide information on best practices for staying safe during these events.

(d) Develop and implement land use planning policies that consider the risk of avalanches and landslides, including the creation of buffer zones, the restriction of development in high-risk areas and the establishment of

building codes and standards to minimise damage.

(e) Establish emergency response plans that consider the risk of avalanches and landslides. This can include developing evacuation plans, training emergency response personnel and establishing communication systems to keep the public informed during events.

(f) Take measures to protect critical infrastructure in areas with high risk of avalanches and landslides. This can include the installation of protective barriers, the stabilization of slopes and cliffs and the reinforcement of buildings and other structures.

g. **Windstorm/ Dust Storm/ Hailstorm/ Tornado**. Seasonal outlook indicates strong winds, dust storms/ hailstorms may arise due to prevailing temperature gradients.

(1) **Individual/ Community Level Anticipatory Actions**

(a) Take shelter immediately during a tornado warning.

(b) If you are at home, go to your basement or an inside room without windows on the lowest floor.

(c) If you live in a prefab home, go to a nearby building and take shelter.

(d) If you are at work or school, follow your tornado drill. Stay away from windows and do not go to large open rooms such as cafeterias, gyms, or auditoriums.

(e) If you are in a mall, theatre or gym, get to the lowest level of the building and stay away from the windows.

(f) If you are in a vehicle, do not try to outrun a tornado. Drive to the closest shelter. Cars, buses and trucks are easily tossed by tornado winds.

(g) If you are outside when a tornado approaches, find shelter quickly. If there is no shelter nearby, go to a low-lying area such as a ditch or ravine and lie flat. Protect your head and neck with an object or with your arms. Avoid areas with many trees.

(h) Do not waste time opening or closing windows and doors. It will not protect the structure and put you at greater risk.

(2) **Organisational Level Anticipatory Actions**

(a) DM agencies/ public safety officials/ local weather experts to coordinate response efforts in the event of a tornado.

(b) Local administrations to issue an emergency plan that includes evacuation procedures, shelter locations and communication protocols.

(c) Establish a communication system to keep the public informed about the status of the storm, evacuation orders and other emergency information.

(d) Identify safe locations for shelter, such as designated storm shelters or reinforced buildings and ensure that they are well-equipped with emergency supplies.

(e) Conduct regular drills and training exercises to ensure that all response team members and the public know what to do in the event of a tornado.

(f) Conduct assessments of the damage caused by the tornado to determine the level of response required and to plan for future tornadoes.

(g) Provide ongoing education and outreach to the public about tornado safety, including the importance of having an emergency plan and staying informed about weather conditions.

h. **Cyclone**. While the present seasonal outlook does not indicate a specific cyclone threat, coastal districts should maintain routine summer readiness and act on any separate cyclone or coastal storm advisory issued later in the season. National Cyclone Guidelines are attached as ***Annex-E***.

(1) **Individual/ Community Level Anticipatory Actions**

(a) Ensure good condition of house so that it can withstand strong winds.

(b) Trim down trees to make sure they do not fall over telephone or electricity lines during the storm.

(c) Keep mobile phone fully charged and other appliances like torches handy as there may be power cuts during a cyclone.

(d) Store essential items like groceries and medicines in advance. It is vital to keep dry foods that are not perishable during emergencies.

(e) Prepare an emergency first-aid kit.

(f) Store water because water supply may be disrupted during cyclones.

(g) Do not leave any loose sharp objects lying around your property, as they can injure people during gusty winds.

(h) It is vital to steer clear of demolished buildings during cyclones.

(i) Do not keep dying and low-hanging tree branches near your premises.

(j) When the cyclone strikes, disconnect all electrical appliances. Listen to your battery radio for updates.

(k) Protect yourself with mattresses, rugs or blankets under a strong table or bench if the building starts to break up.

(l) Drive carefully as roads may be filled with debris.

(2) **Organisational Level Anticipatory Actions**

(a) Issue timely emergency alerts through websites/ TV/ radio/ mobile devices to provide advance notice to people in the path of the storm.

(b) Identify safe locations for shelter, such as designated evacuation centres or reinforced buildings and ensure that they are well-equipped with emergency supplies and resources.

(c) DM agencies, relevant government authorities and stakeholders to coordinate to ensure effective response. The coordination should include the deployment of search and rescue teams, medical teams and resources needed to respond to a Cyclone.

(d) DM agencies/ local administrations/ community centres to stockpile essential supplies including food, water, medical supplies and other relief items in advance to cater to the needs of affected people

(e) Conduct regular drills and training exercises to ensure that all response team members and the public know what to do in the event of a cyclone.

(f) Provide ongoing education and outreach to the public about cyclone safety, including the importance of having an emergency plan and staying informed about weather conditions.

i. **Drought**. Although near-normal to slightly above-normal rainfall is projected for much of the country, rainfall deficits from the preceding season and local moisture stress may still require close monitoring in vulnerable areas:-

(1) **Individual/ Community Level Anticipatory Actions**

(a) Collect and store rainwater for uses such as irrigation, cleaning and toilet flushing.

(b) Use treated wastewater for irrigation or industrial processes to reduce the demand for freshwater.

(c) Conserve water by fixing leaks using low-flow toilets and showerheads and reducing outdoor water use.

(d) Cultivate drought-resistant plants/ crops that require less water and can withstand dry conditions.

(e) Stock clean drinking water and non-perishable food items in case of an emergency.

(2) **Organisational Level Anticipatory Actions**

(a) NDMA/ PMD/ PDMAs to monitor rainfall patterns, water levels and soil moisture levels to provide timely information on potential drought conditions.

(b) Launch awareness campaigns before the summer season to educate the public on the potential impacts of drought and how to prepare for them.

(c) Ministry of Information and Broadcasting to raise awareness campaigns

on drought mitigation measures and water conservation techniques.

(d) Train government officials and emergency responders on drought preparedness and response through exercises and capacity building initiatives.

(e) Ensure adequate stockpiling of food items, Non-Food Items (NFIs), drinking water and medication needed during drought emergencies.

(f) Federal/ provincial health departments and relevant authorities to ensure adequate water supply to prevent dehydration and reduce the impacts of drought on public health.

(g) Agricultural and irrigation departments to advise farmers on drought-resistant crops and efficient water management techniques.

(h) Provincial Forest Departments to promote afforestation and tree plantation campaigns to increase vegetation cover and reduce the impacts of drought.

5. **Response Guidelines**. Once hazard conditions materialise, response should remain timely, coordinated and need-based. Immediate priorities during Summer 2026 should include treatment and referral for heat illness, life-saving rescue, evacuation from exposed locations, restoration of access, emergency health support, relief distribution, camp management where required, protection of vulnerable groups, rapid damage and needs assessment and continuous public information.

6. **District Prioritisation for Heightened Readiness**. Based on NDMA's present outlook, heightened readiness during Summer 2026 should be maintained for Southern KP, adjoining areas of Central Punjab and Northern Balochistan for enhanced rainfall-related impacts and hill torrent activity; GB, AJ&K and Upper KP for snowmelt-linked glacier hazards, slope instability and localised flooding; Southern Punjab and Sindh for heatwave risk and water stress; forest and rangeland belts facing elevated fire danger; and exposed urban centres for wind, dust, hail, urban fire and drainage contingencies.

7. **Review and Updating**. This guidance should be reviewed periodically and refined as updated seasonal, monthly and short-range forecasts become available, so that actions remain aligned with the latest hazard picture for Summer 2026.

8. **Early Warning Phase**. Following measures are to be undertaken by all concerned to ensure that timely and effective early warning/ advisories/ alerts are issued to all stakeholders.

a. **Early Warning/ Advisories**. NDMA Tech and PMD will be the focal organisations for providing weather based early warnings while NDMA will issue projections on perceived hazard risks and 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:-

(1) Seasonal outlook will be updated by PMD, at least once a month, especially highlighting a major departure from original outlook.

(2) Weather advisory will be issued as per developing situation by NDMA.

(3) Specific weather advisories, EWs and hazards alerts on basis of forecasts and information received from NDMA and PMD and will be issued by respective PDMAs to disseminate warning to district authorities/ relevant stakeholders via Fax/ Email/ Telephone/ Short Message Service (SMS)/ WhatsApp Message/ Twitter and will be immediately uploaded on their website/ portals.

(4) 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.

(5) PMD will nominate a focal person authorised to deal with weather and flood forecast which will be notified to all concerned and will be readily available to all stakeholders, when required.

(6) PMD will also critically analyse and share any possibility heat waves in the country and will timely intimate the same to NDMA and other relevant stakeholders.

b. **Community Early Warning through Advisories**

(1) Public Service Messages (PSMs) through print/ electronic media be generated by NDMA/ PDMAs/ SDMA/ GBDMA/ ICT Administration, DDMAs, relevant ministries and departments.

(2) Billboards, posters, banners, brochures and warning signs may be used to educate/ warn people at-risk areas.

(3) All departments concerned and local communities must be apprised about the forecast and it's likely unfolding at the onset.

(4) Community must be informed about safer places, relief camps and evacuation plan by concerned departments.

(5) To ward off "False Warning", all DM authorities will ensure implementation of Clause 35 of NDM Act 2010.

(6) Community based indigenous early warning system must be institutionalised as part of response mechanism in areas vulnerable to landslides and avalanches by following means:-

(a) Placing of round the clock lookouts especially at night or during the period

of intense rain/ snow.

(b) Use of sirens or announcements on loudspeakers from mosques and vehicles for mass awareness and sensitising local communities. These measures will be ensured by all DDMAs.

(c) Lightening of fire and drum beating by the people living at higher places in such areas.

(d) Practicing evacuation drills.

(e) Conduct mock exercises and reconnaissance of vulnerable/ at-risk areas.

(7) Issuance of SMS Alerts through Pakistan Telecommunications Authority (PTA) in only affected & threatened areas using Geographic Information System (GIS) fencing.

9. **Response - Rescue, Relief and Early Recovery Phases**. Following measures are to be undertaken by all concerned to ensure timely and effective response down to grassroots level.

a. **Tiers of Response**. National contingency response plan has evolved keeping in mind the structural challenges in response mechanism and experiences of past floods. National response will be based on following tiers:-

(1) **1st Tier**. Local emergency response by DDMAs with the support of district/ provincial/ Armed Forces resources.

(2) **2nd Tier**. Provincial effort in support of district authorities.

(3) **3rd Tier**. NDMA response (national efforts/ national resources) in support of Provinces/ State of AJ&K/ GB and ICT with/ without external assistance.

b. **DM Planning**

(1) PDMAs to ensure resource mapping of volunteers (Civil Defence, Pakistan Red Crescent Society (PRCS), Boy Scouts & Girl Guides), UN Agencies, NGOs/ International Non-Governmental Organizations (INGOs) and ambulances at district level.

(2) 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.

(3) Location of relief camps must be earmarked and necessary administrative arrangements be made accordingly. It must be incorporated, keeping in mind 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.

(4) Fool proof measures be planned against rains/ flash floods in relief camps established for Temporarily Displaced Persons (TDPs).

(5) Resource mapping and prepositioning of dedicated earth moving machinery at landslide/ avalanche erosion prone highways/ link roads and isolated mountainous areas of KP, GB and State of AJ&K by respective Governments. Ministry of Communications, NHA, FWO, respective Communication and Works Departments and other relevant organisations to ensure such arrangements alongside Bailey Bridges and enhanced number of maintenance teams at all critical sections especially regions highlighted in hazard maps.

(6) Contingency Plans be updated by all concerned based on NDMA's National Summer Contingency Plan-2026 as well as respective SOPs. Provincial/ State and ICT plans will be shared with NDMA and relevant stakeholders by 1st week of April. All provincial/ State/ GB authorities will be responsible to collect and analyse respective DDMA's plans.

(7) To identify most vulnerable communities for sensitisation, awareness, early warning and evacuation in emergency, district hazard maps must be updated down to the union council level.

(8) Planning for the needs of vulnerable groups be made based on authenticated gender, age and disabled disaggregated data.

c. **Mitigation Works/ Schemes**. All projects and schemes underway must be completed immediately. PDMAs/ 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 be completed later (during or after the season).

d. **Rescue Measures**

(1) Availability and serviceability of rescue equipment be ensured by all concerned.

(2) 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.

(3) Equipment be strategically placed to respond to hazards in different regions.

(4) Availability of trained operators be coordinated/ ensured during entire season.

(5) 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).

(6) Availability of staff of all relevant departments especially hospitals and emergency services on holidays/ during active weather systems be ensured.

(7) PDMAs/ SDMA/ GBDMA/ ICT administration 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.

(8) PDMAs/ SDMA/ GBDMA/ ICT administration will coordinate with respective governments/ departments for aerial support for immediate evacuation.

(9) Aviation effort can be requisitioned through NDMA. Expenditures will be borne by respective province/ region.

e. **Salient Preventive Measures**

(1) Communities at-risk/ vulnerable to landslides/ avalanches, seasonal nullahs/ river plains must be identified by local administration in collaboration with communities.

(2) 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.

(3) Travelers be advised to maintain a bag containing important utility items like first aid kid, medicines, dry ration, water, charged torch, radio set, mobile phone, power-bank, cells/ batteries, match box, candles, charged batteries, mosquito repellent/ net, dry clothes, plastic sheet and important documents including CNIC and cash money should always be taken along during trips.

(4) Preventive measures against infectious/ skin diseases, cholera, COVID/ influenza and other seasonal diseases etc must be taken and vaccination done at first instance.

(5) Animal vaccination along with arrangements of fodder be made in time.

f. **Rescue Operations**

(1) Forced evacuation must be planned in case of limited warning time, by utilising all available resources at provincial/ district levels.

(2) DDMAs as first responders should mobilise communities for disaster response. This will encourage community involvement, strengthen their own efforts and address the issue of absence of human resource.

(3) Priority in rescue/ evacuation will be given to vulnerable groups (age, disabled, women and children).

(4) Space & Upper Atmosphere Research Commission (SUPARCO) will provide satellite imageries and assessment of projected developments, where possible. Pre, during and post season and its impacts will also be compiled and shared with NDMA and relevant ministries/ departments.

(5) 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.

(6) Disaster tourism must be curbed.

g. **Parameters of Deploying Machinery & Rescue Operations**. Need based rationalisation 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:-

(1) PDMAs/ SDMA/ GBDMA/ ICT administration to devise internal tiers for response and deployment for response in coordination with rescuers/ responders, volunteers, line departments, internal resources, traffic police, LEAs and local Pak Army Formations.

