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

MONSOON
CONTINGENCY PLAN
2026

Preparedness • Early Warning • Response • Recovery

HEAVY RAINFALL

FLOODS

LANDSLIDES

GLOF

WINDSTORMS

CLOUD BURST

LIGHTENING







Together for a Safer Pakistan

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LIST OF ACRONYMS

Acronym	Full Form
AA	Anticipatory Action
AJ&K	Azad Jammu & Kashmir
AMJ	April-May-June
ASVS	Anti-Snake Venom Serum
AWD	Acute Watery Diarrhoea
CAFs	Civil Armed Forces
CBDRMs	Community-Based Disaster Risk Management Committees
CDA	Capital Development Authority
CISE	Comprehensive International Simulation Exercise
CMH	Combined Military Hospital
CMOs	Cellular Mobile Operators
CSO	Civil Society Organisation
CUSEC	Cubic Foot per Second
C&W	Communication and Works Department
DDMA	District Disaster Management Authority
DEOC	District Emergency Operations Centre
DEW	Disaster Early Warning
DHQ	District Headquarters Hospital
DMCF	Disaster Management Coordination Forum
DM	Disaster Management
DRR	Disaster Risk Reduction
EAD	Economic Affairs Division
EMT	Emergency Medical Team
EOC	Emergency Operations Centre
EW	Early Warning
EWARS	Early Warning, Alert and Response System
EWS	Early Warning System
FFC	Federal Flood Commission
FFD	Flood Forecasting Division
FM	Frequency Modulation
FWO	Frontier Works Organisation
GB	Gilgit-Baltistan
GBDMA	Gilgit-Baltistan Disaster Management Authority
GLOF	Glacial Lake Outburst Flood
GPS	Global Positioning System
ICT	Islamabad Capital Territory
INGO	International Non-Governmental Organisation
JAS	July-August-September

Acronym	Full Form
KP	Khyber Pakhtunkhwa
LEA	Law Enforcement Agency
LLIN	Long-Lasting Insecticidal Net
LO	Liaison Officer
MIRA	Multi-Sector Initial Rapid Assessment
MMT	Mobile Medical Team
MoCom	Ministry of Communications
MoR	Ministry of Railways
NDMA	National Disaster Management Authority
NDMCF	National Disaster Management Coordination Forum
NDMP	National Disaster Management Plan
NDRP	National Disaster Response Plan
NEOC	National Emergency Operations Centre
NGO	Non-Governmental Organisation
NHA	National Highway Authority
OBM	Outboard Motor
ORS	Oral Rehydration Salts
PDMA	Provincial Disaster Management Authority
PEMRA	Pakistan Electronic Media Regulatory Authority
PEOC	Provincial Emergency Operations Centre
PMD	Pakistan Meteorological Department
RCCE	Risk Communication and Community Engagement
RRT	Rapid Response Team
SAR	Search and Rescue
SDMA	State Disaster Management Authority
SHCP	Seasonal Hazard Contingency Plan
SimEx	Simulation Exercise
SITREP	Situation Report
SMS	Short Message Service
SOP	Standard Operating Procedure
SUPARCO	Space and Upper Atmosphere Research Commission
TV	Television
USAR	Urban Search and Rescue
WAPDA	Water and Power Development Authority
WASA	Water and Sanitation Agency
WASH	Water, Sanitation and Hygiene
WHO	World Health Organisation

GENERAL

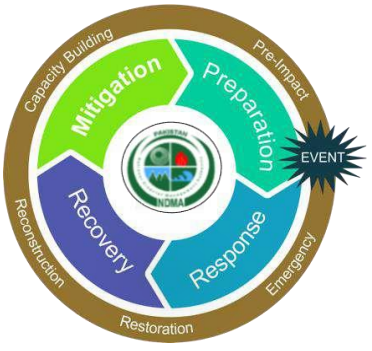
1. Pakistan is geographically and topographically diverse, with snow-capped mountain ranges in the North, rolling hills and river basins in the Centre, arid deserts in the South and a long coastal belt along the Arabian Sea. Pakistan's diverse terrain renders it highly susceptible to a variety of natural hazards, including floods, earthquakes, landslides, avalanche, blizzard, heatwaves, forest fire, cyclones, smog, droughts and Glacial Lake Outburst Floods (GLOFs). The interplay among climate variability, socio-economic pressures and inadequate infrastructure has increased the frequency, severity and impact of disasters.

2. Pakistan has faced a wide range of hazards throughout its history. Floods (riverine, flash & urban) are the most recurrent and damaging, affecting millions of people annually. The disasters of 2005 (Earthquake), 2010 (Super Floods) and 2022, 2025 (Monsoon Floods) have shaped the institutional disaster management landscape in Pakistan.

3. **Monsoon Contingency Plan 2026** must be grounded in a holistic understanding of Pakistan's disaster landscape. This includes incorporating historical disaster trends, emerging climate projections, lessons learned from past emergencies, vulnerability assessments and an up-to-date inventory of available resources and response capacities at all administrative levels. Equally important is the clear articulation of institutional roles and responsibilities, ensuring that all stakeholders from Federal ministries to provincial departments, humanitarian partners and community-based organisations to operate in a coordinated and synchronised manner.

4. National Disaster Management Authority (NDMA) under clause 9(a) and 9(b) of NDMA Act 2010 (enclosed at **Annexure A**) deals with the complete spectrum of disaster management activities including provinces and other federating units. Nonetheless, NDMA issues policy guidelines, renders directions and Early Warnings (EWs) to various federal and provincial departments and Disaster Management (DM) agencies to initiate mitigation measures for potential disaster risks and contingency plans for any disaster situation under likely hazards. Accordingly, NDMA has issued the **National Disaster Management Plan (NDMP) 2026-2030** and **National Disaster Response Plan (NDRP) 2025/26**. In the same context, the issuance of National Monsoon Contingency Plan 2026 is an annual practice, undertaken before the start of Monsoon Season.

5. The plan has been prepared in coordination with all disaster management stakeholders from Federal to Provincial levels. It is based on analysis of seasonal forecast by NDMA Tech Wing and Pakistan Meteorological Department (PMD) and likely impact of climate change. Plan lay down guidelines for all disaster management tiers and stakeholders for proactive preparations, measures for mitigation against likely hazards, preparedness for most probable to worst-case scenarios and mounting an effective and timely response against likely hazards/ emergencies during Monsoon Season - 2026.



Aim

6. To formulate national contingency and response guidelines for all disaster management stakeholders at National and Provincial/ State levels for proactive and inclusive preparedness and effective response to any flood like situation as per contingencies based on Monsoon Seasonal Outlook - 2026 and other likely disaster emergencies in the country.

Scope

7. The plan encompasses following:-

a. **Part I - Organisational Responsibilities**

(1) Responsibility Matrix for Monsoon Hazards Management.

(2) Salient Aspects.

(3) Lessons Learnt and Way Forward.

b. **Part II - Seasonal Outlook & Scenarios**

(1) Monsoon Seasonal Outlook - 2026.

(2) Perceived Impacts of Monsoon Seasonal Outlook - 2026.

(3) Monsoon Season - 2026 Contingencies.

(4) Provincial/ District Hazard, Vulnerability & Flood Inundation Maps along with Dams and Head Works Situation Report (SITREP).

(5) Flood Routing Map (Lag time) and Structural Limits.

c. **Part III - Trigger-Based Anticipatory Actions & Response Guidelines for Monsoon - 2026**

(1) Preparedness Phase.

(2) Response Phase (Rescue and Relief).

(3) Early Recovery Phase.

(4) Coordination Aspects.

(5) Logistical Considerations.

EXECUTIVE SUMMARY

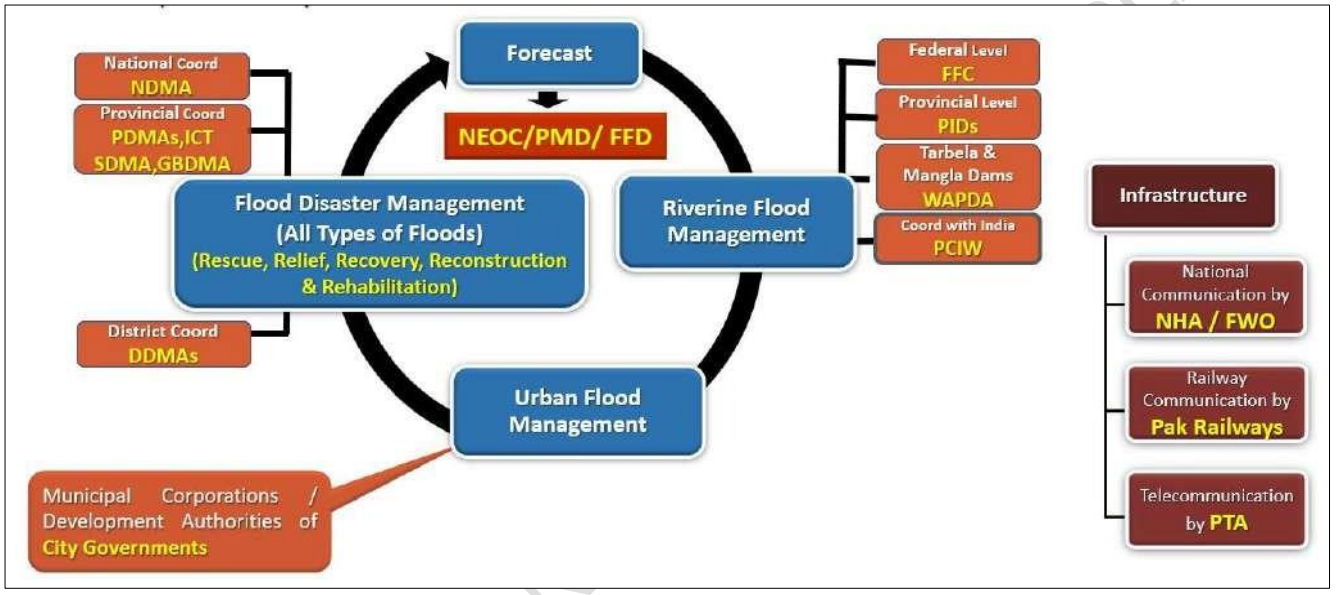
8. This document illustrates the organisational responsibilities, seasonal outlook and response actions. The intent is not to replace established national, provincial or district mandates. It is to make the plan more operational, measurable and trigger-based so that warnings lead to timely actions before communities are exposed to avoidable loss. The existing planning approach is comprehensive in scope; it recognizes Pakistan's multi-hazard monsoon risk profile, uses a three-tier response model, assigns responsibilities across federal and provincial stakeholders and covers preparedness, rescue, relief and early recovery. The framework has moved from descriptive preparedness to forecast-based execution. This requires explicit thresholds, proactive actions, tiered onus, district-level readiness indicators and a unified common operating picture. The Monsoon - 2026 framework, therefore, introduces few improvements:-

a. A forecast-to-action trigger matrix that links weather, GLOF, heatwave, floods (riverine, urban & flash), cloudbursts, heavy rains, lightning and landslide, avalanche, mud floods warnings to plausible actions.
b. A District Monsoon Readiness Index to objectively track readiness before the season and during active spells.
c. Assets and stock-release protocols for high-risk districts.
d. Last-mile warning protocols using regional languages, mobile alerts, Mosques announcements, Frequency Modulation (FM) radio, local volunteers and community focal persons.
e. The expectations include a practical plan that can be exercised and activated to keep the existing national disaster-management chain intact.

PART I - ORGANISATIONAL RESPONSIBILITIES

Responsibility Matrix for Monsoon Hazards Management

1. Responsibility matrix explains the sequence of actions and responsibilities by various stakeholders in line with their tasks and functions for effective DM. The activities under the contingency plan trigger as soon as forecast or advisory is issued by NDMA Tech Wing, PMD, Flood Forecasting Division (FFD), FFC and Pakistan Commission for Indus Waters (PCIW) based on the weather forecast or river flow data, following which NDMA issues relevant advisories and guidelines. These roles and responsibilities of all relevant stakeholders have been clearly laid down in the **NDMP-2026**, **NDRP-2025/26** and **National Monsoon Contingency Plan** issued on regular/ seasonal basis. Figure below represents the sequence of actions by different stakeholders and overall paradigm of responsibility matrix.



Actor	Core Responsibility	2026 Critical Actions
NDMA/ National Emergency Operations Centre (NEOC)	National coordination, impact-based advisories, logistics stocking guidelines as per National stocking policy, federal stakeholder coordination, 3rd tier response.	Issue advisories; consolidate SITREPs; monitor situation; coordinate national logistics support.
PMD/ FFD	Meteorological and flood forecasts, river-flow monitoring and warnings.	Provide scheduled and event-based forecasts, support impact-based messaging with NDMA/ Provincial Disaster Management Authority (PDMAs).
FFC/ Ministry of Water Resources (MoWR)/ Water and Power	Reservoir and flood-management coordination, embankments, barrages, canals,	Inspect structures, report reservoir operations; communicate release

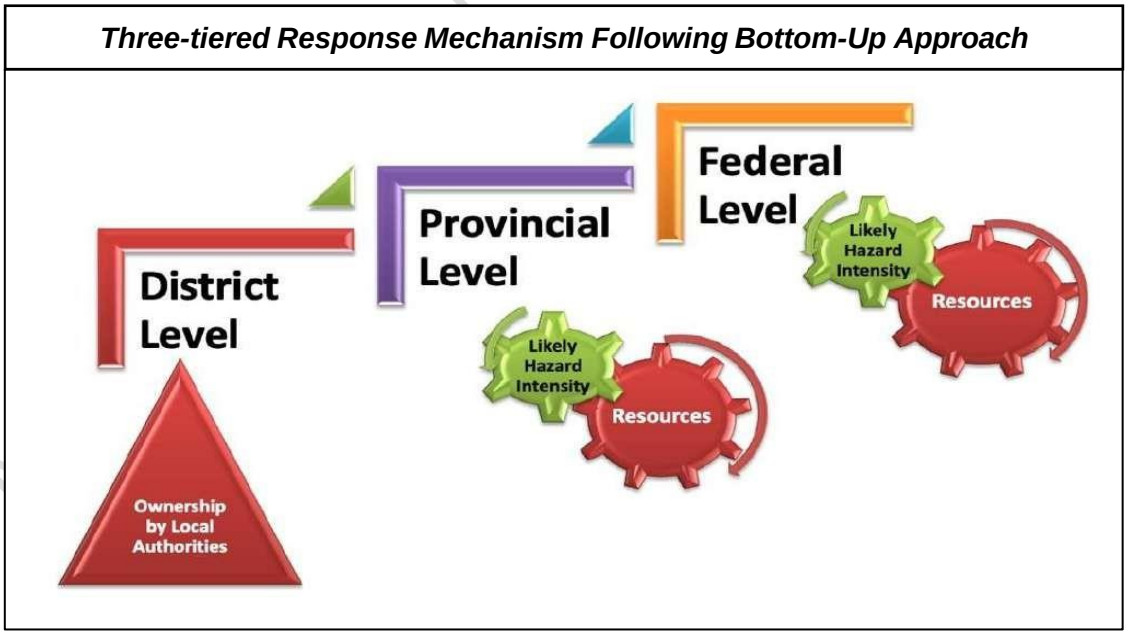
Actor	Core Responsibility	2026 Critical Actions
Development Authority (WAPDA)/ PIDs/ Pak Army	breaching sections and flood protection works.	scenarios and downstream lag times.
PDMAs/ State Disaster Management Authority (SDMA)/ Gilgit-Baltistan Disaster Management Authority (GBDMA)/ Islamabad Capital Territory (ICT)	2nd tier response, Provincial/ state coordination, resource stockpiles, district oversight, mock exercises, regional alerts and partner coordination.	Verify district readiness; pre-position assets and support District Disaster Management Authority (DDMAs).
DDMAs/ Local administrations	1st tier response, local risk mapping, evacuation, rescue, relief camps, volunteers, and incident reporting.	Operate control rooms, identify vulnerable households, conduct evacuations, manage camps and submit SITREPs.
Municipal bodies/ Water and Sanitation Agency (WASAs)	Urban drainage, dewatering, solid waste control, pumping stations and traffic coordination.	Clear drains, deploy pumps, maintain generators, monitor low-lying points.
Health departments/ NIH	Disease surveillance, emergency medical services, maternal health, vector control and camp health.	Deploy mobile teams, ensure medicines, monitor dengue/ malaria/ diarrheal disease, protect health facilities.
Rescue 1122/ Civil Defence/ Volunteers	Search and Rescue (SAR), first aid, evacuation support and community response.	Operate rescue boats, ambulances and support evacuations/ rescue.
Law Enforcement Agencies (LEAs)/ Police/ Civil Armed Forces (CAFs)/ Armed Forces	Security, traffic, evacuation enforcement, asset protection and support to civil administration for evacuations/ rescue, when requisitioned.	Secure camps/ warehouses, manage traffic, support evacuation and rescue.
National Highway Authority (NHA)/ Frontier Works Organisation (FWO)/ Provincial Highway Authority (PHA)/ Communication and	Road, bridge and railway preparedness/ restoration.	Pre-position machinery, identify alternate routes and restore links after damage.

Actor	Core Responsibility	2026 Critical Actions
Works Department (C&W)/ Railways		
Pakistan Telecommunication Authority (PTA)/ Pakistan Electronic Media Regulatory Authority (PEMRA)/ Media	Telecom resilience, Short Message Service (SMS) alerts and responsible public information, counter fake news.	Disseminate alerts, maintain telecom backup and counter rumours/ fake news.
UN/ Non-Governmental Organisations (NGOs)/ International Non-Governmental Organisation (INGOs)/ Civil Society Organisations (CSOs)	Supplementary relief, community engagement, Water, Sanitation & Hygiene (WASH), shelter, protection and assessments in coordination with authorities.	Align with official priorities, avoid duplication and support vulnerable groups.

Overview of Disaster Management Structure

2. National response to Monsoon-related hazards is organised into three tiers, where DDMAs and District Administration stands at 1st tier response followed by PDMA and NDMA.

Three-tiered Response Mechanism Following Bottom-Up Approach



Organisational Key Functions, Roles & Responsibilities

3. In addition to the specific mandates of Federal and Provincial departments, various functions of the relevant departments are appended below:-

a. **NDMA**. NDMA of Pakistan operates through specialised wings to manage disasters effectively at both local and global levels. NDMA's wings are

responsible for formulating national disaster policies and plans, coordinating with federal institutions, PDMAs and DDMAs, issuing EWs, mobilising resources, overseeing emergency response, and supporting rehabilitation and reconstruction efforts across Pakistan. These wings ensure capacity building, training, risk assessment and integration of Disaster Risk Reduction (DRR) into development planning. Globally, NDMA represents Pakistan in international disaster-management forums, coordinates humanitarian assistance with United Nations, INGOs, and donor agencies, manages foreign relief and aid during major disasters, and aligns national disaster practices with international frameworks such as the Sendai Framework for DRR, thereby strengthening Pakistan's disaster preparedness and response through global cooperation and knowledge sharing. Functions of each wing of NDMA is discussed in the ensuing paras:-

(1) **Tech Early Warning Wing - Tech (EW)**. Tech (EW) Wing is NDMA's analytical core responsible for hazard monitoring, detection and predictive modelling. It tracks global climatic, hydrological, seismic and geophysical indicators using national and international platforms {Global Watch, National Common Operating Picture (NCOP) and Global Common Operating Picture (GCOP)}. It generates EWs, forecasts and risk maps and disseminates them to response agencies and the public. It supports operational decision-making through real-time updates, by early projections and post-event assessments. Ensures that scientific forecasts are translated into actionable intelligence for response agencies. Conducts Multi-Hazard Vulnerability Risk Assessments (MHVRA) to inform evidence-based DRR planning/ prioritisation interventions.

(2) **National Institute of Disaster Management (NIDM)**. It serves as Pakistan's national think tank for DM, focusing on training, research, best practices, policy support and knowledge management. It provides evidence-based insights, conducts DRR research, manages national/ international universities partnerships and develops national DRR curricula. It has transformed into a proactive research driven institution, leading hazard studies, EW improvements and nationwide capacity building.

(3) **Tech Equipment & Maintenance Wing - Tech (E&M)**. Tech (E&M) Wing is digital backbone, driving IT modernisation, automation and technology integration. Develops mission-critical Information Communication Technology infrastructure, NDMA's website, NDMA's mobile application, alerting platforms and digital public engagement tools.

It leads digital transformation, secure communication systems and internal applications to improve operational efficiency and preparedness.

(4) **DRR Wing**. DRR Wing institutionalises anticipatory action (AAs) across national and provincial systems. It sets hazard-specific triggers and Standard Operating Procedures (SOPs), leads coordination forums like National Coordination Forum on Anticipatory Actions (NCF-AA) and Disaster Management Coordination Forum (DMCF), supports district-level planning and integrates AAs into NEOC dashboards and national contingency plans. It focuses on pre-positioning, evacuations, trigger-based actions and community preparedness. Operational drills, research guidance and district templates enhance proactive preparedness nationwide. Within DRR Wing of NDMA, Gender and Community Cell (GCC) ensure that disaster policies and plans are inclusive and gender-responsive by integrating the needs of women, children, persons with disabilities, and other vulnerable groups into DRR strategies, while promoting community participation, awareness and resilience at grassroots level. Moreover, Provincial Coordination Cell (PCC) is designated for inter provincial and departmental disaster coordination across Pakistan.

(5) **Infrastructure Advisory & Project Development Wing (IA&PD)**. IA&PD ensures resilient infrastructure through pre-disaster audits and post-disaster reconstruction planning. Develops guidelines, conducts structural assessments, establishes Provincial Infrastructure Audit Units and maintains a national audit index. Plans Material Hubs across Pakistan for rapid recovery. Post disaster supports technical assessments, debris clearance and resilient rebuilding.

(6) **Operations Wing (Ops)**. Ops Wing uses EWs to activate formal response protocols, coordinate with federal departments, PDMAs/ DDMAs, mobilise rescue teams, pre-position assets and manage field operations and logistics supply. Ops wing also provides federal Ex-gratia assistance to disaster victims. It works closely with Tech (EW) Wing, PMD and Geological survey of Pakistan (GSP) for real-time updates and supports national rescue and relief operations based on hazard alerts.

(7) **Plans Wing**. Plans Wing develops national plans, integrates anticipatory components, sets seasonal preparedness frameworks, and ensures alignment with national DRR strategies. It coordinates multi-agency planning and ensures coherence between national, provincial, and district preparedness plans. Wing also engages NGOs, INGOs, UN agencies,

and international coordination mechanisms such as International Search and Rescue Advisory Group (INSARAG) to support search-and-rescue preparedness and joint planning. It also contacts Simulation Exercises (SimExs) with all federal/ provincial stakeholders (SimEx).

(8) **National Resource Wing (NR)**. NR Wing manages private-sector and philanthropic engagement. It mobilises corporate donations, coordinates with chambers and industries, aligns private relief with national priorities and tracks all non-governmental contributions. It supports logistics, warehousing, transparency and public recognition of private sector contributions.

