



Resilient Pakistan newsletter

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NDRMF Embraces Digitalization

SAP ERP

NDRMF have successfully embarked itself towards digitalization of its processes, financial management system and engaging with our partners and stakeholders and further empowering our communication channels.

Pursuance of our mandate of building resilience Pakistan and enhance the adaptation capacity of the country demands innovative solutions and state of the art approach. Hence, leveraging digital solutions is not just a matter of convenience for NDRMF but a strategic necessity.

It also energizes our larger ongoing efforts focused on re-purposing NDRMF. Now ingrained in NDRMF Business Strategy 2023-2033, it is recognized that digitalization will play a crucial role in this journey. Particularly, meeting the NDRMF commitment towards enhancing efficiency, transparency, and responsiveness to our diverse and wide national and international stakeholders.

Digitalization, at its core, involves the integration of digital technologies in all aspects of an organization's operations, processes, and services. The scope of NDRMF digitalization process is varied and wide: it includes implementation of specialized Enterprise Resource Planning tool SAP, driving the movement towards minimum use of paper as part of our environmental stewardship and soon to be launched NDRMF National catastrophic data center (NatCat) – first of its kind in Pakistan informing on the probability of happening the future disaster events and how intense those events could be along with potential impacts on the population and physical infrastructure.

Implementation of SAP has been designed allowing us to appropriately gather, analyze, disseminate internal and external information as one of the important tool for continuous improvement of NDRMF operations and its

deliverables. As well as use of this valuable information in the larger context of disaster and vulnerability challenges being faced by the country. By leveraging digital platforms and tools, NDRMF will gather real-time data from its projects and interventions specifically focused on disaster risk reduction, vulnerability assessments, climate adaptation and enabling proactive measures to be taken to mitigate the impact of potential disasters.

Recognising that digitalization enables greater transparency and accountability in the allocation and disbursement of funds and resources which is one of the key goal of NDRMF. Through digital financial management systems, NDRMF will track the flow of funds, monitor project expenditures and progress and ensure that resources are allocated efficiently and effectively to areas most in need.

An additional purpose of digitalization drive is to communicate and engage with partners more effectively. We strongly believe that it will facilitate improved communication and collaboration both internally within the organization and externally with stakeholders and partners. Through digital platforms and tools we will enable seamless information sharing, coordination of activities, and dissemination of critical information during emergencies, thereby enhancing the overall effectiveness of disaster response and recovery efforts.

By embracing digitalization, NDRMF is committing to better serve the needs of vulnerable communities affected by disasters in Pakistan and NDRMF to evolve as the forthcoming and innovative public sector organization.

National Disaster Risk Management Fund (NDRMF)

Digitalization of NDRMF on SAP ERP

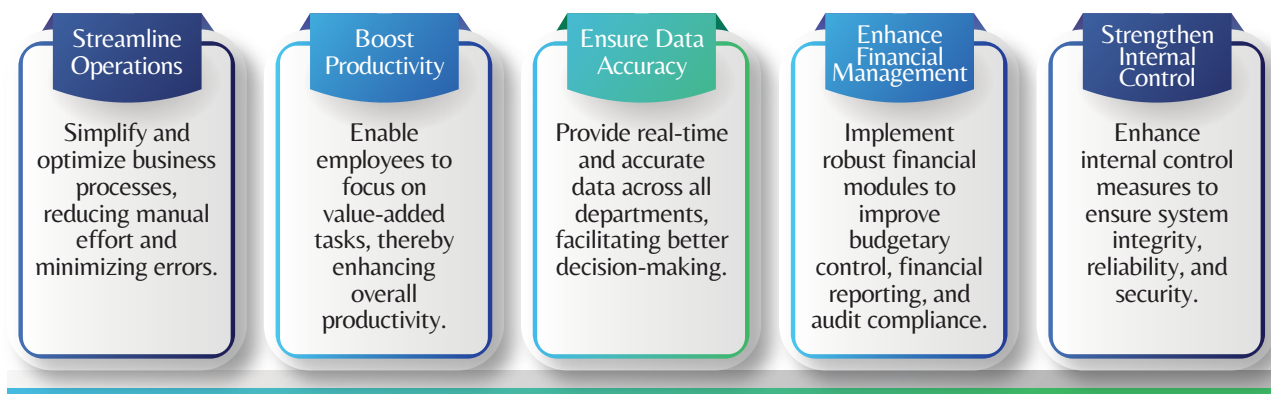
In a bid to streamline operations and embrace digital transformation, the National Disaster Risk Management Fund (NDRMF) has embarked on to proceed with the implementation of SAP ERP (S/4 HANA). This strategic move aims to modernize and integrate core business processes, ushering in a new era of efficiency and effectiveness within the organization.

Simplifying and Optimizing Core Functions

At the heart of this initiative lies a commitment to simplify and optimize core business functions. By rolling out SAP ERP, NDRMF endeavors to reduce manual efforts and minimize the risk of errors. Key modules such as Financial and Controlling (FI/CO), Human Capital Management (HCM), and Material Management (MM) are set to revolutionize the way NDRMF operates.

Objectives Driving Digitalization

The primary objectives of implementing SAP ERP at NDRMF are clear and ambitious. By embracing digitalization, the organization seeks to:



Comprehensive Scope of Implementation

The SAP ERP implementation at NDRMF spans key functional areas, including:

- Financial Accounting and Controlling (FICO) Module
- Material Management (MM) Module
- Human Resources Management (HCM) Module

These modules are designed to optimize processes related to financial management, procurement, inventory management, and human resources.

Realizing Tangible Benefits

The adoption of SAP ERP brings forth a myriad of benefits for NDRMF, including:

- Efficiency gains through streamlined processes
- Improved productivity as employees focus on value-added tasks
- Enhanced data accuracy for informed decision-making
- Empowerment of employees through self-service options

- Automation of critical processes such as payroll and reimbursement
- Strengthened financial control and reporting capabilities
- Optimized procurement and inventory efficiency

A Vision for the Future

As NDRMF forges ahead on its digitalization journey with SAP ERP, the organization remains committed to realizing its vision of resilience and efficiency. By leveraging the power of technology, NDRMF aims to enhance its disaster response capabilities and serve communities with greater agility and effectiveness.

In embracing digital transformation, NDRMF sets a shining example for organizations seeking to modernize and optimize their operations in an ever-evolving landscape. Through innovation and collaboration, NDRMF paves the way for a future marked by resilience, efficiency, and preparedness.

Investing in Sustainable Resilience-Building

Resilient Communities

NDRMF Projects - Phase II



PROJECT NAME

Restoration & Rehabilitation of Flood Damaged Water Conservation Structures in Irrigation Division Quetta

FIP Name	Total Cost (PKR Milion)	District	Direct Beneficiaries
Irrigation Department Balochistan	992.679	Quetta	460,000

Project Description:

Balochistan Province with the history of recurring floods in the years 1973, 1975, 1976, 1978, 1982, 1992, 1994, 2003, 2007, 2010, 2011, 2012, 2013, 2019 and 2022 sustained massive damages to agriculture land, houses and infrastructure located in the vicinity of different rivers. High Magnitude Flash Floods 2022 had resulted in heavy losses of lives, livelihoods and infrastructure. Reconstruction and Rehabilitation of 11 damaged water conservation schemes is being carried out under the project to protect human lives, livelihoods, livestock and infrastructure from flood related damages as well as mitigate the looming threat of drought in Balochistan. The valley is under severe threat of flooding during heavy rains. The flash floods from hill torrents around the area causes devastation in the almost entire areas because of high velocity and magnitude. Specifically the high intensity rainfall in July and August 2022 broke all the previous records and high magnitude flash floods proved to be a catastrophe causing irreparable loss to precious human lives and public and private infrastructure. The sites under discussion received server damages. The project after rehabilitation of water conservation structures will result in utilization of natural resource of rain and flood water potential will be controlled significantly by recharging of ground water aquifer to ensure its proper utilization for irrigation and drinking purpose. While on the other hand the lives/properties of inhabitants will be protected from flood havoc. Main objective of the project is to protect lives and livelihoods of the 460,000 people as well as protect critical infrastructure.

Interventions:

1. Rehabilitation/Restoration of Spin Karez Dam Quetta.
2. Rehabilitation/Restoration of Mandoki Check Dam Quetta.
3. Rehabilitation/Restoration of Small Dam Aghberg.
4. Restoration & Rehabilitation of Ghundak Karez Check Dam.
5. Restoration & Rehabilitation of Khalaka Check Dam Jalogeer Kuchlak.
6. Restoration of Murghal Kotal Delay Action Dam District Quetta.
7. Restoration and Improvement of Shagai-I Delay Action Dam.
8. Restoration and Rehabilitation of Shagai-II Delay Action Dam.
9. Restoration and Rehabilitation of Habib Dara Delay Action Dam - II.
10. Restoration of Brewery Delay Action Dam.
11. Restoration & Improvement of Kach Delay Action Dam.