(2) Respective provinces to ensure establishing the requirement and coordinating availability of machinery vis-à-vis threat/ vulnerability/ risk assessment.

(3) All supporting agencies to maintain the capability based on the need of the provinces.

(4) PDMAs/ 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:-

(a) Historical record of last 30 years.

(b) Population density.

(c) Urban/ rural divide.

(d) Type of hazard-based vulnerability.

(e) Degree of vulnerability and exposure e.g., population centres in proximity of landslide/ avalanche prone areas.

(f) Reaction time for deployment.

(5) Response action will have following sequence:-

(a) **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.

(b) **2nd Tier - Build up Response (Immediate but Not Later than 1-2 Hours)**. By Armed Forces/ Civil Armed Forces in vicinity, when requisitioned. Alongside, PDMAs may shift the resources of respective province from other less threatened districts.

(c) **3rd Tier - Federal Response**. By NDMA mobilizing federal recourses.

(6) **Priority of Districts**. Priority will be established by respective provinces

after due deliberation/ consultation and will share with all stakeholders for standardised planning. Priority should be based on districts with historic record and occurrences with greater frequency and magnitude:-

(a) Priority - I - Districts (High Threat).

(b) Priority - II - Districts (Medium Threat).

(c) Priority - III - Districts (Low Threat).

(7) **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 standardised food pack must be designed as per local requirements to meet the needs of affected persons. Items like rice, wheat bags, cooking oil and milk for babies etc should be included. However, energy biscuits and other such food items which are not part of the daily diet of local community, be avoided.

(b) Drinking water should be provided for rehydration, along with measures to prevent heat stroke, dehydration and other summer-related illnesses.

(c) Water purification tablets and filtration systems for the provision of clean drinking water to affected people must be stocked in advance.

(d) Special attention be paid to protect the health and safety of rescue workers and volunteers, including providing them with necessary personal protective equipment (PPE).

(e) 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 organised system; therefore, distribution method should be decided in consultation with local communities.

(f) Based on past experiences, need must be formalised and the list of relief goods should be available with all DDMAs and displayed on websites to facilitate donors to provide need-based relief goods in emergency.

(g) 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. Also, stockpiling and contingency planning should incorporate special needs of older persons and persons with disabilities, particularly with regards to equipment such as

wheelchairs etc and be able to cater for the needs of the whole family.

(h) Distribution method should be decided in consultation with local communities to provide life-sustaining commodities to the affected communities through a fair and organised system. 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. Relief teams should also engage active women from within the community in the distribution of food in the relief camp.

(i) 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 data bank of trainers and trainings, strengthening the coordination stakeholders for responding in a timely/ effective manner.

(j) Emergency preparedness planning within the education sector is a critical step towards ensuring access to quality education for all learners in times of crises. Minimum standards/ education guidelines in emergencies may be put in place to enable continuity of structured learning during disasters.

(k) Dignity of all the affected persons should be especially ensured during all relief phases of rescue/ relief/ early recovery etc.

(l) Disease early warning system to be put in place by provincial health departments, once a 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.

(m) Health authorities must ensure stockpiling of medicines, vaccines in all health facilities with placement at lowest possible tier for distribution.

(n) Supply chain of relief goods must be maintained and followed in true letter and spirit. DDMAs are the first tier supported by PDMAs to provide immediate relief. Similarly, second tier (PDMAs) should be ready to render assistance once the stocks of DDMAs are exhausted. Third Tier of NDMA supported by national resources to extend relief support required by the provinces/ regions.

(o) Vulnerable groups needs must be catered for as per the NDRP 2026.

(p) NDMA maintains its stocks at strategic locations. PDMAs are responsible to collect the stocks once released by NDMA from a particular location. NDMA stocks will be requisitioned only in case of extreme emergency and with sufficient reaction time. Distribution of NFIs at site must be avoided. People must be motivated to come to relief camps. At no point of time would NDMA's stocks placed in mutually shared warehouses to be utilized without prior approval of NDMA.

(8) **Relief Goods - NFIs**

(a) Logistics caseloads will be worked out on average relief rendered during hazards experienced in respective districts/ regions/ provinces by all PDMAs/ SDMA/ GBDMA and ICT administration.

(b) Stockpiling of relief goods (NFIs) on envisaged caseload will be ensured at district level by PDMAs/ GBDMA/ SDMA.

(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) Provinces including AJ&K and GB must ensure stocking of sufficient quantity of ration, food items and drinking water in vulnerable areas, owing to possible severance 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 DDMAs timely. CSD will further ensure maintenance of sufficient stock levels and supply chain to support community in all summer hazard prone areas.

(9) **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 United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) have developed MIRA with the aim of sharing common procedures andassessment methodology for data collection as under:-

(a) In case of need, MIRA module will be deployed for which PDMAs/ DDMAs will provide requisite human resource, trained for the module.

(b) Rapid assessment will be carried out by NDMA/ PDMA/ UN/ INGOs/ NGOs to identify needs and priorities of affected and vulnerable communities.

(c) Initial report will be shared with DM Authorities within one week and final report within two weeks.

(d) Assessment team should be trained on how to identify summer hazards and their associated risks, based on local context and community knowledge.

(e) Assessment will consider the seasonality of the hazards and their effects on different sectors, such as agriculture, water supply, health and education. This will help identify the most urgent needs and priorities for early recovery and rehabilitation.

(f) Based on the assessment findings, a comprehensive early recovery plan will be developed that addresses the most urgent needs of the affected population, while also building the resilience of communities and infrastructure to future hazards.

(g) Early recovery plan will include measures to mitigate the long-term effects of summer hazards on the environment including soil erosion, water scarcity and biodiversity loss.

(10) **Needs & Concerns of Vulnerable Groups**. Following aspects must be kept in special focus during all stages of DM:-

(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 should ensure registration, profiling and mapping systems record disaggregated data on age, gender and vulnerabilities to identify people with specific needs at the earlier stages of entering in the camp site and throughout the duration of camp stay.

(f) All vulnerable groups needs must be taken care off as per NDRP-2026 during response operations.

10. **Coordination Aspects**. Being a primary aspect for ensuring effective response, it is important that following measures be ensured by all concerned:-

a. **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.

b. **Coordination Spectrum**

(1) All stakeholders will monitor situation by activation of Emergencies Operations Centres (EOCs). EOCs will be activated by NDMA, PDMAs/ SDMA/ GBDMA/ ICT and DDMAs, line departments/ concerned ministries, LEAs/ Armed Forces and all relevant stakeholders as per respective SOPs.

(2) All stakeholders will nominate respective Liaison Officers (LOs) for National Emergency Operation Centre (NEOC).

(3) Daily coordination conference will be organised by NDMA in case of an emergency/ disaster in NEOC at 1000 hours. All LOs will attend and brief the conference.

(4) Information about any significant event will be interpreted and shared by PMD with NDMA.

(5) All significant information will be immediately passed to NEOC by respective PDMAs.

c. **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) Capabilities of each organisation must be ascertained to ensure its optimal utilisation.

(3) Need based employment of UN Agencies will be regulated by NDMA in coordination with PDMAs.

(4) NGOs/ INGOs duly cleared/ approved by concerned ministries will be allowed to assist in relief and rehabilitation operations.

d. **Assistance/ Coordination with Ministries/ Departments**. Role of every Ministry/ Department/ Organization; whether at federal or provincial level is already well

defined for extending maximum assistance as and when required. NDM Act 2010 also grants NDMA powers to direct ministries for any specific task/ requirement in case of national emergency. However, following aspects are highlighted specifically for likely summers hazards:-

(1) **Ministry of Defence**. Conduct of relief/ rescue operations through integral resources and Pakistan Armed Forces (helicopters, troops & rescue equipment) when required.

(2) **Ministry of Interior & Anti-Narcotics Force**. Availability of aviation assets for emergency response, at a short notice.

(3) **Pakistan Electronic Media Regulatory Authority (PEMRA)**. Airing of public service messages for community awareness on all media channels during prime hours.

(4) **PTA**. To facilitate generation of SMS alerts for early warning, emergency relief and evacuation to required populace.

(5) **PTDC**. Provision of timely hazard related information to tourists including protection from dangers of extreme heat, flash floods, landslides, GLOF, urban and forest fires etc and help evacuation of stranded tourists through local Government/ Pakistan Armed Forces.

(6) **Ministry of Communication**. To conduct assessment for early restoration of communication infrastructure and remain prepared to shift earth moving machinery alongside respective first responders to affected areas.

(7) **Ministry of Railways**. To monitor railway tracks on regular basis and assist transportation of relief goods to affected areas. Devise plans and ensure restoration of tracks if damaged, for maintaining uninterrupted passage across Pakistan.

(8) **Ministry of Information & Broadcast and Provincial Irrigation Departments** Prepare own and assist other departments in running of awareness campaign through electronic and print media.

(9) **Ministry of Health**. Develop awareness campaigns against likely health hazards, ensure stocking of adequate medicine at all tiers and coordination for deployment of medical teams and equipment as and when required.

e. **Requisitioning of Armed Forces**. Armed Forces will be requisitioned subject to provision of rules/ regulations by PDMAs/ DDMAs 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”. Concerned authorities utilising services from Armed Forces as well as aviation support will bear

the cost of assets used which will be processed immediately after their employment. Armed Forces can be employed for following:-

(1) Rescue and relief operations by field units of Pakistan Army, Pakistan Navy and Pakistan Air Force.

(2) Aviation support including provision of C-130 by PAF and Helicopters by Army Aviation.

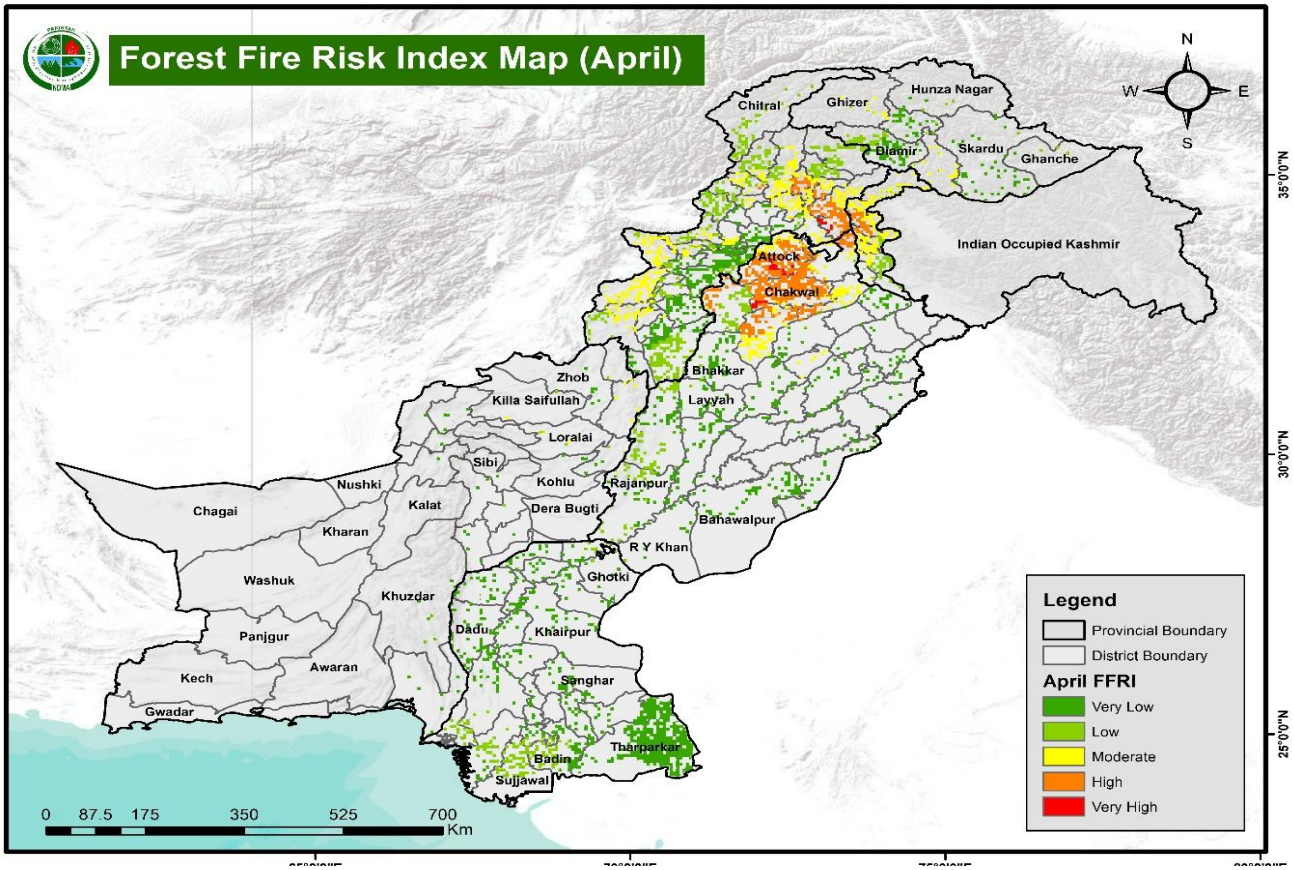
(3) Support of rescue and medical teams by Armed Forces.

