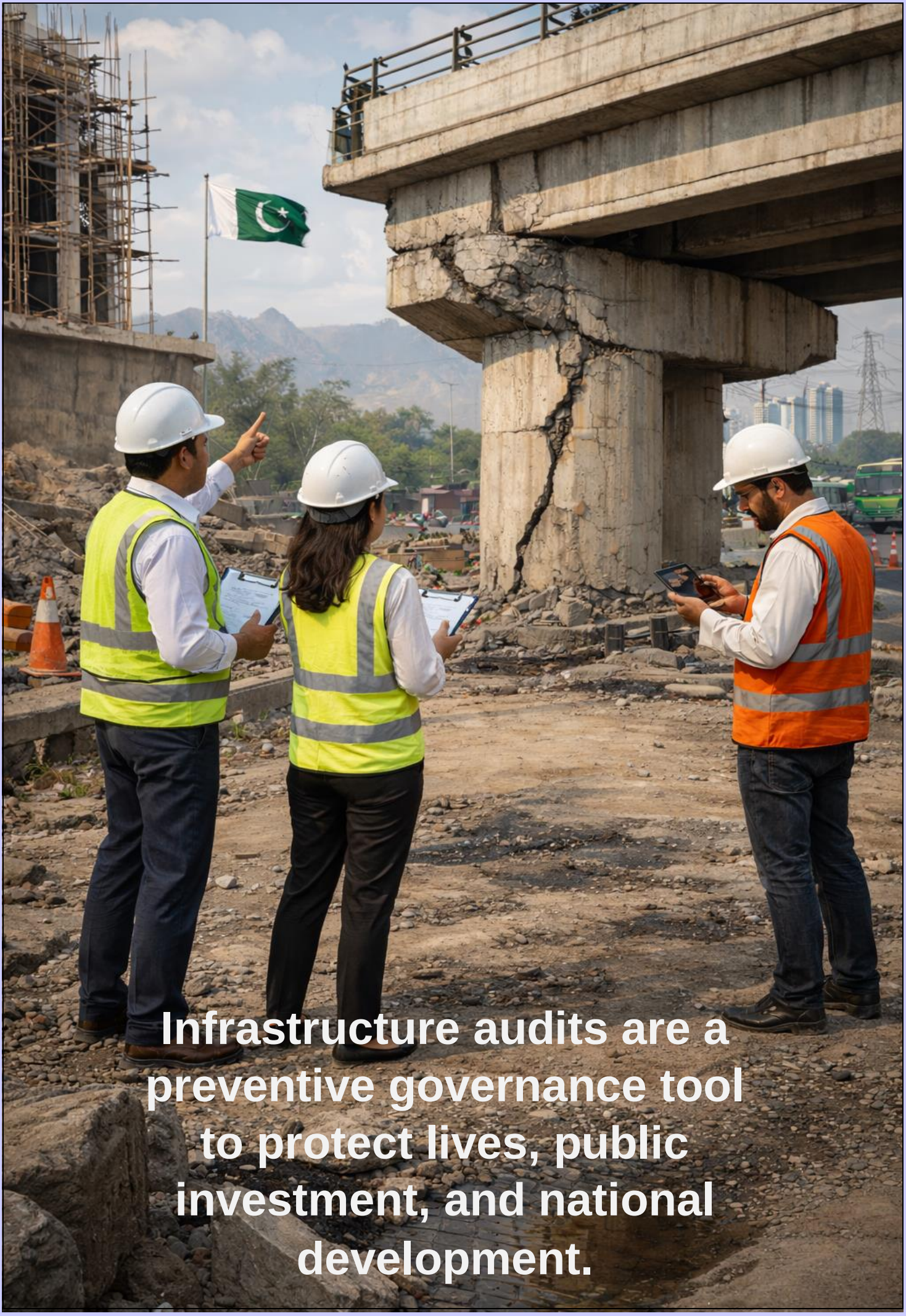
NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

NATIONAL INFRASTRUCTURE AUDIT PROGRAM 2026

Infrastructure Audit Program, Seminar Proceedings, Implementation Framework, and Policy Recommendations

INFRASTRUCTURE ADVISORY & PROJECT DEVELOPMENT WING


Infrastructure audits are a preventive governance tool to protect lives, public investment, and national development.

Institutonlizing Infrastructure Audits in Pakistan

A Preventive, Cost-Effective Path to Disaster Resilience

Pakistan Faces Escalating Disaster Risks

Floods | Earthquakes | Climate Extremes

Why Infrastructure Fails During Disasters

- ✓ Aging Public Buildings
- ✓ No Routine Safety Audits
- ✓ Reactive Repairs Only
- ✓ Fragmented Governance

Schools Collapse | Hospitals Fail | Billions in Costs

The Solution: Institutionalized Infrastructure Audits

- ✓ Regular Safety Assessments
- ✓ Mandatory for Schools, Hospitals & Govt Buildings
- ✓ Integrated Planning & Compliance

Structural Safety | Flood & Quake Resilience | Utillities & Lifelines | Climate Adaptation

Prevention Costs Less Than Recovery

$1 Invested in Prevention Saves **$4~$7** in Losses

Safeguard Public Buildings

Schools & Hospitals Secured

Reduce Human Losses

✓ Lives Better Protected

Reduce Economic Losses

✓ Lower Rebuild Costs

Enable Climate Resilience

✓ Adapt to Future Risks

From Reactive Response to Risk-Informed Development

Message from the Chairman, National Disaster Management Authority

Pakistan's exposure to natural hazards is a well-established reality. Floods, earthquakes, landslides, and climate-induced extreme events continue to test our institutions, infrastructure, and collective resilience. Experience has repeatedly shown that the scale of loss during disasters is determined not only by the intensity of hazards, but by the condition, safety, and preparedness of our infrastructure.

The National Infrastructure Audit Program – 2026 represents a strategic and necessary shift in Pakistan's approach to disaster risk management. By institutionalizing systematic infrastructure audits, the Program moves the country away from a reactive cycle of damage and reconstruction toward a preventive, risk-informed model that prioritizes early identification of vulnerabilities, protection of human life, and safeguarding of public investment.

The National Seminar on the Infrastructure Audit Program has marked the formal commencement of implementation of this nationally mandated initiative. The discussions and commitments made during the Seminar demonstrate a shared resolve among federal and provincial institutions to work collaboratively, guided by standardized frameworks, transparent data systems, and clearly defined responsibilities.

NDMA's role in this endeavor is to provide national policy direction, technical guidance, and a central digital platform to ensure consistency, accountability, and evidence-based decision-making. The successful implementation of this Program, however, rests with the active ownership and sustained engagement of provincial governments, regulatory authorities, and asset-owning departments responsible for managing public infrastructure across the country.

I am confident that through collective commitment, disciplined execution, and continuous monitoring, the National Infrastructure Audit Program will contribute significantly to reducing disaster-related losses, enhancing service continuity, and strengthening public trust. By acting before disasters strike, we can make Pakistan's infrastructure safer, stronger, and more resilient for generations to come.

Lt Gen Inam Haider Malik, HI (M)
Chairman NDMA

Executive Summary

Pakistan continues to face recurrent and increasingly severe losses from floods, earthquakes, landslides, and climate-induced extreme weather events. While these hazards are natural, the scale of human and economic loss is largely attributable to unassessed, aging, and non-compliant public infrastructure that remains vulnerable until disaster strikes. Continued reliance on post-disaster response and reconstruction has proven costly, reactive, and insufficient to protect lives, public assets, and national development gains.

Recognizing this structural risk, the Prime Minister's Office approved the Concept Note for the National Infrastructure Audit Program – 2026, developed by the National Disaster Management Authority (NDMA). The Program represents a decisive shift from reactive disaster management to preventive, risk-informed governance of public infrastructure, anchored in systematic audits, prioritization of high-risk and high-occupancy assets, and timely corrective action through maintenance, strengthening, retrofitting, controlled decommissioning, or replacement.

The Program is implemented under an explicit national accountability framework. Policy direction and oversight are led by the Prime Minister's Office and the Ministry of Housing & Works, with NDMA designated as the national coordinating authority responsible for standard-setting, methodologies, tools, digital systems, and performance monitoring. Provincial governments and asset-owning departments retain full ownership of infrastructure within their jurisdictions and are responsible for audit execution, implementation of corrective measures, and reporting in accordance with national standards. Local governments, building control authorities, and development authorities serve as frontline implementing entities.

To operationalize the approved mandate, NDMA convened the National Seminar on the Infrastructure Audit Program – 2026 on 7 January 2026 at the National Emergencies Operations Center (NEOC), Islamabad. The seminar brought together senior federal and provincial leadership, planning and regulatory authorities, local governments, technical experts, development partners, and academia. The objective was to translate policy approval into a time-bound, action-oriented implementation framework with clearly defined institutional roles, timelines, and deliverables.

The seminar achieved consensus on a phased implementation plan (2026–2028), beginning with an immediate pre-monsoon Phase–I focused on life-safety and critical risk reduction, followed by expansion and corrective action in Phase–II, and full institutionalization by Phase–III. Agreement was reached on prioritizing high-occupancy and life-critical buildings, adopting standardized audit methodologies including visual inspections and non-destructive testing, utilizing the Infrastructure Resilience Index (IRI) for risk classification and investment prioritization, and ensuring mandatory digital documentation and reporting through a centralized national platform.

This report documents the deliberations, decisions, and agreed implementation framework arising from the seminar. It sets out policy and operational recommendations for federal and provincial governments, regulatory authorities, development partners, academia, and the public to ensure coordinated execution, institutional accountability, and measurable risk reduction outcomes.

Successful implementation of the National Infrastructure Audit Program – 2026 will significantly reduce disaster-related losses, protect human life, safeguard public investment, and embed preventive governance into infrastructure management. By acting before disasters strike, Pakistan can transition from vulnerability-driven response to resilience-led development, strengthening public trust and securing long-term national progress.

Infrastructure Advisory & Project Development Team

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Acronyms

ADP	Annual Development Programme
AJ&K / AJK	Azad Jammu & Kashmir
CDA	Capital Development Authority
CEO	Chief Executive Officer
C&W	Communication & Works Department
DD	Deputy Director
DRR	Disaster Risk Reduction
ED	Executive Director
FP	Focal Person
GB	Gilgit Baltistan
GBDMA	Gilgit Baltistan Disaster Management Authority
GHQ	General Headquarters
GIS	Geographic Information System
GLOF	Glacial Lake Outburst Flood
HEC	Higher Education Commission
HUD & PHED	Housing & Urban Development and Public Health Engineering Department
IA&PD	Infrastructure Advisory & Project Development
IRI	Infrastructure Resilience Index
KP / KPK	Khyber Pakhtunkhwa
NDT	Non-Destructive Testing
NDMA	National Disaster Management Authority
NDRP	National Disaster Risk Policy
NDRRS	National Disaster Risk Reduction Strategy
NDMP	National Disaster Management Plan
NEOC	National Emergencies Operations Center
NUST	National University of Sciences and Technology
P&D	Planning & Development
PDMA / PDMAs	Provincial Disaster Management Authority / Authorities
PEC	Pakistan Engineering Council
PM / PMO	Prime Minister / Prime Minister's Office
PSDP	Public Sector Development Programme
SBCA	Sindh Building Control Authority
SDGs	Sustainable Development Goals
SDMA	State Disaster Management Authority
SOPs	Standard Operating Procedures
UET	University of Engineering and Technology

1. Background and National Risk Context

Pakistan is among the most disaster-prone countries in the region due to its geographical location, diverse terrain, and increasing climate variability. The country is exposed to a wide range of natural hazards, including riverine and flash floods, earthquakes, landslides, glacial lake outburst floods, droughts, heatwaves, and other climate-induced extreme events. These hazards affect both urban and rural areas and pose persistent risks to human life, public infrastructure, and national development.