(9) **International Collaboration Wing (IC)**. IC Wing coordinates Pakistan's global disaster partnerships. It leads diplomatic engagements, diaspora collaboration, bilateral/ multilateral DRR cooperation and foreign high end needs pre-coordination. It enables quicker mobilisation of international aid during disasters and strengthens Pakistan's role in global and regional DRR forums.

(10) **Regional Military & Media Wing (RM&M)**. RM&M Wing drives Pakistan's regional and global disaster collaboration through military/ counterpart disaster management agencies exchanges, high-level delegations, joint Comprehensive International Simulations Exercises (CISE) and defence attaché networks. It aligns national DRR priorities with regional frameworks, enhances interoperability and strengthens coordinated cross-border emergency response. Its Media Directorate manages risk communication, public awareness, misinformation management and multi-channel alerting. It coordinates two-way information flows, supports last-mile alerting (SMS, radio, sirens, social media), maintains unified crisis messaging, Media management by respective media cells of NDMA at National level and PDMA/ SDMA/ GBDMA/ ICT at 2nd tier respectively. It leads rumour control mechanisms, disseminate special alerts and advisories for tourist and travers through all social, print and electronic media.

(11) **Risk Finance Wing (RF)**. RF Wing strengthens Pakistan's financial resilience through pre-arranged finance (contingency funds, risk pools). It conducts fiscal risk assessments, develop triggers for fund activation, ensures transparent financial tracking and mobilises climate finance via Economic Affairs Division (EAD), Ministry of Finance (MoF), International Financial Institutions (IFIs) and global financing mechanisms. It embeds risk financing in planning, budgeting, Post-Disaster Need Assessments

(PDNAs). It designs and operationalises parametric instruments, contingency funds and scalable financing systems to ensure timely disaster funding. It supports national and provincial operational financing.

b. **Pakistan Meteorological Department (PMD)**. NEOC (NDMA) issues Disaster Early Warnings (DEWs) each covering 3 x months' time bracket and PMD to monitor weather patterns developing in the region and around the globe, assess their likely impact on Pakistan and issue a forecast highlighting impact for the different regions of the country. Forecast will be issued on need basis under normal circumstances and daily during any large/ potentially significant weather system impacting country.

c. **Flood Forecasting Division (FFD)**. To monitor and forecast river flows and issue regular reports including likely impacts in different regions. The reports will cover major reservoirs, riverine and hill torrent regions of the country.

d. **Federal Flood Commission (FFC)**. To coordinate and implement National Flood Protection Plan through concerned Provincial and Federal line agencies, provide guidance for national level coordination, issue directions to all concerned Provincial and Federal departments for managing flood water through dams, hydraulic structures, canals and protective works.

e. **Ministry of Water Resources (MoWR)**. Plan and establish mechanism for streamlining coordination between FFC, WAPDA and PIDs for flood management and provide guidelines to all stakeholders for implementation of the National Water Policy by taking all stakeholders on board.

f. **Water & Power Development Authority (WAPDA)**. Ensure activation of reservoir management committees, with involvement of all stakeholders for regulation of all reservoirs for effective flood management. The committees must operate in line with the directions issued by federal bodies and plan in light of the forecasts issued.

g. **Provincial Irrigation Departments (PIDs)**. To work in close cooperation with FFC, Reservoir Management Authorities, Army Engineers and District Administrations to ensure effective operation of hydraulic structures, canals and flood protection works including operation of breaching sections as and when required to ensure public safety.

h. **District Disaster Management Authorities (DDMAs)/ Local Administrations**. Being the 1st tier responders, carryout assessment of respective regions and formulate plans to address the vulnerabilities identified. Coordinate with all relevant stakeholders for comprehensive flood response and develop capacities to meet local challenges. Enforce removal of encroachment from nullahs, canals and rivers etc. to preclude risks arising from likely floods. Comprehensive plans

be prepared, catering for respective vulnerabilities, to enable effective mitigation and coordination for rapid response against seasonal contingencies.

i. **Municipal Corporations/ Line Departments**. Respective authorities to work in close coordination with line departments to ensure timely cleaning of storm water drainage system and nullahs. Conduct audits of machinery and manpower before onset of Monsoon season to meet the gaps identified.

j. **Pakistan Commission for Indus Waters (PCIW)**. Coordinates for timely sharing of river flows/ dam discharge data during Monsoon season of the Rivers (Ravi, Sutlej, Beas, Indus, Jhelum, Chenab and Kabul have been allocated to monitor transborder reservoir activities for EW.

k. **Pakistan Telecommunications Authority (PTA)**. Coordination with Cellular Mobile Operators (CMOs) and other telecom operators for timely maintenance/ restoration of telecom infrastructure affected by disasters and dissemination of SMS alerts for at risk/ vulnerable communities.

l. **Ministry of Communications (MoCom)**. To help enable and augment the capacity of NHA in restoration of connectivity and aid in coordination between relevant stakeholders including NHA, respective PHAs and C&W Departments.

m. **Ministry of National Health Services & Research (MoNHS&R)**. Coordinate with National Institute of Health (NIH), provincial health departments and provide support to national health system for tackling emergent/ likely health needs.

n. **Ministry of Railways (MoR)**. Ensure adequate preparations against likely seasonal hazards and undertake maintenance/ restoration of railways communication infrastructure in the aftermath of Monsoon emergencies.

o. **Ministry of National Food Security & Research (MoNFS&R)**. Coordinate with provincial agriculture departments to establish a coordinated mechanism for safeguarding crops from potential floods, thereby ensuring food security and minimizing the impact on agricultural production.

p. **Pakistan Electronic Media Regulatory Authority (PEMRA)**. Enforcement and regulation of electronic media in order to ensure factual information is shared with the general public on Monsoon floods/ disasters.

q. **PDMAs/ SDMA/ GBDMA/ Capital Emergency Services (CES), ICT**. In line with their statutory mandate for disaster management within their respective jurisdictions, Provincial and Regional Disaster Management Authorities shall ensure effective coordination with all relevant stakeholders for preparedness planning, implementation of mitigation measures, and development of a coordinated response framework to address potential monsoon-related emergencies. The responders shall ensure the following:-

(1) Identify likely relief camps locations.

(2) Ensure adequate relief stockpiling.

(3) Conduct audits for preparedness measures (Human resource and machinery).

(4) Establish region-specific awareness campaigns.

(5) Establish and operate EWS for locals and as well as tourists.

(6) Archive hazards to develop database for reference in future planning.

(7) Generate timely SITREPs.

r. **Rescue 1122**. To ensure expedient provision of emergency rescue services including lifesaving first aid and ambulance service in any emergency situation. Plan and conduct rescue operations in coordination with local administrations/ DDMAs, provincial authorities and Armed Forced, if required.

s. **Police Services/ Law Enforcement Agencies (LEAs)**. To ensure provision of security and safety to disaster affected areas by securing private/ public property, provide safe and secure working environment to different agencies/ NGOs etc. working in the affected areas.

t. **Armed Forces/ Civil Armed Forces (CAFs)**. Ensure assistance to civil administration by providing support in evacuation emergency rescue, relief and medical support in disaster affected areas, once requisitioned.

u. **International Non-Governmental Organisations (INGOs)/ Non-Governmental Organisations (NGOs)/ Civil Society Organisations (CSOs)**. A cluster has been developed to ensure provision of humanitarian assistance and emergency relief support to disaster affecters through provision of shelter, food packages, medical support and SAR in coordination with NDMA/ PDMAs/ DDMAs.

v. **National Highway Authority (NHA)/ Frontier Works Organisation (FWO)**. Devise a detailed plan for timely maintenance and restoration of national highways and motorways infrastructure in light of likely Monsoon emergencies with special focus on the areas/ sections which were affected/ damaged during the floods 2022 and 2025.

w. **Provincial Highway Authorities (PHA)**. Coordinate with various contractors for the maintenance & restoration of respective provincial highway infrastructure in the aftermath of disaster situation.

x. **C&W Departments of Provinces/ Gilgit-Baltistan (GB)/ Azad Jammu & Kashmir (AJ&K) and ICT**. Employ respective resources and establish coordination with various contractors for the maintenance and restoration of respective provincial and rural access road infrastructure in the aftermath of disaster situation.

y. **Space and Upper Atmosphere Research Commission (SUPARCO)**. Provide overall situation and damage assessment using satellite technology.

z. All federal and provincial departments are expected to be proactive in disaster response activities with an aim to provide immediate relief to affected population without any distinction of provincial/ federal jurisdiction.

Lessons Learned and Way Forward

4. Drawing upon lessons from recent monsoon emergencies, particularly the 2022 and 2025 flood events, Pakistan's disaster management system must continue to strengthen preparedness, risk communication, response coordination, and community resilience. Following key lessons and strategic priorities are identified for institutional learning/ planning:-

a. **Strengthening Community Awareness and Risk Communication**. Analysis of disaster-related fatalities over the past several years indicates that roof/ wall collapse remains the leading cause of death during monsoon emergencies, followed by drowning, flash floods, and electrocution. An exception was observed in District Buner, where a major flash flood event resulted in over 250 fatalities. Significant proportion of drowning and flash-flood-related casualties involved tourists and visitors who were unfamiliar with local hazards and ignored weather warnings. These preventable deaths highlight the critical need for enhanced public awareness campaigns, timely dissemination of EWs and proactive community engagement by first-tier responders, including district administrations and local authorities.

b. **Promoting Responsible & Risk-Informed Tourism**. The increasing number of tourists visiting Northern and other hazard-prone regions necessitates the adoption of a comprehensive responsible tourism framework. All stakeholders operating under the tourism sector, including government agencies, hotels, tour operators, transport providers, and local administrations, should be sensitized through dedicated awareness and coordination sessions. Tourists must be encouraged to plan their travel in accordance with weather forecasts, EWs and local advisories. Hotels, guest houses, tour operators, and tourism service providers should be mandated to inform visitors regarding local hazards, weather conditions, road accessibility, and emergency procedures to reduce disaster-related risks and improve tourist safety.

c. **Integration of Advanced Drone Technologies in Emergency Response**. The use of advanced surveillance and heavy-lift drone systems has emerged as an operational necessity for modern DM. Drones can significantly enhance situational awareness, rapid damage assessment, SAR operations, delivery of emergency supplies, and monitoring of inaccessible areas. Compared to helicopter operations, drone/ robotic based solutions offer a more cost-effective, scalable, and rapidly deployable capability, particularly during floods, flash

floods, landslides, and other monsoon-induced emergencies. Investment in drone/ robotics capabilities should therefore be prioritised across all tiers of disaster management.

d. **Building Community Trust for Effective Evacuation**. The Jalalpur Pirwala incident demonstrated that community resistance to evacuation orders can significantly increase disaster risks and complicate response operations. Building trust between communities, local administrations and disaster management institutions is therefore essential. Regular community engagement, transparent risk communication, involvement of local leaders, and participatory preparedness activities should be institutionalised to improve public confidence in official warnings and evacuation directives. Communities that trust government institutions are more likely to comply with protective measures, thereby protecting life during emergencies.

e. **Gender-Responsive Disaster Planning**

(1) Ensure gender-sensitive relief provisions including WASH, hygiene kits and maternal health.

(2) Train female disaster responders at local levels.

(3) Provide relief to elderly and special people on priority.

PART II - SEASONAL OUTLOOK & SCENARIOS

Monsoon Climate Indicators

1. The Monsoon is a principal component of Pakistan's climate system, accounting for over 70% of the annual precipitation and playing a decisive role in sustaining agriculture, hydropower and freshwater availability. Occurring normally from last week of June through second week of September, the Monsoon remains the most critical hydrometeorological phenomenon for Pakistan. However, recent decades have seen a marked increase in the interannual variability and spatial heterogeneity of Monsoon rainfall, influenced by complex atmospheric-oceanic interactions under a changing climate regime.

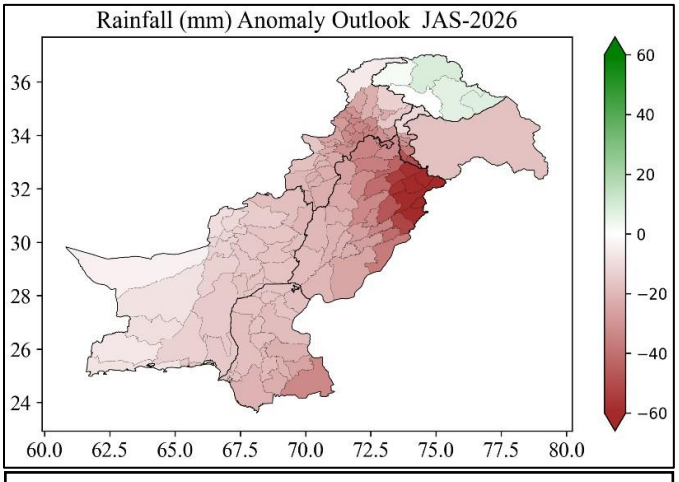
2. South Asian Monsoon is a highly dynamic and multifaceted atmospheric system governed by a range of interrelated climate drivers. These include differential land-sea thermal contrasts, shifts in large-scale atmospheric circulation and the positioning and intensity of subtropical high-pressure zones. Rather than being a singular weather event, the Monsoon emerges from a complex interplay of thermodynamic, oceanic and atmospheric processes operating across various spatial and temporal scales. In Pakistan, Monsoonal rainfall is primarily shaped by this intricate coupling of climatic factors, which jointly influence the onset, distribution and variability of seasonal precipitation.

MONSOON SEASONAL OUTLOOK 2026

Meteorological Outlook by NDMA Technical Wing

3. NDMA Seasonal Outlook, **DEW - 3**; July to September 2026 bulletins and associated hazard maps will be issued and disseminated as separate publications. These products will provide detailed assessments of seasonal risk patterns, hazard-specific forecasts and geospatial analyses to support evidence-based decision-making, preparedness planning and coordinated response efforts among relevant stakeholders. Furthermore, the publications will incorporate updated meteorological and hydrological information, facilitate risk-informed contingency planning and enhance situational awareness at national, provincial and district level.

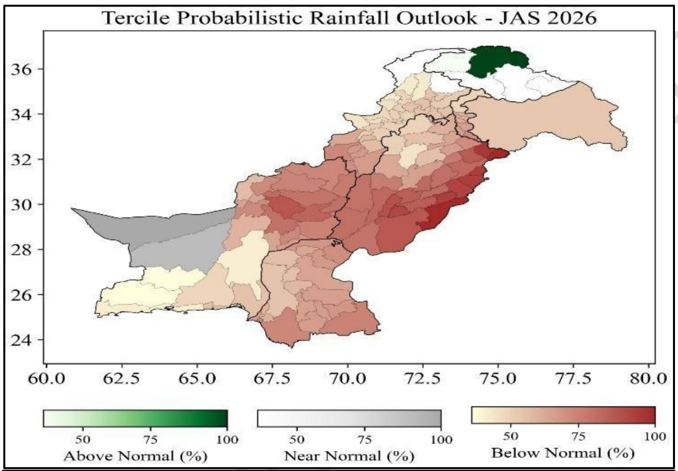
4. **Seasonal Rainfall Outlook**. The Seasonal Outlook is based on the ensemble mean of nine global seasonal prediction models with optimal skill as per Tech (EW)/ PMD. Currently, the Indian Ocean Dipole (IOD) is in a neutral phase and is expected to shift to a positive phase during the season. Likewise, the El Niño-Southern Oscillation (ENSO), has shifted to a positive phase (El Nino) and is expected to further strengthen during the season. Given these conditions, during the July to September



Seasonal rainfall (mm) anomaly for JAS - 2026

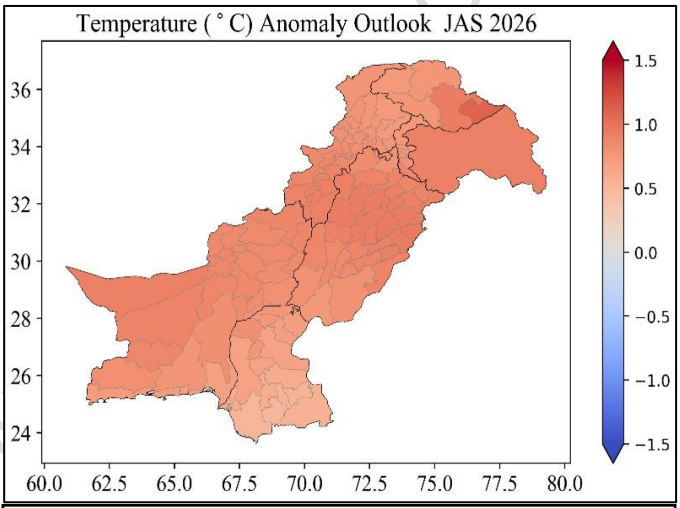
(JAS) season, below-normal rainfall is anticipated over most parts of the country, with the highest negative anomalies over Eastern regions, particularly Northeastern Punjab and adjoining areas. Slightly below-normal rainfall is expected across Southwestern Pakistan, including Western parts of Balochistan. However, near-normal to slightly above-normal rainfall is projected over the far North regions, especially GB and adjacent Northern areas.

5. The rainfall outlook reflects a consensus among all models used in the ensembles. The tercile probability output indicates a high probability of below-normal rainfall across most parts of the country, with the strongest likelihood over Eastern Punjab and Northern Balochistan. However, the Southwestern parts of Balochistan are likely to receive near-normal rainfall. In contrast, a localised area of above-normal rainfall probability is evident over the far Northern regions, particularly GB during July, August, September (JAS) 2026.

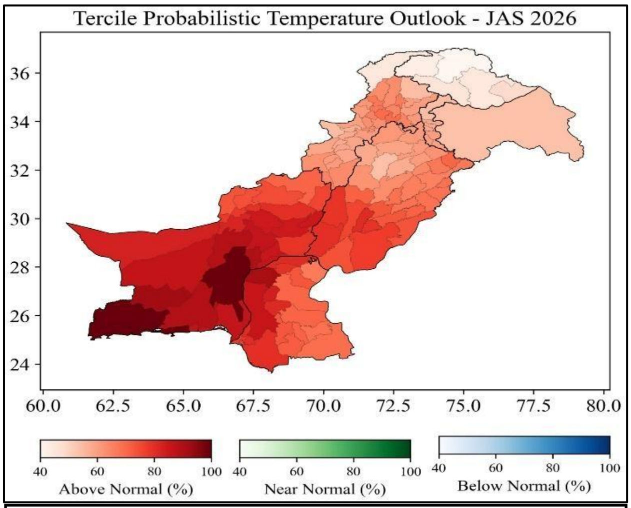


Probabilistic (%) rainfall outlook for JAS - 2026

6. **Seasonal Temperature Outlook**. Mean temperatures are expected to remain above normal throughout the country, with maximum departure over Eastern GB and Southwestern regions particularly Balochistan during JAS 2026. The tercile probabilistic temperature outlook shows that most models predict above-normal temperatures across the country, with the maximum likelihood over Southwestern Pakistan, including Balochistan during the July JAS 2026 season.

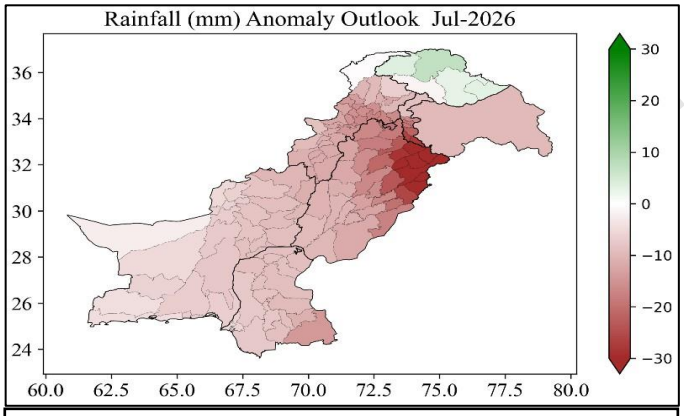


Seasonal temperature anomaly outlook for JAS - 2026

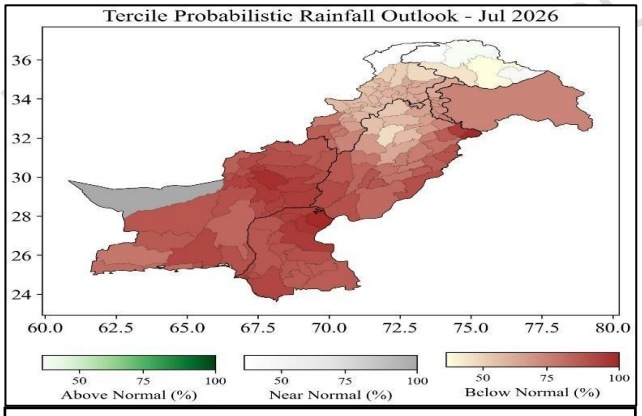


Probabilistic (%) temperature outlook for JAS - 2026

7. **Monthly Rainfall Outlook - July 2026**. A general tendency for **below-normal** rainfall is anticipated across the country during July 2026, with the most pronounced negative anomalies are expected over North-eastern Punjab and adjoining parts of Kashmir. In contrast, near-normal to slightly above-normal rainfall is anticipated over the far Northern regions, especially GB and adjacent areas. The tercile probability forecast indicates a clear tendency toward **below-normal** rainfall across most of Pakistan, especially in Sindh, Southern Punjab and Balochistan. Whereas, **Near-normal** conditions are limited to parts of Northern regions and extreme Western parts of Balochistan during July 2026.

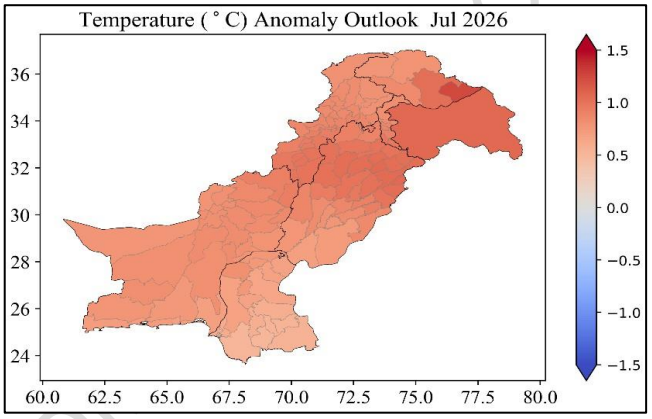


Monthly rainfall anomaly for July - 2026

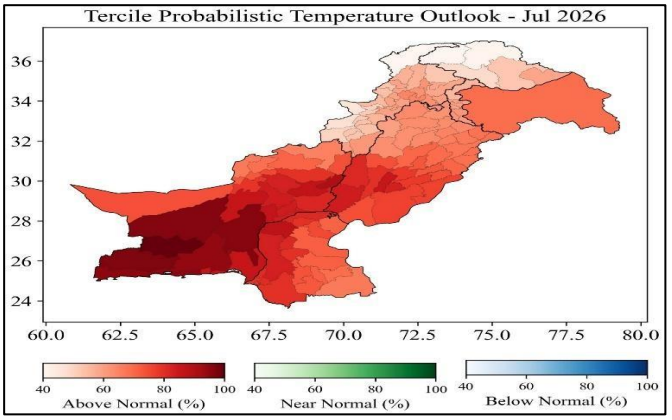


Probabilistic rainfall outlook for July - 2026

8. **Monthly Temperature Outlook - July2026**. Mean temperatures are expected to remain **above normal** nationwide, with maximum departure over Eastern Gilgit- Baltistan and Central to Northern Punjab in July 2026. The tercile-based probabilistic temperature outlook indicates that most models have consensus on **above-normal** temperatures across the country. The likelihood of warmer-than-normal conditions is particularly high over Southwestern regions, including Sindh and Balochistan during the month of July 2026.