Intervention Thematic Area:
Water Conservation



Province:
Balochistan



Duration:
8 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Restoration/Rehabilitation of Flood Protection Structures and Water Conservation Structures in District Pishin

FIP Name	Total Cost (PKR Milion)	District	Direct Beneficiaries
Irrigation Department Balochistan	990.727	Pishin	372,000

Project Description:

Balochistan is a water scarce province in Pakistan. Due to over exploitation of ground water resources, water table in Quetta area is falling at an alarming rate. This decrease in ground water resources is becoming a potential threat to the economy of the district as well as the province. Therefore there is an urgent need to maintain a balance between the recharge and extraction to achieve the target for development of water resources in Balochistan province it is imperative to devise ways and means to recharge ground water aquifer. The valley is under severe threat of flooding during heavy rains. The flash floods from hill torrents around the area causes devastation in the almost entire areas because of high velocity and magnitude. Specifically the high intensity rainfall in July and August 2022 broke all the previous records and high magnitude flash floods proved to be a catastrophe causing irreparable loss to precious human lives and public and private infrastructure. The sites under discussion received severe damages. The project on completion will result in harnessing the natural resource of rain and flood water potential will be controlled significantly by recharging of ground water aquifer to ensure its proper utilization for irrigation and drinking purpose. While on the other hand the lives/properties of inhabitants will be protected from flood havoc. The main objective of the project is to protect the houses located in the project area from the effect of rain/flood water. After implementation of this project cumulatively 800 houses will be saved from the flood attack and 1177 farm families will benefit from the project. The project will protect Orchards of apples that is the main fruit which is grown in the this area while wheat is the major crop.

Interventions:

1. Restoration of breached/damaged portion of Bund Khoshdil Khan.
2. Rehabilitation of thora Murgha dam and Weir.
3. Rehabilitation of Weir and Earthen Bund Khanai Baba Tehsil Karezaat.
4. Rehabilitation of Khanzoai Balozai Head Work Tehsil Karezat.
5. Rehabilitation of Khanzoai Delay Action Dam Tehsil Karezat.
6. Rehabilitation of Kezh Dam at Toba Karkarai Area.
7. Restoration of Khasro Dam Toba Kakari.
8. Rehabilitation of Flood Protection Bund of Sarila Habibzai, Manzakai and Bagarzai both sides.
9. Restoration of F.P wall Poti Mangalzai Mama Nikah and Mehrab kech in Marshore Area.
10. Rehabilitation of Khoudadzai Flood Protection Scheme.
11. Rehabilitation of Kar Dam Toba Kakarai Area.
12. Rehabilitation of Surchah Delay Action Dam.
13. Restoration of Chengai Begharzai Check Dam.
14. Rehabilitation of Wachobi Dam Toba kakari Area.
15. Restoration of Surkai Ghez Dam Toba Kakari.
16. Rehabilitation of Pani Shakh Dam Tehsil Nana Sahib.
17. Rehabilitation of Alizai Dam.
18. Restoration of Khchani Tamark Check Dam.
19. Rehabilitation of Mandan Dam.
20. Rehabilitation of Ghargai D.A Dam.
21. Rehabilitation of Bostan Dara Dam.
22. Rehabilitation of Dargai Delay Action Dam.
23. Shadaka Dam Toba kakari and Shasa Muhammadzai Dam Barshore.
24. Rehabilitation of Narin Jalak Dam.



Intervention Thematic Area:
Flood Protection
Water Conservation



Province:
Balochistan



Duration:
8 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Rehabilitation/Strengthening of Water Conservation Structures, Flood Protection Schemes in District Killa Abdullah and Naseerabad

FIP Name	Total Cost (PKR Million)	District	Direct Beneficiaries
Irrigation Department Balochistan	999.44	Killa Abdullah Naseerabad	321,654

Project Description:

With unique topographic, physiographic and demographic conditions of district Naseerabad and Killa Abdullah the menace of flooding is peculiar as compared to other districts of Balochistan. High velocity flash floods/hill torrents of unpredictable magnitude emanate from steep denuded hills that result in massive destruction. The population and cultivated lands/orchards are mainly located at the edges of the rivers and the toes of hills, therefore are under constant threat of floods. Unfortunately during each flooding season, a considerable chunk of fertile land is eroded, sustaining great financial loss to the farmers. Per capital income/socio economic condition of the project area is already low and these floods have not only damaged lands and belongings of the poor inhabitants of the area but further undermined the socio economic condition. The main objective of the project is to protect/safeguard/ strengthen the canal embankments, houses, agriculture lands, karezes and tubewells etc located in the project area from the flash floods. After implementing the project approximately 387000 heads, 412 acres eroded land of Killa Abdullah and

18600 acres of Naseerabad will be reclaimed, 130000 acres of land protection from flood devastation will be achieved, 69 tubewells, 09 Karezes and 975 houses as well as other infrastructure will be saved from floods. 2590 farm families who only depend on agriculture will benefit from the project.

Interventions:

1. Rehabilitation of Pir Alizai & Majak Flood Protection Bund.
2. Rehabilitation of Killa Abdullah Bazar Flood Protection Bund.
3. Rehabilitation of Dobandai Flood Protection Bund.
4. Rehabilitation/Restoration of Essargai Delay Action Dam Dobandai Area.
5. Rehabilitation of Gulistan Karez Area Flood Protection Bund.
6. Rehabilitation of Segai Area Flood Protection Bund.
7. Restoration/Strengthening of Flood Embankment of Pat Feeder canal from RD 238+000 to RD 395+000.
8. Restoration/Strengthening of Embankment of out Fall Drain from RD 0+00 to RD 104+00 and construction of 4 Nos VRB at different places Usta Muhammad.



Intervention Thematic Area:
Flood Protection Water Conservation



Province:
Balochistan



Duration:
7 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Building Resilience of Damaged Flood Mitigation Structures along River Indus in Sindh Province

FIP Name	Total Cost (PKR Milion)	District	Direct Beneficiaries
Irrigation Department Sindh	3011.46	Shaheed Benazir Abad Matiari Naushero Feroze Sujawal	578,000

Project Description:

In monsoon floods 2022 Pakistan remained inundated for an extended period of time resulting into deaths of at least 1,033 people, including 348 children and 207 women, while 1,527 people were injured, including 355 children and 369 women. Amongst the most affected population of 5.7 million (with total affected population of more than 33 million), almost 498,442 people are reported to be displaced from their homes and are currently in relief camps. Floodwaters and debris flows have also blocked bridges, rail networks and roadways, restricting overland travel in and around affected areas. Since 14 June 2022, approximately 949,858 houses had reportedly been damaged, including around 287,412 completely, as have 3,452 kilometers of roads, 170 shops and 149 bridges. Sindh is one of the two worst affected provinces. A total of 10 million people affected in 30 districts. The worst affected areas remained inundated for months due to absence of natural drainage pathways leaving behind a vast magnitude of damaged public infrastructure, agriculture lands and houses of people. The four sites of selected by the project received heavy damages during the flood 2022 which put the safety and security of 578,000 people at stake. The chances were high that if left unattended, the upcoming monsoon floods may had fatal impact in terms of lives, livelihoods and infrastructure.

The Surjani Complex Bund scheme will protect district of Thatta from flood inundation, industries, railway line, highway, irrigation networks, schools, houses and public health infrastructure etc. from the impact of future flooding. Moro Bund scheme will protect fertile and thickly populated districts of Shaheed Benazirabad and Naushahero Feroze.

Rehabilitation/Reconstruction of Stud Apron along SM Bund at Mile 12/0 to 12/7 and Bakhri Loop Bund Mile 0/0 to 0/1 will protect 95,000 acres of fertile agriculture land,

150,000 population of the surrounding areas, several irrigation networks and other important public and private infrastructures. This intervention will contribute in resilience building by providing sense of security to the local community as well as socio-economic benefits.

S.M Bund in order to protect it from erosion and being washed away in future floods. The project will protect fertile agriculture lands, population of the surrounding areas, several irrigation networks and other important public and private infrastructures.

Interventions:

1. Rehabilitation/Reconstruction of Stone Apron and Stone Pitching along SM Bund from Mile 70/7 to 72/0 in Moro Bund Sub Division.
2. Rehabilitation/Reconstruction of Stud Apron along SM Bund at Mile 12/0 to 12/7 and Bakhri Loop Bund Mile 0/0 to 0/1 in Kandiaro Bund Sub Division.
3. Rehabilitation, Raising and Strengthening of Spurs Along Surjani Complex Bund Sujawal of Pinyari Circle Hyderabad Kotri Barrage Region Hyderabad.
4. Recouping of Stone Spurs Mile 142/3 and Stone Studs Mile 136/1 Along SM Bund in Hala (Irrigation) Division.



Intervention Thematic Area:
Flood Protection



Province:
Sindh



Duration:
8 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Building Resilience of Damaged Flood Mitigation Structures along River Indus in Sindh Province-Phase-II

FIP Name	Total Cost (PKR Milion)	District	Direct Beneficiaries
Irrigation Department Sindh	463.375	Sukkur	340,000

Project Description:

During Monsoon 2022 floods, according to PDMA Sindh, high flood level of 0.6 million cusecs while passing through the Sindh Province has distressed 2.318 million families (approx. population of 12.138 million) and damaged 1.881 million houses (1.169 million partially damaged and 0.711 million fully damaged). It was evident from the numbers that the disaster was unprecedented in magnitude and scale, requiring extensive medium to long term rehabilitation and reconstruction efforts. The two flood protection sites received heavy damages putting at stake the safety and security of 340,000 beneficiaries directly.