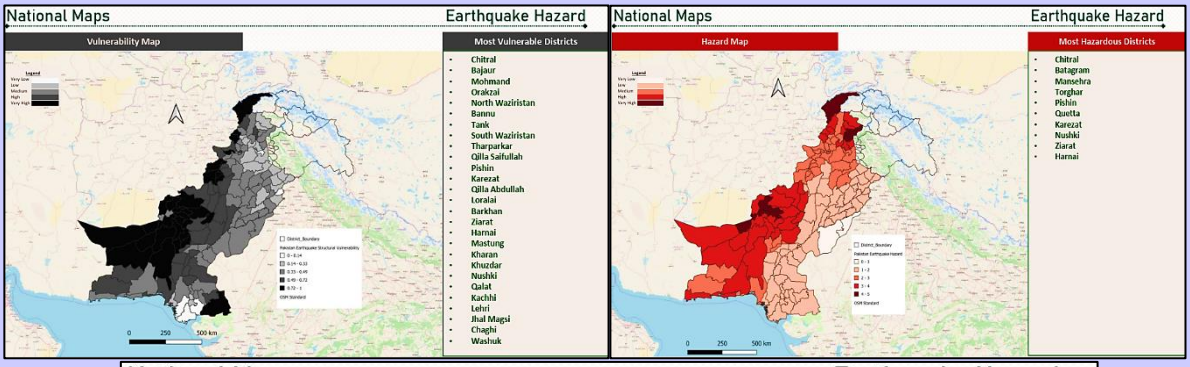
While natural hazards are unavoidable, the severity of disaster impacts in Pakistan is largely determined by the condition, location, and performance of the built environment. A significant proportion of public and private infrastructure, particularly schools, hospitals, administrative buildings, residential complexes, and commercial structures, has been constructed without consistent adherence to modern building codes, hazard-resistant design standards, or systematic maintenance regimes. In many cases, infrastructure assets are not subjected to routine safety or resilience assessments throughout their operational life, allowing structural vulnerabilities to remain undetected until disaster events occur.

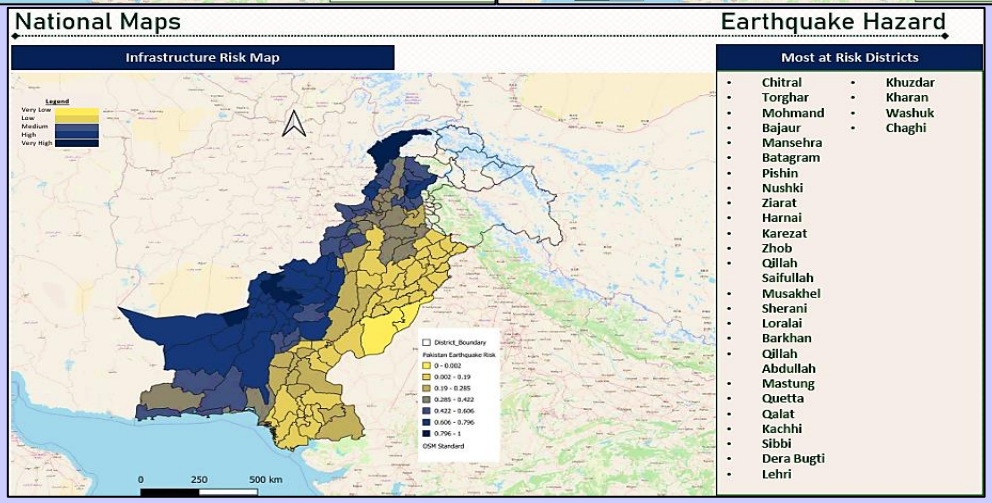
Rapid population growth, urbanization, and unplanned development have further increased exposure, especially in high-density urban centers and hazard-prone regions. As cities expand and infrastructure demand intensifies, high-occupancy and life-critical facilities are increasingly located in areas exposed to floods, seismic activity, and climate-related hazards. Consequently, even moderate hazard events now have the potential to cause disproportionate human, economic, and service-delivery impacts.

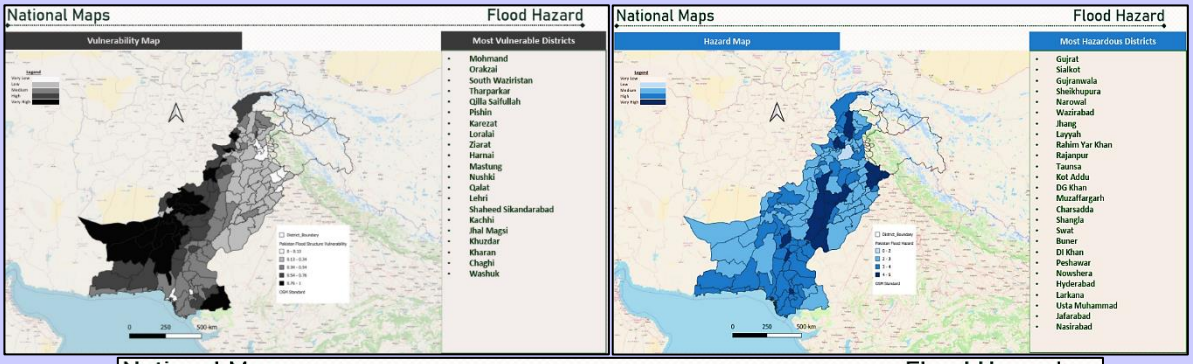
1.1. Infrastructure Risk Exposure Across Major Hazard Types

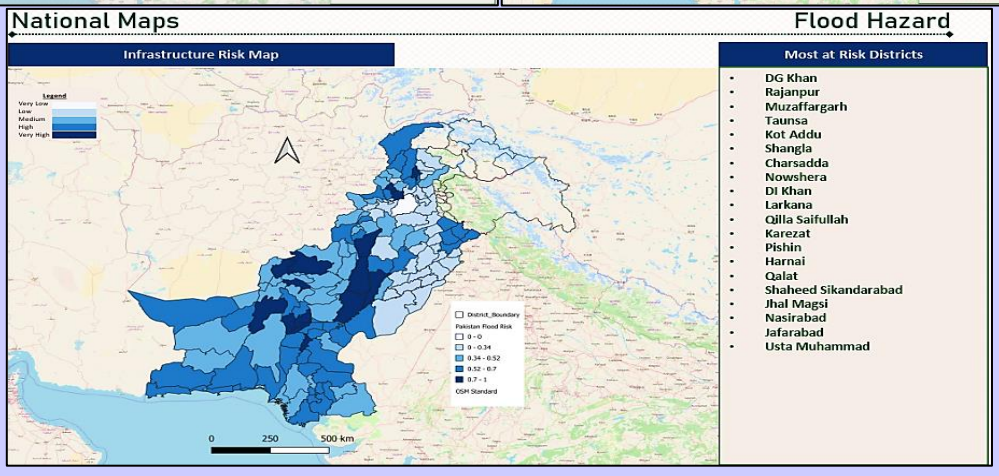
GIS-based analysis conducted under the NDMA Infrastructure Risk Atlas provides a national-scale view of the intersection between hazard exposure and built infrastructure. The Atlas indicates that large concentrations of public infrastructure are located within moderate to high-risk flood zones, active seismic regions, and landslide-prone corridors. Schools, hospitals, government offices, and residential complexes in several provinces are exposed to multiple hazards simultaneously, significantly increasing the consequences of structural failure.

The spatial analysis highlights that infrastructure risk is not uniform but clustered, with certain regions experiencing overlapping hazards and high population density. These findings reinforce the need for risk-based prioritization of infrastructure assessments, particularly for high-occupancy and essential service facilities where failure would result in severe human and societal consequences. Following are hazard, vulnerability, and infrastructure risk maps:









1.2 Recent Experience: Infrastructure Impacts of Monsoon 2025

The Monsoon 2025 season once again demonstrated the vulnerability of Pakistan's infrastructure to climate-induced extreme weather. Heavy rainfall and flooding resulted

in widespread damage to lives, public buildings, transport networks, drainage systems, and utility services across provinces. Numerous schools and health facilities experienced structural damage or functional disruption, while repeated failures of roads and bridges affected mobility, emergency response, and economic activity.

Notably, a significant portion of the damaged infrastructure had been affected in previous monsoon events, indicating a pattern of recurrent loss rather than isolated incidents. The absence of systematic pre-disaster structural assessment and targeted strengthening meant that known vulnerabilities remained unaddressed, leading to repeated damage and escalating reconstruction costs. These impacts further strained public finances and delayed the restoration of essential services.

1.3 Implications for Infrastructure Safety and Risk Management

The combined evidence from national hazard exposure, GIS-based infrastructure risk analysis, and recent disaster experience highlights the limitations of a predominantly reactive disaster management approach. While emergency response and post-disaster reconstruction remain essential, they do not address the underlying structural weaknesses that drive repeated losses.

Without routine infrastructure audits, decision-makers lack reliable data to prioritize investments, protect high-risk assets, and ensure accountability in infrastructure safety. Reconstruction undertaken without prior vulnerability assessment often reproduces existing risks, perpetuating a cycle of damage, repair, and re-damage.

This national risk context underscores the urgent need for a paradigm shift toward preventive, risk-informed infrastructure management. **Institutionalizing infrastructure audits** as a standardized and routine function of governance provides a cost-effective mechanism to identify vulnerabilities early, guide targeted mitigation measures, and reduce future disaster losses. This shift forms the foundation for the National Infrastructure Audit Program – 2026.

"Infrastructure audits are not an end in themselves. They are a decision-support mechanism that must result in timely

MAINTENANCE, STRENGTHENING, RETROFITTING or REMOVAL

of unsafe infrastructure.

by the concerned departments.

Assess > Decide > Act

2. National Infrastructure Audit Program – 2026

The National Infrastructure Audit Program – 2026 represents a strategic shift in Pakistan's approach to disaster risk management, moving from reactive reconstruction to preventive, risk-informed infrastructure safety management. The program establishes a standardized and institutionalized mechanism for assessing the structural safety, functionality, and resilience of public infrastructure across federal and provincial jurisdictions.

2.1 Program Mandate and Approval Status

The National Infrastructure Audit Program was developed by the Infrastructure Advisory & Project Development wing of the National Disaster Management Authority (NDMA) in response to recurring infrastructure failures during disaster events. The program's Concept Note was formally submitted to the Prime Minister's Office and has received approval for implementation at both federal and provincial levels.

The approval reflects the Government of Pakistan's recognition of infrastructure safety as a national priority and a critical component of disaster risk reduction and climate resilience. The Program is mandated as a nationally coordinated initiative, with NDMA assigned the role of providing policy direction, standardized audit frameworks, guidelines, and a central digital platform, while implementation responsibilities rest with provincial and sectoral departments that own and manage public infrastructure assets.

2.2 Strategic Objectives

The National Infrastructure Audit Program – 2026 is guided by the following strategic objectives:

- To institutionalize regular and systematic assessment of public infrastructure to identify structural vulnerabilities before disaster events occur.
- To prioritize high-risk and high-occupancy buildings, particularly life-critical facilities such as schools, hospitals, and administrative buildings.
- To support evidence-based decision-making for disaster preparedness, mitigation, and recovery planning.
- To enhance structural safety and performance of infrastructure under both normal operating conditions and extreme hazard scenarios.
- To reduce disaster-related human casualties, economic losses, and service disruptions through timely risk mitigation measures.
- To promote cost-effective investment by shifting resources from repeated reconstruction toward preventive strengthening and retrofitting.