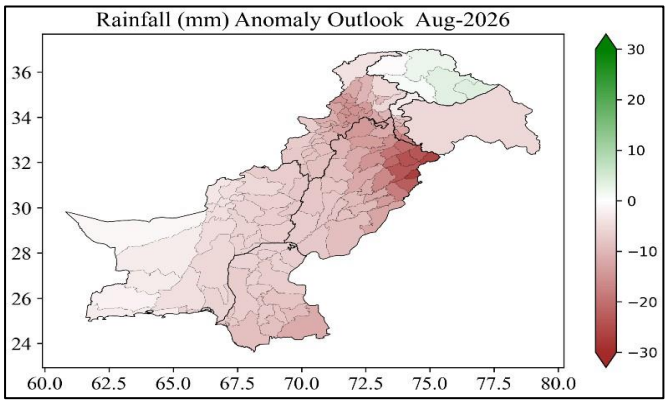
Monthly temperature anomaly outlook for July - 2026



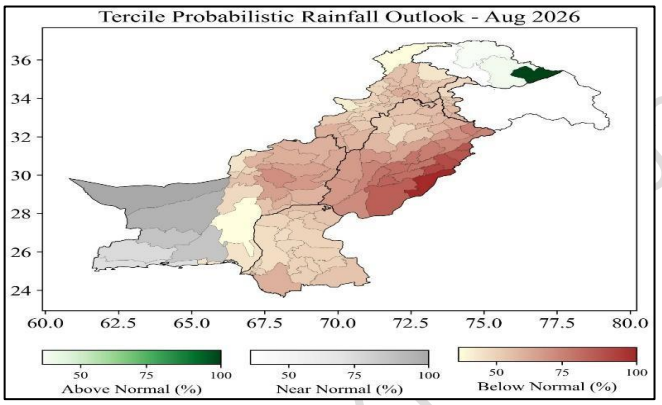
Probabilistic temperature outlook for July -2026

9. **Monthly Rainfall Outlook - August 2026**. A general tendency for **below-normal** rainfall is expected across much of Pakistan during August 2026. Most pronounced negative anomalies are concentrated over North-eastern regions, particularly upper Punjab and adjoining areas. Western parts of the country, including Western Balochistan, is expected to experience slightly below-normal rainfall. In contrast, Northern areas such as GB show near to slightly above-normal rainfall. Overall, drier-than-normal conditions dominate, with limited wet

conditions confined to the extreme north. Tercile probability forecast indicates that most ensemble members predict the likelihood of **below-normal** rainfall over central Pakistan, including Eastern Punjab and adjoining areas. Probability of slightly below to near-normal is shown in Northern regions of the country. Whereas a near-normal rainfall is predicted over the Western parts of Balochistan during August 2026.

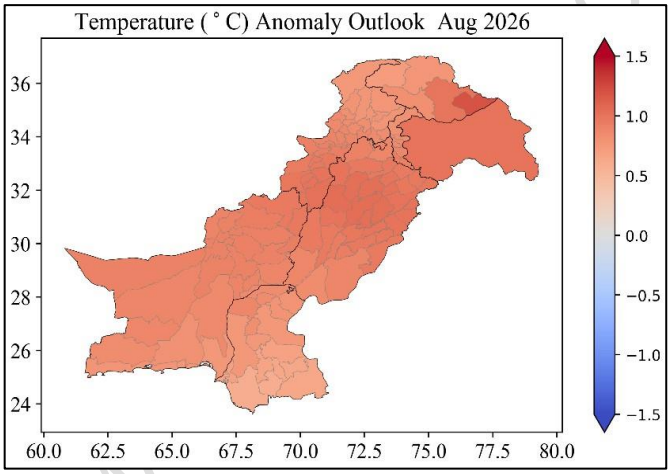


Monthly rainfall anomaly for Aug - 2026

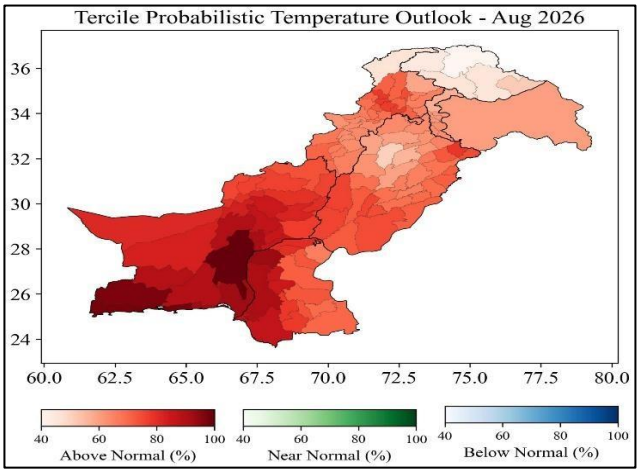


Probabilistic rainfall outlook for Aug - 2026

10. **Monthly Temperature Outlook - August 2026**. Mean temperatures are expected to remain **above normal** nationwide in August 2026. Tercile-based probabilistic temperature outlook indicates that most model guidance shows a strong agreement for **above-normal temperatures** across the country during August 2026. The probability of warmer-than-normal conditions is particularly high over Southern Pakistan, including Sindh, Balochistan and Southern Punjab. Week probabilities for above-normal anomalies are indicated over GB during the forecast month.

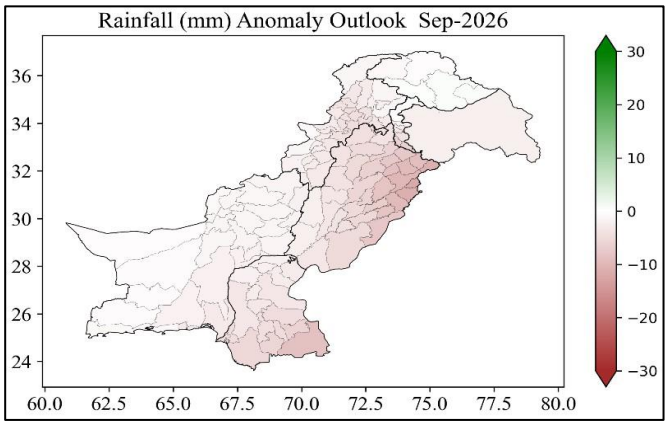


Monthly temperature anomaly outlook Aug - 2026

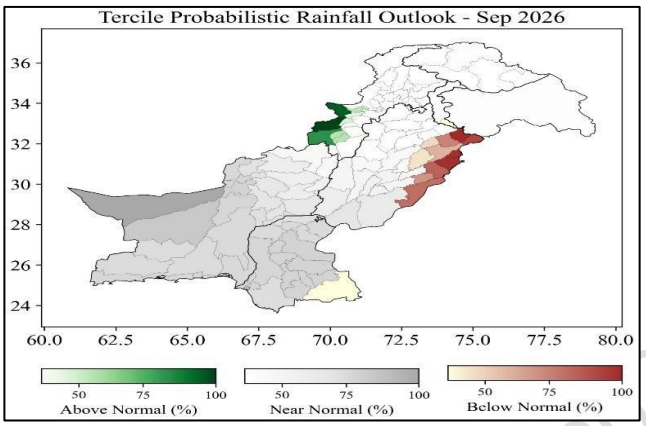


Probabilistic temperature outlook for Aug - 2026

11. **Monthly Rainfall Outlook - September 2026**. **Near normal** to slightly below normal rainfall is predicted across Pakistan during September 2026. The tercile-based forecast indicates **near-normal** rainfall over most parts of Pakistan, with the strongest signals over Southern parts of the country, particularly Western Balochistan and Sindh. **Below-normal** rainfall is more likely over Northeastern parts of Punjab, whereas **above-normal** rainfall may occur over the Southwestern parts of Khyber Pakhtunkhwa (KP) during the forecast month.

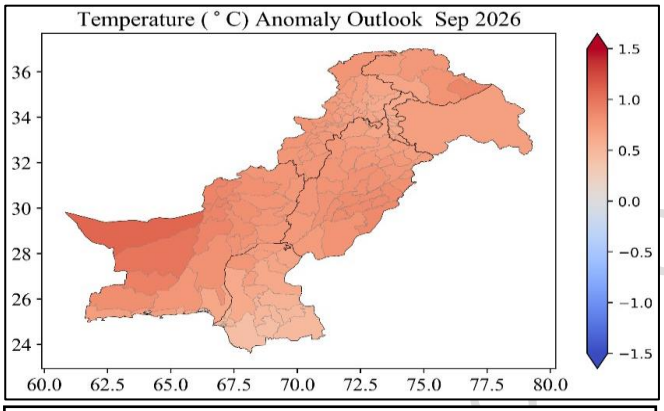


Monthly rainfall anomaly for Sep - 2026

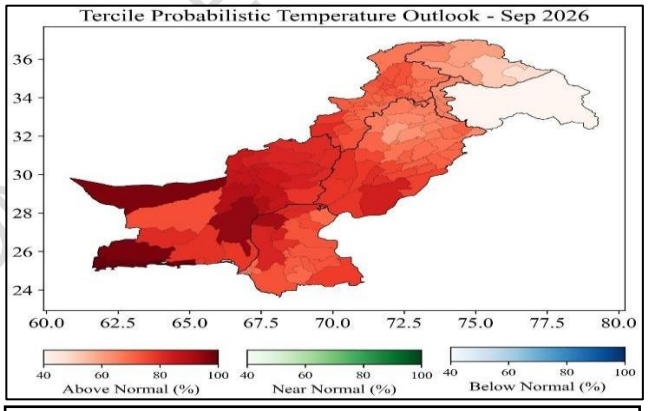


Probabilistic rainfall outlook for Sep - 2026

12. **Monthly Temperature Outlook - September 2026**. Mean temperatures are expected to remain **above normal** nationwide, with maximum departure over Western Balochistan in September 2026. The tercile based probabilistic temperature outlook indicates that the majority of the models agree on the **above-normal** temperatures over most of the country. The likelihood of warmer-than-normal conditions is high over the southern half particularly high over the Southwestern regions during the forecast month.



Monthly temperature anomaly outlook for Sep - 2026



Probabilistic temperature outlook for Sep - 2026

13. **Impacts**

a. Below-normal rainfall over Southern regions, may lead to moisture stress for Kharif sowing, reduced rain-fed agricultural productivity and increased irrigation demand.

b. Excess precipitation in upper catchment areas is likely to improve reservoir water levels, supporting sufficient water availability for agriculture and the power sector.

c. Enhanced rainfall in Northern regions may increase likelihood of flash floods and landslides, particularly in mountainous and flood-prone regions of North.

d. Urban flooding is anticipated in plains of major cities in Sindh, Punjab, Balochistan and KP due to isolated heavy rainfall events during the season.

e. Atmospheric conditions are suggestive for likelihood of heat wave development during start of the season; especially over plains of Southern Punjab and Sindh.

f. Sharp temperature gradients may trigger strong winds, dust storms and hailstorms, which could damage crops, infrastructure, reduce visibility, disrupt transportation.

g. Elevated temperatures in GB and Kashmir are likely to increase snowmelt, which

may contribute to glacier-related hazards such as GLOFs and raise river water levels.

h. Above-normal temperatures may accelerate pest and disease development in seasonal crops, particularly in the plains, potentially triggering earlier outbreaks and increasing the risk of yield and quality losses. Timely monitoring and control measures are therefore essential.

i. High temperatures and deficient rainfall are expected to increase irrigation requirements for standing crops, particularly in the plain areas of Southern Pakistan. Warmer conditions may also enhance the breeding and spread of vector-borne diseases, such as dengue, thereby posing additional public health risks.

MONSOON - 2026 CONTINGENCIES

Visualised Contingency Scenarios

14. **Scenario - 1 (Most Likely) - Below Normal Monsoon**. This scenario accounted for as part of national contingency planning due to its potential impact on agriculture, water availability, GLOF and regional meteorologic drought risks. It may unfold as under:-

a. Below average rainfall is anticipated over most parts of the country, with the highest negative anomalies over Eastern regions, particularly Northeastern Punjab and adjoining areas. Slightly below-normal rainfall is expected across Southwestern Pakistan, including Western parts of Balochistan. However, near-normal to slightly above-normal rainfall is projected over the far North regions, especially GB and adjacent Northern areas.

b. Increase melting of snow and glaciers due to high temperatures and persistent Monsoon influence, leading to increased river flows, especially in the Indus and its tributaries and GLOF. Release of water from transboundary reservoirs.

c. Increased risk of drought-like conditions especially in arid and semi-arid zones such as Tharparkar, Cholistan and Western Balochistan, impacting agriculture and livestock.

d. Depletion of water reservoirs creating challenges for irrigation, urban water supply and hydropower generation in later months.

e. Increased reliance on groundwater extraction potentially leading to long-term aquifer stress and water quality degradation.

f. There are chances of cloud burst, flash flooding, landslides and GLOF events due to above-normal rainfall projected over the far North regions, especially GB and adjacent Northern areas of KP.

15. **Scenario - 2 (Likely) - Above Normal**. It may unfold as under: -

a. Most regions, across the country will experience Above Normal Rains.

b. Increased snow/ ice melt expected and resultantly higher flows in all rivers will

be experienced.

c. Extreme weather patterns i.e. torrential/ heavy rains, hailstorm, windstorms may develop during the season and are to be expected across the country.

d. Urban flooding in metropolitans will be possible under climate-induced heavy precipitation, which is expected.

e. Northern Regions i.e. Northern KP and GB will be prone to GLOFs.

f. Increased chances of Seasonal low.

16. **Scenario - 3 (Less Likely) - Intense Monsoon**. This probable scenario may consist of events such as very heavy isolated downpours coupled with higher temperatures, unpredictable release of water from transboundary reservoirs along with forced release of water from own reservoirs, create a scenario for riverine flooding. It may unfold as below:-

a. Extraordinary riverine flood conditions triggered by extreme events.

b. Urban flooding due to torrential/ heavy downpours in short time span.

c. Peak flood conditions may exist particularly in major rivers affecting areas of Punjab and Sindh.

d. Increased chances of Seasonal Lows. Common possibility (Urban flooding, landslides, flash floods & GLOF) emerges as a phenomenon in cities/ regions prone to such hazards

17. **Scenario - 4 (Most Dangerous) - Abnormal Monsoon**

a. Combination of Scenarios 1, 2, 3 similar to floods experienced in the past 2010, 2022 and 2025.

b. Extraordinary flood triggered by extreme climatic change induced events.

c. High water levels in major water reservoirs.

d. Common possibility (Flash floods, Riverine Floods, Urban flooding, landslides, mud flow, avalanches, cloud burst & GLOF) emerges as a more frequent and recurrent phenomena to a high degree in cities/ regions prone to such hazards.

e. Massive inundation may be experienced, especially in low-lying areas of Balochistan, South Punjab and Sindh.

f. Reduced frequency of extreme weather events such as urban flooding, riverine flooding and GLOFs; however, heatwaves may intensify, especially in Southern and Central Pakistan, compounding risks for human health and agriculture.

g. Risk of delayed sowing and poor crop yields, particularly for Kharif crops such as rice, maize and cotton in rain-dependent areas.

18. **Risk Scenarios & Planning Assumptions**

Situation	Triggering Condition	Main Impacts	Planning Priority
Near-normal monsoon with	Countrywide rainfall remains near average,	Flash floods, localised deaths/	Maintain district flash-flood and

Situation	Triggering Condition	Main Impacts	Planning Priority
localized extremes	but intense local cloudbursts affect hill torrents, urban drains and small catchments.	injuries, road washouts, urban ponding, crop loss.	urban-flood readiness even when seasonal outlook is normal.
Above-normal rainfall in multiple basins	Repeated monsoon spells generate high river flows and saturated soils.	Riverine flooding, embankment stress, widespread displacement, crop/ livestock losses.	Activate river-basin coordination cells and reservoir release communication protocols.
Heatwave-to-flood compound event	Pre-monsoon or inter-spell heat elevates health risk and accelerates snow/ glacier melt before heavy rain.	Heat illness, GLOF/ flash-flood risk, power/ water stress, health system load.	Integrate heat-health action plans with flood preparedness, especially Sindh, Punjab, GB and KP.
Urban drainage failure	High-intensity rainfall exceeds drainage capacity in Karachi, Lahore, Rawalpindi/ Islamabad, Peshawar, Hyderabad, Quetta and other urban centres.	Urban flooding, electrocution, traffic paralysis, sewer overflow, disease outbreaks.	Pre-monsoon drain clearance, pump deployment, solid-waste control and traffic diversion plans.
GLOF/ landslide cascade	Above-normal temperatures and heavy rain destabilize glacial lakes and slopes in GB, KP and AJ&K.	Sudden downstream flooding, blocked roads, isolation of valleys, damage to bridges/ hydropower.	Community sirens, evacuation routes, valley watch teams, bridge/ road clearance and helicopter contingency.
Coastal/ cyclonic influence	Arabian Sea systems or monsoon lows affect Sindh and coastal Balochistan.	Storm surge, heavy rain, urban flooding, fishing-community exposure, power disruption.	Coastal evacuation, fishing advisories, shelter readiness, port/ municipal coordination.

19. **Provincial/ District Hazard, Vulnerability and Flood Inundation Maps**. NDMA Tech Wing has prepared Hazard and Vulnerability Maps, Flood Inundation Maps and Flood

Projection Maps which are essential part of preparedness. These maps are created on the basis of historical data of affected areas, extent of damage, population density and housing units. It indicates different hazard zones (Very High, High, Medium, Low and Very Low) that have been identified after detailed analysis. **These maps will be issued separately**.

20. **FFD Flood Routing Map (Lag time) and Structural Flood Limits**. Flood lag times and Structure Flood Limits as per FFD are shown in routing model attached as **Annexure B & C** respectively.

PART III - TRIGGER - BASED ANTICIPATORY & RESPONSE GUIDELINES FOR MONSOON - 2026

1. **Preparedness Phase Anticipatory Actions**. Following guidelines serve as a roadmap for all stakeholders, emphasising the importance of proactive planning and readiness. While these guidelines cover general preparedness actions, detailed plans from each level of governance will outline specific measures for comprehensive readiness. Stakeholders are advised to tailor these guidelines to local/ regional contexts to strengthen preparedness efforts and establish a robust framework for risk mitigation.

a. **General Mitigation and Preparedness Guidelines**

(1) **Vulnerability and Risk Assessment**. Undertake comprehensive assessment of at-risk regions to evaluate vulnerabilities and formulate location-specific preparedness and response plans.

(2) **Updating District Hazard Maps**. District hazard maps to be updated down to union council level to identify most vulnerable communities for sensitization, awareness, EW and evacuation in emergencies. Particular attention to the following: -

(a) **Riverine Floods**. Identify settlements/ encroachments inside river plains (*kacha* areas), communities living close to riverbanks and vulnerable sections identified by respective irrigation departments.

(b) **Flash Floods**. Identify settlements closer to/ inside water courses.

(c) **Urban Flooding**. Identify low-lying areas prone to inundation in congested city centres.

(d) **Landslides/ Avalanches/ GLOFs**. Identify communities residing near dangerous slopes/ potential landslide areas in mountainous regions.

(3) **Resource Mapping**. Prepare resource allocation based on distribution of existing resources/ manpower deputed and assess if they are fit/ sufficient to meet respective risks/ vulnerabilities. PDMAs, SDMA, GBDMA and ICT to ensure stock as per national policy and maintain required equipment/ machinery at district and preferably at Tehsil level to help identify available resources for effective coordination and response. NDMA Plans wing has resource mapped volunteers, NGOs/ INGOs, UN agencies and trained responders.

(4) **Prepositioning of Earth Moving Machinery**. Respective governments, NHA, C&W Departments and other relevant organisations should preposition dedicated earth moving machinery in landslide/ flood-prone highways, link roads and isolated mountainous areas of KP, AJ&K and

GB. This includes arrangements for bridges and increased number of maintenance teams at risk-prone locations. Details of critical sections must be covered in contingency plans for respective departments.

(5) **Completion of Mitigation Projects**. Ensure timely completion of ongoing mitigation projects within the specified timeframe to safeguard lives and infrastructure.

(6) **Repair Irrigation Infrastructure**. Damaged irrigation infrastructure under repair be completed and shortage of pitching store reserves be recouped and pre-positioned at safe locations. Repair and maintenance of leftover flood protection works to be completed before onset of Monsoon. FFC to coordinate and share detailed reports on processes completed by respective departments.

(7) **Inspection/ Monitoring of Flood Protection Works**. Round the clock vigilance of vulnerable sections of flood protection structures/ bunds, identified by respective irrigation departments be ensured through irrigation staff, police/ LEAs, Civil Defence and local community volunteers. Incomplete flood protection works, if any, will be particularly kept under special watch by respective PIDs/ PDMAs/ DDMAs.

(8) **Dam/ Reservoir Operations**. Efficient coordination among all stakeholders, in accordance with revised instructions and Standard Operations of dams of dams and reservoir management is crucial to ensure timely response and preparedness.

(9) **Location of Relief Camps**. Earmark locations for relief camps and make necessary administrative arrangements based on needs and past experiences. Ensure that relief camps are accessible and located close to main arteries for efficient delivery of relief goods to affected people.

(10) **Updated Flood Contingency Plans**. All concerned stakeholders should update their flood contingency plans based on NDMA's National Monsoon Contingency Plan 2026 and respective SOPs of the planning process. These updated plans should be shared with NDMA and relevant stakeholders immediately.

(11) **Planning for Vulnerable Groups**. Planning for the needs and concerns of vulnerable groups should be based on available authenticated gender, age and disabled disaggregated data at district level. Ensure inclusive preparedness measures to address specific requirements.

(12) **Special Conferences**. Conduct specialised conferences of all relevant stakeholders to discuss preparations and comprehensive response

measures to facilitate a coordinated response in case of extreme events and assist in timely decision-making processes.

(13) **Conduct Mock Exercises**. Plan and execute mock exercises involving all relevant stakeholders and local communities. Simulate disaster scenarios to streamline response strategies, identify gaps and improve overall preparedness.

(14) **Audit**. Conduct a comprehensive audit of equipment, machinery and trained manpower to identify gaps and initiate measures to meet essential preparation requirements. Ensure preparedness for effective disaster response for seasonal hazards.