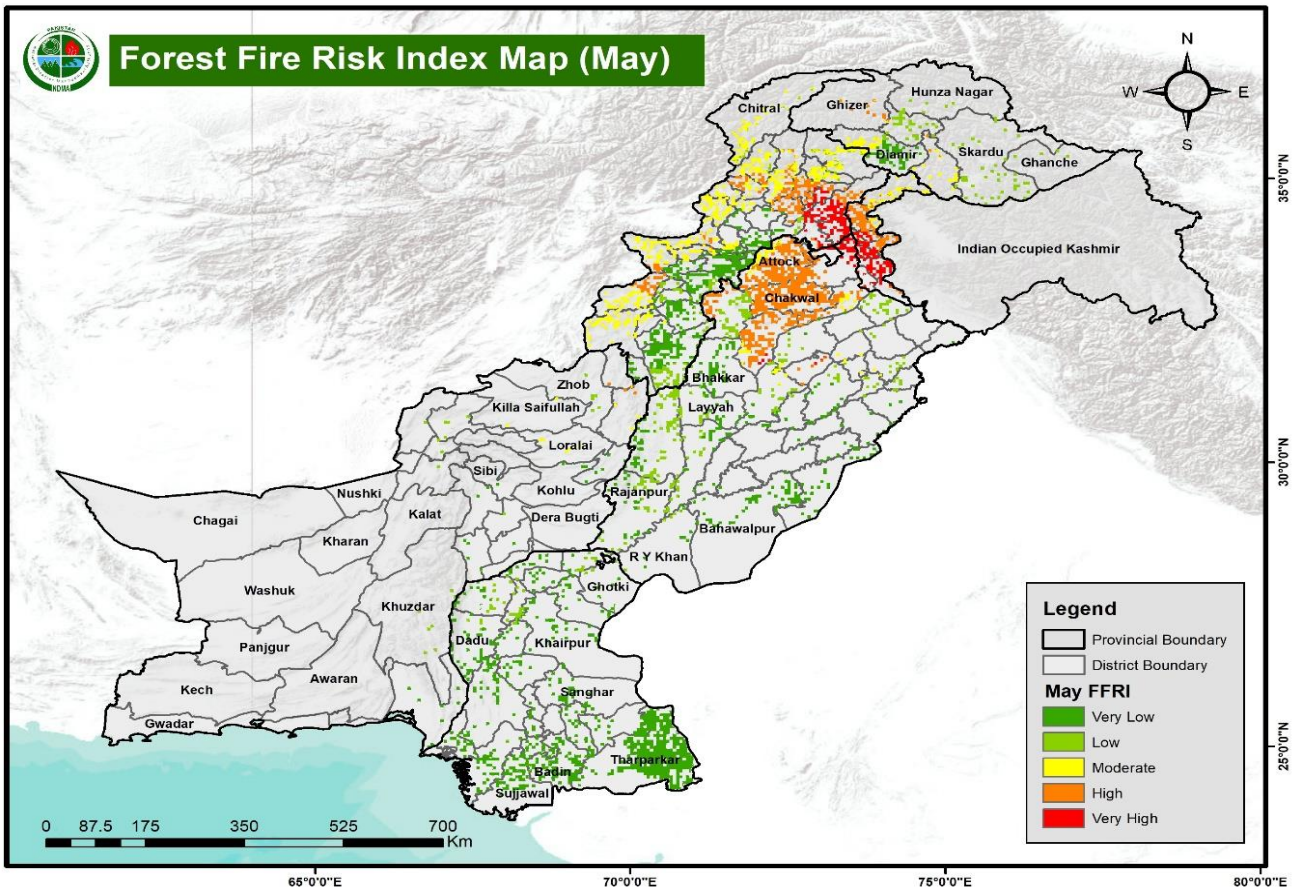
(4) Medical support teams of all three services.

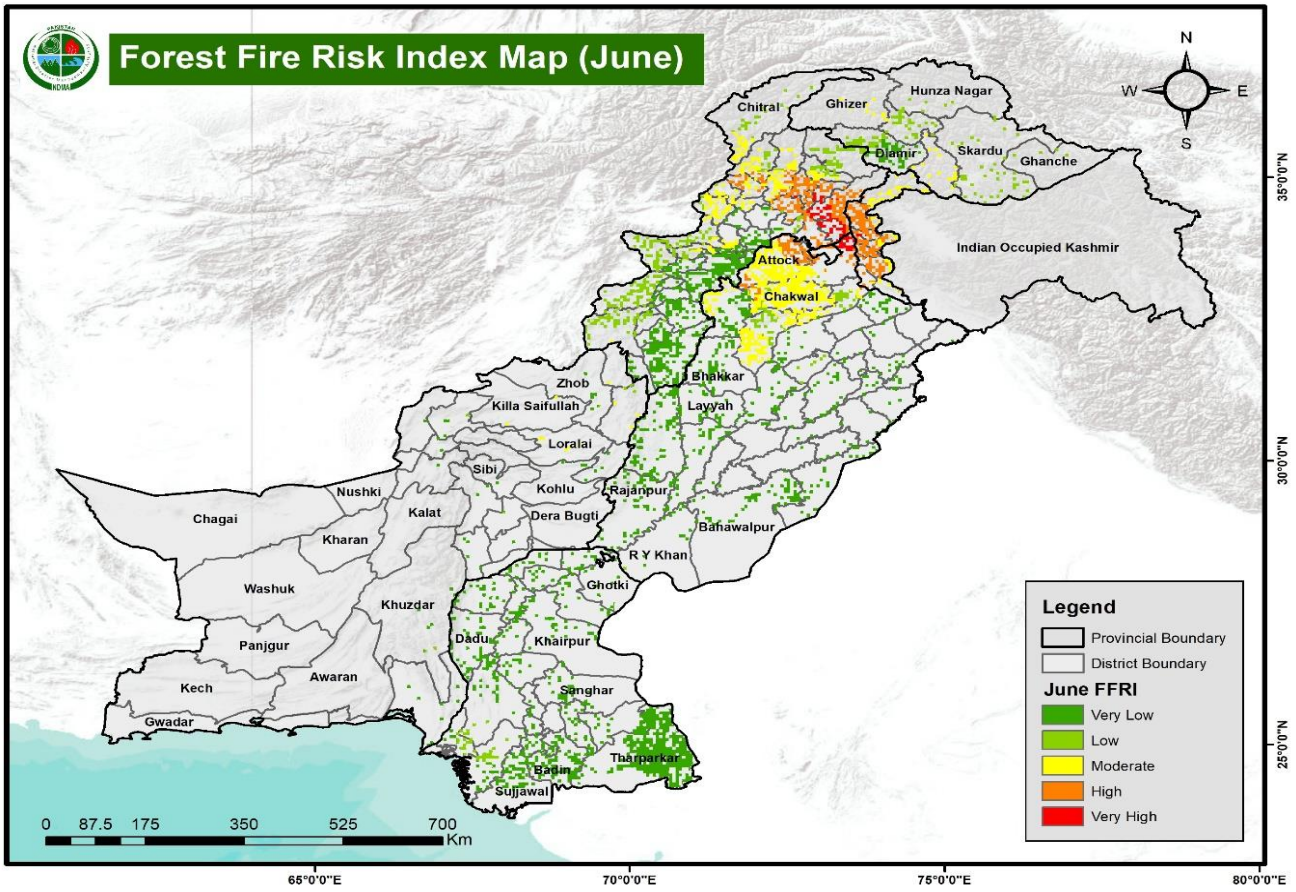
(5) Search and rescue in urban areas collapsed structures and landslides/ GLOFs/ avalanches by USAR team of Pakistan Army.

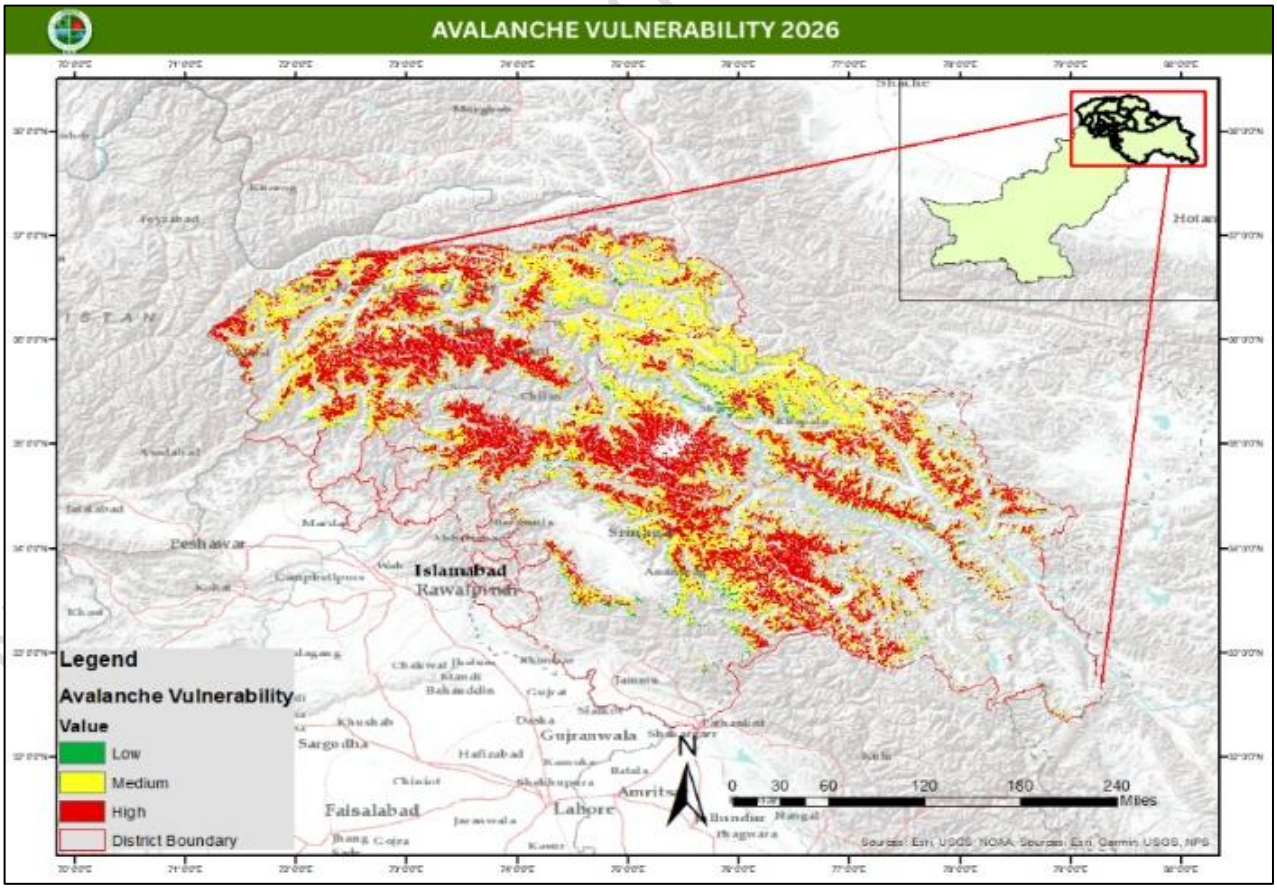
CHAPTER - IV

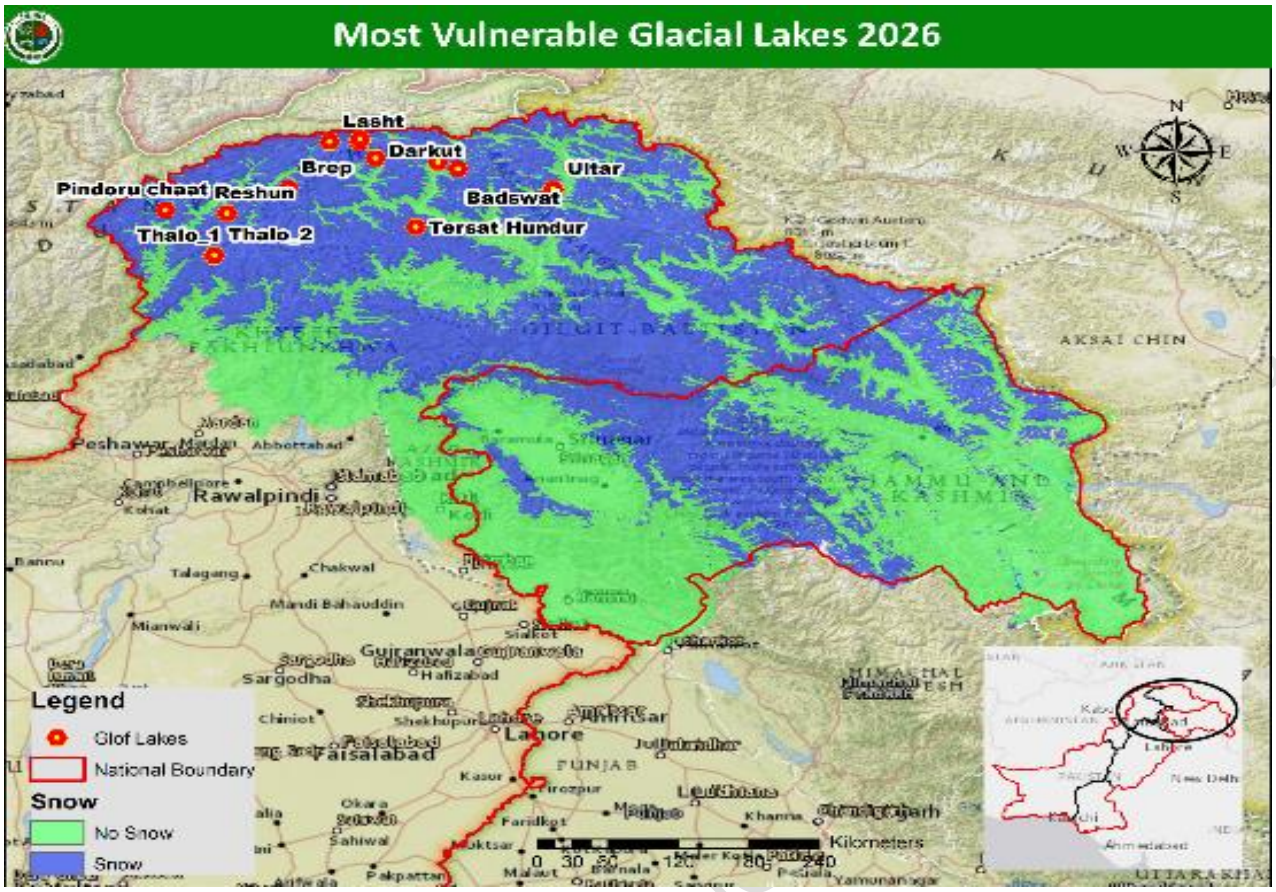
HAZARD RISK/ VULNERABILITY MAPS






Forest Fire Risk Index Map (June)
N
W
E
S
Chitral
Ghizer
Hunza Nagar
Diamir
Skardu
Ghanche
Indian Occupied Kashmir
Attock
Chakwal
Bhakkar
Zhob
Killa Saifullah
Layyah
Loralai
Sibi
Nushki
Kohlu
Rajanpur
Chagai
Kalat
Dera Bugti
Bahawalpur
Kharan
R Y Khan
Washuk
Ghotki
Khuzdar
Panjgur
Dadu
Khairpur
Awaran
Kech
Sanghar
Gwadar
Tharparkar
Badin
Sujjawal
0 87.5 175 350 525 700
Km
65°0'0"E
70°0'0"E
75°0'0"E
80°0'0"E
35°0'0"N
30°0'0"N
25°0'0"N
Legend
Provincial Boundary
District Boundary
June FFRI
Very Low
Low
Moderate
High
Very High