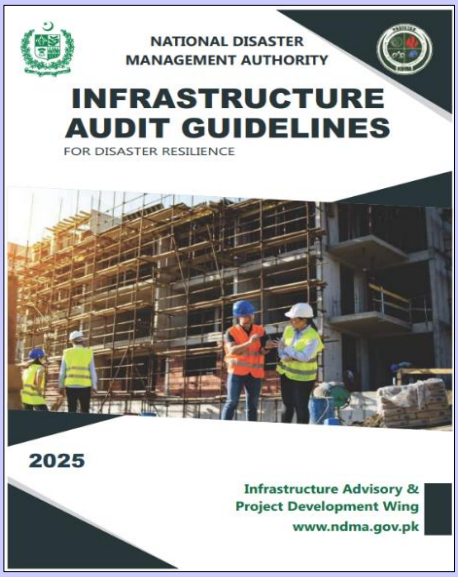
2.3 Scope and Coverage of Infrastructure Audits

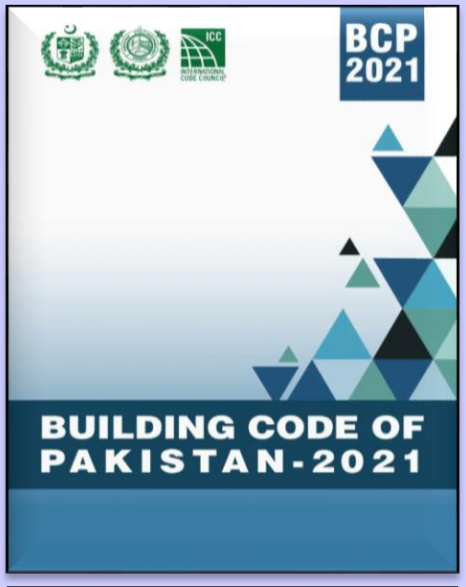
The Program encompasses a phased and scalable approach to infrastructure auditing, covering public buildings and critical infrastructure across federal, provincial, and local levels. The initial phase focuses on high-priority assets located in hazard-prone areas and characterized by high occupancy or critical service functions.

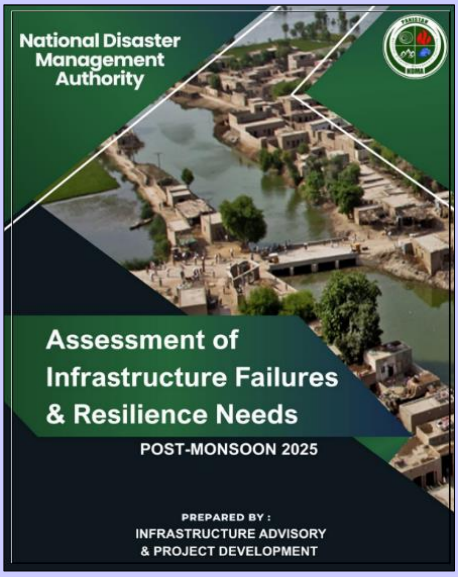
The scope of audits includes:

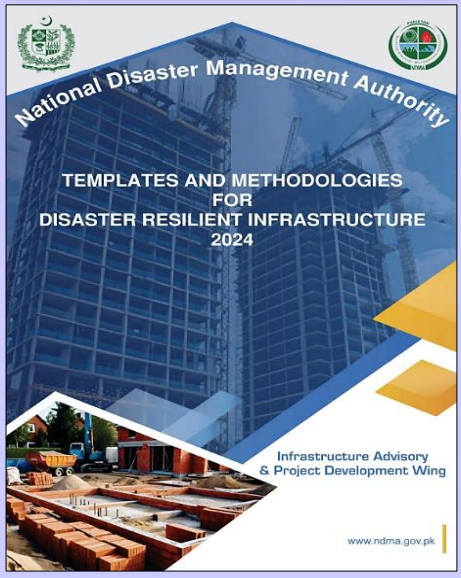
- Visual structural inspections and condition assessments
- Non-destructive testing (NDT) and material evaluation where required
- Assessment of compliance with relevant building codes and safety standards
- Evaluation of hazard exposure, functional performance, and resilience
- Assignment of Infrastructure Resilience Index (IRI) scores to audited assets

The infrastructure audit may be guided by the following guidelines issued by IA&PD wing of NDMA and is available on NDMA website and Building Codes of Pakistan. Among which, the Building Codes of Pakistan and Infrastructure Audit Guidelines are the main guiding document for infrastructure audits.









Audit findings will inform recommendations for maintenance, strengthening, retrofitting, demolition or restricted use, as appropriate. All audit results and resilience scores will be documented and uploaded to a centralized digital platform managed by NDMA to support transparency, monitoring, and risk-informed planning.

2.4 Alignment with National Policies and International Frameworks

The National Infrastructure Audit Program – 2026 is fully aligned with Pakistan's national disaster risk management and development policy frameworks. It complements the NDMP, NDRP, NDRRS, and sectoral building regulations by operationalizing risk reduction at the infrastructure level.

Internationally, the Program is aligned with the Sendai Framework for Disaster Risk Reduction (2015–2030), particularly:

- **Priority 1** (Understanding Disaster Risk) and
- **Priority 3** (Investing in Disaster Risk Reduction for Resilience).

By promoting systematic risk assessment, data-driven decision-making, and preventive investment, the Program contributes to Pakistan's commitments under global resilience and climate adaptation agendas.

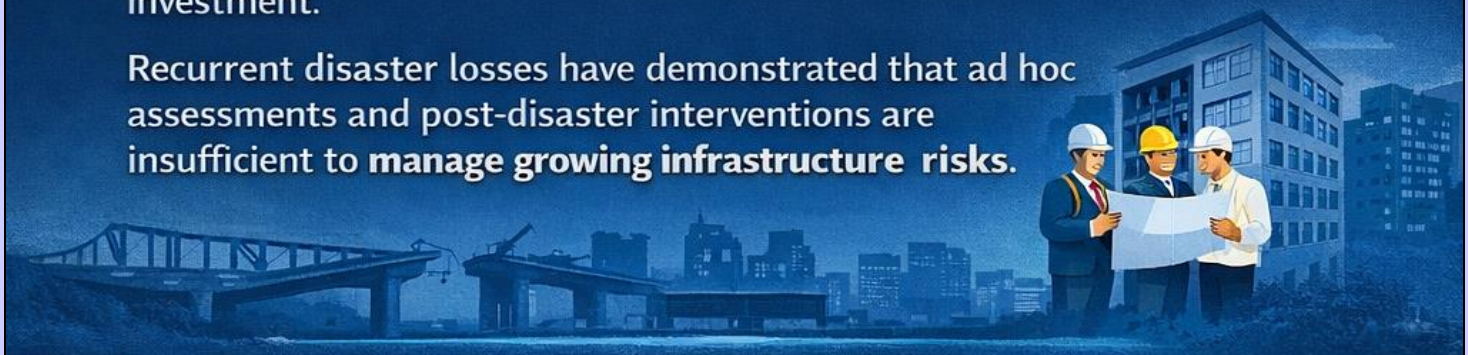
The Program also supports the Sustainable Development Goals (SDGs) by strengthening the safety, resilience, and sustainability of the built environment, especially:

- **SDG 9** (Industry, Innovation, and Infrastructure),
- **SDG 11** (Sustainable Cities and Communities), and
- **SDG 13** (Climate Action)

Rationale *for* Institutionalizing Infrastructure Audits

Institutionalizing infrastructure audits is a critical step toward strengthening Pakistan's disaster resilience and safeguarding public investment.

Recurrent disaster losses have demonstrated that ad hoc assessments and post-disaster interventions are insufficient to **manage growing infrastructure risks.**



Institutional Infrastructure Audits provide:

PREVENTIVE RISK MANAGEMENT

Early detection of vulnerabilities avoids loss of life and repeated reconstruction costs.

COST-EFFECTIVE INVESTMENT

Targeted strengthening is more economical than post-disaster rebuilding.

Save public funds through risk reduction

01 PREVENTIVE RISK MANAGEMENT

- Routine audits identify vulnerabilities before disasters strike.
- Reduces loss of life and emergency response pressure.

02 COST-EFFECTIVE INVESTMENT

- Audits optimize investment through targeted repairs and retrofiiting.
- Upfront risk reduction is a fraction of post-disaster rebuilding costs.

03 SAFEGUARD SERVICES AND TRUST

- Protect high-occupancy facilities and maintain public confidence in infrastructure safety.
- Ensure continuity of critical functions.

Integrated infrastructure audits provide a cost effective investment in disaster risk reduction, **reduce avoidable losses**, maαxmιze returns on public investment, and protect **human tife.**

3. Seminar Overview and Purpose

To onboard all the relevant stakeholders, a national level seminar has been conducted on 7th January 2026 at NEOC, NDMA. The National Seminar on Infrastructure Audit Program – 2026 marked the formal commencement of implementation, transitioning the initiative from conceptual planning to operational execution.

The National Seminar on Infrastructure Audit Program – 2026 was convened by the National Disaster Management Authority (NDMA) as a strategic platform to initiate coordinated implementation of a nationally mandated infrastructure safety initiative. The seminar was designed not as a ceremonial event, but as an operational starting point to align federal and provincial stakeholders on roles, priorities, timelines, and implementation mechanisms for the Infrastructure Audit Program.

3.1 Objectives of the National Seminar

The primary objectives of the National Seminar were to:

- Present the approved Concept and framework of the National Infrastructure Audit Program – 2026 to all relevant stakeholders.
- Establish a shared understanding of the program's mandate, scope, methodologies, and expected deliverables.
- Clarify institutional roles and responsibilities of federal, provincial, and sectoral authorities in program implementation.
- Facilitate alignment of implementation strategies, timelines, and coordination mechanisms for the initial phase of audits.
- Initiate a results-oriented dialogue focused on transitioning from policy approval to on-ground execution.

3.2 Participants and Institutional Representation

The seminar brought together senior leadership and technical representatives from a broad range of federal and provincial institutions responsible for infrastructure regulation, management, and development. Participants included:

- Federal ministries and attached departments
- Provincial disaster management authorities and line departments
- Building control and development authorities
- Engineering and technical experts
- Development partners and academic institutions
- Senior policymakers and planners

This diverse representation ensured that perspectives from policy, regulation, technical execution, and development planning were incorporated, reinforcing the collaborative and multi-sectoral nature of the Infrastructure Audit Program.

Detail of participants are enclosed as **Annex-I**.

3.3 Expected Outcomes and Implementation Focus

The seminar was structured to produce clear, actionable outcomes rather than general recommendations. Key expected outcomes included:

- Consensus on the implementation framework and operational approach for the Infrastructure Audit Program – 2026.
- Identification of priority buildings for initial audits, with emphasis on high-risk and high-occupancy infrastructure.
- Agreement on institutional coordination mechanisms and reporting arrangements with NDMA.
- Establishment of clear timelines and milestones for audit implementation up to June 2026.
- Formal initiation of implementation activities across participating institutions.

The seminar thus served as the formal launch of the implementation phase, ensuring that participating organizations departed with defined responsibilities, deliverables, and accountability mechanisms.