Baiji Bund from Mile 0/0 to 10/3 is working as front line flood protective bund for pre-safety of Pano Akil Town, Pano Akil Cantonment Area, Railway Line and National Highway as well as Motorway and many Cotton, Oil and Sugar Mills etc. that are situated in front of Baiji Bund.

Bund from Mile 0/0 to 3/0 and Garkino Loop Bund Mile 0/0 to 2/6 ensures safety of railway line, Ghotki Feeder Canal, National Highway inclusive of Pano Akil Cantonment and Pano Akil Town along with other thickly populated villages like Sangi and Hingoro.

In order to protect lives, livelihoods and above mentioned infrastructures, the Fund awarded the reconstruction and rehabilitation project to the Government of Sindh.

Interventions:

1. Rehabilitation of Stone Apron Mile 1/1+360 to 1/2 and Stone Pitching Mile 0/0 to 2/4 along Baiji Bund.
2. Restoration /Raising & Strengthening Along R.N Loop Bund Mile 0/0 tp 3/0 & Garkino Loop Bund Mile 0/0 to 2/6, providing stone pitching Along R.N Bund Mile 5/0 to 6/0 and providing stone Apron along Baiji Bund Mile 7/5 to 7/6 Ghotki Division.



Intervention Thematic Area:
Flood Protection



Province:
Sindh



Duration:
7 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Strengthening of COVID-19 and other Ineffective Diseases Response Capacity in Balochistan

FIP Name	Total Cost (PKR Milion)	District	Direct Beneficiaries
Health Department Balochistan	903.722	Quetta, Kech, Khuzdar, Panjgur Gwadar, Awaran, Washuk Nushki, Kharan, Killa Saifullah Kalat	7,126,118

Project Description:

In order to effectively respond to outbreak of COVID-19 Pandemic in March 2019 and subsequent waves of pandemic, the Government of Pakistan carried out concentrated efforts for prevention, detection and response. Prior to the COVID-19 pandemic outbreak, the capacity of health system of Balochistan was catering regular health / medical needs with focused investments on the same. However, after the COVID-19 pandemic it was anticipated that the existing capacity of health system might not be sufficient to cater to the needs of Balochistan. During pandemics there is high likelihood of large-scale human-to-human transmission, including high transmission within families and in healthcare settings.

To improve the overall health delivery system at provincial, divisional and district levels to respond efficiently and effectively to the health-related needs of the people, the Health Department, Government of Balochistan submitted the project proposal titled “Strengthening of COVID-19 and Other Infective Disease Response Capacity in Balochistan” to respond to any unexpected burden on the health system. The project is in line with Pakistan vision 2025, National Health Vision & National Action Plan (2018-23), Five Year National Action Plan for Health Security (NAPHS) & Pakistan Preparedness & Response Plan (PPRP) for Novel Corona Virus (2019-nCoV).

Main objective of the project is to Improve and strengthen the Health Care Delivery System in Tertiary Care /Teaching Hospitals/District Head Quarter Hospitals by Provision of necessary Specialized Medical Equipment and Machinery required for COVID-19 Medical Response that will ultimately improve overall Health Care Delivery System at Provincial, Divisional and District Level.

Interventions:

Equipment is being provided in following 15 hospitals of Balochistan:

1. Sheikh Khalifa Bin Zayed Al Nayyan Hospital Quetta.
2. Sandeman Provincial Hospital Quetta.
3. Bolan Medical Complex Hospital Quetta.
4. Teaching Hospital Kech.
5. Teaching Hospital Khuzdar.
6. Teaching DHQ Hospital Panjpur.
7. Teaching DHQ Hospital Gwadar.
8. DHQ Hospital Awaran.
9. Shiekh Khalifa Bin Zayed Hospital Basima, Washuk.
10. Shaheed Sikander Zehri Memorial Hospital.
11. THQ Hospital Wadh.
12. Teaching Hospital Kharan.
13. Teaching Hospital Nushki.
14. Teaching Hospital Killa Saifullah.
15. Teaching Hospital Kalat.



Intervention Thematic Area:
Health Emergency Response



Province:
Balochistan



Duration:
6 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Disaster Preparedness Support Plan for emergency rescue services

<p>FIP Name</p>	<p>Total Cost (PKR Milion)</p>	<p>District</p>	<p>Direct Beneficiaries</p>
<p>Emergency Rescue Services (Rescue 1122) Government of Khyber Pakhtunkhwa</p>	<p>1,375,744</p>	<p>Abbottabad, Allai, Bajaur, Bannu, Battagram, Buner, Charsadda, Chitral, D.I.Khan, Hangu, Haripur, Karak, Khyber, Kohat, Kotal Pailas, Kurram, Lakki Marwat, Lower Dir, Upper Dir, Malakand, Mansehra, Lower Dir, Upper Dir, Malakand, Mansehra, Mardan, Mohmand, North Waziristan, Nowshera, Orakzai, Peshawar, Shangla, South Waziristan, Swabi, Swat, Tank, Tor Ghar, Lower Kohistan, Upper Kohistan</p>	<p>29,509,549</p>

Project Description:

Rescue 1122 Khyber Pakhtunkhwa service was launched in March 2010 in Peshawar as pilot project and expanded to other parts of the province phase wise. Rescue-1122 is being operationalized in 35 districts of the province to provide emergency services to the natives of Khyber Pakhtunkhwa. It is pertinent to mention that all the emergencies (e.g. building collapse, terrorist attacks etc) are not similar in nature and require specialized equipment according to the nature of the emergency. Keeping in view the need for specialized advance equipment to timely respond to lower-higher scale emergencies, the department has requested for advance equipment. The project will help to utilize the specialized advance

equipments in emergencies and move towards the safer community concept; the department will be able to respond to emergencies ranging from lower scale to highest scale and even international disasters and emergencies. Equipping Rescue 1122 Khyber Pakhtunkhwa will provide sense of safety in the society. The project is strengthening the department to provide rescue services to 29,509,549 beneficiaries during emergencies.

Interventions:

To extend the rescue 1122 services in all the districts of KP, the equipment will be provided to the department.



Intervention Thematic Area:
Emergency Response and Rescue



Province:
Khyber Pakhtunkhwa



Duration:
15 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Building Resilience by Strengthening the Community through inclusive Disaster Risk Management (BRSC-II)

FIP Name Muslim Aid Pakistan (MAP)	Total Cost (PKR Milion) 208.166	District Killa Saifullah, Loralai	Direct Beneficiaries 4,879
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Project Description:

Balochistan has a long history of being prone to natural disasters such as earthquakes, floods, droughts, tsunamis, and cyclones. The province has faced significant events like the Ziarat Earthquake in 1998 and 2021, as well as severe floods in 2010, and recurrent floods in 2011, 2012, and 2014. The monsoon floods in 2022, which was fuelled by climate change, had a profound impact on the province, resulting in extensive damage to infrastructure and livelihoods. These events highlighted the vulnerability, poverty, and flawed development of the affected communities. The people of Balochistan are facing increasing risks associated with climate change, including diminishing groundwater resources and difficulties in accessing energy and food supplies. Given the circumstances, it is crucial to unite civil society, communities, and different levels of government to rebuild the critical infrastructure that can withstand the impacts of climate change and natural disasters. This requires efforts from both public and private institutions to support the national plans and commitments of the government. The proposed project adopts an approach to firstly, reconstruct the damaged infrastructure from the monsoon flooding 2022 in districts Loralai and Killa Saifullah to effectively manage the flood risk and safeguard communities and settlements from their destructive impacts. Secondly, the project focuses on the aspect of knowledge management to foster future programming. The project will address priority areas of the Sendai Framework for Disaster Risk Reduction (SFDRR) as well as global agendas such as the SDGs, the Paris Agreement on Climate Change and the Global Biodiversity Framework. Post damages of 2022 floods; BRSC II has prioritized 11 damaged flood protection schemes in district Killa Saifullah and Loralai for reconstruction & rehabilitation. This will ultimately promote effective DRR and improve the resilience of vulnerable population of Pakistan. The lives and livelihoods of 4,879 people will be protected through rehabilitation of the 11 prioritized schemes.

Interventions:

1. Gabian Wall Killi Dirgai Sarghara, Bori, Kuch Amaqzai, Loralai.
2. Gabian Wall Shin Kass, Bori, Shahkareez, Loralai.
3. Flood Protection Bund Killi Yaseen Zai, Bori, Shahkareez, Loralai.
4. Flood Protection Bund Killi Kanobi Malla Khail, Bori, Shahkareez, Loralai.
5. Gabian Wall killi Molvi Bakhtiyar Adda, Killa Saifullah, Bandat Meerzai, Killa Saifullah.
6. Stone Masonry Protection Wall Killi Rodh Jogezei Agriculture wall, Sharan Jogezei, Killa Saifullah.
7. Gabian Wall Killi Faza ur Rehman Abdul Star, UC 11 Bandat, Killah Saifullah.
8. Gabian Wall Sultana Abad, Muslim Bagh, Town Muslim Bagh, Killah Saifullah.
9. Gabian Wall Killa Malik Annyat, Muslim Bagh Kan Mehtarzai Killa Saifullah.
10. Gabian Wall Killi Koztalary, Muslim Bagh, Kan Mehtarzai Killa Saifullah.
11. Gabion Wall, Killi Urgas Abdul Rehman, Muslim Bagh, UC Urgas, Killah Saifullah.