(15) **Provision of Timely Information**. PDMAs to ensure timely provision of accurate and relevant information regarding incidents and response, utilise NDMA's standardised SITREP format already used in 2025 (**Annexure D**) for reporting and enhance incident reporting mechanisms for increased efficiency.

2. **Hazard-Specific Preparedness Measures**. Following preparedness measures based on past experiences will help to mitigate losses incurred during floods: -

a. **Urban Flooding**

(1) Identification of low-lying areas prone to pondage and inundation in congested areas of the metropolis.

(2) Strengthening the understanding of flood risk management, floodplain regulations and effective urban planning through capacity building efforts for Municipal Corporations and line departments.

(3) Implementation of necessary in progress projects such as widening, dredging and de-silting of storm water and sewerage drains to maintain functionality and reduce risk of urban flooding.

(4) Complete removal of encroachments along floodplains/ drains to reclaim the original extents of water flow, facilitating unobstructed drainage and preventing waterlogging in urban areas during heavy rainfall events.

(5) Regular assessment and maintenance of serviceability and operability of pumping stations responsible for managing stormwater/ sewage disposal, establishing robust maintenance protocols and contingency plans.

(6) Training and refresher programs for technical manpower involved in flood management/ drainage operations to enhance their skills and knowledge.

(7) Provision of reliable backup electricity arrangements, such as generators for sewage disposal and pumping stations/ de-watering pumps to guarantee uninterrupted operations during power outages, enabling

efficient drainage and sewage management during flood events.

(8) Establishment dedicated municipal level committees, particularly in major cities, responsible for planning and implementing contingency plans, involving relevant stakeholders and experts/ volunteers for a coordinated proactive approach to flood preparedness/ response in urban areas.

b. **Riverine Flooding**

(1) Ensure continuous monitoring of river flows, upstream rainfall, and reservoir levels.

(2) Activate Emergency Operations Centres (EOCs) at national, provincial, and district levels.

(3) Identify vulnerable riverine settlements and update risk maps.

(4) Pre-position rescue boats, life jackets, ropes, and emergency response equipment in flood-prone districts.

(5) Inspect and strengthen embankments, flood protection bunds, and spurs before peak monsoon.

(6) Desilting and clearance of drainage channels, nullahs and flood ways in progress must be completed before the onset of Monsoon season.

(7) Establish community-based flood EW dissemination mechanisms.

(8) Prepare and update evacuation plans and safe evacuation routes.

(9) Designate/ equip shelters with essential supplies/ emergency services.

(10) Stockpile food, potable water, medicines, tents, and non-food items in strategic locations.

(11) Coordinate with dam and reservoir management authorities regarding controlled releases.

(12) Mock drills for flood evacuation, SAR and emergency communication already conducted may be refreshed.

(13) Ensure machinery availability for breach management/ road restoration.

(14) Mobilise health teams and disease surveillance mechanisms to prevent post-flood outbreaks.

c. **Flash/ Mud Floods**

(1) Awareness drive for local communities based on historical data and vulnerability mapping.

(2) Long-term plans for rehabilitation of populations at risk of flash floods.

(3) Commissioning of emergency services such as Rescue-1122 in mountainous and inaccessible regions. As an interim measure, plan for forward placement of emergency services manpower and relief stores.

(4) Installation of signposts along waterways in regional language for

community awareness. These signposts should clearly indicate the threat level of waterways, provide information on protective measures and include contact information of relevant authorities.

(5) Implement special community-based vigilance measures during dark hours and periods of intense rains, utilising sirens or loudspeaker announcements from mosques.

(6) Strengthen Early Warning Systems (EWSs) to provide timely and accurate information about potential flash floods.

(7) Conduct regular maintenance of drainage systems and infrastructure to ensure efficient water flow and reduce the risk of flash floods.

(8) Enhance coordination and communication between relevant agencies, DM authorities and local communities to facilitate prompt response and evacuation during flash flood events.

(9) Implement land use planning and zoning regulations to restrict human settlements in high-risk flash flood areas.

(10) Promote construction of flood-resistant infrastructure and buildings in flash flood-prone regions.

(11) Provide training and capacity building programs for emergency response teams and volunteers to enhance their readiness and effectiveness in managing flash flood situations.

d. **Glacial Lake Outburst Floods (GLOFs)**

(1) Conduct regular monitoring of glacial lakes by relevant authorities (NEOC/ SUPARCO/ PMD) to identify vulnerable glacial lake sites/ discharge levels before onset of Monsoon.

(2) EWSs installation must be completed/ functional at GLOF sites that integrate real-time data monitoring and weather forecasting to monitor key indicators and promptly alert authorities/ communities about potential GLOF events.

(3) Develop hydrographs along water channels downstream to predict and understand GLOFs more accurately. This will provide crucial information for effective planning and response strategies.

(4) Available trapping dams with capacity to reduce force and volume of floodwaters to mitigate potential damage to downstream areas and infrastructure be utilised to its optimum advantage.

(5) To prevent lake outbursts, under mentioned civil engineering interventions may be considered. Application of these measures will have to be considered from case-to-case basis: -

(a) Reinforce moraine dams to prevent overtopping of lake water.

(b) Keep volume of stored water in the lake to a safe level; initially by dropping the level and later on by excavating a tunnel or deepening the breach of the moraine-dam to retain the lower level, utilizing siphon systems, electrical pumping or controlled blasting.

(6) Utilisation of geospatial technologies/ remote sensing techniques to create accurate and up-to- date hazard vulnerability maps, providing valuable insights into the potential impact of GLOFs on surrounding communities and infrastructure.

(7) Conduct awareness campaigns/ community training programs to enhance the preparedness and resilience of local communities, educating them about risks and necessary protective measures.

(8) Establish evacuation routes and designated assembly points for affected communities, considering topography/ accessibility of at-risk areas.

(9) Plan for the permanent relocation of settlements located in high-risk areas prone to GLOFs.

e. **Landslides/ Avalanches**. Vulnerability to landslides/ avalanches is influenced by geography of an area and local climatic conditions and it is crucial to identify/ address high-risk regions. Following precautionary measures be considered to enhance preparedness and to mitigate impact of landslides/ avalanches: -

(1) Review and update recorded history of landslides/ avalanches in prone areas. In addition to conducting vulnerability risk assessments, gather information from local notables who have personal experience of such events for risk mitigation strategies.

(2) Raise awareness among local communities in vulnerable areas about the importance of paying special attention to weather forecasts and alerts. Heavy rainfall can trigger landslides and avalanches, while sudden temperature variations can increase the likelihood of avalanches in susceptible areas.

(3) Establish community-based EWS as part of the response mechanism in landslide/ avalanche-prone areas. Local notables be nominated to ensure timely dissemination of alerts; this may involve use of watchmen, loudspeakers, megaphones, whistles, SMS alerts, telephonic communications or any suitable means to alert the community.

(4) Based on landslide/ avalanche alerts issued, local administration to consider precautionary measures such as closing roads and tracks leading to avalanche/ landslide-prone areas. Contingency plans should

include organised evacuation of people to safer locations.

(5) Implement erosion control measures in vulnerable areas to minimise the risk of landslides/ avalanches.

(6) Promote afforestation and sustainable land use practices to enhance slope stability and reduce susceptibility of slopes to erosion and failure.

(7) Building codes/ structural resilience strategies has been implemented that consider the risk of landslides/ avalanches, particularly in mountainous regions.

f. **Cloudbursts**

(1) Identify cloudburst-prone valleys, catchments, and settlements using hazard mapping. Strengthen coordination with meteorological agencies for rapid cloudburst alerts.

(2) Develop rapid evacuation plans for populations residing along hill torrents, streams, and narrow valleys. Restrict construction and temporary settlements in high-risk cloudburst zones.

(3) Pre-position SAR teams, helicopters (where feasible), and emergency response equipment near vulnerable areas.

(4) Ensure availability of satellite phones and alternate communication systems for remote locations.

(5) Conduct community awareness campaigns on recognizing cloudburst warnings and immediate response actions.

(6) Prepare contingency plans for isolated communities that may become inaccessible after a cloudburst event. Position emergency medical teams and supplies in high-risk mountainous districts.

(7) Establish rapid damage assessment teams for immediate post-event deployment.

(8) Maintain readiness for secondary hazards such as flash floods, landslides, debris flows, and road blockages triggered by cloudburst events.

g. **Cyclones**. Owing to changes in temperature, the possibility of such events cannot be completely ruled out at the start or end of Monsoon Season. Therefore, following guidelines can protect people/ property in vulnerable areas: -

(1) Meteorological infrastructure has been enhanced to improve cyclone monitoring and prediction accuracy, utilizing advanced technologies.

(2) Strengthen collaboration and information sharing among meteorological departments (NEOC/ SUPARCO/ PMD), DM agencies and stakeholders for timely dissemination of cyclone warnings.

(3) Develop clear protocols and SOPs for issuing cyclone warnings, ensuring

consistent and comprehensible communication.

(4) Conduct public awareness campaigns utilising media channels, educational materials and community engagement initiatives to increase public understanding of cyclones, associated hazards and the necessary actions individuals should take before, during and after a cyclone event.

(5) Establish community-based EWSs in cyclone-prone areas leveraging technology and local networks to disseminate timely and location- specific alerts through various channels, such as loudspeakers, sirens, SMS alerts, community radio and social media platforms, ensuring that communities receive warnings and can take appropriate actions to safeguard their lives and property.

(6) Develop evacuation plans for high-risk coastal areas, identifying safe shelters, evacuation routes, transportation arrangements and the mobilisation of resources necessary for orderly and efficient evacuation of residents to designated safe areas.

(7) Promote individual preparedness through family emergency plans and supply kits.

(8) Provide training and capacity building for first responders and emergency management personnel.

(9) Foster collaboration with national and international partners for assistance and technical support.

(10) Conduct post-cyclone assessments to identify lessons learned and improve future responses.

3. **Priority Preparedness Packages**

Preparedness Package	Minimum Contents
Riverine flood package	Flood routing maps, evacuation transport, camp sites outside inundation zones, boat crews and livestock relocation points.
Flash flood/ hill torrent package	Upstream watch teams, sirens, high-ground assembly points, local language signboards, valley evacuation routes, excavators at chokepoints and road-clearance teams.
Urban flood package	Drain/ nullah clearance, pump/ generator testing, low-point barricading, alternate routes, electrocution prevention, solid-waste removal, temporary water disposal points.
GLOF/ landslide package	Glacial lake monitoring, valley sirens, local focal

Preparedness Package	Minimum Contents
	persons, evacuation rehearsals, road/ bridge protection, safe shelters and rapid aerial/ satellite assessment.
Heat-health package	Heat alerts, cooling points, water distribution, health messaging, occupational safety hours, ambulance readiness and outreach to elderly persons, children and outdoor workers.
Coastal/ cyclone package	Fishing advisories, shelter plans, storm surge evacuation routes, coastal police/marine coordination, backup power/ communications.
Cloudburst	Flood routing maps, evacuation transport, camp sites outside inundation zones, boat crews and livestock relocation points.

4. **Early Warning System (EWS)**

a. **Early Warning by Government Agencies**. NDMA Tech (EW) will be the focal organisation supported by PMD, FFC, FFD etc in providing flood EWs and it is the only authorised agency to issue weather/ flood forecasts. PDMAs/ GBDMA/ SDMA, CES must strictly guard against issuance of climate-based warnings based on open-source applications. Following measures should be undertaken by NDMA Tech (EW) and other stakeholders for effective dissemination of alerts:-

(1) NDMA Tech (EW), FFD and PMD will disseminate daily flood forecasts during the Monsoon season.

(2) Weather and flood forecasts/ advisories will be issued based on a predefined schedule, detailed as follows: -

(a) **Normal Conditions**

Monthly	First week of the month
Weekly	Every Monday

(b) **Onset of Floods**

Normal	Every 24 hours
High/ Very High	6 hours
Significant Event	Every hour
Extreme Event	Minimum permissible time before occurrence

(3) Respective PDMAs will issue specific weather advisories/ warnings/ flood alerts to district authorities and relevant stakeholders via fax, email,

telephone, SMS, WhatsApp messages and instant website uploads.

(4) NDMA/ PDMAs/ GBDMA/ SDMA/ CES and PMD will release breaking news or tickers to TV, including national TV. NDMA has a broadcasting studio within its premises that will be utilised for video updates. Radio broadcasts will be utilised through national and FM radio stations to keep public informed about impending disasters and related advisories.

(5) Important advisories and alerts will be shared on social media platforms (Twitter, Facebook etc) through official government agency accounts only.

(6) NDMA/ PMD will designate a focal person authorised to deal with weather and flood forecasts, whose contact information will be made available to all stakeholders for timely communication. In this regard, a WhatsApp groups by NDMA, named “DRC Official” for responders and “Pakistan DM Responders” for decision makers will also be utilised for information dissemination and issuance of guidance/ instructions.

(7) Mobile Application and NDMA website will upload updated EW.

b. **Community Early Warning through Advisories**

(1) Public Service Messages must be generated forthwith by NDMA/ PDMAs/ GBDMA/ SDMA, CES & DDMAs through print/ electronic media.

(2) Disseminate crucial information to the public through billboards, posters, banners, brochures, warning signs and floodwater level indicators. These communication channels serve to educate and alert individuals living in at-risk areas.

(3) All concerned departments and local communities must be apprised about the forecast and its likely unfolding at the onset of Monsoon.

(4) Communities are provided information about safer places, relief camps and evacuation plan by concerned departments.

(5) To avoid false alarms, all Disaster Management Authorities ensure implementation of clause 35 of NDMA 2010.

(6) Community-based indigenous EWSs are established in areas vulnerable to flash floods, landslides, GLOFs and avalanches through the following means: -

(a) Placement of round-the-clock lookouts, especially during periods of intense rain or at night.

(b) Use of sirens or announcements on loudspeakers, including those in Mosques and other religious places.

(c) Traditional methods as lighting fires, drum beating and religious worship places by people residing in higher areas of regions.

(d) Conducting evacuation drills to familiarize the community with the evacuation process.

5. **Communications and Forecast-to-Action Trigger Matrix**

a. **Communications, Public Warning and Community Engagement**. Warnings must be trusted, understandable, actionable and repeated. 2026 plan should use messages approved before the season, translated into regional languages and tailored to hazard type.

Element	Best-practice Requirement
Message content	What is happening; where; when; expected impact; what to do now; where to go; whom to call.
Primary channels	SMS/ cell broadcast where available, radio, Television (TV), official social media, websites/ apps, Mosque/ other religious places loudspeakers, community focal persons, academic/ health networks.
Accessibility	Regional languages, simple text, pictorial posters, audio messages, sign-language inserts for TV where possible and targeted outreach for persons with disabilities.
Rumour control	Single verified source, scheduled briefings, correction of fake alerts, media coordination and clear naming of official spokespersons.
Tourist and travel safety	Hazard advisories for valleys, hill stations, bridges, riverside picnic spots and coastal areas, traffic restrictions during alerts.

b. **Sample Public Warning Format - ALERT LEVEL**. HAZARD: [Heavy rain/ flash flood/ GLOF/ river flood/ urban flood/ heatwave/ Cloud burst]. LOCATION: [District/ tehsil/ union council]. TIME: [expected onset and duration]. ACTION: Move away from waterways; avoid crossing flooded roads; prepare documents/ medicines; follow evacuation route to [safe point/ camp]. CONTACT: [control room number]. SOURCE: [NDMA/ PDMA/ CES/ PMD/ DDMA].

c. **Forecast-to-Action Trigger Matrix**. The matrix below should be adapted by each province and district using NDMA NEOC advisories, local flood routing lag times, reservoir conditions and district exposure. It converts forecast confidence into phased decisions.

Alert Level	Indicative Trigger	Mandatory Actions	Lead	Reporting
Normal readiness	No significant system;	Weekly coordination, update resource	DDMA with PDMA	Weekly readiness

Alert Level	Indicative Trigger	Mandatory Actions	Lead	Reporting
	routine seasonal monitoring.	inventory, continue drain desilting, embankment inspection and public awareness.	oversight	note.
Watch	Heavy rainfall/ heatwave/ river rises possible within 120-72 hours; advisory issued.	Activate district control room watch, verify boat/ OBM crews, alert camp managers, issue public advisory, check fuel, medicines, WASH and dewatering pumps.	PDMA/ DDMA/ municipal bodies	action checklist within 12 hours.
Alert	High-impact rainfall/ flash flood/ GLOF/ riverine flood likely within 72-24 hours; rapid river rise, or reservoir releases possible.	Pre-position rescue teams, move stocks near safe nodes, open priority relief camps, identify households requiring assisted evacuation, restrict tourist movement in hazardous valleys, deploy traffic plan.	PDMA, DDMA, Rescue 1122, LEAs, line Depts	SITREP every 6-12 hours.
Response activation	Flooding, very high river levels, GLOF warning, destructive urban flooding or life-threatening	Forced/ assisted evacuation where legally warranted; deploy SAR; activate medical posts; operate camps; request military/ CAF support if needed; issue repeated multilingual warnings;	DDMA/ PDMA/ NDMA as per tiered escalation	SITREP every 3-6 hours or as directed.

Alert Level	Indicative Trigger	Mandatory Actions	Lead	Reporting
	flood conditions imminent or occurring.	protect critical infrastructure.		
Complex emergency	Multiple districts/ provinces affected, lifelines disrupted, local/ provincial capacity exceeded.	National coordination cell, inter-provincial resource balancing, international/ humanitarian partner coordination, emergency procurement, national logistics bridge, daily media briefings.	NDMA with federal/ provincial stakeholders	National consolidated SITREP and needs dashboard.

d. **Standard Actions**

(1) Before season starts; complete drain/ nullah desilting verification, camp identification, resource inventory/ district monsoon table-top exercises.

(2) Before 15 June; test SMS, Mosque, FM radio, social media and local focal-person warning chains in all high-risk union councils.

(3) Before 25 June; pre-position earth-moving machinery, rescue boats, dewatering pumps, WASH kits and medical teams in priority districts.

(4) During every alert; alert the public in regional languages and verify that all district response rosters are reachable.

(5) During every alert; need gap analysis area specific; prepare evacuation transport and priority camps.

(6) During every disaster; prioritise evacuation and life safety over asset protection; prevent disaster tourism and unsafe river/ stream crossings.

Response Phase - Triggered-Based Anticipatory Actions (Rescue & Relief)

6. During the initial stages of disaster response, evacuation/ rescue operations play a vital role in saving precious lives and ensuring safety of affected individuals. Following must be done by all concerned: -

a. **General Response Guidelines**

(1) Plan forced evacuation, if merited, in cases of limited warning time, utilising all available provincial/ district resources.

(2) DDMAs, as first responders, to mobilise communities for disaster

response, promoting community involvement and addressing the issue of human resource scarcity.

(3) Prioritise rescue and evacuation of vulnerable groups, including the elderly, disabled, women and children.

(4) NHA and Pakistan Railways must restore communication infrastructure and establish alternate routes promptly.

(5) SUPARCO will provide NDMA with satellite imagery and assessments for projected flood developments in affected areas.

(6) Make traffic arrangements to regulate flow on national and provincial arteries in case of infrastructure damage caused by floods.

(7) Strictly curb disaster tourism to ensure public safety and prevent interference with rescue and relief operations.

(8) Coordinate and ensure the availability of flood rescue equipment (boats, OBMs) and trained responders (OBM operators) positioning them to respond effectively in various regions.

(9) Coordinate deployment of Urban Search and Rescue (USAR) teams through NDMA/ PDMAs for operations in collapsed buildings and landslides within their respective provinces.

(10) PDMAs must ensure the provision of rationalised flood-fighting equipment as demanded by Pakistan Army before the onset of Monsoon 2026. PDMAs and Pakistan Army to establish a mutually devised mechanism for collection, utilisation and maintenance of equipment as per requirements.

(11) Coordinate availability of staff from relevant departments, especially hospitals and emergency services, even on holidays during Monsoon.

(12) Incorporate Rescue 1122, emergency services, civil defence, volunteers and law enforcement agencies in rescue operations.

(13) Aviation resources at the disposal of Provincial Govts to be utilised.

(14) Aviation efforts be requisitioned through NDMA by respective Provincial/ State Governments with expenditures to be borne by the respective Govts.

b. **<u>Rescue Measures for Riverine Floods</u>**

(1) Activate the established coordination mechanism led by DM agencies for a swift and well-coordinated response.

(2) Mobilise SAR teams equipped with flood rescue equipment, strategically placed in flood-prone areas along riverine regions.

(3) Prioritise the rescue and evacuation of individuals stranded or isolated by rising water levels in riverine flood situations.

(4) Establish temporary shelters and safe evacuation routes for affected

communities in riverine flood zones.

(5) Conduct aerial surveys and utilise drones to identify submerged or stranded individuals for targeted rescue operations.

(6) Coordinate with SUPARCO to obtain real-time satellite imagery and flood assessments for effective rescue operations.

(7) Deploy specialised watercraft and trained personnel for swift water rescue and evacuation in riverine flood scenarios.

(8) Implement a robust communication system to ensure coordination between SAR teams and local authorities.

c. **Rescue Measures for Flash Floods & Cloudbursts**

(1) Collaborate with local authorities, relevant departments and emergency services to develop specific SAR strategies for flash flood scenarios.

(2) Activate the established coordination mechanism for a swift and well-coordinated response.

(3) Mobilise SAR teams with flood rescue equipment and specialised swift water rescue gear for rapid response in flash flood-prone areas.

(4) Prioritise evacuation and rescue of individuals trapped in rapidly rising floodwaters or isolated by flash floods.

(5) Utilise EWSs and community alerts, to warn vulnerable communities in flash flood-prone areas.

(6) Conduct rapid assessments of affected areas to identify high-risk locations and deploy SAR teams accordingly.

(7) Coordinate with NDMA to requisition USAR Team support, if required for specialised rescue operations.

(8) Establish temporary shelters and medical assistance centres in safe locations for evacuated individuals.

d. **Rescue Measures for Landslides/ Avalanches/ GLOFs**

(1) Develop protocols for rapid deployment of SAR teams and specialised equipment in landslide, avalanche and GLOF-prone areas.

(2) Mobilise SAR teams equipped with necessary equipment for debris clearance, excavation and retrieval operations in landslide and avalanche scenarios.

(3) Utilise EWSs and communication networks to alert vulnerable communities in high-risk areas prone to landslides, avalanches and GLOFs.

(4) Coordinate with NDMA to requisition Pakistan Army USAR team support, if required for specialised SAR operations in landslide, avalanche and

GLOF situations.

(5) Establish mechanisms for coordination between different agencies involved in search and rescue operations in landslide and avalanche scenarios.

e. **Rescue Measures for Urban Floods**

(1) Activate the established coordination mechanism for a swift and well-coordinated response to urban flooding situations.

(2) Mobilise SAR teams equipped with flood rescue equipment and necessary USAR tools for operations in urban flood scenarios.

(3) Prioritise the rescue and evacuation of individuals trapped in flooded buildings, vehicles, or other dangerous situations.

(4) Conduct SAR operations in coordination with local authorities, emergency services, Civil Defence and specialised USAR teams.