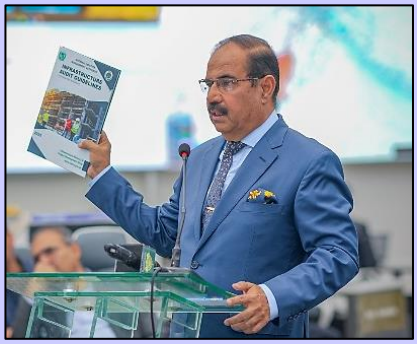
3.4 Key Messages and Policy Direction

The National Seminar on Infrastructure Audit Program – 2026 conveyed clear and unified policy direction emphasizing the urgent need to institutionalize preventive, risk-informed infrastructure safety mechanisms across Pakistan. Through opening remarks, session mandates, and collective deliberations, a strong consensus emerged on transitioning from reactive disaster response to proactive risk management.

In his opening address, the Chairman NDMA, Lt Gen Inam Haider Malik (HI M) underscored Pakistan's persistent exposure to natural hazards and the recurring losses resulting from unsafe and unassessed infrastructure. He emphasized that disasters themselves are not the sole cause of damage; rather, it is the failure of structurally vulnerable buildings and public assets that leads to catastrophic human and economic losses.

The Chairman highlighted that the National Infrastructure Audit Program represents a strategic shift in national disaster risk management, moving away from post-disaster reconstruction toward preventive action. He highlighted that the infrastructure audit is a nationally coordinated initiative and shall be implemented through multi-stakeholder approach. The Chairman further stressed that infrastructure safety is a matter of public trust and national responsibility, and that protecting high-occupancy and life-critical facilities must remain a top priority.

The session mandate, presented by Mr. Saleem Raza, Executive Director (Infrastructure Advisory & Project Development), NDMA outlined the operational framework for implementing the National Infrastructure Audit Program – 2026. It was emphasized that the seminar marked the formal commencement of implementation, not merely a conceptual discussion.



Key elements of the implementation framework included:

- NDMA's role in providing national policy direction, standardized audit methodologies, guidelines, and a central digital data platform.
- Responsibility of provincial and sectoral departments to plan, conduct, and act upon infrastructure audits within their respective jurisdictions.
- Adoption of a phased approach focusing initially on high-risk and high-occupancy public buildings.

- Use of standardized tools, including visual inspections, non-destructive testing, and the Infrastructure Resilience Index (IRI).

Participants were informed that clear deliverables, timelines, and reporting mechanisms would guide implementation, ensuring accountability and measurable progress.

3.5 Departmental and Technical Presentations

Senior representatives from building control and development authorities, including the Capital Development Authority (CDA), Sindh Building Control Authority (SBCA), consultants (Structax, Dr. Qaiser Ali Associates, and Global Tech Innovation & ESG Nexus) their respective approaches to implementing infrastructure audits within their jurisdictions.

Key aspects highlighted by the authorities included:

- Identification of priority buildings for initial audits, with emphasis on high-occupancy and life-critical facilities.
- Proposed audit execution mechanisms, including utilization of in-house technical staff and engagement of qualified consultants.
- Integration of infrastructure audits with existing regulatory and inspection frameworks.
- Preliminary timelines and milestones for audit implementation up to June 2026.
- Coordination arrangements with NDMA for reporting, data sharing, and use of standardized audit tools.

The presentations reflected varying levels of institutional capacity and experience, reinforcing the need for standardized methodologies, capacity development, and centralized coordination. The technical inputs helped contextualize global best practices within Pakistan's institutional and hazard context, supporting the practical implementation of the Program.

3.6 Consensus on Preventive, Risk-Informed Approach

Based on the departmental and technical presentations, the following key observations emerged:

- There is strong willingness among implementing agencies to initiate infrastructure audits, particularly for high-risk and high-occupancy buildings.
- Capacity gaps exist in specialized assessment techniques, underscoring the importance of targeted training and technical support.
- Standardization of tools, templates, and reporting formats is essential to ensure consistency across jurisdictions.
- Early integration of audit findings into planning and budgeting processes will be critical for effective risk reduction.

These presentations collectively reinforced the feasibility of the National Infrastructure Audit Program and provided practical inputs to refine the implementation roadmap.

3.7 Closing Remarks by the Chief Guest

The Chief Guest, **Mian Riaz Hussain Pirzada, Federal Minister for Housing and Works**, delivered the closing remarks of the National Seminar on Infrastructure Audit Program – 2026. In his address, the Honorable Minister appreciated the initiative taken by NDMA to institutionalize infrastructure audits as a preventive and cost-effective approach to disaster risk reduction.

The Minister emphasized that infrastructure safety is a national responsibility and a critical component of sustainable development. He noted that Pakistan's growing urban population and expanding infrastructure base necessitate a proactive approach to ensuring structural safety, particularly for high-occupancy and public service buildings. The Minister highlighted that preventive assessment and timely strengthening of infrastructure are far more effective and economical than repeated reconstruction after disasters.

He reaffirmed the Government's commitment to strengthening regulatory frameworks, improving compliance with building codes, and supporting coordinated federal–provincial efforts for infrastructure resilience. The Minister stressed the importance of collaboration among federal ministries, provincial governments, building control authorities, and technical institutions to ensure successful implementation of the Infrastructure Audit Program.

The Honorable Minister endorsed the objectives and implementation framework of the National Infrastructure Audit Program – 2026 and encouraged all participating departments to take timely and concrete actions in line with the agreed timelines and

responsibilities. He expressed confidence that the outcomes of the seminar would translate into measurable improvements in infrastructure safety and disaster resilience.

The Chief Guest commended NDMA and participating stakeholders for their contributions and emphasized that sustained commitment, accountability, and coordinated implementation would be essential to protecting lives, safeguarding public investment, and building a more resilient Pakistan.

In his concluding remarks, he assured that the Ministry of Housing and Works will fully support NDMA in advancing this important national effort.

Infrastructure Audit Framework

The National Infrastructure Audit Program – 2026 is underpinned by a standardized and nationally coordinated Infrastructure Audit Framework designed to ensure consistency, transparency, and effectiveness across federat and provincial jurisdictions.

POLICY & GOVERNANCE STRUCTURE

Defines roles, responsibilities, and accountability mechanisms at national and provincial levels.

1

National Guidelines and Policy Direction

- National Guidelines and Policy Direction

NDMA

NDMA Central Coordination

Provincial & Sectoral Implementation

AUDIT METHODOLOGIES & TOOLS

Tiered, risk-based audit methods tailored to building type and hazard exposure.

VISUAL INSPECTIONS

- Systematic visual assessment of structural condition.

NON-DESTRUCTIVE TESTING (NDT)

- Material testing of load-bearing elements with portable equipment.

INFRASTRUCTURE RESILIENCE INDEX (IRI)

- Standardized scoring of relative resilience and risk.

Digital Audit Platform & Data Management

Centralized platform for upload, storage, and analysis of audit information.

Integrated framework connect policy, technical, & digital components to systematically assess and strengthen infrastructure resilience.

4. Infrastructure Audit Framework

The National Infrastructure Audit Program – 2026 is underpinned by a standardized and nationally coordinated Infrastructure Audit Framework designed to ensure consistency, transparency, and effectiveness across federal and provincial jurisdictions. The framework integrates policy direction, governance arrangements, technical methodologies, and digital systems to enable systematic assessment of infrastructure safety and resilience.

4.1 Policy and Governance Structure

Responsibility: National Disaster Management Authority
Implementation: Building Control / Development Departments/Authorities

The Infrastructure Audit Framework is anchored in a clear policy and governance structure that defines institutional roles, responsibilities, and accountability mechanisms. At the national level, the National Disaster Management Authority (NDMA) serves as the central coordinating body responsible for:

- Providing national policy direction and standardized audit guidelines.
- Developing and maintaining audit methodologies, tools, and templates.
- Establishing and managing a central digital platform for audit data and reporting.
- Monitoring progress and facilitating coordination among implementing agencies.

NDMA has established a dedicated wing for Infrastructure Audit and detailed methodologies have been published for guiding the audit methodologies across the country.

4.2 Capacity Development and Training Plan

Responsibility: National Disaster Management Authority
Participants: Executing Departments

To support accelerated and sustained implementation, a targeted capacity development program will be rolled out by NDMA. This will include:

- Rapid orientation and refresher training for relevant federal and provincial departments who will be involved infrastructure audits.
- Structured training programs on audit guidelines, visual inspection techniques, non-destructive testing (NDT), and the Infrastructure Resilience Index (IRI).
- Dissemination of standardized manuals, templates, and digital reporting tools.

4.2.1 Audit Methodologies and Tools

The infrastructure can be broadly categorized into communication, public sector, industrial, hydraulic, residential and commercial. Categorization of infrastructure help us in giving equal attention to each category.

The Infrastructure Audit Program adopts a tiered and risk-based methodology, allowing audits to be conducted efficiently while maintaining technical rigor. The selection of audit techniques is guided by building type, hazard exposure, occupancy level, and initial risk screening.

Visual Inspections

Visual inspections form the first level of infrastructure assessment and are applied across all audited assets. These inspections involve systematic examination of structural and non-structural elements to identify visible signs of distress, deterioration, non-compliance, or damage. Visual inspections provide a rapid and cost-effective means to screen large numbers of buildings and determine the need for more detailed assessment.

Non-Destructive Testing (NDT)

Where visual inspections indicate potential structural concerns, non-destructive testing techniques are employed to assess material properties and structural performance without causing damage to the asset. NDT methods support informed evaluation of load-bearing elements, material degradation, and construction quality, enhancing the reliability of audit outcomes and recommendations.

Infrastructure Resilience Index (IRI)

The Infrastructure Resilience Index (IRI) is a standardized scoring tool adopted under the Program to quantify the relative safety and resilience of infrastructure assets. The IRI integrates multiple parameters, including structural condition, hazard exposure, occupancy, and functional importance. The index enables objective comparison, prioritization of interventions, and evidence-based decision-making at institutional and policy levels.

4.2.2 Priority Infrastructure and Risk-Based Categorization

Given resource constraints and the scale of infrastructure exposure across Pakistan, the National Infrastructure Audit Program adopts a risk-based prioritization approach to ensure that audits are directed where they can deliver the greatest reduction in human and economic losses. Prioritization is guided by occupancy levels, criticality of services, hazard exposure, and regional risk profiles.

High-Occupancy and Life-Critical Buildings

The highest priority under the Program is assigned to high-occupancy and life-critical buildings where structural failure would result in significant loss of life or disruption of essential services. These include, but are not limited to:

- Educational institutions, particularly public schools and colleges
- Health facilities, including hospitals, clinics, and emergency care centers
- Administrative and government buildings with high daily occupancy
- Residential buildings with high population density
- Facilities essential for emergency response and disaster management

Auditing these assets first ensures that human safety remains the primary consideration of the Program. Early identification of vulnerabilities in such facilities allows for timely mitigation measures, safe occupancy decisions, and continuity of critical services during disaster events.

Regional Hazard-Based Prioritization

In addition to building occupancy and function, regional hazard exposure forms a key basis for prioritization. Infrastructure located in areas with high flood risk, active seismic zones, landslide-prone terrain, GLOF and climate-sensitive regions is prioritized for early assessment. Multi-hazard exposure is given particular attention, as infrastructure subjected to overlapping risks faces higher probability of failure.

This regional prioritization enables provincial and sectoral departments to align audit activities with local risk profiles, ensuring that resources are allocated in accordance with actual hazard exposure rather than uniform or ad hoc selection.