Intervention Thematic Area:
Flood Protection



Province:
Balochistan



Duration:
8 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Promoting Integrated Mountain Safety in Northern Pakistan (PIMSNP - III)

FIP Name	Total Cost (PKR Million)	District	Direct Beneficiaries
JV Aga Khan Foundation and Aga Khan Agency for Habitat	200.696	Upper Chitral, Lower Chitral, Mansehra	2,800

Project Description:

According to Pakistan’s National Disaster Management Plan, the country is exposed to multiple hazards including earthquakes, tsunamis, floods, sediments (landslides), cyclones, droughts, Glacial Lake Outburst Floods (GLOFs), and avalanches. The National Flood Protection Plan IV further states that the physiographic variation (in Pakistan) results in different types of flooding like flash, riverine, glacial outburst, coastal and urban flooding’. Within Pakistan, the disaster risk vulnerability of mountain communities in Northern Pakistan including Gilgit-Baltistan (GB) and Khyber-Pakhtunkhwa (KP), is especially acute as these areas are distinguished by high slopes and elevations associated with Himalayan and Karakorum ranges which lead to flash flooding in foothills and GLOFs in the upper areas. Northern Areas of Pakistan are prone to climate change and disasters. PIMSNP III is a third project of the series that will contribute towards adaptation of DRR and climate change resilient practices so that the vulnerable communities may live with sense of safety and security. To address above mentioned issues, the Aga Khan Foundation Pakistan (AKFP), along with its JV partner, the Aga Khan Agency for Habitat Pakistan (AKAHP), has proposed an integrated, multi-input program which will help to ensure that people living in the mountains of northern Pakistan are as safe as possible from the effects of natural disasters. This will be ensured through the following.

- Enhanced protection of 2800 men, women, and children through improved flood protection infrastructure
- Strengthen/develop multi hazards early warning systems at the local level.

Interventions:

1. Flood Protection Scheme Booni Gole 1, Bozhir Booni, Charun Upper Chitral.
2. Flood Protection Scheme Booni Gole 2, Shakarantek Booni, Charun, Upper Chitral.
3. Flood Protection Scheme Reshun II, Aliyan Reshun, Charun, Upper Chitral.
4. Flood Protection Scheme, Chinar Mastuj 1, Chinar Mastuj, Upper Chitral.
5. Flood Protection Scheme, Chinar Mastuj 2, Mastuj Upper Chitral.
6. Flood protection Scheme Booni Gole 3, Charantek Booni Charun, Upper Chitral.
7. Flood Protection Scheme Guldheri 2, Guldheri, Gari Habibullah, Manshera.
8. Flood Protection Scheme Seri Mohallah, Gari Habibullah, Mansehra.
9. Flood Protection Scheme, Mohallah Bagh, Shinkyari, Mansehra.
10. Early Warning System, Birzeen, Village Oughuti, Lower Chitral.
11. Early Warning System, Shoghor, Village Awi Shoghor, Lower Chitral.



Intervention Thematic Area:
Flood Protection
Early Warning System



Province:
Khyber
Pakhtunkhwa



Duration:
8 Months

National Disaster Risk Management Fund (NDRMF)



PROJECT NAME

Resilient and Adaptive Population in Disaster (RAPID - II)

FIP Name	Total Cost (PKR Million)	District	Direct Beneficiaries
Islamic Relief Pakistan (IRP)	308.674	DI Khan	20,322

Project Description:

Historically, Khyber Pakhtunkhwa province has remained disaster prone and known for their vulnerabilities to natural and human made disasters. Only in 2022 floods, death toll reached 1739 across the country, 309 in KP. Government of Pakistan declared 17 calamity-hit districts in KP. As per the NDMA sitrep, flooding damaged 91,464 houses in KP. Other infrastructural damages include; 1,575 km, 107 bridges and over 200,000 perished livestock in the province. D.I. Khan is among the most vulnerable districts in KP. Prolonged rainfall turned into flash floods and damaged the district’ infrastructure, including flood protection walls, and roads. Vulnerable households, especially those who had persons with disabilities, women-headed household and the elderly still remains at the risk of future disasters, especially flooding, in case they are not supported with appropriate and climate resilient infrastructure to mitigate the disaster risks. It’s evident from the 2022 flooding that crops over the land of 4.4 million acres were destroyed in the country due to unprecedented precipitation and lack of proper mitigation measures. Post damages of 2022 floods; RAPID II has

prioritized 04 damaged mega flood protection schemes in district DI Khan for reconstruction & rehabilitation. The project will contribute in reducing flood associated impacts and incidents. The rehabilitations and reconstructions of 04 flood protection infrastructures will directly benefit 20,322 individuals and protect additional protection of 1,261 hectare agriculture lands.

Interventions:

1. Flood Protection Scheme Fateh, DI Khan.
2. Flood Protection Scheme Kiri Bakhtyar, DI Khan.
3. Flood Protection Scheme Basti Bakhtyar, DI Khan.
4. Flood Protection Scheme Mohallah Bakhtyar, DI Khan.



 **Intervention Thematic Area:**
Flood Protection

 **Province:**
Khyber Pakhtunkhwa

 **Duration:**
8 Months

National Disaster Risk Management Fund (NDRMF)



CEO NDRMF
BILAL ANWAR

NDRMF Approach towards [Re-aligning] Disaster Risk Reduction in the Resilience Building Agenda of Pakistan

Understanding disaster risks is now widely acknowledged to be imperative for an effective Disaster Risk Reduction approach and strategy to minimize the impacts on society and economy. Similarly, effective preparedness is only possible if the scale and gravity of the risks can be pre-emptively quantified allowing the response measures to be accordingly calibrated. As a method and approach this might sound pretty obvious but taken a long time and with a heavy social and economic cost to evolve and become a practice around the world.

This new approach, being invigorated by international mechanisms and instruments, have spot-lighted National Disaster Risk Management Fund (NDRMF) to re-define its approach in delivery of mandated objective of contributing in building the disaster resilience capacity in Pakistan. It fundamentally demands a shift from a reactive and project based interventions and actions towards a long-term, holistic and dynamic DRR approach leading to programmatic interventions. Correspondingly, NDRMF is currently aligning its operational strategy and approach with the evolving challenges and internationally recognized practices. Its ongoing re-purposing drive is singularly focused to be institutionally equipped to make the required contributions in the domain of disaster risk reduction and resilience building. Building on its inherent advantages, NDRMF sees itself to be playing the catalyst role in leveraging

adequate and concessional finances for disaster mitigation, fill the knowledge gaps, strengthen connectivity and facilitate piloting of new and innovative approaches in DRR and climate adaptation. And correspondingly, to pioneer the institutional mechanisms for disaster and climate financing, data analytics and risk modelling.

In devising this strategy, under the directions of the NDRMF Board of Directors, we undertook an extensive round of consultations with our broad range of stakeholders, partners and practitioners of the field. Gathering valuable insights on prevailing shortcomings with disaster risk reduction approaches in the country and informing ourselves with upcoming challenges in the face of increasing intensity and frequency of disasters. For example, a relatively less focus has been noted on risk reduction efforts and interventions as compared to preparedness, relief and recovery efforts – which are of course critically important in the aftermath of any disaster. However, this lack of focus has created serious gaps in the institutional capacity of institutions for mainstreaming disaster risk reduction as part of overall resilience building agenda – calling for a serious re-alignment. NDRMF revised approach is to lead this re-alignment in an inclusive and risk informed manner.