(5) Requisition aviation support through NDMA, if needed for aerial SAR operations in urban flood-affected areas.

(6) Establish communication systems to provide real-time updates and instructions to affected communities.

(7) Conduct post-disaster assessments to identify areas of improvement in SAR strategies for urban flooding incidents.

f. **Parameters for Flood Rescue Equipment**. Need-based rationalisation of the quantity of rescue boats and type of OBMs is to be done based on factors mentioned below to configure optimal response against envisaged flood threat with availability of sufficient reserves at required tiers of response: -

(1) Respective provinces are responsible for establishing the requirement of boats vis-à-vis threat of flood/ vulnerability/ exposure/ risk assessment.

(2) Districts must be prioritised as High Threat (Priority-I), Medium Threat (Priority-II) and Low Threat (Priority-III) based on following aspects:-

(a) Historical flood data record.

(b) Population density.

(c) Urban/ rural divide.

(d) Type of flood threat i.e. riverine, flash, urban etc.

(e) Degree of vulnerability and exposure e.g. population centres in water ways/ proximity to rivers.

(f) Reaction time.

(3) Maximum number of passengers carried by a fibre glass rescue boat be determined as per boat size/ capacity.

(4) Response action will have following sequence: -

(a) **1st Tier - Immediate Response**. DDMA/ District Administration will be responsible to generate 1st Tier response through collaboration with line departments, Rescue 1122, Civil Def organisation and trained volunteers. Local communities will be incorporated into response mechanism only if situation permits and the people involved are not exposed to any further risk.

(b) **2nd Tier - Build-up Response**. Respective PDMAs/ GBDMA/ SDMA and ICT Administration will be responsible to collaborate and build-up 2nd Tier response through augmentation of resources from adjacent/ neighbouring districts and mobilising provincial resources including NGOs/ INGOs in the area. LEAs, CAF and Armed Forces can be requested to assist if situation warrants such employment as a 3rd Tier response. Regional USAR teams will also be mobilised if specialised tasks/ requirements arise.

(5) **Positioning of Rescue Boats**. Location of rescue boats will be decided based on the following aspects: -

(a) Availability of reaction time vis-à-vis flood warning, transportation time to water line and mobilisation time of crew.

(b) Road communication infrastructure vs threat of isolation in case some roads are cut-off or traffic jams deny transportation in time.

(c) Time required for build-up in shifting of resources.

(6) **Priority of Districts**. Priority will be established by respective provinces after due deliberation/ consultation and shared with all stakeholders for standardised planning: -

(a) **Priority - I Districts (High Threat)**. These districts should be historically affected by floods (riverine/ flash) and situated alongside rivers, Nullahs and hill torrents with relatively higher number of population.

(b) **Priority - II Districts (Medium Threat)**. These are medium priority districts, historically less affected by any type of floods with relatively low number of population.

(c) **Priority - III Districts (Low Threat)**. These are low priority districts, historically least affected by any type of flood and with relatively lesser number of population.

Response Priorities and Relief Standards

7. Response Phase: Rescue, Evacuation and Relief

a. Response Priorities

(1) Life safety; evacuation, SAR, emergency medical care and protection of vulnerable people.

(2) Continuity of critical services; health, water, electricity, telecom, road access, drainage and public order.

(3) Dignified relief; safe shelters, food, clean water, sanitation, hygiene, protection, privacy and grievance mechanisms.

(4) Accurate information; rapid assessment, verified casualty/ damage data, needs prioritisation and rumour control.

(5) Resource efficiency; avoid duplication by maintaining a 3W matrix of who is doing what and where.

Timeframe	Minimum actions	Lead	Output
0-6 hours	Activate EOCs, confirm incident command, issue public safety messages, mobilise local rescue, verify vulnerable locations and close unsafe routes	DDMA/ local administration	Initial flash SITREP
6-24 hours	Evacuate at-risk communities, establish camps, deploy medical teams, set up WASH, move stocks, begin road/ drain clearance and request provincial/ national support if needed.	DDMA/ PDMA/ Rescue/ LEAs/ line departments	Situation map, evacuation log, camp status
24-72 hours	Conduct rapid damage/ needs assessment, restore priority lifelines, scale relief distribution, coordinate humanitarian partners and start disease surveillance	PDMA/ DDMA/ health/ municipal/ partners	Multi-Sector Initial Rapid Assessment (MIRA)/ Dynamic Inundation Risk

Timeframe	Minimum actions	Lead	Output
			Assessment (DIRA) style assessment and 3W matrix
72 hours-14 days	Transition to sustained relief and early recovery, plan repair of roads, water systems, schools, Basic Health Units (BHUs) and livelihoods support	PDMA/ DDMA/ line departments	Early recovery action plan.

b. **Relief Standards**

Sector	Minimum standard
Shelter	Safe location outside flood-risk zones; separate spaces for families, lighting, privacy; accessible entry, protection desk.
Food	Locally appropriate food packs, infant/ child food, provision for pregnant/ lactating women and elderly persons, transparent distribution lists.
Water and WASH	Safe drinking water, water purification, handwashing stations, gender-segregated toilets, menstrual hygiene supplies and waste management.
Health	First aid, emergency referral, maternal health, vaccination continuity where relevant, disease surveillance/ vector control.
Protection	Indiscriminate registration, anti-harassment, child protection, disability assistance, complaint mechanism and referral pathways.
Livestock	Separate safe spaces, fodder arrangements, veterinary support and carcass disposal where required.

8. **Relief Phase**. After the SAR phase, focus shifts to relief operations, which are crucial for providing immediate assistance and support to affected communities. Following are the key recommendations and guidelines for an effective relief phase:-

a. **General Relief Guidelines**

(1) Incorporate NDMA's Guidelines on MIRA and Minimum Standards of Relief in Camp and Ex-gratia Assistance into all plans and stages.

(2) Design standardised food packs based on local requirements, including

essential items like rice, wheat bags, ghee and milk for babies.

(3) Distribute water purification tablets and filtration to provide clean drinking water to affected people.

(4) Ensure a fair and organised distribution method for relief goods, consulting with local communities.

(5) Consider cultural context and specific food requirements for different groups, such as lactating mothers, pregnant women, infants, children and the elderly. Needs of the entire family unit must be catered to.

(6) Engage trained community teams to assist in emergency shelter planning, relief distribution, identification of missing individuals and addressing education/ healthcare/ water supply/ sanitation/ food needs.

(7) Implement Minimum Initial Service Package (MISP) to reduce mortality, morbidity and disability, especially among women and girls, by strengthening provincial/ district capacities and coordinating.

(8) Implement emergency preparedness plans for the education sector to ensure continuity of structured learning during disasters.

(9) Ensure that dignity of all affected persons is protected during the relief phase. Planned and need-based without any segregation and avoid unnecessary gatherings for media coverage and pictures of all affected.

(10) In collaboration with provincial health departments, conduct anti-dengue/ malaria prevention campaigns such as spraying and removing stagnant water and implement safety precautions.

(11) Maintain and follow supply chain of relief goods in true letter and spirit. DDMAs are the 1st Tier, supported by PDMAs to provide immediate relief. Similarly, 2nd Tier PDMAs, should be ready to render assistance once the stocks of DDMAs are exhausted. 3rd Tier of NDMA supported by national resources to extend relief support required by the provinces/ regions: -

   (a) NDMA strategic located stock as 3rd Tier once released will be collected by PDMA from particular location.

   (b) NDMA stocks will be requisitioned only in case of extreme emergency and with sufficient reaction time.

   (c) Distribution of tents at site must be avoided. People must be motivated to come to relief camps.

   (d) Existing public building to be identified for relief camps.

(12) Establish an effective supply chain management mechanism with prequalified suppliers and transport contractors for emergency transportation of relief items.

b. **Relief Measures for Riverine Floods**

(1) Establish temporary relief camps equipped with essential facilities such as shelter, clean water, sanitation and healthcare services in safe locations away from flood-prone areas.

(2) Provide immediate medical assistance by setting up medical camps staffed with trained healthcare professionals.

(3) Ensure availability of clean drinking water through the distribution of water purification tablets, water tankers, or installation of water treatment units.

(4) Distribute food rations and essential items to affected communities, prioritizing vulnerable groups such as children, women and the elderly.

(5) Conduct rapid assessments to identify and prioritise restoration of critical infrastructure, including roads, bridges and communication networks.

(6) Implement early recovery measures, including debris clearance, rehabilitation of damaged structures and livelihood support to affected.

(7) Coordinate with relevant departments and organisations to provide psycho social support/ counselling services to affected individuals.

c. **Relief Measures for Flash Floods**

(1) Establish temporary shelters and evacuation centres equipped with essential facilities for displaced individuals.

(2) Ensure immediate medical support by deploying Mobile Medical Teams (MMTs) to provide emergency healthcare services.

(3) Coordinate with relevant departments and organisations to provide emergency relief supplies (food, water, essential items to affected).

(4) Implement EWSs and public awareness campaigns to educate communities on flash flood risks and evacuation procedures.

(5) Conduct rapid damage assessments to identify critical infrastructure and prioritise restoration efforts.

(6) Provide support for the repair and reconstruction of damaged houses, public buildings and infrastructure.

(7) Develop and implement community-based DRR programs, focusing on flash flood preparedness, EWSs and evacuation plans.

(8) Facilitate the rehabilitation of livelihoods through vocational training, income generating activities and small-scale business support.

d. **Relief Measures for Landslides/ Avalanches/ GLOFs**

(1) Mobilise emergency response teams specialised in landslide, avalanche and GLOF rescue and relief operations.

(2) Conduct immediate SAR operations using specialised equipment and

techniques for locating and extricating trapped individuals.

(3) Provide medical support and establish medical camps near landslide/ Avalanche prone areas to ensure prompt medical assistance.

(4) Deploy teams for debris clearance and restoration of critical infrastructure, including roads, bridges and utilities.

(5) Conduct comprehensive damage assessments to estimate losses and facilitate recovery planning.

(6) Implement measures to prevent secondary hazards such as damming of rivers or lakes due to landslides or avalanches.

(7) Promote long-term measures for landslide and avalanche mitigation, including slope stabilization, afforestation and land use planning.

e. **Relief Measures for Urban Flooding**

(1) Establish temporary shelters and evacuation centres equipped with essential facilities for displaced individuals in urban areas.

(2) Ensure immediate medical support by establishing medical response teams and deploying mobile medical units to affected areas.

(3) Provide emergency relief supplies, including food, clean water and essential items, to affected communities in coordination with relevant departments and organisations.

(4) Conduct rapid damage assessments to identify critical infrastructure and prioritise restoration efforts.

(5) Implement measures for drainage system cleaning, unclogging and repair to alleviate urban flooding.

(6) Coordinate with relevant departments to ensure restoration of essential services such as electricity, water supply and communication networks.

(7) Conduct awareness campaigns to educate communities on urban flood risks, safe hygiene practices and disease prevention.

(8) Provide support for the rehabilitation and reconstruction.

Early Recovery Phase

9. Early recovery phase is a critical period that follows the initial response to a disaster. During this phase, the focus shifts towards restoring essential services, rebuilding livelihoods and promoting the overall recovery of affected communities. The following recommendations and guidelines are crucial for effective early recovery efforts: -

a. **General Early Recovery - Guidelines**

(1) **Early Recovery Planning**

(a) Develop and implement an Early Recovery Plan based on findings of rapid assessments in coordination with relevant stakeholders.

(b) Ensure the plan includes specific objectives, activities, timelines and responsibilities for the early recovery phase.

(c) Prioritise activities that focus on restoring basic services, infrastructure, livelihoods and community resilience.

(2) **Disaster Assessment & Monitoring**

(a) Implement MIRA framework developed by NDMA and UNOCHA to identify strategic humanitarian priorities, assess the scale of the disaster and determine priority areas of assistance.

(b) Deploy trained human resources from PDMAs/ DDMAs to conduct rapid assessments using the MIRA module.

(c) Collaborate with NDMA, PDMA, UN agencies, INGOs and NGOs to carry out rapid assessments and gather data on the needs and priorities of affected and vulnerable communities.

(d) Share initial assessment report with Disaster Management Authorities within one week and the final report within two weeks to facilitate timely decision-making and planning.

(3) **Infrastructural Rehabilitation**

(a) Assess and prioritise damaged infrastructure, such as roads, bridges, schools, health facilities and water and sanitation systems for timely rehabilitation.

(b) Engage qualified engineers and construction experts to oversee the repair and reconstruction process.

(c) Ensure that infrastructure rehabilitation projects adhere to safety standards and incorporate DRR reduction measures.

(4) **Livelihoods & Economic Recovery**

(a) Conduct assessments to identify the impact of the disaster on livelihoods and economic activities in the affected areas.

(b) Develop and implement livelihood support programs, including cash-for-work initiatives, vocational training and access to microfinance, to help communities recover and rebuild their economic capacities.

(c) Promote the revival of local markets and businesses through targeted support and incentives.

(5) **Social & Community Support**

(a) Strengthen community-based organisations and promote community participation in decision-making processes related to early recovery efforts.

(b) Foster social cohesion and inclusivity by addressing the needs of vulnerable groups, including women, children, elderly individuals and persons with special needs.

(6) **Coordination & Partnerships**

(a) Establish effective coordination mechanisms among government agencies, humanitarian organisations, civil society and other relevant stakeholders involved in early recovery efforts.

(b) Foster partnerships with national/ international actors to leverage resources, technical expertise and knowledge sharing for efficient and effective early recovery interventions.

(c) Maintain regular communication and information sharing platforms.

b. **Hazard-Specific Early Recovery - Guidelines**

(1) **Riverine Floods**

(a) Conduct rapid damage assessments to identify priority areas for early recovery interventions, focusing on critical infrastructure and community needs.

(b) Provide immediate support for the restoration of water supply, sanitation and hygiene facilities to prevent waterborne diseases.

(c) Support the rehabilitation of damaged houses and community infrastructure, prioritising the most vulnerable households.

(d) Assist in the recovery of agriculture and livelihoods through the provision of seeds, tools and technical support for quick replanting.

(e) Facilitate the reestablishment of local markets and income-generating activities to restore economic stability.

(f) Collaborate with local communities to develop and implement community-based EWSs for future flood events.

(g) Ensure the active participation of affected communities in decision-making processes and the planning of early recovery interventions.

(2) **Flash Floods**

(a) Conduct rapid assessments to identify immediate early recovery needs, focusing emergency shelter, clean water/ food assistance.

(b) Provide temporary shelter solutions for displaced individuals and families, ensuring their safety and well-being.

(c) Support the rehabilitation of damaged infrastructure, such as roads and bridges, to restore access to affected areas.

(d) Facilitate recovery of livelihoods through cash-for-work programs and provision of livelihood inputs for short-term income generation.

(e) Promote community awareness and education on DRR and preparedness to enhance resilience to future flash flood events.

(f) Incorporate environmental considerations in early recovery efforts to minimise further risks and promote sustainable recovery.

(3) **Landslides/ Avalanches/ GLOFs**

(a) Conduct rapid assessments to identify priority areas for early recovery interventions, focusing on emergency shelter, medical support and search & rescue operations.

(b) Provide immediate support for the rehabilitation and reconstruction of damaged infrastructure.

(c) Support livelihoods recovery through provision of alternative income-generation opportunities and vocational training.

(d) Promote community engagement, early recovery participation efforts, ensuring the inclusion of marginalised groups.

(e) Facilitate the restoration of social services, including education and healthcare facilities, to support community recovery.

(f) Strengthen local capacities and institutional frameworks for DRR reduction and early recovery planning.

(4) **Urban Flooding**

(a) Conduct rapid assessments to identify immediate early recovery needs in urban areas, focusing on emergency evacuation, temporary shelter and basic necessities.

(b) Support restoration of critical services, water supply, sanitation and electricity, to ensure the well-being of affected urban populations.

(c) Assist in rehabilitation of damaged housing and infrastructure, prioritising the most vulnerable communities.

(d) Promote community-led initiatives for urban drainage clearance and debris management to mitigate future flooding risks.

(e) Support local businesses and economic recovery through financial assistance and revitalisation programs.

(f) Strengthen coordination/ collaboration of relevant stakeholders, including government agencies, NGOs and community-based organisations for an effective early recovery response.

c. **Needs & Concerns of Vulnerable Groups**. Following aspects must be kept in focus during all stages of flood management:-

(1) Promote fair and equitable access to basic services, particularly in health and hygiene for vulnerable groups.

(2) Ensure relief sites and camps have separate washrooms with locks, adequate lighting, water and sanitation facilities to address women's security needs.

(3) Make female doctors and psycho social support personnel available to cater to the specific needs of women and children.

(4) Establish mobile medical units equipped with safe delivery, post-natal facilities and referral services to provide essential healthcare.

(5) Establish separate sleeping areas for women and children to ensure their safety and privacy.

(6) Facilitate access nutritious food and clean drinking water for vulnerable groups, including children, elderly individuals, pregnant women and feeding mothers.

(7) Prioritise the needs of children and persons with disabilities, including child safe spaces, ramps and accessible toilets.

(8) Implement measures to prevent and address gender-based violence, establishing safe reporting mechanisms, providing counselling services.

d. **Early Recovery & Resilience Measures**. Early recovery must begin during response. The purpose is to restore essential services while reducing future exposure. A “repair only” approach can recreate the same vulnerabilities.

Workstream	Action	Target Timings
Damage & needs assessment	Use standardised rapid assessment within 72 hours, followed by sectoral verification for housing, crops, livestock, roads, health, schools, WASH and irrigation.	72 hours for initial assessment; 14 days for detailed plan.
Critical service restoration	Prioritise water supply, access roads, health facilities, power, telecom, schools used as shelters and drainage.	14-day restoration plan.
Cash & social protection	Use verified lists and existing social-protection databases where appropriate; prioritise households with destroyed homes, loss of livelihoods and high vulnerability.	First tranche as early as administratively possible.
Livelihood recovery	Support seeds, tools, livestock vaccination, fodder, market access and small business recovery.	30-60 days.

Workstream	Action	Target Timings
Build-back better	Apply flood-resilient standards, raised plinths, safe siting, slope stabilisation, drainage redesign and floodplain regulation.	Integrated into all rehabilitation approvals.
After-action review	Conduct a structured review after each significant event with corrective action and deadlines.	Within 21 days of event closure.

Coordination Aspects

10. **Federal Coordination**. NDMA preparation for Monsoon 2026 matrix and progress is attached at **Annexure E**.

11. **Inter Provincial/ Regional Coordination**. During management of disasters, inter provincial/ regional coordination mechanism can require assistance especially in far flung areas in shortest possible time thus reducing sufferings of distressed population. Information about resources of neighbouring provincial/ regional government resources can be more conveniently incorporated in response phase.

12. **Coordination Spectrum**

a. All stakeholders will monitor flood situation by activation of Emergency Operation Centres (EOCs). EOCs will be activated by provincial DMAs, ICT administration/ Capital Development Authority (CDA), Pakistan Armed Forces and all relevant stakeholders as per respective SOPs from 15 June to 15 September, unless Monsoon is prolonged.

b. Nomination of respective Liaison Officers (LOs) by all stakeholders including Armed Forces, FFC, FFD, PMD, NHA, National Health Emergency Preparedness and Response Network (NHEPRN) & SUPARCO for NEOC.

c. If required, daily coordination conference will be organised by NDMA during a flood situation in NEOC at 1000 hours. All LOs will attend the conference.

d. Significant information will be immediately passed to NEOC by DM authorities.

e. **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 must be ascertained to ensure its optimal utilisation.

(3) Need-based employment of UN Agencies will be regulated by NDMA and PDMAs. Efforts will be made to avoid saturation in a particular region.

(4) NGOs/ INGOs duly cleared/ approved will assist in relief operations.

13. **Reports and Returns**

a. Submission of Daily SITREP to NEOC by PDMAs, SDMA, GBDMA and ICT Administration will be ensured as per already issued NDMA SITREP format with effect from 22 June onwards.

b. NDMA and PDMAs will update the situation on respective websites.

c. SUPARCO will provide the imageries of developing situations on daily basis. The imageries will be followed by detailed assessment of situation, damage assessment and projections.

d. To ensure a coordinated response, National Humanitarian Network (NHN)/ Pakistan Humanitarian Forum (PHF)/ UN Agencies and other agencies operating in Pakistan (Al-Khidmat, Edhi, Saylani etc) will share location of their stocks and human resource mapping with NDMA/ PDMAs by no later than 15 June annually.

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

a. **Ministry of Defence**. Conduct of Relief/ Rescue Operations through Pakistan Armed Forces (helicopters, troops & rescue equipment) when required.

b. **Ministry of Interior**. Availability of aviation assets for emergency response, at a short notice. Provision of elaborate security to any foreign delegations and federal officials when visiting affected/ vulnerable areas.

c. **Ministry of Information and Broadcasting (MoI&B), PID & PEMRA**. Airing of public service messages for community awareness on all media channels especially during prime hours.

d. **Pakistan Telecommunication Authority (PTA)**. To facilitate generation of SMS alerts for EW, emergency relief and evacuation to required populace. Directions to all CMOs for extending Application Programming Interfaces (APIs) to NEOC for streamlining process of immediate alert/ advisory delivery.

e. **Pakistan Tourism Development Corporation (PTDC)**. Provision of timely weather/ flood related information to tourists including protection from dangers of flash floods, landslides, GLOF etc. and help evacuation of stranded tourists through local Government/ Pakistan Armed Forces.

f. **Ministry of Communication**. To conduct assessment for early restoration of communication mechanism of all sub departments. In case of damage to infrastructure, remain prepared to shift earth moving machinery to affected areas.

g. **MoR**. To monitor railway tracks on regular basis and assist transportation of relief goods to affected areas.

15. **Requisitioning of Armed Forces**. Armed Forces will be requisitioned subject to provision of rules/ regulations by PDMAs/ DDMAs only in case of emergency through NDMA. Additional Aviation support will be coordinated centrally by NDMA based on request of provinces and regions when called to assist in "Aid to Civil Power". Authorities utilising services from Armed Forces will bear the cost of assets used which will be processed immediately after their employment. Armed Forces will be employed for following: -

a. Rescue and Relief Operations.
b. Aviation support.
c. Special SAR operations.
d. Medical support teams.
e. SAR by USAR team & immediate support as per capabilities.

16. **Information Management**

a. NDMA/ PDMA/ GBDMA/ SDMA/ ICT Administration will update respective websites on 12 hourly basis during entire Monsoon season. In case of a significant activity/ event/ flood situation, it will be updated on 3 - 6 hours basis.
b. Print and electronic media/ internet be utilized for dissemination of timely and accurate information.
c. Regular press releases, media tickers and press briefings will be ensured to present real time picture of ongoing activities, developing situations and losses/ damages, if any.
d. To ensure post transmission record as well as redundancy, information will be disseminated through SMS, emails, fax and telephones.
e. SMS/ WhatsApp Groups of relevant stakeholders will be made to ensure real time information sharing.