4.3 Start of Infra Audit

Responsibility: Federal & Provincial Departments
Execution: In-House or Consult
Monitoring: PDMA & NDMA

Provincial and sectoral departments, including building control and development authorities, are responsible for implementing infrastructure audits within their respective jurisdictions as evident from below infographics. These departments retain ownership of public infrastructure assets and are accountable for planning, conducting, and acting upon audit findings. Joint working arrangements and reporting mechanisms have been established to ensure alignment, information sharing, and timely decision-making.

The concerned federal and provincial departments will conduct infrastructure audit through in-house team or through specialized consultant. A detailed responsibility matrix is enclosed as **Annex-II.**

4.4 IRI System, Digital Audit Platform and Data Management

Development: NDMA
Data Upload: Prov Dept & Building Contl Auth
Monitoring: PDMA & NDMA
Beneficiary: P&D Departments, Disaster Management Authorities

Standardized data formats and reporting protocols ensure interoperability and facilitate aggregation of information at national level. The digital platform enables evidence-based oversight and supports long-term planning for infrastructure safety and resilience.

To support transparency, consistency, and data-driven planning, NDMA has established a centralized digital platform for infrastructure audit data management. The platform serves as:

- A national repository of audit reports, findings, and IRI scores.
- An interface for federal and provincial departments to upload new audit data.
- A decision-support tool for risk-informed planning, prioritization, and monitoring.
- A mechanism for tracking implementation progress and follow-up actions.

Implementation Plan

2026–2028

National Infrastructure Audit Program to Safeguard Critical Infrastructure

Phase I: Immediate Priority (Pre-Monsoon 2026)

CRITICAL RISK REDUCTION

- Schools & Hospitals
- Flood & Seismic Zones
- Rapid Inspections & Emergency Repairs

Post-Audit Actions:

- ✓ Emergency Repairs
- ✓ Retrofitting & Evacuations
- ✓ Unsafe Demolition

Phase II: Expansion & Strengthening (2026–2027)

- Broader Infrastructure Audits
- Retrofitting Projects
- Risk-Based Maintenance

Phase III: Consolidation (2028)

- Institutionalized Audits
- Regulatory Integration
- Resilient Infrastructure Planning

Continuous Corrective Action

- Ongoing Retrofitting & Maintenance
- Digital Audit Database
- Monitoring & Reporting

Building a Safer & Resilient Future

5. Implementation Plan (2026–2028)

The National Infrastructure Audit Program – 2026 shall be implemented through a time-bound, phased, and risk-prioritized execution framework, with immediate focus on safeguarding critical and high-occupancy infrastructure before the Monsoon 2026, while progressively expanding audit coverage and corrective action nationwide through 2028.

The implementation plan is designed to:

- Deliver early, life-saving outcomes
- Ensure clear institutional accountability
- Directly link audit findings to mandatory corrective actions
- Institutionalize infrastructure safety management as a routine governance function

5.1 Policy Direction and Implementation Mandate

The National Infrastructure Audit Program – 2026 shall be implemented under the strategic policy direction of the Prime Minister's Office (PMO), with execution leadership by the Ministry of Housing & Works, coordinated nationally by the National Disaster Management Authority, and supported by Provincial Governments and the Armed Forces of Pakistan within their respective jurisdictions and mandates.

The implementation of the National Infrastructure Audit Program – 2026 shall be guided by a clear directive and oversight hierarchy to ensure enforceability, uniformity, and timely execution across all jurisdictions.

5.2 Phase–I: Immediate Priority (Pre-Monsoon 2026) – Critical Risk Reduction

Objective:

To prevent catastrophic infrastructure failure during the forthcoming monsoon season by identifying and addressing imminent life-safety risks in critical and high-occupancy buildings.

Element	Description
Action	Conduct rapid infrastructure audits of high-occupancy and life-critical buildings located in high-risk and multi-hazard zones, in compliance with national directives issued under the National Infrastructure Audit Program – 2026
Directive Authority	Prime Minister's Office (PMO); Ministry of Housing & Works
National Coordination & Oversight	National Disaster Management Authority (NDMA)
Implementing Authorities	Provincial Line Departments (Health, Education, Works & Services, Housing), TMAs, Development Authorities, and Building Control Authorities
Provincial Coordination	Provincial Disaster Management Authorities (PDMAs)
Timeline	January – May 2026 (Pre-Monsoon)
Expected Output	• Risk-classified audit reports with assigned Infrastructure Resilience Index (IRI) scores • Immediate life-safety actions initiated where required • Audit findings and actions uploaded to the central digital Infrastructure Audit Platform

Priority Coverage

- Schools, hospitals, emergency response facilities, and densely occupied buildings
- Infrastructure located in flood-prone areas, seismic zones, landslide-prone terrain, and multi-hazard corridors

Audit Methodology

- Rapid visual inspections as mandatory first screening
- Targeted Non-Destructive Testing (NDT) where visual indicators suggest structural concern

Post-Audit Mandatory Actions (Phase–I)

Based on audit outcomes, asset-owning departments shall be responsible for implementing the following actions without delay:

Audit Finding	Mandatory Action
Manageable risk	Immediate maintenance and minor corrective work
High vulnerability	Structural strengthening or retrofitting
Imminent life safety risk	Temporary restriction of use / evacuation
Beyond feasible rehabilitation	Decommissioning or demolition

All findings, risk classifications, and actions taken shall be documented and uploaded to the central digital Infrastructure Audit Platform for monitoring and oversight.

5.3 Phase–II (Post-Monsoon 2026 – 2027): Expansion, Strengthening, and Corrective Action

Objective:

To expand infrastructure audit coverage nationwide while systematically converting Phase–I audit findings into funded corrective actions, including maintenance, strengthening, and retrofitting, through risk-informed planning and investment.

Element	Description
Action	Scale infrastructure audits to additional public infrastructure categories and geographic areas, and implement prioritized corrective interventions based on Phase–I findings and IRI scores
Directive Authority	Prime Minister's Office (PMO); Ministry of Housing & Works
National Coordination & Oversight	National Disaster Management Authority (NDMA)
Implementing Authorities	Provincial Line Departments, TMAs, Development Authorities, and Building Control Authorities
Planning & Financing Alignment	Provincial Planning & Development (P&D) Departments
Provincial Coordination	Provincial Disaster Management Authorities (PDMAs)
Timeline	July 2026 – December 2027
Expected Output	• Expanded audit coverage across sectors and districts • Approved and implemented retrofitting, strengthening, and rehabilitation programs • Risk-aligned allocation of development and maintenance budgets • Continuous updating of audit status and corrective actions on the central digital platform

Key Activities

- Audits of medium-risk and regionally significant infrastructure
- Implementation of planned retrofitting and strengthening interventions
- Integration of audit results into:
    - Routine maintenance schedules
    - Asset management systems
    - Annual Development Plans (ADPs)
- Allocation of financial resources guided by Infrastructure Resilience Index (IRI) scores

This phase ensures that audits translate into physical risk reduction, rather than remaining stand-alone assessments.

5.4 Phase–III (2028): Consolidation and Mainstreaming

Objective:

To institutionalize infrastructure audits as a mandatory and permanent component of governance, regulation, asset management, and development planning at federal, provincial, and local levels.

Element	Description
Action	Integrate infrastructure audit requirements and IRI-based risk screening into regulatory approvals, development planning, asset management systems, and disaster risk reduction frameworks
Directive Authority	Prime Minister's Office (PMO); Ministry of Housing & Works
National Coordination & Policy Oversight	National Disaster Management Authority (NDMA)
Implementing & Regulatory Authorities	Provincial Governments; TMAs; Development Authorities; Building Control Authorities
Planning & Budget Integration	Federal and Provincial Planning & Development (P&D) Departments
Timeline	Calendar Year 2028
Expected Output	• Infrastructure audits embedded in building approval, occupancy certification, and asset management systems • Mandatory consideration of IRI scores in development planning and investment decisions • Institutionalized reporting and monitoring through the national digital audit platform • Sustainable, routine audit and corrective-action cycle across all tiers of government

By 2028, infrastructure audits shall be mainstreamed into:

- Development planning and project approvals
- Building regulation and compliance enforcement
- Public sector asset management systems
- Disaster risk reduction and climate adaptation strategies

5.5 Continuous Corrective Action and Digital Documentation (Cross-Cutting)

Across all phases, maintenance, strengthening, retrofitting, demolition, and corrective actions shall be treated as a continuous process, not one-time interventions.

Mandatory Requirements

- All corrective measures undertaken by asset-owning departments shall be:
  - Documented
  - Periodically updated
  - Uploaded to the central digital Infrastructure Audit Database
- The digital platform shall enable:
  - Real-time progress tracking
  - Performance monitoring
  - Evidence-based decision-making at federal and provincial levels

5.6 Stakeholder Responsibilities and Operational Coordination

5.6.1 Prime Minister's Office (PMO)

Accountability Focus: National priority setting, intergovernmental compliance, and policy enforcement at the highest level.

The Prime Minister's Office shall provide top-level political ownership and strategic oversight for the National Infrastructure Audit Program. The PMO shall issue high-level policy directives mandating compliance across federal and provincial governments, review national progress periodically, and ensure inter-ministerial alignment for risk-informed infrastructure safety.

5.6.2 Ministry of Housing & Works

Accountability Focus: Federal ownership of infrastructure audits, regulatory alignment, and execution within federal jurisdiction.

The Ministry of Housing & Works shall serve as the federal sector lead for infrastructure safety and building governance. It shall translate PMO directives into sector-specific policies, coordinate with federal executing agencies (including CDA), and ensure that infrastructure audits are embedded into federal housing, works, and building regulatory frameworks.

Step No.	Action Required	Purpose / Outcome	Indicative Timeline
1	Issue formal directives to federal works organizations and attached departments	Establish mandatory compliance with the Infrastructure Audit Program	Within 10 days
2	Nominate a Federal Focal Person for Infrastructure Audits	Ensure centralized coordination with NDMA and federal entities	Within 7 days
3	Ensure audit of federal public buildings, particularly high-occupancy and life-critical assets	Reduce life-safety risks within federal jurisdictions	Pre-Monsoon 2026
4	Validate audit findings and approve corrective action plans	Ensure technical rigor and accountability	Continuous

5	Ensure implementation of maintenance, retrofitting, or decommissioning actions	Translate audits into measurable risk reduction	Continuous
6	Align federal development and maintenance budgets with audit findings	Enable risk-informed federal investment	Annual PSDP cycle
7	Ensure uploading of all audit data and corrective actions to NDMA platform	Enable national-level oversight and transparency	Continuous

5.6.3 Capital Development Authority (CDA) and Federal Development Authorities

CDA and other federal development authorities shall function as implementing agencies for infrastructure audits within their respective jurisdictions, with full responsibility for execution and follow-up actions.

Step No.	Action Required by CDA / Federal Development Authorities	Purpose / Outcome	Indicative Timeline
1	Identify and prioritize high-occupancy and critical buildings	Risk-based selection of audit targets	Within 30 days
2	Conduct infrastructure audits using approved national frameworks	Ensure standardized assessment	Pre-Monsoon 2026 (Priority Assets)
3	Implement corrective actions based on audit recommendations	Improve structural safety and resilience	Continuous
4	Enforce usage restrictions or demolition where required	Protect public safety	As required
5	Upload audit reports and action status to digital platform	Ensure traceability and monitoring	Continuous

5.6.4 National Disaster Management Authority

NDMA shall act as the national coordinating, standard-setting, and monitoring authority for the National Infrastructure Audit Program.