Under its reformed strategy and approach NDRMF has strategically focused on four mutually inter-connected areas:

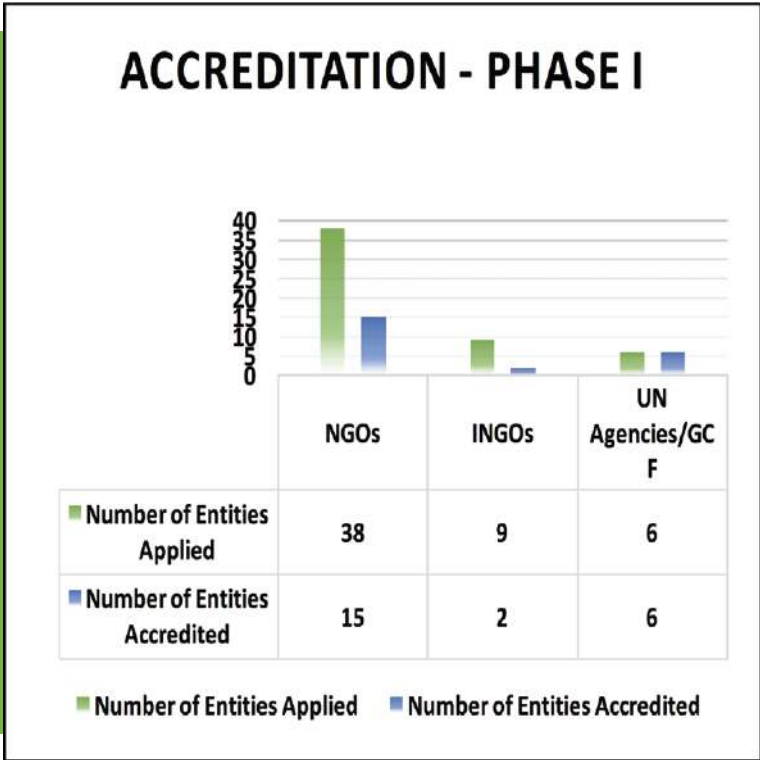
1. **Disaster Risk Reduction:** Recognizes the need for a comprehensive approach for disaster risk reduction and resilience building covering both physical disaster risks and reduce socio-economic and fiscal vulnerability of the country and building on the principles of ex-ante DRR approaches sharply aligned with the national priorities and international practices.
2. **Climate and Disaster Financing:** Integration of climate change as an integral part of disaster risk reduction and disaster financing across all thematic areas is now imperative. It recognizing that the country is not only facing the climate change challenges but also suffering with the capacity constraints and adequate financial resources for addressing these challenges. As a progressive and forward looking financial intermediary, NDRMF will design its work program to minimize socio-economic impacts and unlock the potential for innovative financial instruments.
3. **Disaster Preparedness and Recovery Institutionalisation:** Improving the disaster preparedness and recovery capacity by working closely with the government institutions, strengthening preparedness through post-disaster assessments by the use of our technologically driven initiative.
4. **Knowledge Creation and Risk Informed Decision Making:** Knowledge creation is crucially important and somewhat lagging behind in Pakistan leaving capacity gaps. NDRMF aims to create and disseminate evidence-based knowledge and effective approaches in the realm of disaster and climate resilience. The organization will serve as both a producer and aggregator of risk data, ensuring that this information is readily accessible in an open format and communicated in a user-friendly manner. Evidently, above approach is envisioned for the NDRMF to effectively manage the complex and diverse disaster risks through investments in research and development (R&D), dissemination of knowledge, and pioneering innovative solutions in an integrated and optimal manner. The scope of this strategy is truly and purposefully multifaceted. It extends to encompassing not only financial investments but also a commitment to technical and process proficiency, innovative approaches and evidence-based knowledge creation and a comprehensive strategy for capacity building.

Accreditation Model Rolled Out for the Year 2024

National Disaster Risk Management Fund provides grant financing to public and non-public sector entities for their interventions to reduce the socio economic and fiscal vulnerability of population to natural hazards by prioritizing and financing investments in disaster risk reduction and preparedness with high impacts. Being a federal government non-banking financial intermediary, while investing in Disaster Risk Reduction, Disaster Risk Financing and Climate Change across most vulnerable regions of Pakistan. The responsibility on the NDRMF manifolds high especially when it comes to choose the right Fund Implementing Partners(Fund Implementing Partners) public or nonpublic for funding assistance. Accreditation is crucial in a sense that it helps sift out the most eligible organizations that meet the minimum standards pertaining to the programming.

For public FIPs (Government Departments) a comprehensive fiduciary assessment is conducted prior to award of funding assistance against certain project. Whereas, in case of nonpublic fund implementing partners the Fund had introduced a holistic accreditation process in 2018. Thus any organization (non-public) willing to partner with the Fund to contribute to the resilience agenda had to undergo the accreditation process and qualify the accreditation criteria.

Accreditation was a two-step process. In the first step, eligibility of the organization was checked. The organizations who qualified eligibility criteria were further evaluated for institutional capacity assessment. An organization already possessing an external accreditation(s) such as GEF, GCF, etc. or accreditation by a Donor Agency, were considered accredited by NDRMF upon provision of the documentation to NDRMF that was submitted for securing external accreditation(s) along with the accreditation certificate. In first phase, 53 non public entities had applied for the accreditation with NDRMF, of which 23 non public entities were accredited with NDRMF for funding assistance.



Learning from the past accreditation cycle and experiences, NDRMF over the years have further devised robust and refined accreditation system in thorough consultation with stakeholders. The accreditation system was rolled out on 13-14th February, 2022 to the multi-stakeholders in Accreditation and Proposal Development workshop.

Discussions amongst the stakeholders helped further augment the accreditation process to ensure that most relevant organizations having robust systems and track record are accredited for funding assistance. NDRMF has announced the following roadmap for accreditation and programming cycle 2024 on 5th March, 2024.

S.NO	KEY TASKS	START DATE	DEADLINE	RESPONSIBILITY
A. ACCREDITATION				
1.	Submission of Letter of Intent for strategic partnership with the Fund	6th March	10th March	Organization
2.	Share accreditation Performa with the organization	6th March	11th March	NDRMF
3.	Submission of duly filled Performa along with supporting evidence/documentation	15th March	22nd March	Organization
4.	Acknowledgement of the receipt of the submitted documents	15th March	25th March	NDRMF
5.	Desk review of submitted accreditation package by the Fund's team of specialists	18th March	14th April	NDRMF
6.	Share desk review feedback/findings with the organization	16th April	19th April	NDRMF
7.	Furnish requirements as per feedback	23rd April	28th April	Organization
8.	Organizational programmatic and fiduciary due diligence visits by Fund's accreditation team	29th April	19th May	NDRMF
9.	2nd/ final round of desk review by the Fund's team of specialists	29th April	26th May	NDRMF
10.	Organize reflection workshop on best practices and lessons learned during the accreditation process	5th June	6th June	NDRMF
11.	Convey final decision on accreditation to the organization	7th June	11th June	NDRMF
12.	Accreditation Award Ceremony	-	19th June	NDRMF
B. Future Programming Portfolio				
13.	Submission of innovative concept note based on any of the following core thematic areas: i. Climate Smart Agriculture ii. Carbon Markets iii. Green Infrastructure Development iv. Water Resource Management v. Urban Resilience vi. Any other innovative idea contributing towards the resilience in Pakistan	29th April	20th May	Organization
14.	Acknowledgement of the receipt of submitted concept note	29th April	20th May	NDRMF
15.	Desk review by the Fund's team of specialists	29th April	9th June	NDRMF
16.	Prioritization and final selection of innovative concepts	10th June	16th June	NDRMF
17.	Convey acceptance or rejection of the concept note	17th June	19th June	NDRMF
18.	Prepare way forward with accredited organizations on programme development as per prioritized and selected concept notes	21st June	30th June	NDRMF

Why Accreditation with NDRMF?

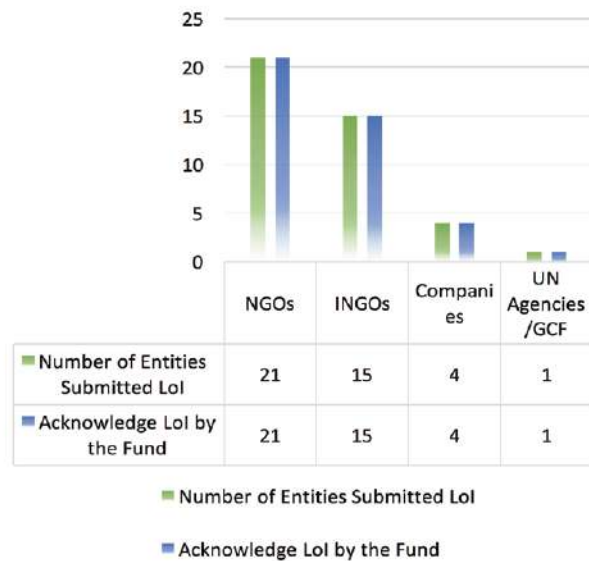
NDRMF provides a valid platform for the development partners (donors and implementers) to enter into long term strategic partnership to attain sustainable results through a blend of indigenous and innovative approaches. NDRMF serves as a laboratory providing enabling environment and means to test and showcase their out of the box innovative approaches that shall ultimately contribute towards resilient Pakistan. The accreditation cycle 2024 upholds a promising opportunity that unfolds a recognizable platform for accreditation as well as capacity development and innovative programming.

Who can apply?

NDRMF encourages non public /private entities including academia to apply for accreditation provided if the organization has a proven track record of serving in the thematic areas of:

1. Climate Smart Agriculture
2. Carbon Markets
3. Green Infrastructure Development
4. Water Resource Management
5. Urban Resilience
6. Any other innovative intervention contributing towards the resilience in Pakistan.