Logistical Considerations

17. NDMA has developed the **NDMA Stocking Policy 2023** for national, provincial and local level stocking of disaster relief items (available on NDMA website). The policy outlines the details for stocking and provision of relief items in Pakistan.

18. **Cardinals for Provision of Relief**. To ensure transparency, fairness and efficacy in provision of relief to disaster affectees, NDMA follows following cardinals for relief distribution:-

a. Based on damage and need (of an area/ district).
b. Total and affected population.
c. Relief already provided/ being provided (by various entities).
d. Need-based equitable share.
e. Poverty profile and socio-economic conditions.
f. Logistical aspects.

19. **Minimum Stocking Levels for Relief**. All respective disaster management authorities at provincial and national levels and humanitarian stakeholders will maintain minimum required stocks of relief items which have been determined as per caseloads of targeted population. The same has been outlined in the **NDMA Stocking Policy**.

Conclusion

20. Pakistan's geographical location makes it susceptible to dynamic hazards throughout the year, especially during Monsoons and poses significant challenges and risks to our socio-economic and environmental fabric. With the growing influence of climate change, these challenges have become even more pronounced. The vulnerability underscores the importance of accurate weather forecasting, thorough impact assessments and a well-coordinated response. To address these issues, it is crucial to establish an efficient, proactive and synergetic system that involves all stakeholders in a coordinated response effort. Through the implementation of Monsoon Contingency Plans of respective departments, we can enhance our resilience, effectively navigate the complexities of Monsoon seasons and forge a path towards a more resilient and sustainable Pakistan.

21. Details of the contingency preparedness measures and response arrangements undertaken by the PDMAs and other relevant stakeholders are attached as an **Annexure F**. The Annexure provides a comprehensive overview of preparedness activities, operational readiness, resource deployment plans, coordination frameworks and mitigation measures designed to enhance resilience and support an effective response to potential hazard events.

Government of Pakistan
Prime Minister's Office
National Disaster Management Authority,
Islamabad
Dated: 5 June 2026

Brigadier
For Chairman NDMA
(**Kamran Ahmed**)
Tel: 051-9030843

Annexures

A - NDM Act Clause - 9.

B - Flood Routing Map.

C - Flood Limits of Hydrological Structures.

D - SITREP Format for Provinces/ Districts.

E - Federal Coordination; NDMA Preparation; Monsoon - 2026 Matrix & Progress.

F - Overview of PDMAs and Other Stakeholders Preparations.

NDM ACT CLAUSE - 9

8. **Establishment of the National Disaster Management Authority.**— (1) The Federal Government shall, immediately after issue of notification under sub-section (1) of section 3, establish an Authority to be known as National Disaster Management Authority.

(2) The National Authority shall consist of such number of members as may be prescribed and shall include [the Director General] as its Chairperson.

(3) There shall be a Director General of the National Authority, to be appointed by the Federal Government, on such terms and conditions, as may be prescribed.

9. **Powers and functions of the National Disaster Management Authority.**— The National Authority shall—

(a) act as the implementing, co-ordinating and monitoring body for disaster management;

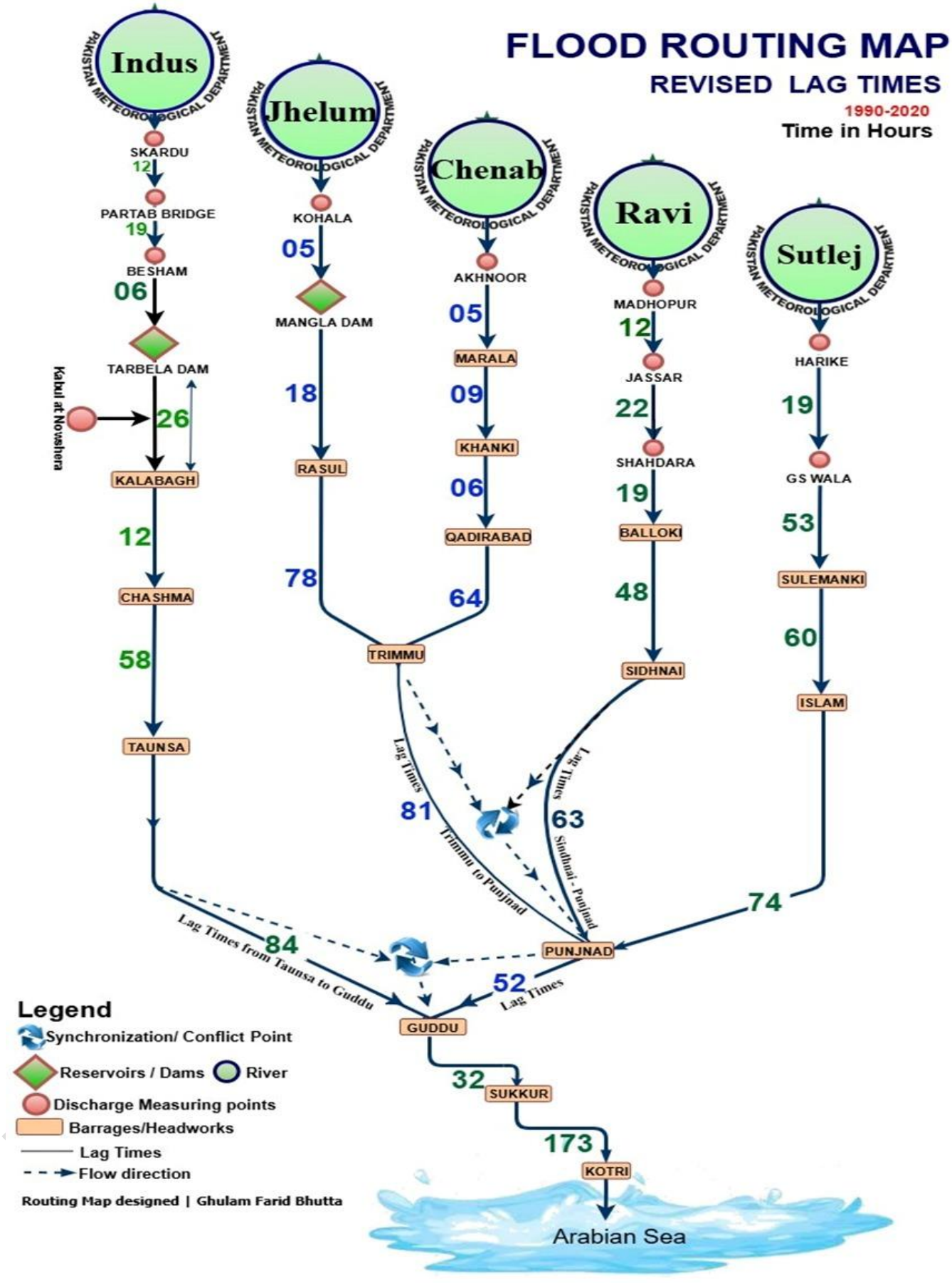
(b) prepare the National Plan to be approved by the National Commission;

(c) implement, co-ordinate and monitor the implementation of the national policy;

(d) lay down guidelines for preparing disaster management plans by different Ministries or departments and the Provincial Authorities;

(e) provide necessary technical assistance to the Provincial Governments and the Provincial Authorities for preparing their disaster management

FLOOD ROUTING MAP



A joint National commety of PMD/FFD Lahore,FFC, WAPDA, PCIW, GHQ Eng Directorate, IRSA, PCRWR & Provincial Irrigation Deptts approved Revised Lag Times on 23rd July-2021 under the chairship of Mahr Sahibzad Khan

FLOOD LIMITS OF HYDROLOGICAL STRUCTURES (CUSECS)

Rivers	Sites	Design Capacity	Flood Levels				
			Low	Medium	High	Very High	remely High
Indus	Tarbela	1,500.00	250,000	375,000	500,000	650,000	800,000
	Attock	-					
	Kalabagh	950,000					
	Chashma	950,000					
	Taunsa	1,000,000					
	Guddu	1,200,000	200,000	350,000		700,000	900,000
	Sukkur	900,000					
	Kotri	850,000		300,000	450,000	650,000	800,000
Kabul	Warsak	540,000	40,000	60,000	100,000	150,000	-
	Nowshera	-	60,000	90,000	140,000	200,000	-
Jhelum	Kohala	-	100,000	150,000	200,000	300,000	400,000
	Mangla	1,060,000	75,000	110,000	150,000	225,000	300,000
	Rasul	850,000					
Chenab	Jammu Tawi	-	20,000	70,000	83,000	170,000	-
	Akhnur	-	75,000	197,000	297,000	350,000	-
	Marala	1,100,000	100,000	150,000	200,000	400,000	600,000
	Khanki	800,000					
	Qadirabad	807,000					
	Chiniot Bridge	807,000					
	Trimmu	645,000	150,000	200,000	300,000	450,000	
	Panjnad	700,000					
Ravi	Jassar	275,000	50,000	75,000	100,000	150,000	200,000
	Ravi Syphon	450,000	40,000	65,000	90,000	135,000	180,000
	Shahdara	250,000					
	Balloki	225,000					
	Sidhnai	150,000	30,000	46,000	60,000	90,000	130,000
Sutlej	Sulemanki	325,000	50,000	80,000	120,000	175,000	225,000
	Islam	300,000					
	G.S. Wala	-					

Nullahs	Sites	Design Capacity	Flood Levels				
			Low	Medium	High	Very High	Extremely High
Bein	Chak Amru	-	1,300	7,000	20,000	30,000	35,000
	Shakargarh	-	1,600	3,000	24,000	26,000	43,000
Aik	Ura	-	2,000	9,000	13,000	16,000	33,000
Basantar	Jassar	-	4,100	4,700	7,500	11,600	17,800
Deg	Kingra Bridge	-	10,000	15,000	22,000	30,000	-
Palku	Wazirabad	-	2,500	3,100	5,000	25,000	26,000

Annexure-D

SITUATION REPORT FORMAT FOR PROVINCES MONSOON - 2026

DAILY SITUATION REPORT NO - 01

(PERIOD COVERED: 1300 HRS JUNE 2026 - 1300 HRS __JUNE 2026)

1. **Casualties & Injuries (Last 24 hours)**:-

   a. **Deaths**

Province / Region	District	Deaths				Remarks
		M	F	C	T	
Balochistan						
KP						
Punjab						
Sindh						
Gilgit Baltistan						
AJ&K						
ICT						
Total						

   b. **Injuries**

Province / Region	District	Injures				Remarks
		M	F	C	T	
Balochistan						
KP						
Punjab						
Sindh						
Gilgit Baltistan						
AJ&K						
ICT						
Total						

2. **Damage of Infrastructure & Private Properties (Last 24 hours)**

   a. **Houses Damage and Livestock Perished**: -

Province / Region	District	House Damage			Livestock
		Partial	Full	Total	
Balochistan					
KP					
Punjab					
Sindh					
Gilgit Baltistan					
AJ&K					
ICT					
Total					

b. **Roads, Bridges and Other Infrastructure Damaged in Last 24 hours**:-

Province / Region	District	Roads / Tracks			Bride				
		Length of road damage (Kms)	Nature/ extent of damage (fully/ partially washed away/ water over flow)	Traffic situation (Alternate route/ diversion available)	Number of Bridge	Type of bridge	Length of bridge	Nature/ Extent of Damage fully/ partially washed away/ water over flow)	Traffic situation (Alternate route diversion available
Balochistan									
KP									
Punjab									
Sindh									
Gilgit Baltistan									
AJ&K									
ICT									
Total									

3. **Cumulative Casualties - Deaths / Injuries (From 1300 Hours ___ June to 1200 Hours June 2026):**-

Province/ Region	Deaths				Injured			
	M	F	C	T	M	F	C	T
Balochistan								
KP								
Punjab								
Sindh								
Gilgit Baltistan								
AJ&K								
ICT								
Total								

4. **Cumulative Damages of Infrastructure & Private Properties (From 1300 Hours ___ June to 1200 Hours ___ June 2026)**:-

Province / Region	Roads (Kms)	Bridges	House Damage			Livestock
			Partial	Full	Total	
Balochistan						
KP						
Punjab						
Sindh						
Gilgit Baltistan						

Province / Region	Roads (Kms)	Bridges	House Damage			Livestock
			Partial	Full	Total	
AJ&K						
ICT						
Total						

5. **Road Situations**. NTR.

6. **Flood Relief Activities (Last 24 hours)**

Province/ Region	Tents	Ration Bags	Blankets	Quilts	Net Mosquito	Plastic Mats	Mattress	Sleeping Bags/Mats	Kitchen Sets	Hygiene Kits	First Aid Kits	Jerry can	Tarpaulin	Gas Cylinder	Water Cooler	Gabions	Sand bags
Balochistan																	
KP																	
Punjab																	
Sindh																	
Gilgit Baltistan																	
AJ&K																	
ICT																	
Total																	

a. **Relief Camps Established**.

b. **Rescue Operations**

(1) **Employment of Boats**.

(2) **Employment of Aviation Assets**.

(3) **Relief Activities in Last 24 hours**.

7. **Cumulative Flood Relief Activities (From 1300 hours ____June to 1200 hours to ___June 2026)**:-

a. **Cumulative State of Relief Camps Established by PDMAs/ SDMA/ GBDMA**:-

Description	Balochistan	KP	Punjab	Sindh	Gilgit Baltistan	AJ&K	ICT	Total
No of Medical Camp								
No of Persons Treated								
No of Relief Camps								
No of Person in Relief Camp								
Cooked Food								

b. **Cumulative State of Rescue Operations (From 1300 hours ___June to 1200 hours to ____June 2026) by PDMAs/SDMA/GBDMA:-**

Description	Balochistan	KP	Punjab	Sindh	Gilgit Baltistan	AJ&K	ICT	Total
No of Persons Transported								
No of Persons Evacuated / Rescued								
Animals Transported								
Animal Vaccinated								
Boats Deployed								
De-Watering Pumps								
Life Jackets								

(1) **Employment of Boats**.

(2) **Employment of Aviation Activates**.

(3) **Cumulative Relief Activities by PDMAs/ SDMA/ GBDMA (From 1300 Hours ___ June to 1200 Hours ____ June 2026)**:-

Ser	Relief Items	Balochistan	KP	Punjab	Sindh	Gilgit Baltistan	AJ&K	ICT	Total
(a)	Tents								
(b)	Ration Bags								
(c)	Blankets								
(d)	Quilts								
(e)	Net Mosquito								
(f)	Plastic Mats								
(g)	Mattress								
(h)	Sleeping Bags								
(i)	Kitchen Sets								
(j)	Hygiene Kits								
(k)	First Aid Kits								
(l)	Jerry can								
(m)	Tarpaulin								
(n)	Gabions								
(o)	Sand Bags								
(p)	Gas Cylinder								
(q)	Water Cooler								

FEDERAL COORDINATION - NDMA PREPARATION; MONSOON - 2026

MATRIX & PROGRESS

1. **Preparatory Activities (Completed)**
   a. Post Monsoon Report 2025 highlighting lessons learnt.
   b. Annual Review 2025 outlined all activities conducted by NDMA in 2025.
   c. NDMP 2026-30 was issued.
   d. NDRP 2026 was issued on 1 January 2025.
   e. Global Best Practices for Disaster Mitigation & Management - 2026.
   f. 4th National Disaster Management Coordination Forum (NDMCF) conducted.
   g. 2nd Natl Dialogue Platform on Anticipatory Actions conducted.
   h. Restoration of GLOF - II Project (EWS) in GB and KP.
   i. 4 x CISE & 4 x National SimExs were organized with all national and international stakeholders.
   j. Pre-Monsoon Coordination Conferences attended with Pakistan Army & FFC.
   k. Formulation of Seasonal Contingency Plans for DEW-1 January-February-March (JFM) & DEW-2 (AMJ).
   l. Recoupment of Relief Logistics - NDMA Warehouses.
   m. Conference on Sectoral Clusterisation of NGOs/ INGOs in Pakistan.
   n. Establishment of Disaster Resilient Infrastructure Models (DRIM) & Response Logistic Yards at NDMA.
   o. Seminar on Building Back Better, Sustainable Pathways for Post-Monsoon 2025.
   p. Infrastructure Audit Program 2026 was launched.
   q. Humanitarian Conference with UN Organisation, development partners, NGOs & INGOs Conference.
   r. Pre-Monsoon National Coordination Conference was organized with all stakeholders 13 May 2026.
   s. **Monsoon Contingency Plan - 2026**.
2. **Ongoing/ Planned Activities**
   a. DEW - 3 from July to September (DEW - 3) hazards monsoon 2026.
   b. SimEx (Monsoon - 2026).
   c. CISE (Monsoon - 2026).
   d. Consultative Workshop on Gender & Social Inclusion with United Nations Office for Disaster Risk Reduction (UNDRR) & United Nation Women.
   e. Logistics Conference on Emergency Procurement - 2026.
   f. NDMCF V - 2026.
   g. Misc Monsoon Guidelines - 2026.

h. Private Sector conference for preparation for Monsoon - 2026.
i. Army Pre-Flood Coordination Conference - 2026.
j. Humanitarian Coordination Conference - 2026.
k. Donors Conference at EAD.
l. Stock taking NGOs/ INGOs for preparation of Monsoon - 2026.
m. National Coordination Forum on Anticipatory Action (AA).
n. Provincial Media Coordination Conference - June 2026.
o. Development of Infra Resilience 360° App.
p. Dissemination of Alerts (Electronic, Print, app & social media).
q. Daily Monsoon Sitreps/ Coordination Conference - 2026.
r. SAR, Evacuation, Initial Relief to Affected Population, Camp Setting, Rehab.
s. Post Monsoon Report - 2026.

OVERVIEW OF PDMA'S AND OTHER STAKEHOLDERS' PREPARATIONS

PDMA Punjab

1. **Available Resources**

   a. **Provincial-Level Preparedness**. Tents, ife jackets, life rings, Out Board Motors (40 & 60 HP), plastic mats, mosquito nets

   b. **Warehousing Capacity**

      (1) Two warehouses are currently functional in Punjab.

      (2) Three warehouses are under construction.

      (3) Nine warehouses are in pipeline for future development.

   c. **Existing Warehouse Inventory**. Major relief and rescue stock available in Muzaffargarh and Lahore warehouses includes; tents, blankets, quilts/ razai, mattresses, mosquito nets, jerry cans, water bottles (1.5L), water filtration plants, life rings, sandbags, light stands, kerosene heaters, rescue boats, dewatering pumps, tractors, water bowsers and transport containers.

2. **Vulnerable Sites/ Risk Areas Identified**

   a. **Urban Flood-Prone Areas**. Highlights the vulnerability of:-

      (1) Major urban storm drains and nullahs requiring desilting.

      (2) Water channels, bridges and encroached waterways.

      (3) Tourist hotspots vulnerable to heavy rainfall and flash floods.

      (4) Flood protection bunds requiring inspection and maintenance.

   b. **District-Level Risk Identification**. District contingency plans include:-

      (1) Hazard and vulnerability identification.

      (2) Historical disaster analysis.

      (3) Socio-economic baseline assessment.

      (4) Evacuation planning and emergency response arrangements.

   c. **Operationally Sensitive Areas**

      (1) Urban flooding zones requiring dewatering arrangements.

      (2) Areas dependent on flood forecasting and EWSs.

      (3) Districts requiring operational District Emergency Operations Centre (DEOCs)/ control rooms during monsoon.

3. **Resource Deployment & Preparedness Measures**

   a. **Operational Deployment**. Mock exercises conducted for flood preparedness:-

      (1) First mock exercise completed.

      (2) Second mock exercise conducted in 4 districts.

      (3) Third exercise planned for June 2026.

   b. Control Rooms/ DEOCs operationalisation planned from 15 June to 15 October.

c. Flood Forecasting Centres to remain operational during monsoon period.

d. **Urban Flood Management Deployment**. Responsibilities assigned to:-

(1) WASAs.

(2) Municipal Corporations.

(3) Public Health Engineering Department (PHED).

(4) Local Governments.

(5) DDMAs.

(6) PDMA.

e. Key deployment measures include:-

(1) Desilting apparatus of drains/nullahs.

(2) Inspection and testing of dewatering pumps.

(3) Pre-monsoon coordination meetings.

(4) 24/7 staffing of EOC.

f. **Tourist Safety Deployment**

(1) Tourist influx SOPs to be implemented at tourist hotspots.

(2) Traffic management, emergency response, safety advisories and EW dissemination planned during peak monsoon season.

4. **Need Gap Analysis**

a. **Major Equipment Gaps Identified**. Highest equipment demands include adult life, jackets, tents, plastic, mosquito nets, minor life jackets.

b. **Critical Operational**

(1) Large quantity of non-functional rescue equipment.

(2) Shortage of boats and OBMs in several districts.

(3) Absence/ shortage of:-

(a) Drones.

(b) Global Positioning System (GPS) devices.

(c) Satellite phones.

(d) Search lights.

(e) First aid kits.

(f) Rain suits.

(4) Need for additional warehouse infrastructure across province.

c. **Procurement & Supply**

(1) Delays in tent procurement.

(2) Several equipment categories still under procurement and not yet delivered before monsoon season.

5. **Recommendations/ Way Forward**

a. **Strengthening Preparedness**

(1) Expedite procurement and delivery of critical rescue equipment before onset of monsoon.

(2) Repair and operationalise non-functional rescue assets.

(3) Ensure completion of all mock exercises in remaining districts.

b. **Enhancing Flood Risk Reduction**

(1) Completion of desilting and encroachment removal before peak monsoon.

(2) Strengthen inspection and maintenance of flood protection bunds.

(3) Enhance urban flood management through proactive drainage maintenance.

c. **Improving Response Capacity**

(1) Establish functional DEOCs with uninterrupted communication systems.

(2) Increase stockpiling of high-demand relief items including tents, life jackets and mosquito nets.

(3) Improve district-level resource mapping and inventory management.

d. **Technological Improvements**

(1) Expedite procurement of drones, GPS devices and satellite communication systems for emergency response/ situational awareness.

(2) Strengthen flood forecasting and EW dissemination systems.

e. **Infrastructure Development**

(1) Accelerate completion of under construction warehouses and expand provincial storage capacity.

(2) Enhance logistics and transportation arrangements for rapid deployment during emergencies.

f. **Coordination & Community Preparedness**

(1) Strengthen inter-agency coordination among PDMA, DDMAs, WASAs, Army and local governments.

(2) Continue awareness campaigns and tourist safety advisories during monsoon season.

PDMA KP

6. **Available Resources**

a. **District Preparedness & Operational Capacity**

(1) All 36 districts have submitted updated Monsoon Contingency Plans.

(2) DEOCs have been activated.

(3) Total Community-based Disaster Risk Management Committees (CBDRMs) identified/ notified: 2,098.

(4) Safe shelters and vulnerable points have been identified across districts.

(5) Mock drills and awareness campaigns conducted with Rescue 1122 and local stakeholders.

b. **Relief Stockpiling & Logistics**. District wise pre-positioning of tents, tarpaulins, hygiene kits, food items.

c. Additional preparedness measures include:-

(1) Emergency Framework Agreements finalised for rapid procurement and transportation.