Step No.	Action Required by NDMA	Purpose / Outcome	Indicative Timeline
1	Issue national audit guidelines, SOPs, and tools	Ensure consistency across jurisdictions	Completed / Continuous
2	Maintain and operate the Infrastructure Audit Digital Platform	Centralized data repository and monitoring	Continuous
3	Facilitate training and capacity building for stakeholders	Enhance technical capability	As per training plan
4	Monitor audit coverage and corrective actions	National-level oversight	Continuous
5	Report progress to PMO and Federal Government	Strategic review and accountability	Quarterly

5.6.5 Armed Forces of Pakistan

The Armed Forces shall provide structured technical, engineering, and surge support, while maintaining ownership of audits for military-administered infrastructure.

Step No.	Action Required by Armed Forces	Purpose / Outcome	Indicative Timeline
1	Conduct infrastructure audits of military-owned facilities	Ensure safety of strategic and operational assets	As per internal schedule
2	Provide technical engineering support to civilian authorities	Enhance assessment quality	Pre-Monsoon / As required
3	Support audits in remote or inaccessible areas	Enable national coverage	As required

4	Share non-sensitive audit findings with NDMA	Strengthen national risk profiling	Continuous
5	Support post-disaster rapid safety evaluations	Inform re-occupation and recovery decisions	Post-disaster

5.6.6 Provincial Governments

- Assume full ownership and implementation responsibility for infrastructure audits within their respective jurisdictions.
- Issue provincial directives to line departments, development authorities, and building control agencies.
- Ensure timely execution of audits, validation of findings, and implementation of corrective actions.
- Align provincial planning, budgeting, and maintenance programs with audit findings and risk priorities.
- Ensure provincial data submission and compliance with national reporting mechanisms.

5.6.7 Provincial Disaster Management Authorities/SDMA/GBDMA

Accountability Focus: Coordination, progress tracking, and issue escalation.
PDMAs shall function as the provincial coordination hub, ensuring inter-departmental alignment, monitoring audit progress, facilitating capacity building, and consolidating provincial reports for submission to NDMA. PDMAs shall also escalate unresolved operational or compliance issues through provincial governments.

Step No.	Action Required by PDMA	Purpose / Outcome	Indicative Timeline
1	Nominate a Provincial Focal Person for the National Infrastructure Audit Program	Establish a single, accountable coordination point with NDMA and provincial line departments	Within 7 days of Kickoff Seminar
2	Issue formal notification to all relevant provincial line departments (Health, Education, Works & Services, Development Authorities, Building Control Authorities)	Ensure formal provincial ownership and cascading of the Program mandate	Within 10 days
3	Establish a Provincial Coordination Mechanism (Working Group / Task Cell)	Enable structured inter-departmental coordination and smooth rollout	Within 2 weeks
4	Compile a preliminary inventory of critical public buildings (sector-wise and district-wise) received from departments	Establish baseline understanding of audit scope and risk prioritization	Within 30 days
5	Facilitate participation of line departments in NDMA-led training programs	Build common understanding of audit tools, SOPs, and IRI methodology	As per NDMA training schedule
6	Facilitate creation of user access for departments on the Infrastructure Audit Toolkit / Digital Platform (through NDMA)	Enable direct upload and updating of audit data by departments	Within 4 weeks
7	Monitor and track progress of audits conducted by provincial departments against agreed timelines	Ensure provincial oversight and early identification of implementation gaps	Continuous
8	Escalate unresolved policy, capacity, compliance, or enforcement issues to NDMA	Enable timely resolution and adaptive program management	As required

5.6.8 Planning & Development Departments (P&D Departments)

Planning & Development Departments shall play a central role in institutionalizing risk-informed decision-making by integrating infrastructure audit outputs and Infrastructure Resilience Index (IRI) scores into provincial planning, budgeting, and development prioritization processes. This integration is essential to ensure that audit findings translate into funded corrective actions and long-term risk reduction.

Step No.	Action Required by P&D Department	Purpose / Outcome	Indicative Timeline
1	Nominate a Planning Focal Person for the Infrastructure Audit Program	Ensure effective coordination with PDMAs, NDMA, and line departments	Within 7 days
2	Receive orientation on Infrastructure Resilience Index (IRI) and audit outputs	Build institutional understanding of audit data for planning and budgeting	Within 30 days
3	Access dashboards and analytical reports from the Infrastructure Audit Digital Platform	Enable evidence-based and risk-informed planning decisions	Within 2–3 weeks
4	Integrate audit findings and IRI scores into development planning processes	Prioritize projects based on risk exposure and vulnerability	Continuous
5	Utilize audit data for budget prioritization	Allocate development and maintenance resources to high-risk infrastructure	Annual / ADP cycle
6	Coordinate with line departments on retrofitting, strengthening, and rehabilitation proposals	Ensure technical and risk-based justification of investments	Continuous
7	Support scaling and sustainability of the Infrastructure Audit Program	Strengthen institutionalization through policy alignment and financing mechanisms	As required

5.6.9 Provincial Building Control Authorities and Development Authorities

Accountability Focus: Technical execution, regulatory enforcement, and life-safety compliance.

Provincial Building Control Authorities and Development Authorities shall serve as the primary technical implementing agencies for infrastructure audits within their respective jurisdictions. These authorities are responsible for enforcing building regulations, ensuring structural safety, and translating audit findings into enforceable corrective actions for public and regulated buildings.

Step No.	Action Required by BCAs / Development Authorities	Purpose / Outcome	Indicative Timeline
1	Nominate a Technical Focal Person for the Infrastructure Audit Program	Ensure technical coordination with PDMAs, NDMA, and line departments	Within 7 days
2	Identify and prioritize high-occupancy and life-critical buildings within their jurisdiction	Risk-based selection of audit targets	Within 30 days
3	Conduct infrastructure audits using national SOPs, tools, and methodologies	Ensure standardized and technically sound assessments	Pre-Monsoon 2026 (Priority Assets)

4	Recommend corrective actions including maintenance, strengthening, retrofitting, restricted use, or demolition	Translate audit findings into actionable safety measures	Continuous
5	Enforce implementation of audit-based recommendations	Ensure compliance and life-safety outcomes	As required
6	Issue or renew building health / safety certification based on audit outcomes	Institutionalize periodic safety compliance	Every 3–5 years
7	Upload audit findings and corrective action status to the digital platform	Enable monitoring, reporting, and oversight	Continuous

5.6.10 Local Governments, Municipal Corporations, and Tehsil Municipal Administrations (TMAs)

Accountability Focus: Local execution, public safety enforcement, and community interface.

Local Governments and TMAs shall play a critical role in ground-level implementation, facilitation, and monitoring of infrastructure audits, particularly for municipally owned assets and community-level public buildings.

Step No.	Action Required by Local Governments / TMAs	Purpose / Outcome	Indicative Timeline
1	Designate a Municipal Focal Person for infrastructure audits	Establish local coordination with BCAs, PDMAs, and line departments	Within 7 days
2	Compile and maintain inventories of municipally owned public buildings	Support comprehensive audit planning	Within 30 days
3	Facilitate site access, records, and logistical support for audit teams	Enable timely and accurate assessments	Continuous
4	Implement minor maintenance and immediate corrective measures	Address low-cost, high-impact risks quickly	Continuous
5	Enforce usage restrictions and safety advisories issued by authorities	Protect public safety	As required
6	Support community awareness and risk communication	Improve public cooperation and compliance	Continuous
7	Report audit progress and corrective actions through provincial channels	Enable structured reporting and oversight	Continuous

5.9 Implementation and Reporting Requirement

All actions undertaken under this framework, including audit completion, risk classification, and corrective measures such as maintenance, strengthening, retrofitting, or decommissioning, shall be systematically documented and updated on the central Infrastructure Audit Digital Platform managed by NDMA. This will ensure transparency, traceability, and effective national-level oversight.

5.8 Coordination and Accountability Mechanism

All provincial Building Control Authorities, Development Authorities, and Local Governments shall operate under the overall coordination of PDMAs, with technical standardization and national oversight provided by NDMA. Failure to comply with audit timelines or enforcement of corrective actions shall be escalated through provincial governments to the federal level for resolution.

Implementation Timeline (2026–2028) National Infrastructure Audit Program – 2026

Phase	Timeframe	Strategic Focus	Key Actions (Directive)	Accountable Authorities	Primary Outputs
Phase–I: Immediate Priority (Pre-Monsoon)	**Jan – Jun 2026**	**Life-Safety and Critical Risk Reduction**	• Formal notification of program and timelines • Nomination of focal persons at federal, provincial, and local levels • Identification of high-occupancy and life-critical buildings in high-risk zones • Rapid visual audits supported by targeted NDT where required • Assignment of Infrastructure Resilience Index (IRI) scores • Immediate corrective actions including maintenance, restricted use, evacuation, or closure	**Policy Oversight:** PMO, MoH&W **National Coordination:** NDMA **Implementation:** Provinces, BCAs, TMAs, Line Departments	• Audited inventory of critical infrastructure • Risk-classified buildings with IRI scores • Immediate safety measures implemented before monsoon
Phase–II: Expansion & Corrective Action	**Jul 2026 – Dec 2027**	**Scaling, Strengthening, and Risk-Informed Investment**	• Expansion of audits to additional sectors and regions • Detailed engineering assessments of medium- and high-risk assets • Implementation of approved retrofitting, strengthening, or rehabilitation works • Integration of audit findings into routine maintenance and asset management systems • Use of IRI scores to guide budgeting, PSDP/ADP prioritization, and development approvals	**Policy Oversight:** PMO, MoH&W **Coordination:** NDMA, PDMAs **Implementation:** Provincial Governments, P&D Departments, BCAs	• Expanded national audit coverage • Retrofitted and strengthened public infrastructure • Budget allocations aligned with risk priorities
Phase–III: Consolidation & Mainstreaming	**Calendar Year 2028**	**Institutionalization and Sustainability**	• Integration of audit requirements into planning, regulatory, and compliance frameworks • Routine updating of audits and IRI scores • National-level infrastructure risk analysis and reporting • Policy refinement based on implementation lessons and performance reviews	**Policy Oversight:** PMO, MoH&W **National Stewardship:** NDMA **Implementation:** Federal & Provincial Governments	• Fully institutionalized audit system • Mainstreamed risk-informed governance • Sustained reduction in infrastructure-related disaster risk

Cross-Cutting Operational Requirements: Across all phases, the following requirements shall apply:

- Mandatory digital documentation of audit findings, IRI scores, corrective actions, retrofitting works, maintenance measures, and demolition decisions on the central Infrastructure Audit Digital Platform managed by NDMA
- Quarterly progress reporting by implementing authorities through provincial coordination mechanisms to NDMA
- Continuous coordination among NDMA, PDMAs, Provincial Governments, Building Control Authorities, Local Governments, Planning & Development Departments, and asset-owning entities
- Corrective action and retrofitting measures shall be treated as a continuous obligation, not a one-time activity, until identified risks are fully mitigated

National Infrastructure Audit Program – 2026

Policy & Operational Recommendations

Federal Government

- Institutionalize **mandatory audits**
- Integrate audits into PSDP **& budgeting**
- Establish **federal funding windows**
- **Mandate** NDMA monitoring & oversight

Armed Forces

- Audit military-minsted
- Technical & logistical support
- Assist civilian authorities

Provincial Governments

- Lead audits in hazard-prone areas
- Align budgets with risk findings
- Upload results to central platform

Regulatory Authorities

- Integrate audits into regulations
- Enforce corrective measures
- Adopt risk-based inspections

Development Partners

- Provide technical assistance
- Finance corrective measures
- Share global best practices

Academia & Professional

- Advance audit & safety curricula
- Conduct applied research
- Train & certify engineers

General Public

- Report infrastructure risks
- Support preventive audits
- Build a culture of safety

OUTCOMES

- Reduced disaster risk
- Safer public infrastructure
- Risk-informed investment
- Public trust & accountability

6. Policy and Operational Recommendations

The National Infrastructure Audit Program – 2026 and the deliberations of the National Seminar reaffirmed that reducing infrastructure-related disaster risk requires more than technical assessments. Sustainable impact will depend on clear policy direction at the highest level, defined institutional ownership, coordinated execution, and continuous follow-through across federal, provincial, and sectoral entities. The following policy and operational recommendations are therefore proposed to ensure timely implementation, accountability, and measurable outcomes.