AVALANCHE VULNERABILITY 2026
Peshawar
Islamabad
Rawalpindi
Faisalabad
Lahore
Gujranwala
Amritsar
Legend
Avalanche Vulnerability
Value
Low
Medium
High
District Boundary
N
0 30 60 120 180 240
Miles


Most Vulnerable Glacial Lakes 2026
Lasht
Darkut
Brep
Ultar
Pindoru
chaat
Reshun
Badswat
Thalo_1
Thalo_2
Tersat
Hundur
Legend
Glof Lakes
National Boundary
Snow
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Kilometers
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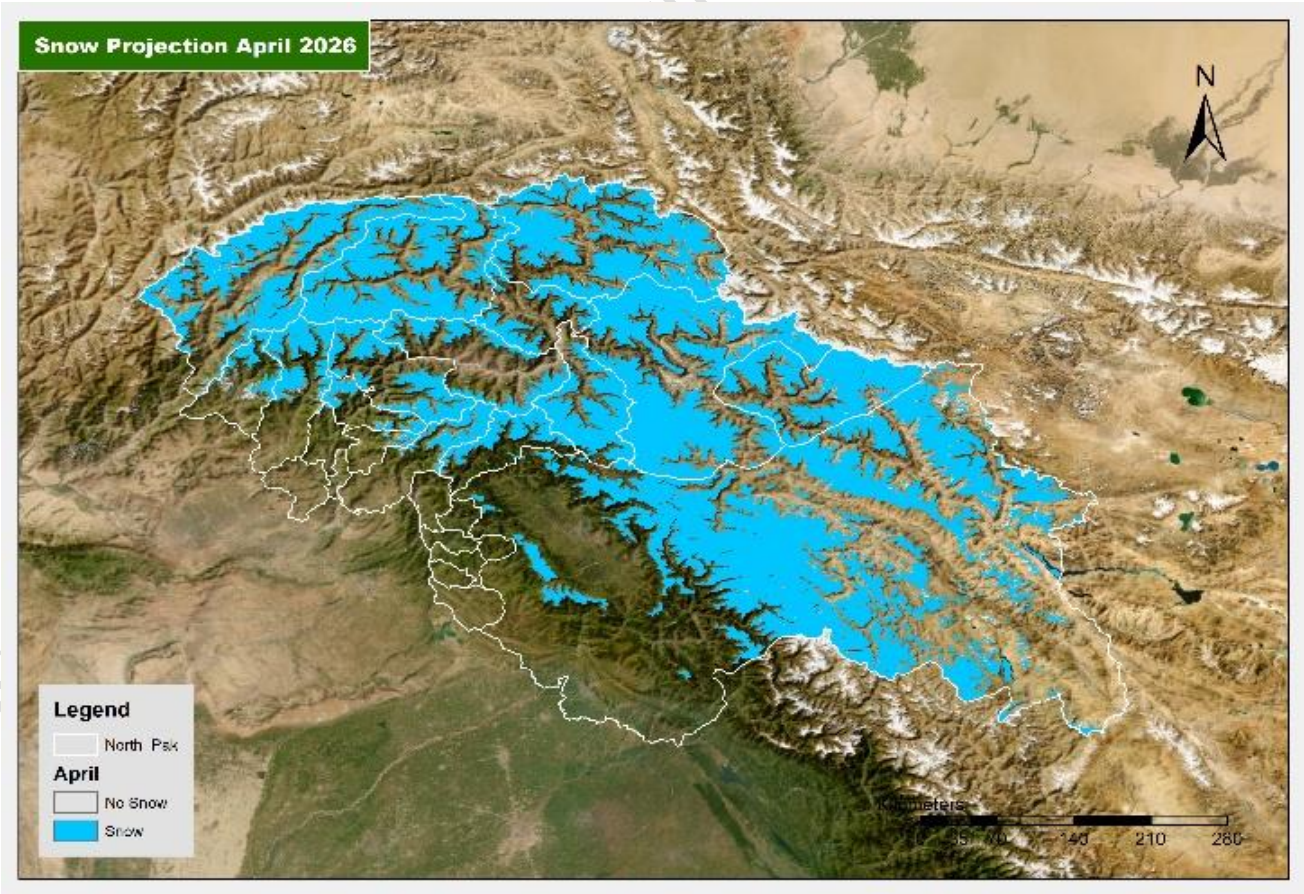
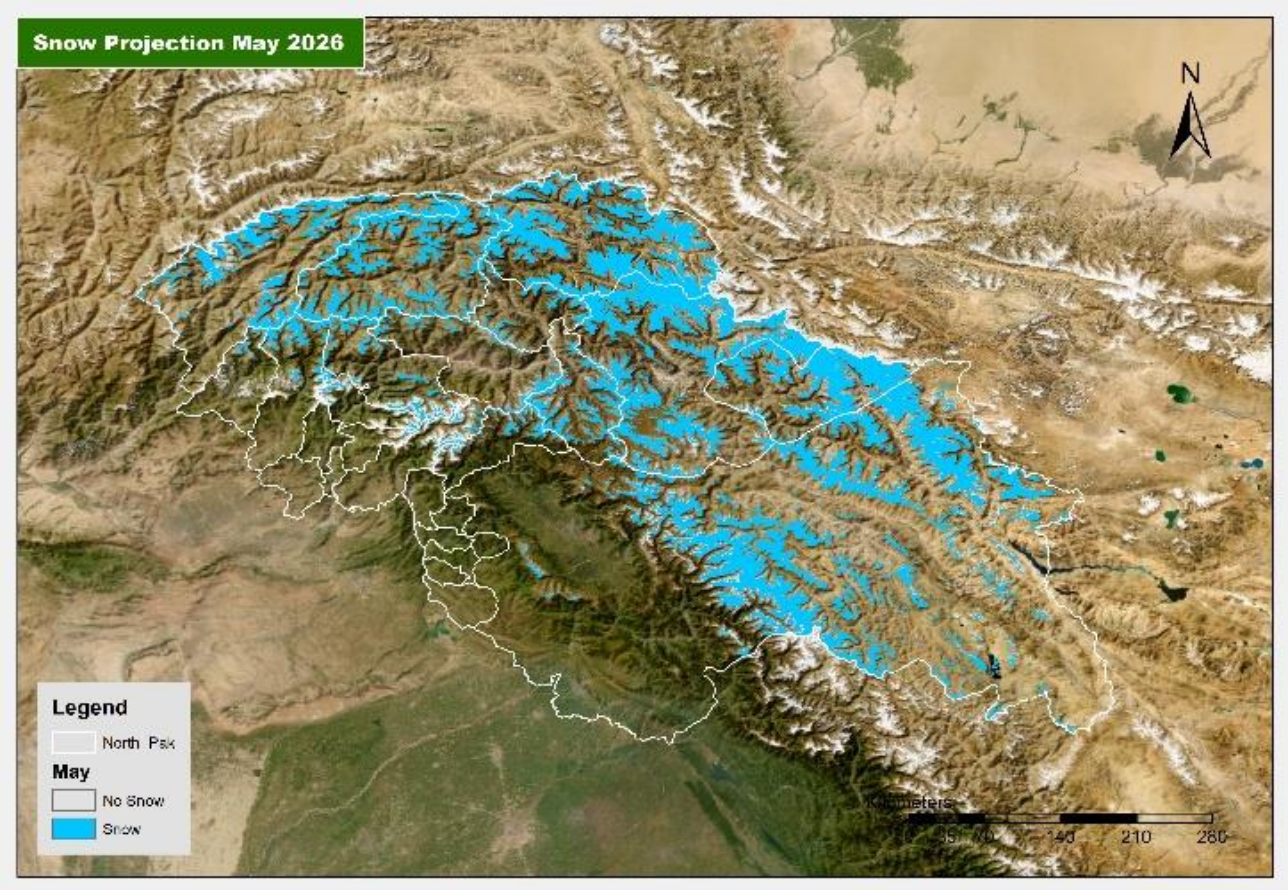
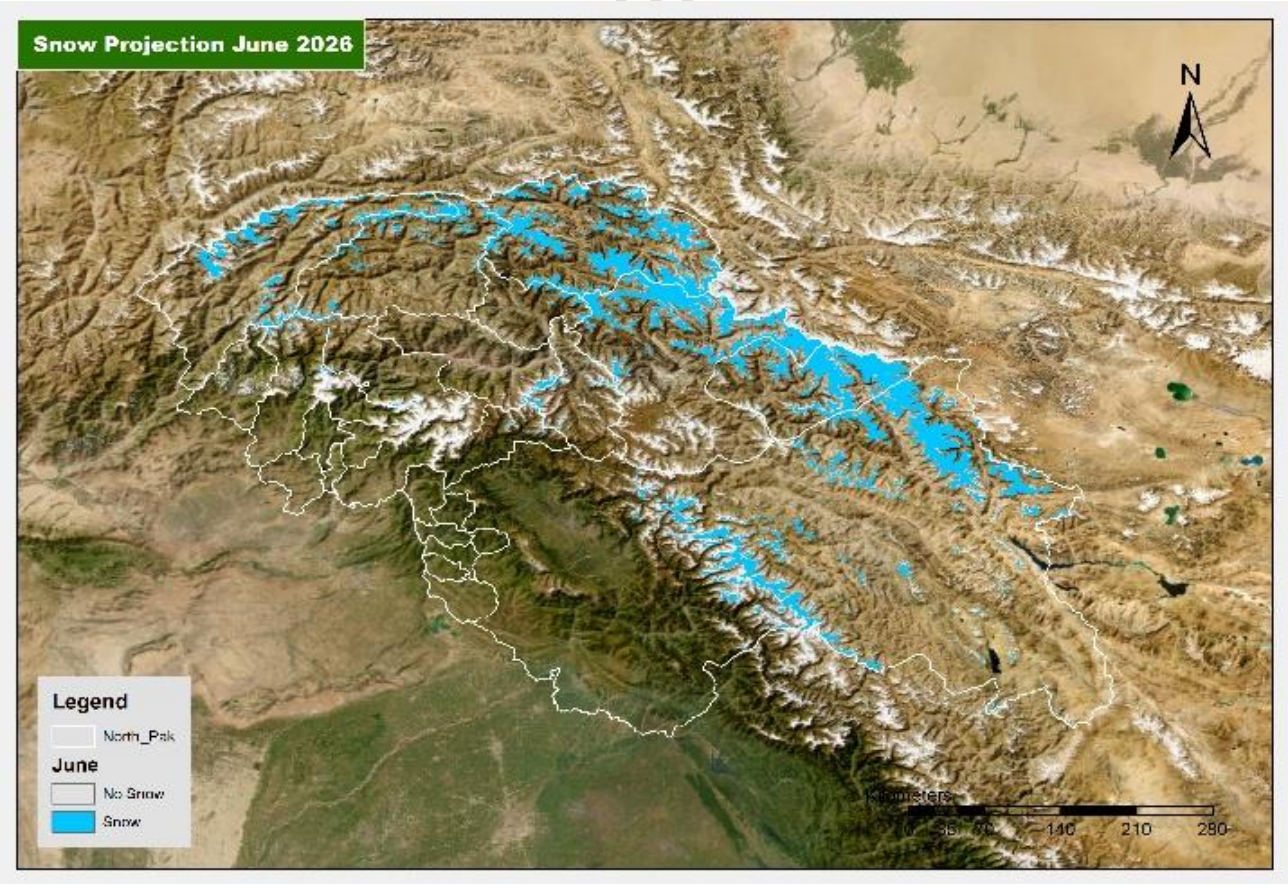
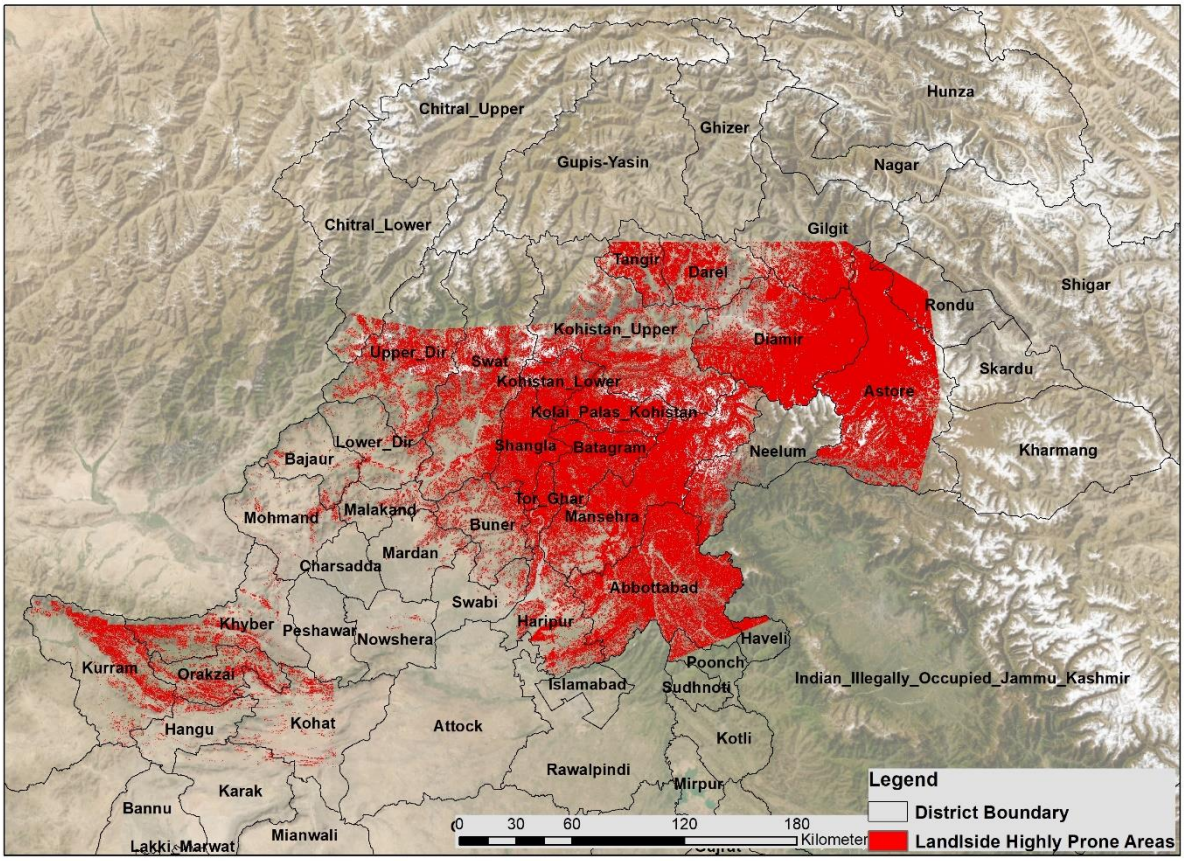
Lahore
Faisalabad
Gujranwala
Sargodha
PUNJAB