(2) Earth-moving machinery and dewatering pumps mapped with districts.

(3) Resource inventories shared for emergency response planning.

d. **Coordination & Communication Resources**. Coordination mechanisms established with all stakeholders.

e. **Operational arrangements**

(1) 24/7 activation of Provincial Emergency Operations Centre (PEOC) and DEOCs during monsoon emergencies.

(2) Last-mile EW dissemination through:-

(a) District Municipal Corporations (DMCs).

(b) CBDRMs.

(c) Local volunteers.

7. **Vulnerable Sites/ Risk Areas Identified**

a. **Hazard-Prone Areas**. KP remains highly vulnerable to flash floods, Riverine floods, GLOFs, Urban flooding, Landslides.

b. **High-Risk River Systems**. Major vulnerable river systems identified:-

(1) Kabul River.

(2) Swat River.

(3) Panjkora River.

(4) Kurram River.

(5) Kunhar River.

(6) Tochi River.

c. **Vulnerable Districts & Urban Areas**. Mountainous districts vulnerable to:-

(1) Cloudbursts.

(2) GLOFs.

(3) Landslides.

d. Urban flooding threat identified in Peshawar, Mardan, Swat, Abbottabad, Swabi, Nowshera.

e. **Encroachment & Drainage Vulnerabilities**

(1) Total identified encroachments on vulnerable waterways: 774.

(2) Encroachments removed so far: 508.

(3) Remaining encroachments under process: 269.

f. **Districts are also Addressing**

(1) De-silting operations.

(2) Cleaning of urban and rural drainage systems.

8. **Resource Deployment & Preparedness Measures**

a. **Emergency Preparedness Actions**

(1) Activation of DEOCs across all districts.

(2) Conduct of mock drills and awareness campaigns.

(3) Identification of safe shelters and evacuation-related vulnerable points.

b. **Relief & Logistics Deployment**

(1) Relief items pre-positioned at district level.

(2) Emergency procurement and transportation arrangements finalised.

(3) Heavy machinery and dewatering pumps mapped for rapid deployment.

c. **Early Warning & Coordination**

(1) Continuous coordination with technical and response agencies.

(2) PEOC and DEOCs to remain operational round-the-clock.

(3) Community-level warning dissemination through volunteers and CBDRMs.

d. **Institutional Coordination**. Line departments submitted for integration into Provincial Seasonal Hazard Contingency Plan (SHCP) 2026:-

(1) Preparedness actions.

(2) Response plans.

9. **Need Gap Analysis**

a. **Infrastructure & Urban Risk**

(1) Weak urban drainage systems remain a major vulnerability.

(2) Persistent encroachments on waterways continue to increase flood risk.

b. **Preparedness & Response**

(1) Need for improved evacuation planning in highly vulnerable districts.

(2) Further strengthening of community-based preparedness and awareness.

(3) Rapid resource mobilisation during peak monsoon emergencies.

10. **Recommendations/ Way Forward**

a. **Strengthening Flood Risk Reduction**

(1) Accelerate removal of remaining encroachments from waterways.

(2) Improve urban drainage infrastructure and desilting operations.

(3) Strengthen flood protection measures in high-risk river basins.

b. **Enhancing Preparedness & Response**

(1) Ensure timely evacuation planning for highly vulnerable communities.

(2) Maintain operational readiness of PEOC and DEOCs in monsoon.

(3) Expand mock drills and community awareness campaigns.

c. **Improving Resource Mobilization**

(1) Ensure timely release of additional emergency funds.

(2) Maintain emergency reserve stocks at district level.

(3) Enhance rapid deployment mechanisms for relief items and machinery.

d. **Strengthening Community-Based Preparedness**

(1) Further strengthen CBDRMs and local volunteer networks.

(2) Improve last-mile dissemination of EWs.

(3) Increase public awareness regarding flood and landslide risks.

e. **Institutional Coordination**

(1) Continue close coordination with NDMA, PMD, FFC, Rescue 1122 and humanitarian partners.

(2) Enhance integrated planning among all line departments for anticipatory actions and rapid response.

PDMA Sindh

11. **Available Resources**

a. **Relief & Emergency Stock Availability**. PDMA Sindh has pre-positioned relief stores at Karachi, Jamshoro, Sukkur.

b. Major available relief resources include:-

(1) **Shelter & Relief Items**. Tents, Mosquito nets, tarpaulins, plastic mats/ chatai, cotton mattresses, blankets, kitchen sets, water tanks, animal mosquito nets.

(2) **Machinery & Equipment**. Dewatering pumps, filtration units, fiber boats with OBMs, life jackets, life rings and emergency solar lights.

(3) **Hygiene & Sanitation Resources**. Portable toilets, dignity/hygiene kits, sanitary clothing/ napkins, commode chairs.

(4) **Household & Utility Items**. Jerry cans/ water coolers, Wheelchairs, solar lamps and solar home systems.

(5) **Operational Resources**

(a) Disaster management machinery and response equipment kept functional and ready.

(b) Drones planned for monitoring and timely response support.

(c) Coordination established with relevant departments for emergency.

12. **Vulnerable Sites/ Risk Areas Identified**

a. **Flood-Prone Areas**. Sindh faces risks from riverine flooding, rain-induced flooding, urban flooding, low-lying inundation zones.

b. **High-Risk Population & Infrastructure**. Mapping completed for high-risk population, vulnerable infrastructure, anticipated hazard areas.

c. **Low-Lying Areas Identified**. A total of 1,327 vulnerable low-lying locations identified across:-

(1) Karachi - 276 locations.

(2) Hyderabad - 458 locations.

(3) Shaheed Benazirabad - 129 locations.

(4) Mirpurkhas - 157 locations.

(5) Sukkur - 169 locations.

(6) Larkana - 138 locations.

13. **Anticipated Caseloads**

a. **Riverine Flood Caseload**. Estimated affected households: 14,922 households.

b. **Rain-Induced Flood Caseload**. Estimated affected households: 61,516.

c. **Low-Lying Areas Exposure**. Estimated exposed population/ households: 119,423.

14. **Resource Deployment & Preparedness Measures**

a. **Preparedness Actions**

(1) District Monsoon Contingency Plans received from all DDMAs.

(2) Draft Provincial Monsoon Contingency Plan 2026 under development.

(3) Weather alert dissemination mechanism operational.

(4) Awareness and sensitisation campaigns conducted through print electronic and social media.

b. **Relief Resource Deployment**. District-level resource planning completed for relief camps, portable toilets, solar-powered lighting, water tanks, hygiene kits, mosquito nets, kitchen sets and filtration units.

c. **Machinery & Response Deployment**

(1) Response equipment inspected and operationalised.

(2) Drones to be utilized for monitoring during emergencies.

(3) Coordination ongoing with line departments for rapid response operations.

d. **Urban Flood Mitigation Measures**. Departments directed for:-

(1) Desilting of stormwater drains.

(2) Cleaning of nullahs.

(3) Removal of chokepoints.

(4) Removal of encroachments from waterways and riverbeds.

15. **Need Gap Analysis**

a. **Logistics**. Solar lights, hygiene kits, cotton mattresses, kitchen sets, water tanks and ration bags.

b. **Operational**

(1) Continued need for desilting and removal of encroachments.

(2) Large-scale urban flood exposure in low-lying areas.

(3) Dependence on in-event procurement for some relief commodities.

16. **Recommendations/ Way Forward**

a. **Strengthening Flood Preparedness**. Expedite procurement of critical shortfall items as per National stocking policy such as hygiene kits, kitchen sets, solar lights, water tanks and ration bags.

b. **Urban Flood Risk Reduction**

(1) Complete desilting and drainage clearance before peak monsoon.

(2) Intensify removal of encroachments from nullahs and riverbeds.

(3) Strengthen drainage management in highly vulnerable urban centres.

c. **Enhancing Emergency Response**

(1) Ensure operational readiness of all dewatering pumps and rescue boats.

(2) Expand drone-based monitoring for real-time situational awareness.

(3) Maintain rapid weather alert dissemination to DDMAs and stakeholders.

d. **Community Protection Measures**

(1) Continue awareness campaigns in vulnerable communities.

(2) Strengthen evacuation and relief camp management planning for anticipated caseloads.

e. **Logistics & Stock Management**

(1) Maintain adequate pre-positioning of relief items in Karachi, Jamshoro and Sukkur warehouses.

(2) Improve district-level inventory management and rapid deployment mechanisms.

f. **Inter-Agency Coordination**. Continue close coordination with federal ministries, district administrations and line departments for effective monsoon response.

PDMA Balochistan

17. **Available Resources**

a. **PDMA Balochistan Heavy Machinery & Equipment**. Maintains a fleet of heavy machinery and emergency response equipment for disaster operations. Available resources include wheel loaders, dampers (dump trucks), dozers, tractors, logistics trucks, cranes, fire trucks, rescue boats, fire bikes, ambulances, Snow Removers.

b. **Trained Human Resources**. Following categories of trained personnel available for emergency response:-

(1) Trained Rescue Teams.

(2) Trained Heavy Machinery Operators/ Drivers.

(3) Trained Boat Operators.

(4) Trained Firemen.

18. **Vulnerable Sites**. Following risk areas are highlighted:-

a. **Urban flooding** is a recognized threat, particularly in Quetta**,** where PDMA is working with Metropolitan Corporation Quetta on urban flood management plans. DDMAs are similarly working with Municipal Committees at tehsil level across the province.

b. **Tourist hotspots** are identified as areas of elevated risk during peak monsoon season, including sites near dams and deep waters and picnic points - all of which are subject to precautionary closures and bans during active weather alerts.

19. **Resources Deployment (Warehouses & Pre-Positioning)**

a. PDMA Balochistan has pre-stocked relief and logistics at district and divisional levels as per policy and SOPs. On a need basis, further logistic support is dispatched to DDMAs when they demand assistance to cover gaps.

b. **District-wise Warehouse Locations**. A total of 18 warehouses are operational across the province, with one warehouse per district. District-wise status is:-

District	Warehouses	District	Warehouses	District	Warehouses
Mastung	1	Kalat	1	Khuzdar	1
Sibi	1	Naseerabad	1	Jaffarabad	1
Dalbandin	1	Loralai	1	Gwadar	1
Kachi	1	Jhal Magsi	1	Nushki	1
Lasbella	1	Ziarat	1	Quetta (HRF)	-
Kharan	1	Harnai	1	Zhob	1

20. **Logistics Need/ Gap Analysis**. PDMA Balochistan acknowledges existing gaps in disaster management logistics. Approach to addressing these gaps is as follows:-

a. Pre-stocking of relief and logistics at district and divisional levels is carried out as per standard policy and SOPs.

b. When DDMAs identify and demand additional assistance to cover shortfalls, PDMA provides supplementary logistic support on a need basis.

c. Funds are released to DDMAs on request for utilisation against seasonal hazards, indicating that resource gaps are addressed proactively through a demand-driven funding mechanism rather than fully pre-positioned resources.

21. **Recommendations/ Way Forward**

a. **Encroachment Removal**. PDMA Balochistan has forwarded directions to DDMAs and allied departments for the removal of encroachments from nullah

and river beds before the start of the monsoon season. PDMA is also providing heavy machinery to support DDMAs in carrying out this work.

b. **Urban Flood Management**. PDMA Balochistan is actively working with Metropolitan Corporation Quetta to develop urban flood management plans. At the tehsil level, DDMAs are coordinating with Municipal Committees for flood prevention and citizen safety measures.

c. **Tourist Influx & Safety Management**. To manage risks associated with tourist activity during peak monsoon, the following measures are being implemented:-

(1) Upon receipt of weather alerts, PDMA immediately disseminates information to DDMAs and allied departments for precautionary action.

(2) Guidelines for tourists and travellers are being issued.

(3) Ban is imposed on visits to dams and deep-water areas during alerts.

(4) Picnic points are closed as a safety measure during alerts.

d. **Contingency Planning**

(1) All DDMAs have finalised their monsoon contingency plans and shared them with PDMA Balochistan.

(2) PDMA Balochistan has reviewed and finalised the Provincial Monsoon Contingency Plan 2026.

(3) Meetings were held with DDMAs, UN agencies, INGOs, NGOs and allied departments to assign tasks and responsibilities for monsoon season.

SDMA

22. **Vulnerable Sites**. Vulnerable districts have been identified across all ten districts of AJ&K. District-wise breakdown is as follows:-

a. **Muzaffarabad**. Vulnerable areas include Makri, Lower Plate Walkway, Taali Mandi, Shahsultan, Saheli Sarkar Bridge, Gulshan Pir Allodin, Tariqabad, Manak Payeyan, Barsala, Dhani Mai Sahiba, Bandi Saman, Danna Sahotar, Panjkot, Panjgran, Sarlisacha and Bheri.

b. **Neelum**. Vulnerable areas include Chilihana, Katha Semari, Jura, Sosal Bandi Laswa Sharda, Kharigam, Surgan Bakwali, Gamote, Shonter Valley, Kel, Kalalot and Guraiz Valley.

c. **Poonch**. Vulnerable areas include Soon, Nakar, Ali Sojal, Singhola, Dothan, Pothi Chapriyan, Serari Neriyan, Kalot, Bhanteeni Khas, Akramabad, Harkarian, Chak, Potha Bala, Kanoli, Numal, Chaffar Janobi, Nakar Bela, Bandi Dhalkot and Chil Bosa Galla.

d. **Haveli**. Vulnerable areas include Chanjal, Bahdi, Jokan, Quaid-i-Abad, Hillan Kalamulla, Khurshidabad, Tangari, Doba, Aliwas and Sayie.

e. **Jhelum Valley**. Vulnerable areas include Khilana, Gundigran, Nalai, Gujarbandi, Chakhama, Ghehal Jabra, Hattian, Chinari, Chikar, Lamnia, Lasdhar, Banni Langryal, Bandi Ghorsian, Saina Daman, Peeran Bandi, Neli, Derran, Batsher, Bail, Moji, Gahasla, Antliyan and Chatkari.

f. **Bagh**. Vulnerable areas include Grid Colony Bagh, Refugee Camp, Mang Bajri, Qadirabad, Chatrora, Village Bees Bagla, Thub, Village Minhasa, Mala Bagla, Salian Dhondan, Dhirkot and Gojar Kohallah.

g. **Mirpur**. Vulnerable areas include Saim, Lehri Azizpur Jharikass, Begabalwal, Sahib Chak, Jatlan, Shahpur Pakhral, Chabrian Dattan, Chakraja Bains, Jhangyan, Bidder, Boryal, Tatrot, Chak Rupa, Afzalpur, Qazi Chak and Raipur.

h. **Kotli**. Vulnerable areas include Thalair Colony, Dakhari, Juzwi Mandi, Choch, Holar, Majjan, Jahndroot, Manoli Nala, Nala and Nala Kala Dabb.

i. **Bhimber**. Vulnerable areas include Ali Baig, Bhimber City, Giga Mossa, Toneen, Jhandi Chontra, Malot, Kanjlor and Saleema Matta.

j. **Sudhnoti**. Vulnerable areas include Bharal, Chichyan, Gorah, Kancheri, Patan Sher Khan, Nerian, Papynar, Habibabad and Nalayan.

k. Evacuation sites have been identified for all vulnerable areas across the state.

23. **Available Resources**

a. **SDMA/ Rescue 1122 - Emergency Response Vehicles**. Total 110 emergency response vehicles are deployed across 10 districts and their tehsils. Fleet composition is as follows:-

(1) **Boats & Outboard Motors - Rescue 1122**. Total of 21 boats (14 rubber + 7 fibre) and 12 Outboard Motors (OBMs) are available across 8 districts.

(2) **Rescue 1122 - Manpower**. Total of 237 personnel are deployed across 7 districts and 7 tehsils. Key positions include Drivers (47), Disaster Responders (29), Emergency Medical Technicians (19), Rescuers (20) and Fire Responders (12), among others.

(3) **Health Infrastructure - Bed Strength**. Total of 2,700 hospital beds are available across three divisions:-

(a) **Muzaffarabad Division**. 740 beds (including Combined Military Hospital (CMH): 250, AIMS: 300 and district/ tehsil hospitals).

(b) **Mirpur Division**. 1,180 beds (including Divisional Hospital Mirpur: 400, District Headquarters Hospital (DHQ) Kotli: 250 and DHQ Bhimber: 150).

(c) **Poonch Division**. 780 beds (including CMH Rawlakot: 250, DHQ Bagh: 150 and DHQ Pallandri: 150).

(4) **Emergency Shelters**. Total of 539 buildings have been identified as emergency shelters across all 10 districts.

(5) **Health & Municipal Emergency Machinery**. Combined total of 143 ambulances**,** 28 fire vehicles and 13 water bowsers are available with Health and Municipal Authorities across all 10 districts.

(6) **C&W Heavy Machinery**. C&W Department has 108 units of heavy machinery distributed across three zones:-

(a) **Muzaffarabad Zone**. 35 units (30 operational, 5 off-road), including 10 crawler dozers, 9 wheel loaders and 4 excavators.

(b) **Poonch Zone**. 35 units (29 operational, 6 off-road), including 6 crawler dozers, 12 wheel loaders and 3 excavators.

(c) **Mirpur Zone**. 18 units (17 operational, 1 off-road), including 4 wheel loaders, 3 dump trucks and 6 tractors.

(d) Overall state-wide fleet includes 16 crawler dozers, 25 wheel loaders, 8 excavators (chain type), 13 dump trucks and 10 back hoe loaders, among other equipment.

(7) **Resources Deployment**. Emergency response vehicles pre-positioned at district and tehsil headquarters. Key deployment highlights include:-

(a) **Muzaffarabad**. 16 vehicles, largest single location deployment, including 1 fire response vehicle, 2 water bowsers, 1 mini fire vehicle, 2 disaster response vehicles, 2 ambulances and 5 motorcycle ambulances.

(b) **Kotli**. 10 vehicles, including 2 fire response vehicles, 1 water bowser, 1 mini fire vehicle, 2 disaster response vehicles, 2 ambulances and 1 motorcycle ambulance.

(c) **Jhelum Valley (Hattian Bala)**. 8 vehicles, including 2 fire response vehicles, 1 mini fire vehicle and 2 motorcycle ambulances.

(d) **Mirpur City and Islamgarh**. 8 vehicles each.

(e) Remote tehsils such as Leepa, Khaigala, Azad Patan, Trarkhal, Charhoi, Dadyal, Jabi Jatlan and Islam Garh each have 1-2 vehicles, reflecting limited but present coverage.

(f) Strategic stock positioning of relief items and emergency resources is being completed before the onset of Monsoon 2026. Additionally, procurement of 4 single-cabin 4×4 rescue vehicles is underway, with fabrication and customization currently in progress.

24. **Need/ Gap Analysis (Issues & Gaps)**. Following critical gaps and issues have been identified for Monsoon 2026 preparedness:-

a. **Early Warning System (EWS)**. Existing EW mechanism requires further improvement to ensure faster and more reliable dissemination of alerts at the community level.

b. **Mass Awareness Strategies**. There is a need for broader and more effective public awareness campaigns to prepare communities for climate-induced disasters, safe evacuation procedures and response protocols.

c. **Capacity Building**. Structural and non-structural capacity building towards climate-induced disasters needs to be significantly strengthened. This includes both institutional capacity of responders and community-level preparedness.

d. **Availability of a Standby Helicopter**. Absence of a standby helicopter is a notable operational gap, particularly for remote and inaccessible areas such as Neelum Valley, Shonter Valley and Guraiz where ground-based response can be severely hampered during disasters.

25. **Recommendations/ Way Forward**

a. **Encroachment Removal & Drainage Clearance**. SDMA has directed all District Administrations and relevant departments to immediately remove encroachments from nullahs, riverbanks and natural drainage channels. DDMAs have been instructed to carry out de-silting of major nullahs posing threats to lives and infrastructure, with a priority focus on flood-prone urban areas and historically affected settlements. Concerned departments are required to ensure uninterrupted flow in drainage systems to reduce urban flooding risks. SDMA is coordinating with DDMAs, Local Government, Irrigation and C&W Departments for monitoring and implementation.

b. **Tourist Influx - Risk Management**. Given the expected heavy tourist influx in Neelum Valley, Pir Chinasi, Rawalakot and other destinations during Monsoon 2026, the following measures are recommended:-

(1) Activation of State Emergency Operations Centre (SEOC) for 24/7 monitoring and coordination.

(2) Real-time weather alerts and advisories through SMS, social media, FM radio and district administration channels.

(3) Sustained coordination among SDMA, DDMAs, Rescue 1122, Police, Health, Tourism and C&W Departments.

(4) Identification and monitoring of vulnerable tourist hotspots, flood-prone areas and landslide zones.

(5) Deployment of rescue teams, ambulances, heavy machinery and emergency response equipment at critical tourist locations.

(6) Installation of warning signboards near rivers, streams, nullahs and hazardous road sections.

(7) Implementation of traffic management plans including diversion routes, parking arrangements and emergency lanes.

(8) Public tourist awareness campaigns on weather risks, safe travel practices and emergency contact numbers.

c. **Emergency Response Readiness**

(1) Establishment of temporary shelters, medical camps and emergency facilitation centres for displaced populations and stranded tourists.

(2) Continuous road clearance operations to maintain connectivity, especially to remote districts.

(3) Daily situation reporting and coordination through DEOCs and the State EOC during peak monsoon activity.

(4) Strengthening inter-agency coordination, conducting mock drills and finalizing contingency plans for effective Monsoon 2026 response.

GBDMA

26. **Available Resources**

a. **Relief Stock Available**. Relief and emergency response items available with GBDMA are tents, blankets, quilts, winterized tents, tarpaulin sheets, kitchen sets, plastic mats, hygiene kits, sleeping bags, pillows, gas cylinders, kerosene heaters, mosquito nets, sand bags, first aid boxes, fiber boats, life jackets, dewatering pumps, multiple generators ranging from 2 Kilovolt-Ampere (KVA) to 50 KVA.

b. **Heavy Machinery Resources**. GBDMA has deployed a total of 69 heavy machinery units across districts, including wheel loaders, wheel excavators, chain excavators, tractors with buckets/ blades/ trolleys/ water tanks, air compressors, drill machines, hydraulic crane, mini trucks.

c. **Warehousing Capacity**. Warehouses are operational in all 10 districts of GB including Gilgit, Skardu, Diamer, Ghizer, Ghanche, Astore, Hunza, Nagar, Shigar and Kharman.

27. **Vulnerable Sites/ Risk Areas Identified**

a. **Vulnerable Valleys & Flood - Prone Areas**. DDMAs identified:-

(1) Vulnerable valleys exposed to floods and GLOF risks.

(2) Nullahs and river beds channelization and dredging in progress.

(3) Flood-prone communities needing evacuation planning and safe shelters.

b. **High-Risk Locations**. Safe places identified near vulnerable communities include schools, colleges, Mosques and playgrounds.

c. **Encroachment - Prone Areas**. Encroachments on Nullahs, River beds and Flood plains.