6.1 Recommendations for the Federal Government

At the national level, the Prime Minister's Office should continue to provide overarching policy direction and strategic oversight for the National Infrastructure Audit Program. Executive guidance from the PMO is essential to ensure inter-ministerial coordination, compliance by federal entities, and sustained provincial engagement. Periodic high-level reviews should be instituted to assess progress against defined milestones, particularly in relation to audits and corrective actions for high-occupancy and life-critical infrastructure, and to address systemic bottlenecks requiring federal intervention.

The Ministry of Housing & Works should assume a central leadership role in the execution of infrastructure audits within federal jurisdictions. As the primary federal custodian of public buildings and works, the Ministry should formally integrate infrastructure audit requirements into federal regulatory frameworks, asset management systems, and occupancy certification mechanisms. Binding directives should be issued to federal agencies, development authorities, and attached departments under its mandate to ensure timely audits, validation of findings, and implementation of corrective measures, including maintenance, strengthening, retrofitting, or decommissioning of unsafe assets. The Ministry should also ensure effective coordination with provincial governments, particularly for infrastructure assets with inter-jurisdictional or shared risk profiles.

The National Disaster Management Authority should continue to serve as the national coordinating and standard-setting body for the Program. Under its federal mandate, NDMA should provide standardized audit methodologies, tools, templates, and the Infrastructure Resilience Index, while maintaining and operating the central digital platform for audit data, reporting, and monitoring. NDMA should facilitate coordination among implementing agencies, track progress of audits and corrective actions, and provide technical guidance where required. In parallel with formal directives, NDMA should continue to proactively engage stakeholders, promote best practices, and independently push forward implementation through technical facilitation and capacity development.

i. Formal Institutionalization of Infrastructure Audits

Element	Description
Action	Institutionalize infrastructure audits as a mandatory requirement for public infrastructure through executive directives, policy notifications, or legislative instruments.
Directive Authority	Prime Minister's Office (PMO)
Lead Implementing Ministries	Ministry of Housing & Works; Ministry of Planning, Development & Special Initiatives
Timeline	Within 6 months of approval of this Report
Planning & Budget Integration	Federal and Provincial Planning & Development (P&D) Departments
Expected Output	Infrastructure audits embedded as a permanent governance function, independent of project cycles or ad hoc initiatives

ii. National Policy Direction and Central Oversight

Element	Description
Action	Mandate NDMA to provide national policy direction, standardized audit frameworks, technical guidelines, and indicators, and to operate a centralized digital audit and monitoring platform
Directive Authority	Ministry of Finance; Ministry of Planning, Development & Special Initiatives
Timeline	Budget Cycle 2026–27
Expected Output	Predictable and targeted financing for preventive risk reduction rather than post-disaster reconstruction.

iii. Integration with National Planning and Budgeting Processes

Element	Description
Action	Formally link infrastructure audit findings and Infrastructure Resilience Index (IRI) scores with federal planning and financing mechanisms
Mandatory Integration Areas	• Public Sector Development Programme (PSDP) • Federal sectoral development plans • Climate adaptation, disaster risk reduction, and resilience strategies
Responsible Authorities	Ministry of Planning, Development & Special Initiatives; Line Ministries
Timeline	Effective from PSDP Cycle 2026–27 onward
Expected Output	Risk-informed project selection, prioritization, and funding decisions, reducing future reconstruction liabilities.

iv. Dedicated Federal Funding Windows for Risk Reduction

Element	Description
Action	Establish dedicated funding windows or budget lines to finance priority corrective actions identified through infrastructure audits
Funding Focus	• Retrofitting of high-risk, life-critical infrastructure • Structural strengthening and safety upgrades • Decommissioning or replacement of irreparably unsafe assets
Responsible Authorities	Ministry of Planning, Development & Special Initiatives; Line Ministries
Timeline	Effective from PSDP Cycle 2026–27 onward
Expected Output	Risk-informed project selection, prioritization, and funding decisions, reducing future reconstruction liabilities.

v. **Federal performance Monitoring and Accountability**

Element	Description
Action	Institute periodic federal-level performance reviews to assess: • Audit coverage and quality • Status of corrective actions • Risk reduction outcomes
Responsible Authorities	NDMA (Monitoring & Reporting); PMO (Strategic Oversight)
Timeline	Bi-annual reviews
Expected Output	Clear accountability of implementing entities and evidence-based course correction where required.

vi. **Federal Ownership and Direct Implementation Responsibility**

Element	Description
Action	Assign full ownership of infrastructure audits and corrective actions for federally controlled assets
Responsible Authorities	• Ministry of Housing & Works; • Capital Development Authority (CDA)
Scope	• Planning and execution of audits • Validation of findings • Implementation of maintenance, retrofitting, or decommissioning measures
Timeline	Immediate and ongoing
Expected Output	Demonstrated federal leadership through timely action on federally owned infrastructure.

vii. **Public Awareness and Risk Literacy**

Element	Description
Action	Strengthen national public awareness initiatives on infrastructure safety, building risks, and preventive audits
Responsible Authorities	Ministry of Information & Broadcasting; NDMA
Timeline	Rolling campaigns beginning 2026
Expected Output	Improved public understanding, enhanced compliance, and societal support for preventive risk management measures.

6.2 Recommendations for the Armed Forces

The Armed Forces of Pakistan should also play a defined and time-bound role within the National Infrastructure Audit Program. Military-owned and administered infrastructure should be audited using national frameworks, subject to applicable security protocols. In addition, the Armed Forces may provide technical and engineering support to civilian authorities, particularly for pre-monsoon risk assessments, infrastructure located in remote or inaccessible areas, and facilities of strategic importance. Non-sensitive audit findings and risk classifications should be shared with NDMA to support national risk profiling and planning. The availability of military engineering expertise and surge capacity can significantly enhance national preparedness and rapid risk reduction efforts.

The following tables outline time-bound, support-oriented roles of the Armed Forces under the National Infrastructure Audit Program – 2026, aimed at strengthening technical rigor, rapid assessment capability, and national preparedness, while maintaining civilian ownership and regulatory authority.

i. **Technical Advisory Support for Critical and Strategic Infrastructure Audits**

Element	Description
Action	Provide technical advisory support for audits of strategic, high-risk, and life-critical infrastructure, including bridges, dams, critical installations, and facilities located in remote or high-risk terrain.
Responsible Authorities	Armed Forces Engineering Corps (e.g., FWO, Military Engineering Services), coordinated through NDMA
Timeline	Phase–I and Phase–II (2026–2027), as required
Expected Output	Enhanced technical rigor and risk assessment accuracy for critical infrastructure

ii. **Military Support for Rapid Infrastructure Assessment in High-Risk and Inaccessible Areas**

Element	Description
Action	Support rapid infrastructure assessments in high-risk and inaccessible areas during pre-monsoon and post-disaster windows.
Responsible Authorities	Armed Forces; NDMA; PDMAs
Timeline	Pre-Monsoon 2026 and post-disaster deployments
Expected Output	Timely assessment of infrastructure safety in difficult-to-access regions

iii. **Geospatial, Reconnaissance, and Logistics Support for Risk Analysis and Audit Prioritization**

Element	Description
Action	Provide logistics, aerial reconnaissance, and geospatial support (where required) to complement NDMA's Infrastructure Risk Atlas and audit prioritization.
Responsible Authorities	Armed Forces; NDMA
Timeline	2026-2028
Expected Output	Improved spatial risk analysis and informed prioritization

iv. **Capacity Building and Joint Training Support for Infrastructure Audit and Safety Assessment**

Element	Description
Action	Support capacity-building through training, joint exercises, and knowledge sharing with civilian engineers and inspectors.
Responsible Authorities	Armed Forces Training Institutions; NDMA Centre of Excellence
Timeline	2026–2027
Expected Output	Strengthened national audit and response capacity

v. **Post-Disaster Rapid Safety Evaluation and Recovery Decision Support**

Element	Description
Action	Assist in post-disaster rapid safety evaluations to inform decisions on re-occupation, restricted use, or demolition of affected infrastructure.
Responsible Authorities	Armed Forces; NDMA; Provincial Governments
Timeline	As required following disaster events
Expected Output	Faster recovery decisions and reduced secondary risk

6.3 Recommendations for Provincial Governments

Provincial governments should assume full ownership and responsibility for implementing infrastructure audits within their respective jurisdictions. Provincial administrations should issue clear directives to line departments, development authorities, and building control agencies to ensure timely execution of audits and implementation of audit-based recommendations. Particular emphasis should be placed on completing audits of high-occupancy and life-critical buildings in hazard-prone and multi-hazard areas before the monsoon season of 2026. Provincial annual development plans and maintenance budgets should be aligned with audit findings, Infrastructure Risk Atlas outputs, and IRI scores to ensure that corrective actions are adequately financed. All audit results and follow-up actions should be regularly uploaded to the central digital platform to ensure transparency, coordination, and national-level visibility.

i. Ownership and Implementation Responsibility

Element	Description
Action	Assume full ownership of planning, execution, validation, and follow-up of infrastructure audits for all public infrastructure within provincial jurisdiction.
Responsible Authorities	Provincial Governments; Line Departments (Health, Education, Works, Housing, Local Government); facilitated by PDMAs; coordinated with NDMA
Timeline	Immediate and continuous
Expected Output	Clear provincial ownership, timely audit execution, and implementation of corrective measures for public assets

ii. Pre-Monsoon Risk Reduction Priority

Element	Description
Action	Conduct and act upon audits of high-occupancy and life-critical buildings in hazard-prone areas prior to Monsoon 2026, with phased rollout for remaining infrastructure.
Responsible Authorities	Provincial Line Departments; TMAs/Development Authorities; PDMAs; NDMA (coordination and oversight)
Timeline	January – May 2026 (Pre-Monsoon Priority); phased continuation through 2028
Expected Output	Reduced life-safety risk during monsoon season; early mitigation of critical vulnerabilities

iii. Budgetary Alignment and Resource Allocation

Element	Description
Action	Align Annual Development Plans (ADPs), maintenance budgets, and rehabilitation programs with Infrastructure Risk Atlas outputs and audit findings.
Responsible Authorities	Provincial Planning & Development Departments; Finance Departments; Line Departments
Timeline	From ADP cycle 2026–27 onwards
Expected Output	Risk-informed allocation of development and maintenance resources

iv. **Institutional Capacity Strengthening**

Element	Description
Action	Strengthen institutional and technical capacity of provincial departments through structured training in audit methodologies, NDT, IRI scoring, and digital reporting.
Responsible Authorities	Provincial Governments; NDMA Center of Excellence; PDMAs
Timeline	2026–2028 (progressive)
Expected Output	Sustainable in-house audit capacity and reduced dependence on ad-hoc assessments

v. **Data Sharing and Reporting Compliance**

Element	Description
Action	Ensure timely uploading of audit data, risk classifications, and corrective actions to the central digital audit platform.
Responsible Authorities	Provincial Line Departments; PDMAs; NDMA
Timeline	Continuous
Expected Output	National-level visibility, transparency, and coordinated decision-making

vi. **Public Awareness and Risk Literacy**

Element	Description
Action	Implement province-specific public awareness and risk literacy campaigns on infrastructure safety and preventive audits.
Responsible Authorities	Provincial Information Departments; PDMAs; Line Departments
Timeline	Rolling campaigns from 2026
Expected Output	Improved public compliance, community awareness, and support for preventive safety measures