Snow Projection April 2026
N
Legend
North Pak
April
No Snow
Snow
Kilometers

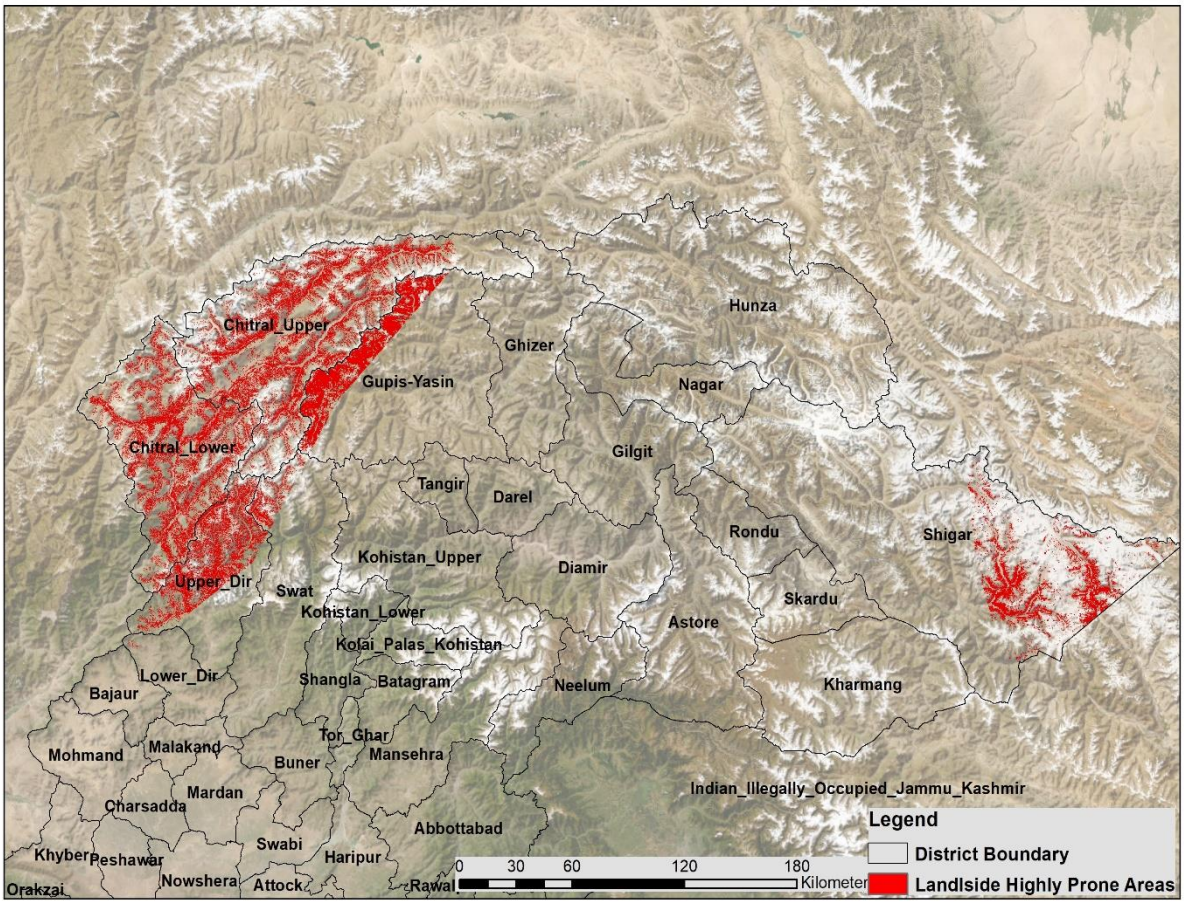

Snow Projection May 2026
N
Legend
North_Pak
May
No Snow
Snow
Kilometers
0
35
70
140
210
280


Snow Projection June 2026
N
Legend
North_Pak
June
No Snow
Snow
Kilometers
0
35
70
140
210
280