28. **Resource Deployment & Preparedness Measures**

a. **Relief Item Deployment**. GBDMA distributed relief stocks to all district DDMAs for monsoon preparedness, including tents, sand bags, mattresses, blankets, quilts, water jerry cans, mosquito nets, food packs, tarpaulin sheets and gabions.

b. **Machinery Deployment**. Heavy machinery have been strategically placed across for road restoration, channelization, dredging operations and emergency response activities in Gilgit Division, Diamer/ Astore Division and Baltistan Division.

c. **Channelization & Dredging Operations**. Works are ongoing in Gilgit, Ghizer, Hunza, Nagar, Diamer, Skardu, Ghanche, Kharmang and Shigar.

d. **Emergency Coordination**. GB PEOC remains active 24/7 during flood season.

e. **Community Preparedness**

(1) Awareness campaigns conducted in vulnerable valleys.

(2) Mock drills conducted in high-risk areas under GLOF-II project.

29. **Need Gap Analysis**

a. **Critical Equipment**. Shortages in several critical response items include:-

(1) Fiber boats available.

(2) Life jackets available at GBDMA Headquarters.

(3) Limited number of dewatering pumps.

(4) Limited advanced technological response assets.

b. **Warehouse Infrastructure**

(1) No fully established modern warehouses exist in districts.

(2) Existing arrangements rely mainly on designated storage spaces.

c. **Drone Procurement**

(1) Procurement of tactical drones faced delays because participating firms did not meet technical specifications.

(2) Long-range transport drone still under procurement with expected delivery in 60 days.

d. **Vulnerability Management**

(1) Continued encroachments in flood plains and river beds remain a challenge.

(2) Need for continuous dredging and channelization indicates persistent flood vulnerability.

30. **Recommendations/ Way Forward**

a. **Strengthening Preparedness**

(1) Expedite procurement of tactical and long-range drones for aerial monitoring and emergency response.

(2) Increase stock of critical lifesaving equipment including fiber boats, life jackets, emergency medical kits and dewatering pumps.

b. **Infrastructure Improvement**

(1) Develop district-level warehouses with modern storage facilities.

(2) Enhance flood protection infrastructure in vulnerable valleys and rivers.

c. **Flood Risk Reduction**

(1) Complete all ongoing channelization and dredging works before peak monsoon period.

(2) Strictly implement GB Flood Plain Regulation Act 2025 to prevent encroachments.

d. **Enhancing Emergency Response**

(1) Strengthen PEOC communication and coordination systems.

(2) Expand machinery deployment capacity for rapid road restoration and debris clearance.

e. **Community Resilience**

(1) Continue awareness campaigns and mock drills in GLOF and flash flood-prone areas.

(2) Improve EW dissemination to remote and vulnerable communities.

f. **Logistics & Stock Management**

(1) Ensure timely replenishment of district-level relief stocks before monsoon.

(2) Maintain reserve stocks of fuel, Liquefied Petroleum Gas (LPG), food and medicines in vulnerable valleys.

ICT

31. **Vulnerable Sites**

a. **Low-lying Vulnerable Areas in Islamabad**. Following sectors and localities within ICT have been identified as low-lying and flood-prone areas at risk during the monsoon season:-

(1) Sectors G-7, G-8, **H-8**, F-8, G-10, G-11/3, G-12.

(2) Sectors I-8, I-9, I-10, **I-12**.

(3) Diplomatic Enclave, Sector G-5.

(4) Sectors F-6, F-7, F-10/3, F-11.

(5) **Sector E-11**, D-12, H-13.

(6) **Saidpur Village**, Margalla Road.

(7) Ghauri Town, Public Works Department (PWD) Colony, Sawan Garden, **DHA-5**.

(8) **New Chatha Bakhtawar**.

(9) **Korung Nullah** and **Soaan River** corridors.

b. Areas marked in bold are considered the highest-risk locations. Lai Nullah Basin - covering a large catchment area flowing through the heart of Islamabad is primary flood risk driver for most of these sectors.

32. **Available Resources**

a. **Capacity Building of Staff**. Specialised training for rescue staff:-

(1) **Swift Water Rescue Training**. Conducted by Blue Sky Rescue (BSR) Foundation, China (1-week duration, July 2025). Staff were trained in swift water rescue techniques using internationally certified methods and Swift Water Rescue Kits have been procured and distributed to trained personnel.

(2) **Swimming & Boat Operations Training**. Conducted by Pakistan Navy over 4 weeks (10th November - 5th December 2025), covering swimming skills and operational boat handling for flood rescue scenarios.

b. **Resource Mapping & Stock-State (ICT/ CDA Fire & Rescue)**

Resource	Quantity
Fire & Rescue Staff	448
Emergency Ambulances	21
Fire Vehicles	12
Rescue Vehicle	1
De-watering Pumps	53
Inflatable Boats	5
Outboard Motors (OBM)	5
Life Jackets	360
Life Buoys	6
Chain Saws	8
Tents	10

33. **Resources Deployment (Readiness Parameters)**. ICT/ CDA has implemented the following pre-monsoon readiness measures: -

a. **Meetings on Pre-Flood Arrangements** have been conducted to coordinate roles and responsibilities across departments ahead of monsoon onset.

b. **Identification of Low-lying/Vulnerable Areas** has been completed, enabling targeted deployment of resources and EW dissemination.

c. **Inspection of Flood Fighting Equipment** carried out to ensure machinery, pumps, boats and rescue kits are serviceable and ready for deployment.

d. **Establishment of a Flood Control Room** to serve as operational coordination hub during monsoon season, enabling round-the-clock monitoring and response.

e. **Desilting and Removal of Encroachments from Nullahs** active pre-monsoon operations have been carried out, including documented work at Sector E-11 (Tributary Nullah), Sector F-18 (Turnol Nullah) and Lehtrar Road (Khanna), to improve drainage capacity before rains begin.

f. **Installation of 10 Rainfall Gauges** across the territory to enable real-time rainfall monitoring and support timely EW decisions.

34. **Need/ Gap Analysis**. The following gaps are identified:-

a. **Absence of a Flood Forecasting & EWS**. ICT currently lacks an automated flood forecasting and EWS. Way forward explicitly calls for completion of remaining installation, indicating this is a critical existing gap. Decisions on flood alerts are currently dependent on manual coordination and rainfall gauge data rather than an integrated predictive system.

b. **Encroachments on Nullah Beds & Water Channels**. Encroachments in drainage channels remain an unresolved structural issue, as evidenced by the ongoing removal operations in multiple sectors and their inclusion as a forward-looking recommendation suggesting the problem is not yet fully addressed.

c. **Drainage Capacity**. High number of de-watering activities in 2025 (146 incidents) against a relatively limited fleet of 53 de-watering pumps suggests that demand during active monsoon may strain available pumping capacity.

d. **Community Preparedness**. Inclusion of Community Awareness Program implies that public awareness/ preparedness at grassroots level is currently insufficient.

35. **Recommendations/ Way Forward**

a. **Installation of Flood Forecasting & EWS**. ICT/ CDA has identified the installation of a dedicated Flood Forecasting and EWS for Islamabad as a priority action. This system would enable predictive flood alerts, allowing earlier evacuation and pre-positioning of resources in vulnerable sectors.

b. **Cleaning of All Nullahs and Waterways (Pre-Monsoon)**. Comprehensive cleaning and desilting of all nullahs and waterways across ICT must be completed before the onset of the monsoon season. This is a critical preventive measure to reduce the risk of urban flooding in low-lying sectors.

c. **Removal of Encroachments from Nullah Beds and Water Channels**. Encroachments in nullah beds and water channels must be removed on an

emergency basis. These encroachments reduce drainage capacity and significantly increase flood risk for downstream residential and commercial areas.

d. **Community Awareness Program**. A structured Community Awareness Program is recommended to educate residents in vulnerable sectors about flood risks, evacuation routes, safe zones and emergency contact numbers. This will complement the physical infrastructure and response capacity already in place.

National Highway Authority (NHA)

36. **Available Resources**

a. **Routine Maintenance Contractors (Nationwide)**. NHA has engaged 914 Routine Maintenance Contractors across its entire network, distributed by region.

b. **Operational Maintenance Units**. A total of **51 Operational Maintenance Units** are distributed across 18 regional offices nationwide:-

Regional Office	Maintenance Units	Units
Punjab-North	Lahore, Wazirabad, Rawalpindi	3
Punjab-South	R.Y. Khan, Bahawalpur, Multan, D.G. Khan	4
Punjab-West	Balkassar, Mianwali, Muzaffargarh	3
Sindh-North	Moro, Sukkur, Larkana, Shikarpur	4
Sindh-South	Karachi, Hyderabad, Mirpurkhas, Dadu	4
KP	D.I.K, Karak, Kohat, Peshawar, Batkhela, Swat	6
Balochistan-North	Quetta, Noshki, Dalbandin, Zhob, Sibi, Loralai	6
Balochistan-South	Uthal, Khuzdar, Karak (Jhal Magsi)	3
Balochistan West Makran	Ormara, Gwadar, Turbat	3
Gilgit Baltistan	Gilgit, Chillas, Hunza	3
Northern Areas	Abbottabad, Balakot, Dasu	3
Motorway M-1	Brahma Bahtar, Bara Banda	2
Motorway M-2	Kallar Kahar	1
Motorway M-3	Lahore Abdul Hakeem	1
Motorway M-4	Faisalabad, Khanewal	2
Motorway M-5	Zahirpir, Uch Sharif	2
Muzaffarabad	Murree, Muzaffarabad	2
Total		**51**

38. **Vulnerable Sites**

a. Additional machinery shall be deployed at identified vulnerable locations**,** particularly those that were damaged during previous floods, to enable immediate mobilisation in an emergency.

b. Damage assessment and emergency response are structured in three levels, implying that certain segments of the network are already recognised as high-risk areas based on historical flood damage records.

39. **Resources Deployment**

a. **Three-Tier Damage Response Framework**. NHA has established a structured three-tier system for monsoon roads clearance and restoration:-

(1) **Damage Level 1**. Mobilisation of Routine Maintenance Contractors for traffic restoration. This covers routine, localised damage manageable within existing contracts.

(2) **Damage Level 2**. Mobilisation of Emergency Maintenance Contractors under Operational Emergency, applied when the scope of work exceeds routine maintenance - for example, launching of a temporary bridge, construction of a detour, or responding to embankment/ slope failure.

(3) **Damage Level 3**. Permanent restoration carried out after detailed Damage Need Assessment, rehabilitation design and open competitive bidding for procurement of works.

b. **Information & Coordination Flow**. A 24×7 Flood Cell is operational during monsoon. Information flow for daily response works as follows:-

(1) Maintenance Unit offices prepare occurrence reports on road conditions.

(2) Deputy Director (Maintenance) offices compile these into daily occurrence reports, submitted to Zonal Offices by 10:00 AM.

(3) NHA Zonal Offices prepare zone-wide daily occurrence reports.

(4) NHA Head Office (Roads Asset Management Directorate - RAMD) collates all zonal reports and also receives rainfall/ discharge predictions from the Meteorological Department.

(5) NHA then prepares and disseminates the NHA SITREP to: MoCom, NDMA, FFC, FFD, Pakistan Army Military Operations, DG Engineers Pakistan Army and the Press Information Department.

40. **Need/ Gap Analysis**

a. Three-tier damage response framework implicitly acknowledges that routine maintenance capacity has limits and emergency contractor mobilisation at Level 2 and permanent restoration at Level 3 are required when routine resources are insufficient.

b. Specific pre-positioning of additional machinery at historically flood-damaged sites suggests recognition of recurring vulnerability gaps at certain locations network.

41. **Recommendations/ Way Forward**

a. **Proactive Pre-Positioning of Machinery**. Additional machinery is to be deployed at identified vulnerable locations - particularly those damaged during previous floods - ahead of monsoon onset, to enable immediate mobilisation when needed.

b. **Daily Situation Reporting**. A structured daily reporting mechanism is to be maintained throughout the monsoon season, with occurrence reports flowing from field-level maintenance units to NHA Head Office by 10:00 AM each day and subsequent dissemination of the NHA SITREP to all key federal stakeholders and security/ civil entities.

c. **Coordination with Federal & Security Agencies**. NHA has established a clear inter-agency coordination structure, sharing daily SITREPs with NDMA, FFC, FFD, Pakistan Army and the MoCom, ensuring that road network status is factored into the broader national disaster response picture during the monsoon season.

d. **Region-wise Focal Person Accountability**. General Managers have been designated as focal persons for each regional office, with direct mobile and email contacts published, ensuring clear accountability and a single point of contact for each region during an emergency.

Ministry of National Health Services, Regulations & Coordination (MONHSR&C)

42. **Vulnerable Populations & Geographic Scope**

a. **National-Level Flood Risk (OCHA/ NDMA - 46 Prioritised Districts)**. Based on NDMA's 46 prioritised districts, national-level flood vulnerability figures for Monsoon 2026 are:-

(1) **Total Population in prioritised districts**: 61.6 million.

(2) **Vulnerable/ Exposed Population**: 20.7 million.

(3) **People in Need (PIN)**: 8.3 million.

(4) **People Targeted (PT) for response**: 4.2 million.

b. 46 prioritised districts are distributed across provinces as follows:-

Province	No. of Priority Districts
KP	11
Sindh	9
Balochistan	8
Punjab	7
AJ&K	6
GB	5
Total	**46**

c. **Health Partner Geographic Focus**. Health partners (UN agencies, INGOs, NGOs) are targeting a vulnerable population of **8.3 million** across high-risk districts in Sindh, Balochistan, KP, Punjab, GB and AJ&K, with a response target of **~1.3 million**. Priority groups include Internally Displaced Persons (IDPs), women, children under five, the elderly and persons with disabilities.

43. **Available Resources**

a. **Government Organisation Functions at National Level**

Organisation	Available Resources/ Functions
NIH	Rapid Response Teams (RRTs) for outbreak investigation, guidelines & SOPs, NEOC, Anti-Snake Venom Serum (ASVS), Anti-Rabies Vaccine (ARV)
Federal Directorate of Immunization	Immunization stocks and outreach teams for campaigns
Common Management Unit	Anti-Malarial Drugs (Primaquine), Long-Lasting Insecticidal Nets (LLINS) via Global Fund for KP
Drug Regulatory Authority (DRAP)	Facilitation of local procurement of medicines; NOCs for import of medicines and supplies
Federal Hospitals	Emergency Medical Teams (EMTs)

c. **Preparedness Framework - Operational Capacity (2025-2026)**

(1) **Provincial Rapid Response Teams (RRTs)**. Multidisciplinary RRTs established across 4 key regions: Sindh, KP, Balochistan and GB. Each RRT operates under a 5-pillar capability structure: Leadership & Coordination, Monitoring & Evaluation, Training Curriculum Development, Readiness & Deployment and Database Management & Reporting.

(2) **Frontline Task Force Training (Staggered Rollout)**

(a) 23rd Frontline cohort (Federal): May-July 2025.

(b) 24th Frontline cohort (KP): June-August 2025.

(c) 25th Frontline cohort (Balochistan): December 2025 - February 2026.

(3) **Rapid Cholera Diagnostic Kits**. **5,000 kits** procured and distributed to frontline operational units in partnership with WHO, for immediate field-level outbreak detection.

d. **UNICEF Resource Mapping**. UNICEF has pre-positioned contingency supplies for **100,000 people in need**, stored in UNICEF supported warehouses includes:-

(1) Clean delivery kits and newborn kits.

(2) Essential medicines for worm infestation, pneumonia, acute watery diarrhoea (AWD), scabies, malaria and dengue.

(3) Basic clinical equipment (weighing scales, stethoscopes, sphygmomanometers, thermometers, pulse oximeters).

(4) LLINs : **16,000 available** in warehouse; **35,000 in pipeline**.

(5) Cold chain equipment: standard vaccine carriers and cold boxes for emergency use.

44. **Resources Deployment**

a. **Emergency Support Plan - Strategic Areas & Deployment**

Strategic Area	Phase	Key Interventions	Targets	Lead
Coordination & Leadership	Preparedness + Response	Health Work Group activation; PHEOC support	Weekly coordination, aligned response	WHO/ MoNHSR&C
Essential Health Services	Response	30 MMTs, facility support, referrals	500,000+ consultations; >80% facility functionality	World Health Organisation (WHO)/ Department of Health (DoH)
Surveillance Early Warning Alert Response System (EWARS)	Preparedness + Response	EWARS strengthening, daily reporting	≥90% reporting completeness	WHO/ NIH/ Provincial Disaster Surveillance Response Units (PDSRUs)
Outbreak Response	Response	RRTs, outbreak investigations	All alerts verified within 48 hours	WHO/ NIH/ PDSRUs
WASH (Health)	Response	Water testing, chlorination, hygiene kits	Reduced AWD/ cholera incidence	MoNHSR&C/ WHO/ UNICEF
Immunization & Nutrition	Response + Recovery	Campaigns + malnutrition screening	≥90% coverage in target areas	WHO/ Expended program of Immunization

Strategic Area	Phase	Key Interventions	Targets	Lead
				(EPI)/ NIH
MHPSS & Risk Communication and Community Engagement (RCCE)	Preparedness + Response	Psychosocial First Aid (PFA), awareness campaigns	Improved care-seeking behaviour	WHO/ NIH
Logistics & Supply Chain	Preparedness + Response	Pre-positioning of medicines and supplies, distribution tracking	Zero stock-outs in priority areas	MoNHSR&C/ WHO/ Provincial DG Health
Monitoring & Evaluation	All phases	SITREPs, field monitoring, review	Weekly SITREPS, final review done	MoNHSR&C/ WHO

45. **Need/ Gap Analysis**

a. **Resource Mapping Gap Assessment (WHO)**

Category	Current Status	Risk Level	Gap/ Action Required
Human Resources (RRTs), EMTs, Epidemiologists)	Moderate availability, adequate geographic coverage	High in South Punjab, Sindh; Medium in KP, Low in Lahore	Surge staff required; deploy additional mobile teams
Medical Supplies (ORS, Cholera Kits, personnel protective equipment (PPE), Vaccines)	Adequate at central level, weak last-mile distribution	High in flood zones	Pre-position stocks in high-risk districts
Logistics (Ambulances, Boats, 4×4 Vehicles, Warehouses)	Limited availability	High in remote flood areas, uneven urban-rural coverage	Increase boats and vehicles; improve access routes
Information Systems (EWARS,	Functional at national level, weaker in remote	Medium	Strengthen real-time reporting at

Category	Current Status	Risk Level	Gap/ Action Required
Surveillance, Geographic Information System (GIS)	areas		district level
Coordination (Govt, NGOs, UN)	Strong nationally, variable at local level	Medium	Improve district-level coordination mechanisms
Finance (Emergency Funds, Donor Support)	Limited, centralized	High impact on response speed	Faster fund release mechanisms required

b. **Province-Specific Gaps**

(1) **Punjab**: Shortage of Primaquine (anti-malarial) and Oral Rehydration Salts (ORS) explicitly flagged.

(2) **Balochistan**: No specific shortfall quantified, but reliance on 13 MERCs (Mobile Emergency Response Centres) with small staffing (2 doctors + 8 paramedics each) for a large territory indicates coverage stress.

(3) **GB**: Very low ASVS allocation (only 70 vials for the current year vs. 50 in the prior year) despite mountainous high-risk terrain.

46. **Recommendations/ Way Forward**

a. **Implementation Matrix (Three-Phase Plan)**

(1) **Phase 1 - Preparedness (May-June 2026)**. Risk mapping of high-vulnerability districts, coordination with health and humanitarian partners, pre-positioning of Interagency Emergency Health Kits (IEHKs), cholera kits and reproductive health kits, training of MMTs and surveillance teams, SimEx (outbreak and flood scenarios).

(2) **Phase 2 - Response (July–September 2026)**. Deployment of 30 MMTs and outreach services, outbreak investigation and rapid response, enhanced EWARS surveillance and daily reporting, RCCE campaigns, immunization campaigns as needed.

(3) **Phase 3 - Recovery (October–December 2026)**. Restoration of disrupted health services, post-monsoon After Action Review, damage and needs assessment, system strengthening (WASH, surveillance, supply chain).

b. **Key Actions Required from Partners**

(1) **UN Agencies & Partners**. WHO, UNICEF, UNFPA, IOM, UNAIDs: Continue pre-positioning of supplies, maintain RRTs on readiness, strengthen EWARS coverage in remote areas and accelerate cold chain rehabilitation.

(2) **INGOs/ NGOs**. Indus Hospital Health Network, Dopasi Foundation, Save the Children: Expand mobile medical camp coverage to all provinces.

(3) **Provincial Health Departments**. Address identified shortages (ORS, Primaquine in Punjab), pre-position medicines at district level.

(4) **Finance Mechanisms**. Faster fund release to avoid procurement delays that constrain pre-positioning before monsoon onset.

Armed Forces Flood Preparedness - Monsoon 2026

47. The Armed Forces shall remain on operational standby throughout the monsoon season and maintain the requisite manpower, equipment, resources and logistical support in a state of readiness to undertake disaster response, flood relief and rescue operations as and when required.

48. During the pre-monsoon preparedness phase, all formations shall complete the inventory, inspection, servicing, repair, conditioning and operational testing of flood relief equipment and resources to ensure full operational readiness prior to the onset of the monsoon season.

49. The Armed Forces shall maintain close coordination and information-sharing arrangements with the NDMA, PDMAs, DDMAs, FFC, PMD, SUPARCO and other relevant stakeholders through established civil-military coordination mechanisms.

50. Flood Control Centres shall be established and operated on a 24-hour basis at all levels to facilitate liaison, coordination, monitoring, information management and the timely deployment of resources during flood emergencies.

51. The Army Flood Control Centre (AFCC) shall serve as the principal coordinating and monitoring body for Army flood relief operations. It shall issue daily flood SITREPs, maintain operational oversight and provide technical and engineering advice on flood mitigation, preparedness and response measures.

52. All twenty-one breaching sections/sites maintained by the Pakistan Army shall remain fully operational and available for employment when required. Their activation, operation and subsequent closure shall be undertaken by the Armed Forces in close coordination with civil authorities and other relevant stakeholders.

53. Formation Headquarters shall continuously monitor flood developments, maintain reliable communication networks and ensure the timely mobilisation and deployment of troops, engineer resources, rescue boats, de-watering equipment and other specialised assets in support of flood response operations.

54. The Armed Forces shall undertake flood response operations, including SAR, evacuation of affected populations, relief distribution, restoration of critical communication routes and infrastructure, operation of rescue craft, de-watering activities and the provision of emergency engineering assistance in affected areas.

55. The Pakistan Air Force, Pakistan Navy, Frontier Corps, Pakistan Rangers and Pakistan Coast Guards shall maintain a high state of operational readiness and remain prepared for deployment in support of flood relief, humanitarian assistance and disaster response operations whenever required.

56. Upon the conclusion of the monsoon season, all formations shall conduct post-flood assessments, reconnaissance, operational reviews and lessons-identified conferences to evaluate the effectiveness of response measures, identify capability gaps and incorporate lessons learnt into future contingency planning and preparedness arrangements.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