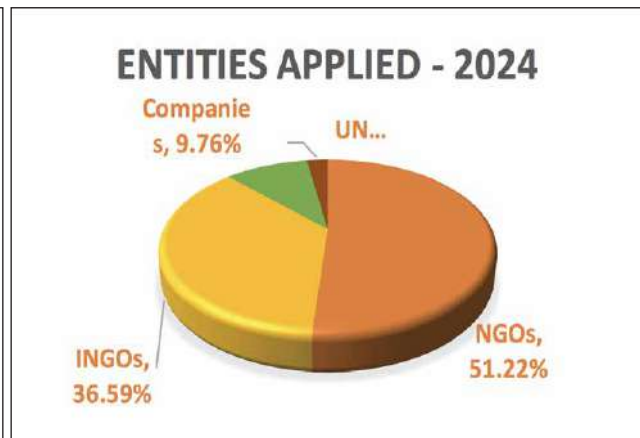
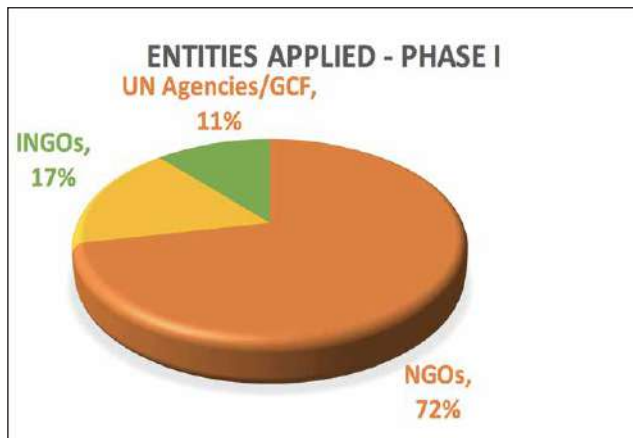
ACCREDITATION CYCLE 2024



Accomplishments as Per Roadmap for Accreditation Cycle 2024:

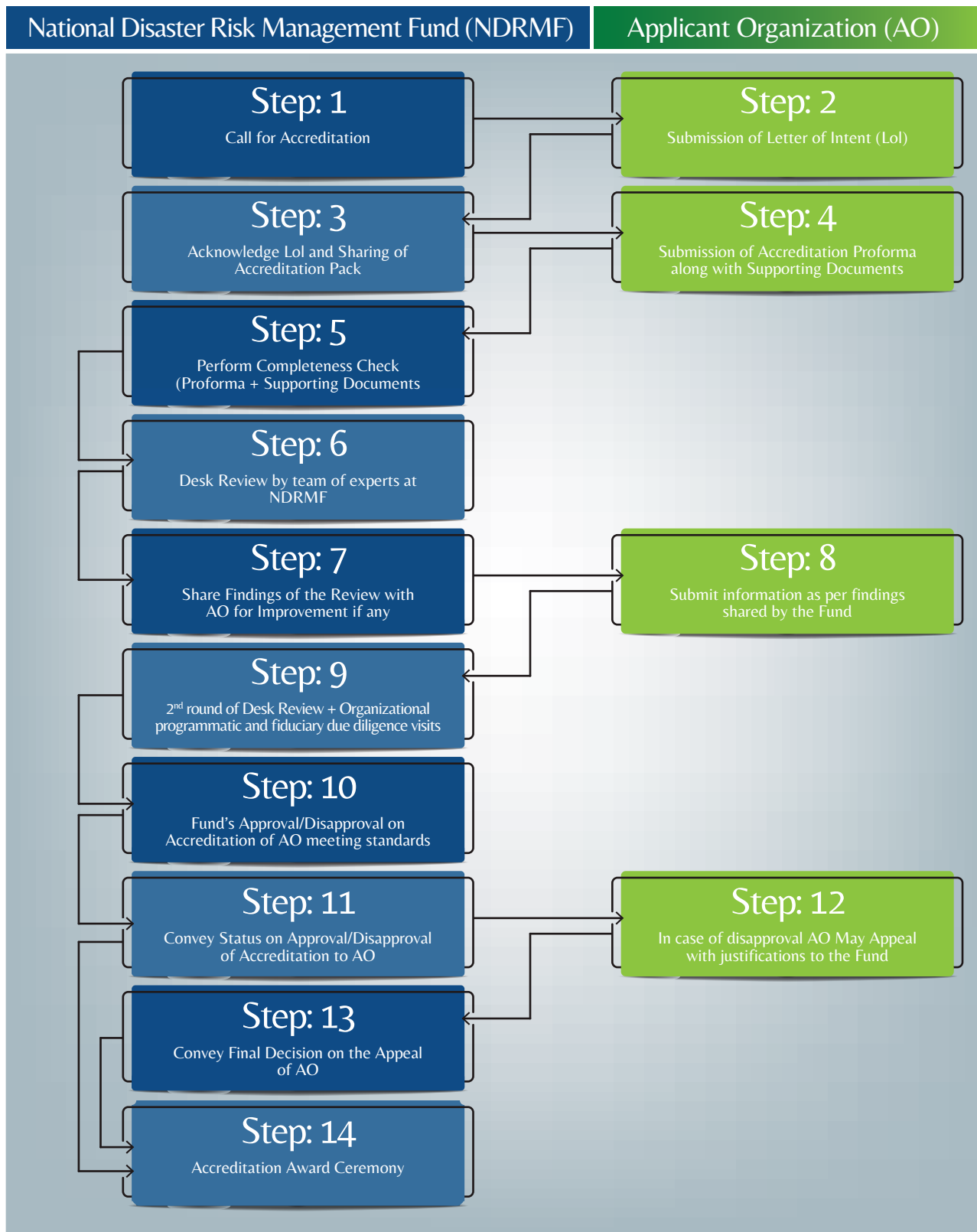
Steps 1, 2 and 3 of the accreditation process flow have been completed as per mentioned deadlines in the Roadmap for the accreditation cycle 2024. During the process the memorandum for roadmap was widely circulated via online mediums i.e. emails, LinkedIn and NDRMF website.

Within the short duration 41 entities have applied for accreditation with NDRMF. During this cycle it can be observed that a new category of entities i.e. companies have also applied for the accreditation.



Accreditation Process Flow:

The Fund is proceeding with the following process flow for the accreditation cycle 2024.



NDRMF Engagement with Private Sector

NDRMF has effectively engaged itself with corporate sector with the goal of involving them in climate action by exploring the options and opportunities for engaging in NDRMF scope of work. This includes, but not limited to, offering technical support in development of Carbon Markets, generating carbon credits, bringing in private sector investors for carbon market projects, investments in green energy and other fields where public private partnerships can happen.

2. NDRMF has undertaken a range of activities in engaging with corporate sector and extending the technical advisory services. The scope of NDRMF work so far has been focused on raising awareness, clarifying high level regulatory requirements and identifying the key corporate sector players expressing interest in collaborating with NDRMF and seeking support on global carbon markets.
3. An overview of NDRMF progress in this regard is as follows:
 - Webinar on Understanding Carbon Markets and potential for Pakistan, 18th September 2023.
 - Round Table Discussion - "Pakistan's Road Map for CoP28", 18th October 2023, NDRMF Board Room.
 - Seminar on Leveraging Carbon Markets to enable Private Investment, 24th October 2023, Marriott Karachi.
 - Mega Event "Pakistan Roadmap for COP 28 Expectations and Goals", 20th November 2023, Serena Hotel Islamabad.
4. NDRMF has been active with the private sector during the COP 28. The discussions included:
 - "Pakistan Upstream Petroleum Sector and Decarbonization" with OGDCL, Transforming Agricultural Systems for Food Security "A World without Hunger".
5. The Fund has been instrumental in building partnerships with the private sector by signing of agreements (MoU) with: OGDCL (Carbon Neutralizing, Environmental Friendly Project development, Decarbonizing OGDCL operating fields), IWMI (Research and Development Activities focusing on Early Warning Systems, Floods and Droughts, Water Management and Agriculture etc.), NUST (Joint Research, Knowledge Development, Capacity building activities, Entrepreneurship Development). Engaging with private sector through Carbon Markets mechanism is a strategic approach for unlocking the potential for financing climate action in which NDRMF is intended to consult, strategize, collaborate, and implement with the private sector for greater Climate Action, scale and sustainability.
6. Following are the options through which NDRMF is looking forward to engage with and provide support to the Private Sector.



Seminar on Leveraging Carbon Markets to enable private investment 24 October, 2023

1. Technical Advisory for benefiting from international Carbon Markets

International Carbon Markets are fast growing financial mechanisms for leveraging financing for climate action globally and meeting some of the financing gaps. Both Compliance (under Article 6 of the Paris Agreement) and Voluntary Markets have tremendously grown and many countries around the world are using them as a vehicle for investments as well as financing climate action. Potential include emissions reductions in Pakistan in energy, transport, agriculture and industry sectors which can be converted into carbon credits through government policy guidance as well as providing the technical assistance in designing the carbon reduction projects in compliance with international carbon mechanisms

regulatory requirements.

Our outreach and engagements with government and corporate sectors have shown that NDRMF can extend technical advisory and support services in following broad areas:

- Identification of key sectors with potential for emission reductions to the government departments.
- Technical support in identifying the opportunities for emission reductions within industrial processes of specific industry.
- Support in preparation of Project Idea Notes (PINs) for government sectors and industry.
- Support in identifying the appropriate international carbon scheme for registering the project.
- Investment matchmaking from domestic and international investors.