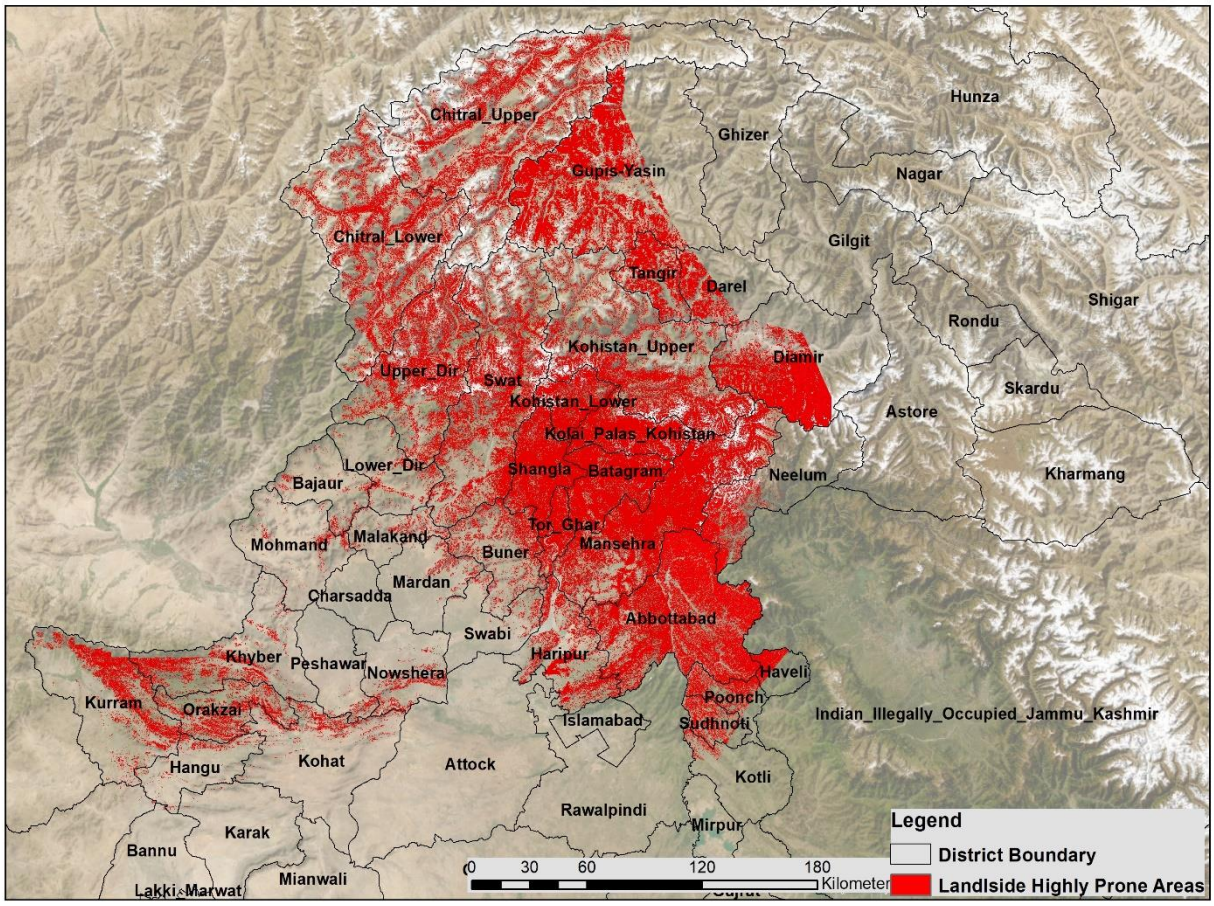
LANDSLIDE EARLY WARNING- APRIL



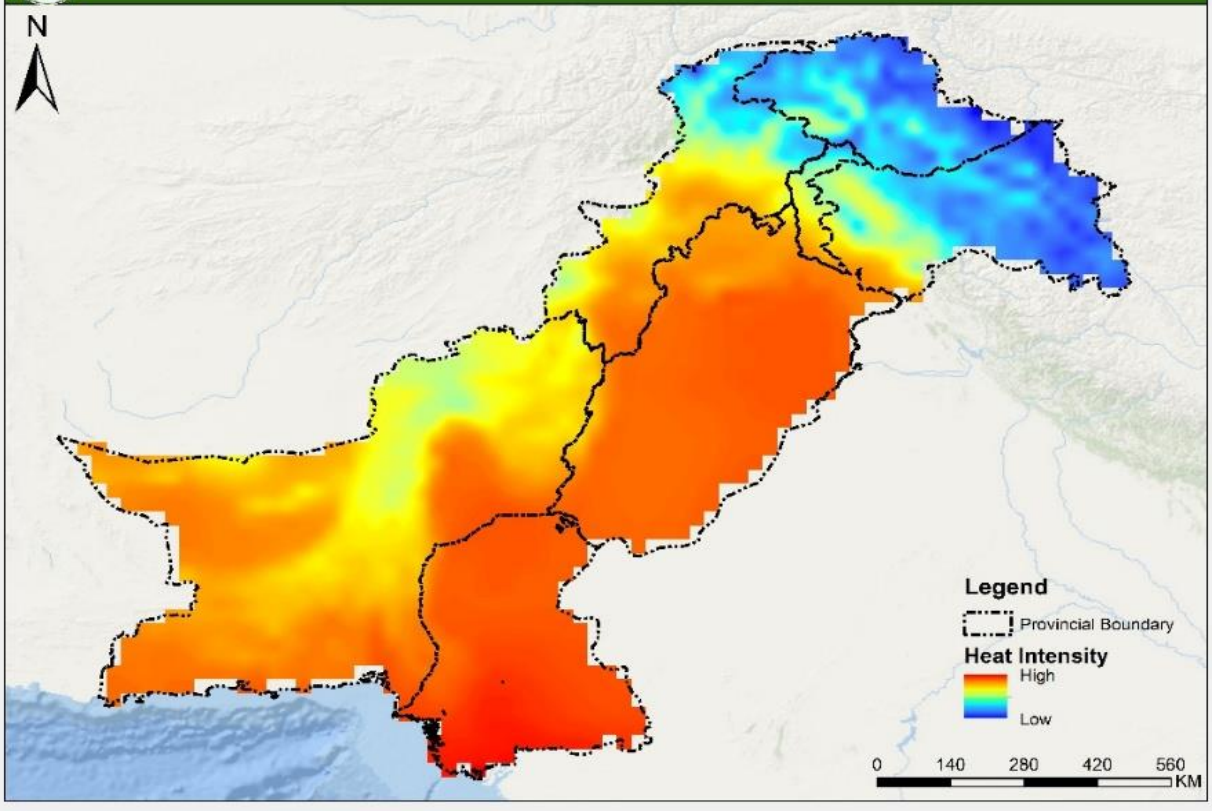
LANDSLIDE EARLY WARNING- MAY

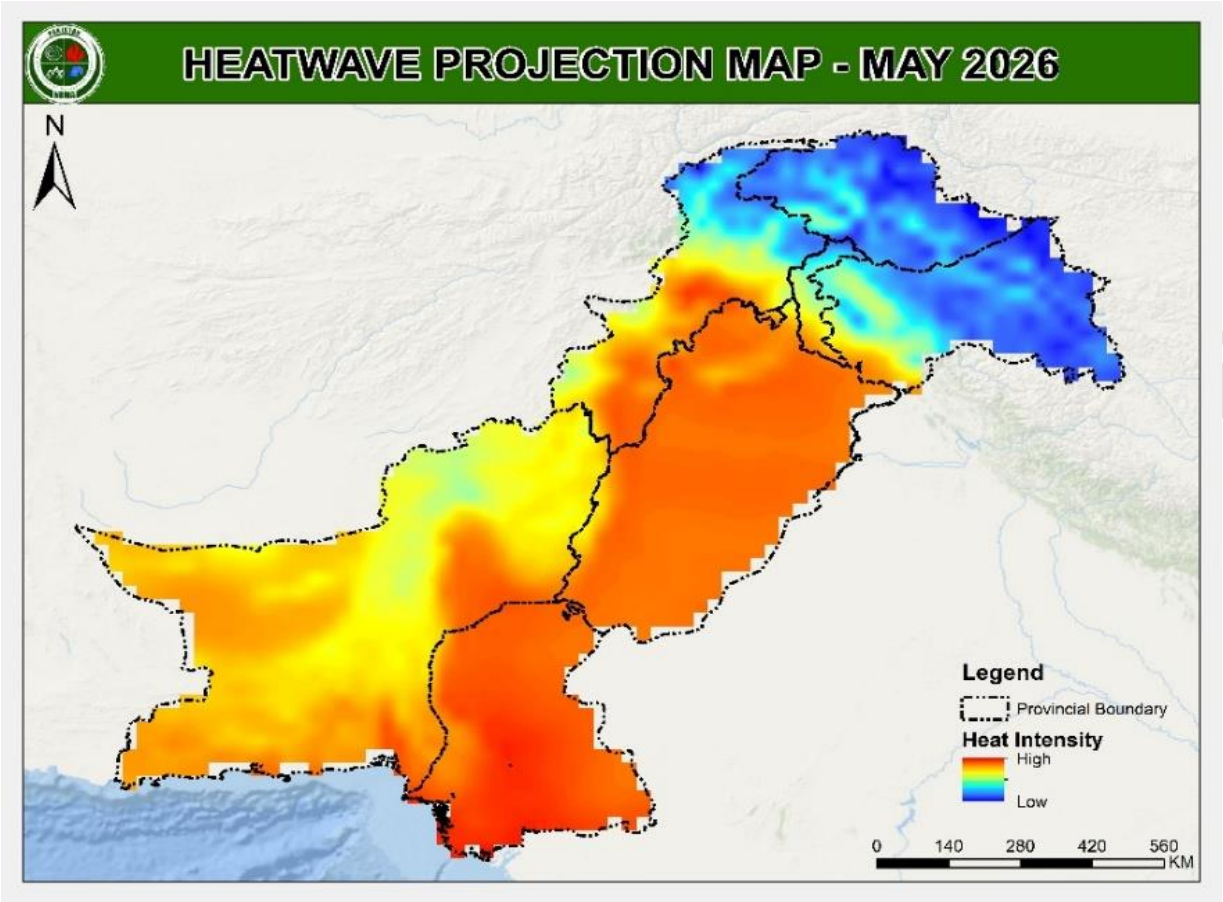


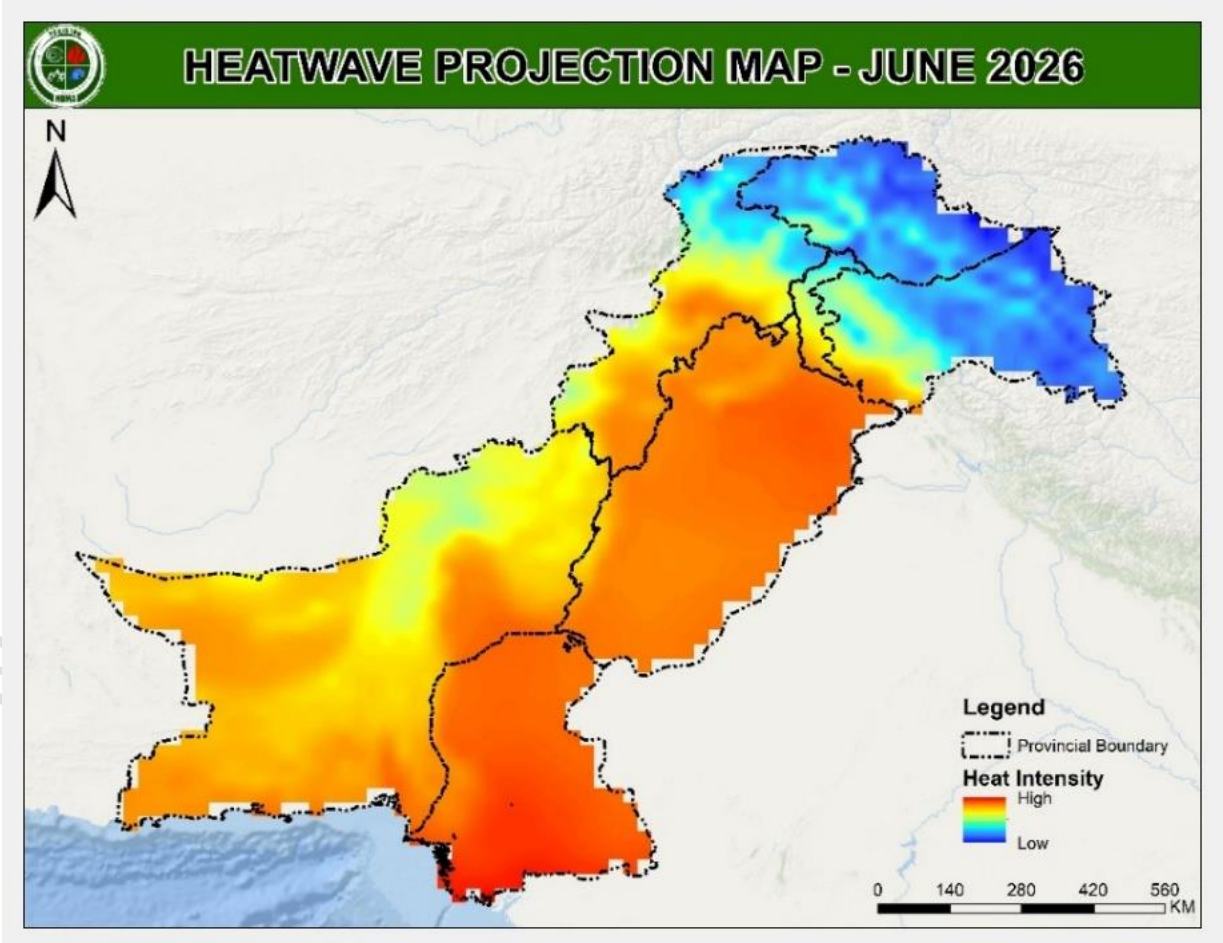
LANDSLIDE EARLY WARNING- JUNE



HEATWAVE PROJECTION MAP - APRIL 2026




HEATWAVE PROJECTION MAP - MAY 2026
N
Legend
Provincial Boundary
Heat Intensity
High
Low
0 140 280 420 560
KM


HEATWAVE PROJECTION MAP - JUNE 2026
N
Legend
Provincial Boundary
Heat Intensity
High
Low
0 140 280 420 560
KM

CONCLUSION

In light of the evolving challenges posed by global climate change and the increasing frequency of summer-related hazards, it is crucial to adopt a comprehensive, proactive and coordinated approach to disaster management. Mitigation, preparedness, public awareness and inter-agency synergy must be prioritised to enhance response capabilities and ensure timely relief efforts in case of emergencies. Since disaster management is a shared responsibility, all stakeholders, responders, government departments and organizations must initiate early planning and risk reduction measures to mitigate the potential impacts of summer hazards. By fostering cohesion, strategic planning and swift action, we can strengthen national resilience, minimise disaster risks and ensure a well-coordinated response to any emergency situation.

Government of Pakistan
Prime Minister's Office
National Disaster Management Authority, Islamabad
Dated: **31 March 2026**

Brigadier
For Chairman, NDMA
(Kamran Ahmed)
Tel: 051-9030843
Fax: 051-9030729

List of Annexes

1.	NDM Act Clause - 9	-	**Annex-A**
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Annex-A

NDM ACT 2010 CLAUSE-9

POWERS AND FUNCTIONS OF THE NDMA

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 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 and give directions to the concerned ministries or provincial governments and 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.

(j) Perform such other functions as the National Commission may require to perform.

Annex-B

SITUATION REPORT FORMAT FOR PDMAs/ SDMA/ GBDMA/ ICT ADMINISTRATION AND OTHER DM STAKEHOLDERS SUMMER 2026

SITUATION REPORT NO - 001

(Period Covered: Last 24 hours - 1200 hrs to 1200 hrs)

1. **District Wise State of Losses/ Casualties**

Serial	District	Deaths				Injured			Population Affected			
		Male	Female	Children	Total	Male	Female	Total	Male	Female	Children	Total

Total Deaths during Winter	Cause of Death					
	Roof/ Wall Collapse	Drowning	Landslide	Electrocution	Lightning	Any Other

2. **District Wise State of House Damages**

Serial	District	House Damaged			Livestock Perished
		Partially	Fully	Total	

3. **District Wise State of Livestock**

Serial	District	Livestock Affected			Livestock Perished			Grand Total
		Animal Large	Animal Small	Total	Animal Large	Animal Small	Total	

4. **District Wise State of Roads Damaged**

Location (Distt/ Tehsil/ UC)	Type	Classification	Damage in Meters	Extent of Damage			Cause				Expected date of restoration
				Completely Washed away	Partially Damaged	Only approaches washed away	Flash flood/ Hill Torrent	Breach	Landslide	Over flooding/ Inundation	
	Motorways/ National Highways										
	Provincial Highways										
	Link roads										
	Any Other (Tracks etc)										

5. **District Wise State of Roads Damaged**

Location (Distt/ Tehsil/ UC)	Classification	Span	Dependent Population	Type RCC/ Truss/ Compact/ Any Other	Jeepable/ foot bridge/ (wooden, steel truss)	Extant of Damage					Traffic plying through Diversion	Traffic plying through restored Bridge	Traffic suspended	Expected date of bridge restoration
						Completely Washed away	Partially Damaged	Only approaches washed away	Embankments	Any Other				

6. **District Wise State of Rescue Effort/ Equipment Used**

Serial	District	Persons Evacuated	Relief Camps Established	Persons in Relief Camps during Peak Time	Equipment Used								
					Boats			Life Jackets			Misc (Life Rings etc)		
					NDMA	PDMA	NGOs	NDMA	PDMA	NGOs	NDMA	PDMA	NGOs

7. **District Wise State of Relief Provided during Summer Season 2026**

Serial	District	Tents			Ration			Tarpaulins			Blankets			Misc (Mats, Aqua Tabe, Mosquito Nets		
		PDMA	UN/ NGO	Others	PDMA	UN/ NGO	Others	PDMA	UN/ NGO	Others	PDMA	UN/ NGO	Others	PDMA	UN/ NGO	Others

Annex-C

HEATWAVE PUBLIC GUIDANCE

In Pakistan, extreme heat events have become increasingly common and severe due to the impacts of climate change. Temperatures regularly soar above normal levels, leading to prolonged periods of intense heat that pose significant health risks to the population. The scorching heatwaves not only affect physical health but also strain infrastructure, particularly in urban areas where access to cooling facilities may be limited. Vulnerable groups such as the elderly, children and those with pre-existing health conditions are at heightened risk during these heatwaves. Additionally, the socio-economic disparities exacerbate the impact with marginalised communities often lacking adequate resources to cope with extreme heat. However, proactive measures can be taken to mitigate these risks. This includes raising awareness about heat-related illnesses and promoting heat safety practices such as staying hydrated, seeking shade and avoiding strenuous activities during peak heat hours. Guidelines for Dealing with Heatwaves in Pakistan are as under:-

a. **Stay Informed**. Keep yourself updated with weather forecasts and heatwave warnings issued by the PMD or relevant authorities. Stay connected with news channels, radio or weather apps for real-time information.

b. **Stay Hydrated**. Drink plenty of water throughout the day, even if you do not feel thirsty. Avoid drinks with caffeine, alcohol or excessive sugar, as they can lead to dehydration. Coconut water, electrolyte drinks and herbal teas are good options to replenish electrolytes.

c. **Dress Appropriately**. Wear lightweight, loose-fitting and light-coloured clothing to reflect sunlight and allow air circulation. Use a wide-brimmed hat or an umbrella when outdoors to shield yourself from direct sunlight.

d. **Avoid Sun Exposure**. Limit outdoor activities, especially during peak sunlight hours (usually from 10 a.m. to 4 p.m.). If you must go outside, seek shade whenever possible and use sunscreen with high Sun protection film (SPF) to protect your skin from harmful UV rays.

e. **Stay Cool**. Use fans, air conditioners or coolers to maintain a comfortable indoor temperature. Take cool showers or baths to lower your body temperature. Use damp towels or ice packs on pulse points such as wrists, neck and forehead to cool down quickly.

f. **Check on Vulnerable Individuals**. Keep an eye on children, the elderly, pregnant women and those with chronic illnesses as they are more susceptible to heat-related illnesses. Ensure they stay hydrated and cool and never leave them unattended in parked vehicles.

g. **Know the Signs of Heat-related Illnesses**. Be aware of symptoms such as heat exhaustion (excessive sweating, weakness, dizziness, nausea) and heatstroke (high body temperature, confusion, loss of consciousness). Seek medical attention immediately if you or someone else experiences these symptoms.

h. **Stay Connected**. Keep in touch with friends, family and neighbours, especially those who live alone or are vulnerable. Encourage community support and check on each other regularly during heatwaves.

i. **Plan Ahead**. Prepare an emergency kit with essential items such as water, non-perishable food, medications, first-aid supplies and a flashlight in case of power outages. Have a backup plan for staying cool if your usual cooling methods fail.

j. **Follow Government Guidelines**. Adhere to any specific guidelines or directives issued by local authorities during heatwave emergencies. Stay informed about emergency shelters, cooling centres and other resources available in your area.

2. By following these guidelines, you can stay safe and healthy during heatwaves in Pakistan. Remember that prevention and preparedness are key to mitigating the impacts of extreme heat on individuals and communities.

HEATWAVE

Be Prepared

A prolonged period of exceptionally hot weather, characterized by temperatures well above average, posing health risks and environmental challenges.

IF YOU ARE UNDER AN EXTREME HEAT WARNING

Watch for heat cramps, heat exhaustion, and heat stroke.

Find air conditioning, if possible.

Wear light clothing.

Never leave people or pets in a closed car.

Avoid strenuous activities.

Drink plenty of fluids.

Watch for heat illness.

Heat-Related Illnesses

Heat Stroke

Signs

- High body temperature. A core body temperature of 104 degrees Fahrenheit (40 degrees Celsius) or higher is the main sign of heatstroke.
- Red, hot and dry skin with no sweat
- Rapid, strong pulse
- Dizziness, confusion or unconsciousness

Heat Cramps

Signs

- Muscle pain or spasms in the stomach, arms or legs

Heat Exhaustion

Signs

- Heavy sweating, paleness, muscle cramps, tiredness, weakness, fast or weak pulse, dizziness, headache, fainting, nausea, vomiting

HEATWAVE

Individual Guidelines

Prepare

Keep Your Home Cool

Cover windows with drapes or shades.

Position fans near windows to draw in cooler air overnight and create cross-ventilation.

Plant trees outside windows to provide shade and reduce sunlight indoors.

Use window reflectors such as aluminum foil to reflect heat back outside.

During

Find places with **air conditioning**

If you're outside, **find shade.**

Stay **Hydrated.**

Do not use electric fans when the temperature outside is more than 95 degrees. That backfires, however, when air temperatures rise over 95°F — using an electric fan when it's that hot can actually increase your body's heat stress by blowing air that is warmer than the ideal body temperature over your skin.

Avoid high-energy activities.

Respond

Heat Cramps

Actions: Go to a cooler location. Remove excess clothing. Take sips of cool sports drinks with salt and sugar. Get medical help if cramps last more than an hour.

Heat Exhaustion

Actions: Go to an air-conditioned place and lie down. Loosen or remove clothing. Take a cool bath. Take sips of cool sports drinks with salt and sugar. Get medical help if symptoms get worse or last more than an hour.

Heat Stroke

Actions: Call for emergency medical assistance. Cool down with whatever methods available and constantly monitor temperature until help arrives.

HEATWAVE

Mitigation & Prevention (Government)

Keep close monitoring of vulnerable GLOF sites.

Make **judicious use of water** for drinking and cooling-off.

Emergency Services / Fire Brigades to remain on alert against Forest fire

Alert medical services to maintain requisite facilities such as heatstroke centers.

Take preventative measures against fires where possible

Coordinate with NHA, NH&MP and FWO for necessary alerts to travelers

Avoid direct exposure to sunlight during peak hours (1000 - 1700 hours).