6.3 Recommendations for Regulatory and Building Authorities

Regulatory & building control authorities and Local Governments should integrate infrastructure audit requirements into existing approval, inspection, and compliance regimes, particularly for public and high-occupancy buildings. Periodic building health certification, renewed every three to five years, should be introduced to ensure continued compliance and safety. Authorities must ensure enforcement of audit-based recommendations, including mandatory strengthening, restricted use, or demolition where required, and transition from routine or complaint-driven inspections to risk-based inspection regimes informed by audit data and hazard exposure.

i. **Integration with Regulatory Frameworks**

Element	Description
Action	Integrate infrastructure audit requirements into building approval, occupancy certification, and compliance systems, particularly for public and high-occupancy buildings. Introduce mandatory Building / Infrastructure Health Certification with renewal every 5-10 years.
Responsible Authorities	Building Control Authorities; Development Authorities; Local Governments
Timeline	Regulatory amendments initiated in 2026
Expected Output	Institutionalized safety compliance and lifecycle monitoring of buildings

ii. Enforcement of Corrective Measures

Element	Description
Action	Enforce implementation of audit-based recommendations, including strengthening, retrofitting, restricted use, or demolition of unsafe structures.
Responsible Authorities	Building Control Authorities; Local Governments; Asset-Owning Departments
Timeline	Continuous
Expected Output	Reduced structural failure risk and improved enforcement credibility

iii. Risk-Based Inspection Regimes

Element	Description
Action	Transition from routine or complaint-based inspections to risk-based inspection regimes informed by audit findings, IRI scores, and hazard exposure.
Responsible Authorities	Regulatory and Inspection Authorities
Timeline	Phased implementation from 2026
Expected Output	Efficient, evidence-based regulatory oversight

iv. Updating Codes and Standards

Element	Description
Action	Utilize audit findings and post-disaster assessments to periodically update building codes, safety standards, and inspection checklists.
Responsible Authorities	Regulatory Authorities; Standards Bodies; Ministry of Housing & Works
Timeline	Periodic (every 3–5 years)
Expected Output	Updated and hazard-responsive regulatory framework

v. Coordination with Asset-Owning Departments/Firms/Individuals

Element	Description
Action	Maintain structured coordination with asset-owning departments, firms, and individuals to ensure timely execution of corrective measures.
Responsible Authorities	Building Control/Development Authorities; TMAs, Asset-Owning Entities
Timeline	Continuous
Expected Output	Reduced implementation gaps between audit findings and corrective action

vi. Public Awareness and Risk Literacy

Element	Description
Action	Support public awareness initiatives to promote understanding of infrastructure safety, compliance requirements, and preventive assessments.
Responsible Authorities	Regulatory Authorities; Provincial Information Departments
Timeline	Rolling from 2026
Expected Output	Improved regulatory compliance and public trust

6.4 Recommendations for Development Partners

Development partners are encouraged to align their technical assistance and financing with the national infrastructure audit framework. Support may include provision of international best practices, advanced assessment tools, pilot audits, and retrofitting demonstrations. All partner-supported interventions should be aligned with national systems and digital platforms to avoid fragmentation and ensure long-term sustainability. Long-term engagement focused on institutional strengthening, rather than short-term project-based support, is strongly recommended.

i. Technical Assistance and Knowledge Support

Element	Description
Action	Provide targeted technical assistance, international best practices, advanced assessment tools, and capacity-building support for infrastructure audits and resilience planning.
Timeline	From 2026 onwards
Expected Output	Enhanced technical rigor, global benchmarking, and strengthened institutional capacity

ii. Support for Pilot Projects and Demonstrations

Element	Description
Action	Support pilot infrastructure audits, retrofitting demonstrations, and resilient design showcases to test scalable and context-appropriate solutions.
Timeline	2026–2027
Expected Output	Demonstration projects informing national scale-up and policy refinement

iii. Financing for Resilience Upgrades

Element	Description
Action	Align development financing to support priority corrective actions, retrofitting, and resilience upgrades for critical public infrastructure identified through audits.
Timeline	Medium to long term (2026–2028)
Expected Output	Reduced future disaster losses through preventive investment

iv. Alignment with National Systems

Element	Description
Action	Ensure all partner-supported activities are aligned with national audit frameworks, reporting protocols, and the central digital platform.
Timeline	Continuous
Expected Output	Avoidance of parallel systems and sustainable national ownership

v. Long-Term Engagement

Element	Description
Action	Commit to long-term institutional strengthening partnerships rather than short-term, project-based interventions.
Timeline	Multi-year engagement
Expected Output	Durable systems for infrastructure safety and resilience

6.5 Recommendations for HEC, PEC, Academia and Research Institutions

Academia, professional bodies, and the general public have an important supporting role in strengthening infrastructure safety. Universities and professional institutions should integrate infrastructure auditing, disaster-resilient design, and risk assessment into academic curricula and certification programs, while supporting applied research and technical advisory services. Public awareness and risk literacy should be promoted to encourage cooperation with audit processes, compliance with safety advisories, and support for preventive measures such as retrofitting or temporary closures. Building a culture that values safety, maintenance, and compliance is essential to strengthening public trust and ensuring the long-term effectiveness of the National Infrastructure Audit Program.

i. **Integration into Academic Curricula**
   Higher Education Commission, Pakistan Engineering Council, universities and professional institutions should integrate infrastructure auditing, disaster-resilient design, and risk assessment into engineering, architecture, and planning curricula.

ii. **Applied Research and Innovation**
   Academia should support applied research on local construction practices, hazard-specific vulnerabilities, cost-effective retrofitting techniques, and resilience indicators.

iii. **Technical Advisory Support**
   Academic institutions may serve as technical advisors to government agencies, supporting audit methodologies, peer review, and innovation in assessment tools.

iv. **Capacity Building and Certification**
   Universities and professional bodies should collaborate with NDMA and provinces to develop certification programs and continuous professional development courses for engineers and inspectors.

v. **Knowledge Documentation and Dissemination**
   Case studies, lessons learned, and research findings should be documented and shared through national knowledge platforms to inform policy and practice.

6.6 Recommendations for the General Public

i. **Community-Level Engagement**
   Communities should be encouraged to report visible structural distress in public buildings and to cooperate with audit and inspection teams.

ii. **Responsible Use of Buildings**
   Occupants and facility users should adhere to safety advisories, usage restrictions, and evacuation guidance issued based on audit findings.

iii. **Support for Preventive Measures**
Public acceptance and support for temporary closures, retrofitting works, or relocation measures are essential to reduce long-term risk and protect lives.

iv. **Building a Culture of Safety**
Promoting a culture that values safety, maintenance, and compliance will strengthen public trust and enhance the effectiveness of national resilience initiatives.

7. Conclusion: Strengthening Infrastructure Safety through Preventive Governance

The National Infrastructure Audit Program – 2026 marks a fundamental shift in Pakistan's disaster risk management paradigm from reactive emergency response and repeated post-disaster reconstruction to preventive, risk-informed governance of public infrastructure. The National Seminar formally initiated this nationally mandated program, establishing common understanding and alignment among federal and provincial stakeholders regarding objectives, roles, and implementation priorities.

The discussions during the seminar underscored that recurring disaster losses are not driven by natural hazards alone, but are largely the consequence of aging, unassessed, and structurally vulnerable infrastructure. Institutionalizing systematic infrastructure audits represents a strategic national intervention to identify risks early, prioritize high-occupancy and life-critical assets, and direct public investment toward preventive measures that protect lives and reduce long-term economic losses.

The phased implementation framework, beginning with immediate pre-monsoon risk reduction and extending through nationwide consolidation by 2028, ensures that urgent life-safety concerns are addressed while building durable institutional capacity. Central to the Program is the direct linkage between audit findings and corrective action, including maintenance, strengthening, retrofitting, controlled decommissioning, or replacement of unsafe structures. These actions, to be undertaken by asset-owning departments, will be continuously tracked and monitored through a centralized digital platform to ensure accountability and transparency.

The Seminar concluded with strong consensus that infrastructure safety is a national responsibility requiring sustained political commitment, clear institutional ownership, technical rigor, and coordinated execution. With high-level policy direction, defined responsibilities across government tiers, and an evidence-based implementation framework, the National Infrastructure Audit Program – 2026 provides a credible pathway to reduce disaster losses, strengthen public trust, and safeguard national development gains.

By embedding preventive governance into infrastructure management, Pakistan can move toward a future where disasters no longer expose avoidable structural weaknesses, but encounter resilient systems designed to protect lives, essential services, and national progress.

ANNEX-I: List of Participants attended the Seminar

Ser.	Name & Designation	Department
Federal Ministries and Departments		
01	Muhammad Asif Sahibzada, Director General (Env & CC)	Ministry of Climate Change & Environmental Coordination
02	• Mr. Mehmood Alam, Joint Engr. Advisor • Dr. Amin Khan, Director Policy and Planning Wing	Ministry of Housing and Works
Province Ministries and Departments		
03	Mr. Zahoor Ul Islam, Chief Governance and Rural Development	Planning and Development Department AJK
04	Chief Engineer, Nadeem Ahmad Mughal	Communications & Works Department State of AJK
05	Mr. Nasir Khan, Director Architecture	Provincial Housing Authority KPK
06	Mahmood Hussain, Executive Engineer	Planning and Development, Gilgit Baltistan Council Secretariat, GB
07	Ikramullah Shah, Superintendent Engineer	Public Health Engineering Department KPK
08	Mr. Rao Zaka Ur Rehman, Director Traffic Engineering	Multan Development Authority
09	Muhammad Umar Farooq	HUD & PHED, Punjab
10	• Mr. Bahadur Ali Adl Director General • Asad Ali Director Engineering	Peshawar Development Authority
11	Afshan Zafar, Director	School Education Department, Punjab
12	Ameen ullah Ghaznavi, Adl Secretary	C&W, Gilgit
Military Departments		
13	Col. Asif Aziz, DD Quality Assurance	Housing Directorate, GHQ
Province Disaster Management Authorities		
14	Saeed Ur Rehman, Director Operations	SDMA, AJ&K
15	Zaheer u ddin Babar, DD	GBDMA
Industry and Consultancies		
16	Engr. Mujeeb, Managing Director	Designmen Consulting Engineers (Pvt.) Ltd.
17	Dr. Rao Arsalan Khusnood, CEO	Structax Consultants (Pvt.) Ltd.
18	• Dr. Zafar Iqbal • Engr Arsalan Mushtaq	INN Consulting Engineers (Pvt.) Ltd.
19	Ejaz Ahmed	Qaiser Ali Associates
20	Muhammad Kashif Afridi	CDA
International Organization		
21	Siraj Muhmmad, Head of Finance	Aga Khan Agency for Habitat-AKDN
Academia		
22	• Dr. Muhammad Usman, AP • Dr Muhammad Usman Hassan, AP	NUST
23	• Engr. M Zeeshan Khalil • Engr. Hafiz M. Afzaal Iqbal	Abasyn University
24	Ikram Ul Haque Syed	Consultant
25	• Maj. Dr. Omair Bin Saleem • Lt Col Yasir	Military College Engineering
26	Muhammad Fayaz Tahir	UET Taxila

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