Panel Discussion: Climate Change and Carbon Markets

2. ESG / CSR (Opportunities for Impact Investment)

Given the proven institutional advantages and potential for high impact project interventions of NDRMF, it is believed that it can provide a favorable investment opportunity and vehicle for the private sector CSR and ESG funding. Furthermore, financial resources from the private sector can be blended and leveraged from funding from other funding resources of NDRMF resulting into large scale project interventions. Furthering the understanding, NDRMF is engaging with private sector under the following scope:

- The private sector can support government efforts of managing climate change to achieve global climate resilience by leveraging the financial resources of businesses and the larger financial sector as part of their CSR, ESG and Sustainable Development Goals efforts and contributions.
- NDRMF to provide opportunities to the private sector to contribute and invest into the high impact projects and interventions and demonstrate them as socially and environmentally responsible business entities.
- Leveraging Public Finance with Private Sector Investments.

7. The need for knowledge creation and a platform to bridge the gap between the Government and Private Sector in smoothing the access and roadmap for Carbon Markets is in demand. Given the potential of the thematic area in the country and interest shown by private sector and their confidence in NDRMF, it will assist the development and effective engagement of private sector. NDRMF will support in bridging some of the knowledge gaps, particularly, in undertaking the sectoral baseline assessments, market analysis, guiding in developing, monitoring, reporting and verification as per international standards and work as a catalyst for implementation of projects.

The NDRMF Technical support is focused on:

- Tapping into Carbon Markets, in order to explore/ identify bankable Climate Change projects having potential for generating carbon credits.
- Creating a viable mechanism (program) for private sector ESG/CSR funding towards Impact Investment.
- Prepare a proposal for leveraging Public Finance with Private Sector Investments.



Panel Discussion: Carbon Markets potential for Pakistan’s private sector

National Disaster Risk Management Fund (NDRMF)



Mubushar Hussain
Manager DRF NDRMF

Disaster Risk Financing Strategy of Pakistan

A Decade of Financial Resilience and Preparedness

A. Introduction / Background

Pakistan is becoming increasingly exposed to natural hazards, ranging from earthquakes and landslides to floods and droughts. The 2005 earthquake losses of \$ 5.2 billion, the 2010 floods losses of \$ 10 billion and most recently the 2022 floods which has been calculated around \$ 30 billion, are only three disasters of catastrophic magnitude causing widespread destruction of unprecedented scale (over \$ 45 billion).

With the increasing economic cost and financial burden of climate-induced disasters, the need for an effective financial management for disaster risks through an integrated approach is a key public policy challenge for governments around the world and particularly in Pakistan. NDRMF, as part of its mandate, is working with its government counterparts, development partners and communities at risk to enhance financial and operational resilience of Pakistan against disasters emanating from natural hazards. This entails putting in place emerging financing mechanisms and instruments, and implementing Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) measures to minimize damages and losses from future disasters.

NDRMF approach for strengthening financial resilience includes,

- i) Technology-based analysis of disaster risks based on identification of hazards and risks, and probable financial losses,
- ii) Developing a Strategy for Disaster Risk Financing (DRF) and Transfer of Risks for the government for its wider implementation, and
- iii) Natural Catastrophe Modeling and Technology Support for development of instruments for risk financing, risk transfer to build the fiscal resilience.

B. What is Disaster Risk Financing Strategy of Pakistan?

NDRMF has been mandated by the government to develop the 'Disaster Risk Financing Strategy of Pakistan'. The Strategy aims to make high level strategic recommendations for managing and transferring of residual risks posed by unmitigated natural hazards and the residual risks that have high economic costs, taking into account climate change impacts as well. The Strategy proposes the practical solutions to enhance Pakistan's resilience to climatic shocks and other natural threats. It will determine how disasters losses will be financed for critical infrastructure,

property, agriculture, small businesses and vulnerable populations at the national and sub-national levels.

The DRF strategy is providing an overall direction for enhancing the financial management of disaster risks.

It includes a clear articulation of the role of potential DRF solutions and key measures required to enhance the related enabling environment by different stakeholders. It identifies the financial roles and responsibilities of different levels or domains of government sector and the actions to enhance a country's financial arrangements for potential disaster events. It also indicates the expected financial responsibilities of private corporations, small businesses, farmers, and households in meeting their own recovery and reconstruction costs, thereby managing expectations about post-disaster public support. The DRF Strategy is based on a risk layering approach on data and analytics, which would allow for combining cost-effective risk transfer options, such as insurance and risk retention. It also identifies suitable sovereign DRF options for Pakistan.

The DRF Strategy determines how disasters losses will be financed for elements at risk (critical infrastructure, property, agriculture, small businesses, etc.) which are exposed, and vulnerable populations at the national and sub-national levels. Another important part is how to finance in pre-disaster phase investments in DRR / CCA in order to minimize and mitigate potential impacts of such events with minimum residual risks, and to achieve better preparedness to face the potential disasters.

Development of the national level DRF Strategy of Pakistan is likely to address four conventional main areas to help enhance the financial resilience of the country.

- ▶ Risk Assessment
- ▶ Sovereign Disaster Risk Finance and Transfer
- ▶ Financial Market Development
- ▶ Accompanying Measures

C. Salient Features of the DRF Strategy:

The Strategy is based on and shall contribute towards national and international commitments of Pakistan on DRR, CCA, and DRF, such as Sendai Framework for DRR 2015 – 2030, UN – SDGs, National DRR and Climate Change Policies, NAP, and National Disaster Management Plan (NDMP 2024).

The salient features of DRF Strategy are:

1. To assist policy makers in integrating DRR and financing as an essential component for financial management of geo-physical, hydro metrological and climate induced hazards.
2. To facilitate informed decisions on the selection of an efficient mix of ex-ante investments in DRR / CCA, insurance and non-insurance of DRF instruments, which will enable the Government of Pakistan to increase its capacity for retaining disaster risks whilst gradually

Vision

To mitigate climate change risks and strengthen Pakistan's financial resilience through inclusive, innovative and comprehensive disaster risk financing.

Mission

To strengthen the financial resilience of the nation by managing risks, develop capacity and create an enabling environment to effectively respond to and recover from hazard-induced emergencies, for the safety and well-being of all particularly the marginalized and vulnerable groups.

Objective

To provide substantial, fast, well-planned, well targeted financing from the Disaster Risk Fund(s) in an inclusive and transparent manner to reduce economic losses and fiscal risks, and protect public and private assets against disasters.

transferring excessive risks to international reinsurance and capital markets.

3. To promote investments in DRR / CCA, which will reduce damages and losses, and the cost of post-disaster response, recovery and reconstruction / rehabilitation.
4. To shift focus from disaster response to disaster risk reduction.
5. To adopt a risk layering approach to finance disaster risk with a combination of risk retention and risk transfer instruments.
6. To create budgetary reserves through setting aside a certain percentage of the budget annually.
7. To set up and operationalize a national-level Catastrophe Contingent Reserve Fund / Solidarity Fund with clear rules for allocating resources and specifications regarding eligible expenditures.
8. To evaluate contingent credit instruments and options for risk transfer through indemnity-based or parametric insurance.
9. To create a conducive and inclusive environment to propel private catastrophe insurance for households and businesses. This can be done in close collaboration with the relevant stakeholders including the private sector and development partners.
10. To work with relevant stakeholders to develop innovative and inclusive options to increase agricultural insurance. For instance, introduction of parametric crop insurance to support marginalized farmers, or to develop triggers and framework for anticipatory actions.
11. To provide programmatic capacity building both at policy and technical level for successful execution of the DRF strategy.
12. To development of an inclusive and gender sensitive Monitoring, Evaluation and Learning System that will enable effective targeting and desired impacts, but also assess overall progress in the implementation of the DRF strategy.
13. To delve deep for development of instruments, like:
 - a. Regular budgetary allocation(s)
 - b. Contingent Credit Facility
 - c. Sovereign (Indemnity-based) Insurance
 - d. Risk Pool
 - e. Catastrophe Bond

D. Implementation Framework

The strategy also outlines implementation roadmap spanning over a period of 10 years (3-years short-term, 5-year mid-term, and 10-years long-term), including the timelines for key initiatives, with regular risk assessments, partnerships, innovation, capacity building, analytics and knowledge products, and continuous improvements. The implementation framework emphasizes an inclusive and gender sensitized approach for development of instruments and their implementation across the country.

To take forward the DRF agenda, Ministry of Finance shall take the lead role. However, NDRMF will continue to provide technical inputs based on NatCat and regular engagement of all stakeholders, such as individual experts / insurance industry / organization, development partners within and across the globe. Moreover, a consultative approach has been followed and it will be continued, like NDRMF has already created DRF Synergy Group to achieve better coordination amongst the key stakeholders and improved understanding of the country's needs in the context of DRF and to discuss potential options for strengthening financial resilience of Pakistan. NDRMF will continue to play its role to take forward this DRF agenda to next steps, taking all possible measured and capitalizing all available opportunities.