Inform farmers of **greater requirement of water for crops, orchards and cattle.**

Annex-D

NATIONAL FOREST FIRE GUIDELINES

1. **General**. Forest fires are a growing hazard in Pakistan that cause colossal damage to valuable forests, deplete tree cover and damage the ecology. Alongside environmental damage, they also pose significant risks to human lives and livelihoods. Given the current trends of rising global temperatures and increased human negligence, forest fires are likely to increase in the future and require our immediate attention. Comprehensive and timely preparedness, response and rehabilitation measures are required to deal with the challenges posed. This is only possible through the implementation of all inclusive, integrated and well-coordinated mitigation and response plans backed up by appropriate capacity development, implementations and monitoring mechanisms at various tiers. Cooperation of all stakeholders, agencies, ministries and local community is required to alleviate the risk of and damages caused by forest fires in Pakistan.

2. **Preparedness Guidelines**

   a. **Forest Departments**

      (1) Issue fire management plans, including pre-fire planning and post-fire recovery strategies. It is imperative to review and revise these plans routinely before issuance to relevant agencies, stakeholders and local communities.

      (2) Develop National Forest Conservation and Safety Policy that outlines the remodelling of existing forests for conservation/ mitigation following international practices of afforestation.

      (3) Monitor weather and climatic conditions to forecast amplified risk and enact fire restrictions during dry and windy conditions.

      (4) Maintain up-to-date maps of fire-prone regions and their respective hazard vulnerabilities.

      (5) Utilise remote sensing technology, such as satellite and drone imagery, to improve fire detection and mapping.

      (6) Identity at-risk areas and categorise these into High, Medium and Low Risk for forest fires, based on the frequency and intensity of past fire events, topographical features, meteorological factors, tree density, quality of ground cover, accessibility to the areas and availability of nearby water sources.

      (7) Assign responsibility to forest vigilance teams to remain alert during fire season, monitoring High Risk areas daily and Medium-Low Risk areas routinely.

      (8) Maintain up-to-date database of fire-fighting resources/ capabilities to respond effectively to large fires.

(9) Map water resources closest to each forest to be utilized during response and create water ponds in high-risk areas.

(10) Create defensible space/ fuel buffer around homes and communities by removing flammable fuels like leaf piles, uncut dry grass, lawn furniture, propane tanks, wood piles, leaves, needles and flammable trees.

(11) Enforce regular manual removal of pine needles, underbrush, dead leaves and shrubs before fire season.

(12) Plan controlled burning of undergrowth in safe seasons (such as during winter) to reduce the fuel load and decrease the risk of large, intense fires in the following spring/ summer.

(13) Establish fire lines or lanes by clearing a line/ lane of vegetation through vulnerable forests to ensure the containment of future fires.

(14) Devise strategies to divide vulnerable area/ zones into compartments bordered by natural barriers (streams, roads, bridges) such that when a fire burns out all combustibles in an affected compartment, it fizzles out, saving the remaining.

(15) Create shallow trenches and gaps in vegetation, also known as fire ditches, to contain/ control the spread of fire.

(16) Encourage planned grazing of forests to remove flammable material and avoid accidental fires by livestock farmers.

(17) Promote plantation of fire-resistant plant species including Cedrus deodara (Deodar Cedar), Pinus gerardiana (Chilgoza Pine), Juniperus macropoda (Blue Juniper), Ziziphus nummularia (Ber) and Acacia modesta (Kikar) in at-risk areas to alleviate vulnerability.

(18) Collaborate with local administration, communities, organizations and other agencies to exchange information and resources before, during and after the incident.

b. **Local Administration/ DDMAs**

(1) Issue forest fire management plans, which outline steps to reduce the risk of, respond to and recover from fires in coordination with local forest departments.

(2) Collaborate with local forestry departments, fire departments and other agencies to coordinate fire-fighting efforts available in each district.

(3) Establish control rooms with communication network and deployment of staff.

(4) Devise fire-prevention policies and regulations, such as fire-free zones, restrictions on fire-inducing activities especially during fire season and prohibitions against dumping of waste matter near forest areas.

(5) Identify the main hotspots for human-induced fires and enact strict restrictions

in these regions on actions such as fines and penalties.

(6) Collaborate with local community to create evacuation plans and conduct evacuation drills to ensure that residents are prepared to evacuate quickly and safely in the event of a fire.

(7) Conduct regular audits and ensure availability of firefighting equipment before the start of fire season including communication and wireless systems, fire beaters, gears, extinguishers, skid pumps, water bowsers, buckets, etc. If supplies are insufficient, local administration to purchase firefighting equipment and machinery and stock fire retardant chemicals.

(8) Ensure availability of all forest officers/ Nighebans/ watchers who must be appointed to frequent field visits during fire season.

(9) Maintain fire-resistant landscapes, such as defensible space around homes and other structures, to reduce the risk of fire spreading from wildland to structures.

(10) Work with private landowners and other stakeholders to promote fire-resistant landscapes and fire-safe practices, such as fire breaks and fuel buffers.

(11) Ensure enforcement of building codes for promoting hazard resilience.

(12) Review ongoing development projects such as power lines/ transformers in forested areas for safety and mitigation.

(13) Provide financial and technical assistance to local property owners to reduce the risk of fire and promote fire-resistant landscapes.

(14) Implement Wildland Urban Interface codes and ordinances to define fire-resistant building codes for construction and outline resilient materials for development; the use of wooden roofs, siding or fencing in at-risk areas and new developments in high-intensity fire-prone areas should be restricted.

(15) Enhance the notification system to inform residents about fires and evacuation orders through SMS/ broadcast media/ social media networks/ loudspeakers by adding regional languages.

(16) Plan for post-fire recovery, including emergency response and long-term recovery efforts, to ensure that the community is able to recover quickly and effectively after a fire.

c. **Fire & Rescue Services**

(1) Remain up to date on training that covers knowledge about fire behaviours, firefighting techniques and safety procedures.

(2) Be aware of the current/ forecasted weather conditions that could affect fires

and subsequent response strategies.

(3) Collaborate with appointed forest officers/ Nighebans/ watchers to receive regular updates on forest conditions.

(4) Maintain a clear understanding of their roles and responsibilities and how they fit into the overall response plan. All responders to be familiar with the chain of command, incident action plan and effective communication with all agencies involved.

(5) Responders to ensure that necessary firefighting equipment is available and well-maintained, including resistant clothing, PPE, fire-fighting tools and communication devices.

(6) Pre-position resources such as fire engines, water tenders and hand crews in strategic locations near fire sources to ensure timely response.

(7) Keep a close watch on the news/ early warning systems to ensure immediate effort to contain fires.

(8) Collaborate with local communities to educate them about the dangers of forest fires, thereby increasing community preparedness.

d. **Local Communities**

(1) Develop a community forest fire protection plan including evacuation routes, designated safe zones and communication strategies between local authorities and residents. The plan should be shared with residents and updated regularly.

(2) Ensure defensible spaces are created around residential areas by clearing flammable vegetation and debris from the immediate vicinity of the home, including roofs and gutters.

(3) Develop fire-resistant buildings by using non-flammable materials such as metal roofing and cement/ concrete walls and by keeping a safe distance between buildings and forests. In this regard, approved building codes must be followed during construction.

(4) Store flammable materials such as gasoline and LPG tanks properly to prevent fires and reduce the risk of explosion in case of a fire.

(5) Store fire-fighting equipment such as shovels, buckets and hoses in a convenient location for quick access in case of an emergency.

(6) Establish a fire watch program in which community members take turns monitoring the forests for signs of fire.

(7) Maintain clear access to major roads and driveways to ensure firefighting vehicles reach fire-prone regions easily.

(8) Conduct regular fire drills to ensure the community is prepared to evacuate

safely and timely.

(9) Create awareness using broadcast media/ social media networks/ newspapers/ community centres/ schools/ madrasas about the dangers of forest fires and the significance of prevention and preparedness.

(10) Strengthen collaboration with local authorities and fire-fighting organisations to ensure smooth coordination of response efforts in the event of a forest fire.

3. **Response Guidelines**

a. **Forest Department**

(1) Begin an initial assessment of the incident, determining the location and size of the fire, the type of vegetation and fuels present and the potential of the fire to spread. This information will determine immediate response plan and resources allocated.

(2) Collaborate with the local administration to mobilize the necessary resources including fire engines, water tenders, hand crews, aircrafts and personnel such as incident commanders and support staff.

(3) Consistently assess burnt regions using satellite imaging data to classify forest fire severity with multiple parameters (climatic, vegetation, topography and human activities). The information will serve in formulating future mitigation projects and developing efficient response plans.

(4) Monitor the fires using satellite technology and watch towers to track its spread in real-time.

(5) Once the fire is suppressed, continue monitoring to ensure that re-ignition does not occur.

(6) Investigate to determine the cause of the fire and identify any factors that contributed to its spread. This information can be used to improve fire response procedures and prevent future fires.

b. **Local Administration/ DDMAs**

(1) Conduct fire assessments to determine the fire's size, location and potential for spread and determine the best strategy for containing the fire.

(2) Activate fire management plans and mobilise fire-fighting resources, including personnel, equipment and fire-fighting aircraft.

(3) Implement fire suppression tactics, including direct attack on the fire's perimeter, back burning and aerial firefighting.

(4) Evacuate people and animals from threatened areas and working with local authorities to coordinate evacuation efforts.

(5) For high-intensity fires, Rescue 1122, Fire Brigades, Civil Defence and Wildlife

staff other concerned agencies may be called to assist the forest staff in high-risk areas. Furthermore, respective Provincial Disaster Management Authorities may contact NDMA to coordinate additional support from Pakistan Armed Forces (Army, Navy & Air Force) and Paramilitary forces in case the fire hazard is beyond local and provincial capacity.

(6) Enact a counter fire approach in response to a growing fire that is unapproachable to humans. This strategic counter fire rushes towards the wildfire, leaving a stretch of burnt ground behind it. As soon as the two fires meet, the blaze is extinguished. This practice must be exercised under supervision of forest/ fire safety experts.

(7) Enact a combination method, involving fire lines and counter fires.

(8) If a technological approach is required, alert NDMA, PDMA, Aviation Division/ Army, Air Force for provision of helicopter to drop water and other fire-retardant chemicals and material for controlling fire on need basis.

(9) Monitor the fire's behaviour and make adjustments to the fire-fighting strategies as necessary.

(10) Coordinate with local authorities and emergency services to provide fire-fighters and first responders with necessary resources, including food, water and medical support.

(11) Maintain regular communication with the public and stakeholders to provide information about the fire's status, evacuation orders and any other important updates.

(12) Engage media at district/ provincial/ federal level without delay to provide well-synthesized, highly accurate information.

(13) Inform and sensitise various population groups who generate fires, such as farmers, forest workers, local inhabitants, tourists, industrial companies and small enterprises.

c. **Fire & Rescue Services**

(1) Conduct a preliminary assessment of the fire's size, location and potential spread.

(2) Work with other first responders to assess the fire's size, location and potential spread.

(3) Follow established safety protocols, including wearing PPE, following communication and evacuation procedures.

(4) Evacuate any nearby residents and visitors to a safe location.

(5) Develop and implement a fire suppression plan, which may involve setting up

fire lines (barriers of cleared vegetation), using fire retardants, making strategic burns to contain the fire, digging trenches, or cutting down trees. The primary goal of the firefighting effort is to contain the fire to prevent it from spreading further.

(6) In the case of medium-intensity risk areas, Rescue 1122 will assist the Forest/ Wildlife Departments and local communities in controlling the forest fires.

(7) Monitor weather conditions and adjust firefighting strategies as needed.

(8) Call for additional resources, such as additional firefighting personnel and equipment from line departments, neighbouring districts and through coordination with other provinces.

(9) Once the fire is contained, the firefighting team should focus on extinguishing the fire, either through direct attack or by depriving the fire of fuel through back burning.

(10) Continuously reassess the situation and make adjustments to the fire suppression plan as needed.

(11) Protect homes, buildings and other valuable structures in the area, if possible.

(12) Follow established protocols and guidelines to ensure the safety of all personnel and to effectively respond to the fire.

d. **Local Communities**

(1) If you see a new fire, report it immediately to local authorities. Providing accurate information about the location and size of the fire can help firefighters respond more quickly.

(2) Follow emergency alerts and updates on the fire's progression and evacuation orders from local authorities and media outlets.

(3) If evacuation is advised by local authorities, evacuate immediately using designated evacuation routes.

(4) In the case of low-intensity fire risk, Forest Departments and local communities are advised to coordinate with fire control. Rescue 1122 may be called to assist if the situation worsens.

(5) Avoid driving through heavy smoke or approaching the fire.

(6) Refrain from using outdoor equipment or activities that can contribute to the fire, such as barbecues, campfires, or smoking.

(7) Stay clear of firefighting operations to avoid hindering the firefighting efforts and to ensure the safety of firefighters.

(8) Smoke from a forest fire can be hazardous to your health, so take care to protect yourself and your family. Stay indoors with windows and doors closed,

use air conditioning and avoid strenuous outdoor activities.

(9) Support evacuation and shelter efforts for displaced residents, including helping to secure shelter and supplies for those in need.

4. **Rehabilitation Guidelines**

a. **Forest Department**

(1) Replant burned areas with fire-resistant species to promote the recovery of the forest ecosystem.

(2) Remove dead trees, snags and other hazards to reduce the risk of further damage to the ecosystem, human and animal populations.

(3) Implement fire management strategies, such as prescribed burning and fuel reduction programs, to reduce the risk of future fires and promote a healthy, fire-resilient forest.

(4) Conduct soil stabilisation treatment, such as mulching, to prevent erosion and promote regrowth of vegetation.

(5) Implement erosion control measures, such as rock and straw mulch, to prevent soil erosion and promote regrowth of vegetation.

(6) Monitor the recovery of the forest ecosystem, including the growth and survival of replanted vegetation and the return of wildlife.

(7) Conduct research and monitoring to understand the effects of the fire on the forest ecosystem and improve future rehabilitation efforts.

(8) Collaborate with other agencies, organisations and local communities to promote the recovery of the forest ecosystem and the restoration of damaged areas.

b. **Local Administration/ DDMAs**

(1) Conduct a post-fire report to determine the fire's impact on the environment, human and animal populations and infrastructure.

(2) Implement post-fire recovery efforts including rehabilitation of damaged areas and conduct research to improve future fire-fighting efforts.

(3) Assess the extent of the damage and subsequent resources required for recovery.

(4) Collaborate with forestry departments, environmental agencies and other organisations to develop a comprehensive rehabilitation plan, including suggestions for ex-gratia assistance.

(5) Implement soil stabilizing treatments, such as mulching, to prevent erosion and promote regrowth of vegetation.

(6) Cooperate with the forestry department to replant burned areas with fire-

resistant species to promote the recovery of the forest ecosystem.

(7) Monitor the recovery of the forest ecosystem, including the growth and survival of replanted vegetation and the return of wildlife.

(8) Provide support to affected communities, including temporary housing, rebuilding damaged infrastructure and supporting the recovery of the local economy.

(9) Conduct public education and outreach programs to promote the recovery of the forest ecosystem and the importance of fire-safe practices.

(10) Provide financial and technical assistance to property owners to support the recovery of fire-damaged lands.

(11) Collaborate with other agencies, organisations and local communities to promote the recovery of the forest ecosystem and the restoration of damaged areas.

c. **Fire & Rescue Services**

(1) Examine the extent of the damage caused by the fire and determine the resources/ support required for recovery.

(2) Coordinate with local administrative and local community to assess the immediate and long-term impacts of the fire and devise a comprehensive recovery plan.

(3) Prioritise providing emergency medical care to victims of the fire including treating burns, smoke inhalation and other injuries.

(4) Support evacuation and shelter efforts for displaced residents, including helping to secure shelter and supplies for those whose homes/ livelihoods have been affected.

(5) Assess and mitigate environmental impacts including damage to soil, water and wildlife.

(6) Continue to work on fire suppression efforts, even after the fire has been contained, to prevent rekindling and minimise further damage.

(7) Provide emotional and psychological support to those affected by the fire, including those who have lost their homes, loved ones or livelihoods.

(8) Assist with rebuilding efforts by clearing debris and helping to rebuild homes and infrastructure.

d. **Local Communities**

(1) Volunteer time and resources such as food, water and shelter to support recovery efforts.

(2) Donate to organizations that are actively supporting recovery efforts, such as

local fire departments, disaster relief organisations and community foundations.

(3) Participate in clean-up efforts, such as clearing debris, removing hazardous materials and rebuilding homes and infrastructure.

(4) Collaborate with other agencies and organisations to promote the recovery of the forest ecosystem and the restoration of damaged areas, such as by participating in reforestation efforts.

(5) Support small businesses and the local economy by shopping locally and attending community events, to help revive the community.

(6) Provide emotional and psychological support to those affected by the fire, including those who have lost their homes, loved ones or livelihoods.

(7) Learn from the response and preparedness fall backs of fire incidents to enhance community preparedness in future incidents.

FOREST FIRE

Be Prepared

An uncontrolled and often rapidly spreading blaze that occurs in forested areas, characterized by burning trees, vegetation, and sometimes wildlife habitat

Forest Fire Facts

Can damage your property. Set up defense zones to protect your home.

Often caused by **humans or lightning.**

Can happen anywhere, anytime. **Risk increases with little rain** and **high winds.**

Types of forest fire

Ground Fire

Ground fires burn low vegetation, less intense than crown fires but spread rapidly.

Surface Fire

Surface fires burn on the forest floor, consuming debris like leaves and branches. They vary in speed based on wind, moisture, and terrain.

Crown Fire

intense, spread through treetops fueled by dry vegetation and wind, leap between trees, devastating large forest areas.

FOREST FIRE

Be Prepared

Prepare

Make an Emergency Plan

Make sure everyone in your household knows and understands what to do if you need to quickly evacuate.

Strengthen Your Home

Use fire-resistant materials to build, renovate or make repairs.

Find an outdoor water source with a hose that can reach any area of your property.

Fire-resistant zone that is free of leaves, debris or flammable materials for at least 30 feet from your home.

During

Pay attention to emergency alerts and notifications for information and instructions.

Evacuate immediately if authorities tell you to do so!

If trapped, call RESCUE 1122 and give your location, but be aware that emergency response could be delayed or impossible. **Turn on lights** to help rescuers find you.

Cover your face and mouth to protect yourself from smoke inhalation or limit your exposure to smoke.

Evacuate the elderly, sick and children first.

After

Do not return home until authorities say it is safe to do so.

Avoid hot ash, charred trees, smoldering debris and live embers. The ground may contain heat pockets that can burn you or spark another fire.

When cleaning, **wear protective clothing**

Use a respirator to limit your exposure, and wet debris to minimize breathing dust particles

Send text messages or use social media to reach out to family and friends.

FOREST FIRE

Mitigation & Prevention

Controlled Burning

Utilizing controlled burns to reduce fuel, enhance ecosystem health, and prevent wildfires.

Firebreaks

Creating and maintaining firebreaks, clearings that halt fire spread by removing fuel.

Watch towers

Elevated structures offer a vantage point for fire monitoring, enabling quick response and containment..

Community Engagement

Engaging local communities in fire prevention through awareness campaigns, training, and community-based initiatives.

Clearing Accumulated Debris

Clearing dead wood, branches, and dry leaves from forests is crucial to prevent fires as they serve as fuel.

Fire Bans and Restrictions

Enforcing temporary bans on high-risk activities like open burning, campfires, smoking, and fireworks during periods of elevated fire danger.

Preplacement of Firefighting Machinery

Proactively stationing firefighting machinery strategically in fire-prone areas during peak fire months ensures swift and effective fire suppression.

Fire Drills

Conducting regular fire drills and training exercises to ensure that firefighting personnel are well-prepared to respond to fire incidents promptly and efficiently.

Tourist Awareness Programs

Tourist awareness programs educate visitors on fire safety, responsible behavior, and adherence to fire regulations in forests, using materials, signage, and displays to reduce human-caused wildfires.

Forest Management Practices

Implementing sustainable forest management practices like logging, thinning, and vegetation management reduces fuel, enhances resilience, and lowers wildfire risk.

Annex-E

NATIONAL CYCLONE GUIDELINES

1. **General**. Cyclones are among the most destructive natural hazards affecting coastal regions of Pakistan, particularly in Sindh and Balochistan along the Arabian Sea. Cyclones bring extremely strong winds, heavy rainfall, storm surges, coastal flooding and widespread destruction to infrastructure, livelihoods and ecosystems. These hazards often result in loss of human life, damage to houses, disruption of transportation networks, destruction of crops, fisheries and contamination of freshwater sources. With the increasing impacts of climate change and warming sea surface temperatures, the intensity and frequency of tropical cyclones in the Arabian Sea are projected to increase. Rapid urbanization in coastal areas, environmental degradation and population growth further exacerbate vulnerability to cyclone hazards. Effective cyclone risk management requires comprehensive preparedness, early warning dissemination, coordinated emergency response and long-term recovery mechanisms. A whole-of-government and whole-of-society approach involving federal and provincial authorities, local administrations, humanitarian organizations, emergency services and local communities is essential to reduce the impacts of cyclones in Pakistan.

2. **Preparedness Guidelines**

   a. **NDMA/ PMD**

      (1) Develop and regularly update national cyclone monitoring and forecasting systems to provide timely warnings and advisories.

      (2) Strengthen meteorological observation infrastructure including radar systems, satellite data utilization and ocean buoys to monitor cyclone formation and movement in the Arabian Sea.

      (3) Issue cyclone alerts, warnings and forecasts through multiple communication channels including media, SMS alerts, social media and disaster management authorities.

      (4) Maintain updated cyclone hazard maps identifying vulnerable coastal districts and areas prone to storm surge and flooding.

      (5) Establish coordination mechanisms between NDMA, PMD, PDMAs and coastal district administrations for real-time information sharing.

      (6) Develop cyclone contingency plans, ensure regular review and updating before the cyclone season.

      (7) Conduct research and modelling to assess cyclone risks under climate change scenarios.

      (8) Develop national guidelines for cyclone shelters, evacuation planning and coastal protection measures.

b. **Provincial Governments/ PDMAs**

(1) Develop provincial cyclone management plans aligned with national disaster management frameworks.

(2) Identify cyclone-prone coastal districts and assess their vulnerability to storm surges, flooding and high winds.

(3) Establish cyclone control rooms and emergency coordination centres during cyclone season.

(4) Coordinate with line departments including irrigation, health, livestock, fisheries, public works and energy for preparedness planning.

(5) Pre-position emergency relief supplies including food, water, medicines, tents and rescue equipment in vulnerable districts.

(6) Ensure operational readiness of evacuation shelters, cyclone shelters and temporary accommodation facilities.

(7) Conduct capacity building programs for local authorities, rescue services and volunteers on cyclone response.

(8) Coordinate awareness campaigns to educate communities about cyclone preparedness and evacuation procedures.

c. **Local Administration/ DDMAs**

(1) Prepare district-level cyclone contingency plans outlining evacuation procedures, shelter management and response responsibilities.

(2) Identify evacuation routes and safe shelters for coastal communities.

(3) Establish district emergency operation centres and maintain communication with provincial authorities.

(4) Conduct evacuation drills in vulnerable coastal communities.

(5) Identify populations at risk including fishermen, coastal villages and informal settlements.

(6) Ensure availability of transport for evacuation of vulnerable populations including elderly, disabled and children.

(7) Inspect drainage systems and remove blockages to reduce flooding risks.

(8) Coordinate with utility providers to ensure safety of electricity infrastructure during storms.

(9) Restrict fishing activities and sea movement during cyclone warnings.

(10) Establish public notification systems including sirens, SMS alerts and community announcements.

d. **Rescue & Emergency Services (Rescue-1122, Civil Defence, Fire Services)**

(1) Conduct specialized training on cyclone response, flood rescue and water-

based rescue operations.

(2) Maintain readiness of rescue boats, life jackets, emergency medical kits and search-and-rescue equipment.

(3) Pre-position rescue teams in high-risk districts during cyclone season.

(4) Develop coordinated response protocols with police, army and maritime agencies.

(5) Ensure communication equipment remains operational during emergencies.

(6) Conduct community awareness sessions regarding emergency evacuation and safety procedures.

e. **Coastal Communities**

(1) Develop community-based cyclone preparedness plans including evacuation routes and safe shelters.

(2) Monitor weather alerts issued by authorities and follow official advisories.

(3) Strengthen houses by securing roofs, doors and windows against strong winds.

(4) Avoid construction in high-risk coastal areas vulnerable to storm surge.

(5) Store emergency supplies including drinking water, food, medicines, flashlights and batteries.

(6) Secure fishing boats and equipment before the cyclone season.

(7) Participate in community awareness programs and evacuation drills.

(8) Maintain communication with local authorities and emergency responders.

3. **Response Guidelines**

a. **NDMA/ PMD**

(1) Issue real-time cyclone warnings and updates regarding storm track, intensity and expected impacts.

(2) Coordinate with provincial and district authorities to activate cyclone response plans.

(3) Monitor cyclone movement through satellite imagery and radar systems.

(4) Facilitate national coordination among government agencies and humanitarian organizations.

(5) Mobilise national resources including Pakistan Armed Forces if the situation exceeds provincial capacity.

b. **Provincial Governments/ PDMAs**

(1) Activate provincial emergency operation centres and coordinate response operations.

(2) Implement evacuation plans for high-risk coastal areas.

(3) Deploy emergency response teams, rescue services and medical teams to affected districts.

(4) Ensure availability of emergency shelters and relief camps.

(5) Coordinate with health departments to prepare hospitals for mass casualty incidents.

(6) Deploy heavy machinery to clear debris and restore transportation routes.

(7) Maintain communication with NDMA for additional support.

c. **Local Administration/ DDMAs**

(1) Conduct rapid assessment of cyclone impacts including wind damage, flooding and infrastructure destruction.

(2) Implement evacuation of residents from vulnerable coastal areas to safe shelters.

(3) Coordinate search and rescue operations with emergency services.

(4) Provide emergency food, water, medical aid and temporary shelter for affected populations.

(5) Ensure safety and security in evacuation shelters.

(6) Disseminate accurate information to the public regarding cyclone status and relief operations.

(7) Coordinate restoration of essential services including electricity, water and communication.

d. **Rescue and Emergency Services**

(1) Conduct search and rescue operations for stranded or injured individuals.

(2) Provide emergency medical care and transportation to hospitals.

(3) Assist evacuation of residents from flooded or damaged areas.

(4) Clear blocked roads and remove debris to facilitate relief operations.

(5) Coordinate with armed forces and disaster management authorities for large-scale rescue missions.

(6) Continue monitoring affected areas for secondary hazards such as flooding and infrastructure collapse.

e. **Coastal Communities**

(1) Follow evacuation instructions issued by authorities and move to designated shelters.

(2) Avoid coastal areas and stay away from floodwaters and damaged structures.

(3) Assist vulnerable community members including elderly, children and persons with disabilities.

(4) Stay informed through official alerts and avoid spreading misinformation.

(5) Cooperate with rescue teams and relief organisations.

4. **Rehabilitation Guidelines**

a. **NDMA/ Federal Government**

(1) Conduct national-level damage and needs assessments.

(2) Coordinate humanitarian assistance and international support if required.

(3) Develop long-term recovery programs including coastal protection and climate resilience initiatives.

(4) Strengthen early warning systems and disaster risk reduction strategies.

b. **Provincial Governments/ PDMAs**

(1) Conduct detailed damage assessments of housing, infrastructure, agriculture and fisheries.

(2) Restore essential services including electricity, water supply and transportation networks.

(3) Provide financial assistance and compensation to affected families.

(4) Support houses reconstruction using cyclone-resilient techniques.

(5) Implement coastal ecosystem restoration and mangrove plantation.

c. **Local Administration/ DDMAs**

(1) Facilitate debris removal and rehabilitation of damaged infrastructure.

(2) Provide temporary housing and relief assistance to displaced families.

(3) Coordinate schools, health, community infrastructure rehabilitation.

(4) Support restoration livelihoods and fishing, agriculture, small businesses.

d. **Rescue and Emergency Services**

(1) Continue monitoring affected areas to prevent secondary disasters.

(2) Provide medical care and psychosocial support to affected communities.

(3) Assist in debris clearance and rebuilding efforts.

(4) Maintain preparedness for possible subsequent storms or flooding.

e. **Local Communities**

(1) Participate in community recovery and reconstruction efforts.

(2) Support re-establishment of local livelihoods and economic activities.

(3) Engage in mangrove plantation and coastal ecosystem restoration.

(4) Promote disaster-resilient construction and preparedness measures for future cyclones.

Government of Pakistan
Prime Minister's Office
National Disaster Management Authority (NDMA)
http://www.ndma.gov.pk