E. Current Status and Way Forward

NDRMF remains committed to advancing the DRF agenda, as its mandate, leveraging all available resources and opportunities. The culmination of consultations and gender mainstreaming efforts, the final draft of Pakistan's DRF Strategy has been presented for deliberation to the Board of Directors of NDRMF. Further steps are on the way as per the directions of the Board. This development represents a crucial milestone in commencing the approval process within the Ministry of Finance, Government of Pakistan, underscoring our collective determination to enhance the nation's resilience to disasters. Upon approval, the DRF Strategy will serve as a blueprint for bolstering the fiscal and financial resilience of the country, enabling proactive disaster risk management.

Establishing a NatCat Data Center by NDRMF

The National Disaster Risk Management Fund (NDRMF), in collaboration with NUST University, is embarking on a groundbreaking initiative to establish a specialized data center focused on Natural Catastrophe (NatCat) probabilistic modeling. NDRMF has engaged M/s SUPARCO to develop the NatCat Model of Pakistan (Geo-referenced Exposure Database for Natural Catastrophe). In the region, it is the FIRST INITIATIVE at the national level. This NatCat modelling will assess disasters posed by natural hazards including hydro-meteorological (flood,

drought, tropical cyclone, urban flooding, hill torrents, heatwave) and Geo-physical (earthquake, tsunami, landslide), to evaluate exposure and vulnerability of elements at risk and will quantify risks and its financial impacts up to Tehsil (sub-district) level.

This state-of-the-art facility aims to revolutionize NDRMF approach to understanding, predicting, and mitigating the risks associated with natural disasters through advanced data analytics and modeling techniques.

Importance of Natural Catastrophe (NatCat) Modeling:

- 1. Enhanced Risk Assessment:** Probabilistic modeling provides a comprehensive framework for assessing the likelihood and potential impact of various natural disasters, considering multiple scenarios, variables, and uncertainties. It offers a more nuanced understanding of risk, enabling better-informed decision-making and resource allocation.
- 2. Optimized Disaster Preparedness and Response:** By simulating different disaster scenarios and their probabilities, NatCat probabilistic modeling allows policymakers, emergency responders, and planners to develop and prioritize tailored preparedness and response strategies. This proactive approach minimizes vulnerabilities and enhances the effectiveness of disaster management efforts.
- 3. Risk-based Planning and Resilience Building:** Probabilistic modeling facilitates the identification of high-risk areas, infrastructure, and populations, enabling targeted investments in mitigation measures and resilience-building initiatives. It supports the development of adaptive and sustainable urban planning strategies that can withstand and recover from natural disasters more effectively.
- 4. Insurance and Financial Risk Management:** NatCat probabilistic modeling plays a crucial role in the insurance industry by enabling accurate risk assessment, pricing, and portfolio management. It helps insurance companies and financial institutions to develop innovative insurance products, ensure adequate coverage, and enhance financial resilience against natural catastrophes.



National Disaster Risk Management Fund (NDRMF)



Purpose of Installing the Data Center at NUST University:

1. **Research and Innovation:** The data center will serve as a hub for multidisciplinary research on natural disasters, climate change, and resilience. It will facilitate collaborative projects, data analytics, and modeling to advance knowledge and develop innovative solutions for disaster risk reduction.
2. **Capacity Building:** NUST University will offer specialized training programs, workshops, and courses utilizing the data center's resources. This will enhance the capacity of professionals, students, and stakeholders in NatCat modeling, risk assessment, and disaster management.
3. **Public Awareness and Education:** The data center will support outreach programs and educational initiatives to raise public awareness about natural disasters, their impacts, and the importance of preparedness. It will foster a culture of resilience and empower communities to take proactive measures against natural hazards.
4. **Collaboration and Partnership:** By hosting the data center at NUST University, NDRMF will strengthen collaboration with academic institutions, research organizations, government agencies, and international partners. This collaborative ecosystem will foster knowledge exchange, innovation, and collective action to address the complex challenges posed by natural catastrophes.



National Disaster Risk Management Fund (NDRMF)

HSE

Under the ambit of NDRMF, embedded with role of disaster risk management, the orbited segments of HSE advocate for the best possible implementations in conformance with accredited international practices and relevant statutory aspects at workplace and during field visits. These practices reciprocate the elimination or the reduction of risks involving hazards, averting accidental occurrences, causing minor to fatal injuries. This ensures the promotion of friendly HSE settings and culture in the company as one of the leading best industry practices.



Fumigations/Disinfectant Sprays.

These sprays are used for pest control, pathogens, rodents, other harmful microorganisms and infectious insects/ diseases. NDRMF as obligatory feature conducts fumigation/ disinfectants spray quarterly or as deem essential through reputed companies in the open market to protect the workplace environment and health of its employees.

Salient HSE Workplace Activities:

First Aid [FA] & Training Arrangements.

These first aid arrangements are essential not only at workplace but also during field visits involving routine road safety as well. To raise awareness amongst the employees, NDRMF organizes and conducts training sessions twice a year involving various lectures and presentations by reputable industry experts from PRCS and 1122. As of now 6 x awareness / training sessions have been conducted.



Healthy Sports Activities. Engaging employees in healthy sports activities has numerous benefits, including promoting physical well-being, team building and improving overall moral. NDRMF, with an intent to maintain physical fitness, improve mental health, and foster social connections, occasionally conducts indoor / outdoor sports activities for its employees.



National Disaster Risk Management Fund (NDRMF)

Fire Safety & Firefighting Arrangements.

These are important components of any building's design and operational plan to ensure the safety of premises, occupants and assets in the event of a fire. NDRMF organizes training sessions twice a year through experts from 1122 to raise awareness for employees regarding fire safety and firefighting activities. As yet 8 x awareness/training sessions have been carried out.



Mock / Real Time Emergency Building Evacuation Exercises/Drills. Emergency evacuation drills are crucial for ensuring the safety and preparedness of individuals in the event of a real emergency. NDRMF conducts mock exercises / drills as regular mandatory feature against any looming or occurred emergency situation. As of now 10 x mock exercises / drills including 2 x real time movements have been carried out.



Defensive Driving and Road Safety.

These are critical for responsible driving with an aim to reduce the risk of accidents and ensure the safety of all road users. NDRMF regularly organizes and conducts training session once a year containing lectures / presentations by the experts from Islamabad Traffic Police (ITP) and National Highway Authority (NHA) on the matter. As yet 4 x awareness / training sessions have been conducted as an effort adapting good business practices.



National Disaster Risk Management Fund (NDRMF)

Waste Management Arrangements. These arrangements at workplace encompass the processes and systems put in place to handle, collect, treat, transport and dispose of waste in an environmentally responsible manner. NDRMF follows an effective waste management process that dispose of waste on daily by transporting to municipal parked waste bins.

Environment Friendly Detergents & Fragrances. To maintain a fresh and healthy office environment while ensuring well-being of employees, the use of environment disinfected and friendly cleaning material/ liquids fundamental. NDRMF, to ensure a fresh office environment and air quality, uses friendly cleaning detergents and air fresheners to prevent against any ill / unhealthy impacts and soothing impacts on the employees respectively.



Green Workspace Settings

By embracing these green workspace settings, one aims to create a healthier, more sustainable workplace for employees. NDRMF has placed organic/natural indoor floras to freshen the office environment and improve air quality.

Memorandum of Understanding (MoUs)

Balochistan Public Private Partnership Authority, (BPPPA)

Ghazi University, Dera Ghazi Khan



MoU Signed between NDRMF & BPPPA
Quetta 13th March, 2024



MoU signed with Ghazi University
Dera Ghazi Khan, 22 March, 2024

In its pursuit of building resilience across communities, NDRMF continues to forge pivotal partnerships. NDRMF took a significant stride forward by signing Memorandums of Understanding (MoUs) with Balochistan Public Private Partnership Authority, (BPPPA) collaboration aimed at partnering on projects related to sustainable cities, transportation, forests and beyond. Also signed MoU with Ghazi University, DG Khan, major areas of collaboration include joint research and knowledge development and capacity building

initiatives, through specific trainings, conferences and joint, establish a “Climate Behavioral Lab (CBL)”. Through these strategic alliances, NDRMF aims to leverage expertise, resources, and networks to enhance resilience-building efforts nationwide. NDRMF is poised to implement innovative initiatives, share knowledge, and pioneer solutions that bolster communities against the impacts of disasters. These partnerships not only empower NDRMF but also signify a collective determination to shape a more resilient future for all.

Knowledge Building Initiatives

NDRMF likely implements various knowledge-building initiatives to engage effectively with stakeholders and strengthen the link between NDRMF, government institutions, and stakeholders.

First International Shajar Dost Conference and Research Exhibition Targeting SDG13 -Climate Action

The conference was organized by the department of Economics Ghazi University DG Khan on 19th February, 2024. CEO NDRMF, Mr. Bilal Anwar spoke as a conference co-chair and addressed on NDRMF and its contributions in leading Pakistan’s climate action journey. He also highlighted the prospects of using Behavioural Science for climate action and disaster response. Use of Behavioural tools as Public Policy instruments in disaster preparedness The audience included civil society representatives, govt officials and academia.



Symposium on ‘Silent Spring: A Nexus between Urbanization, Climate Change and Loss of Nature’

The prevailing trend of urban development exhibits a marked lack of systematic planning strategies. An informative session was organised at Fatima Jinnah Women University, Islamabad on 26th February, 2024 to understand the importance of safeguarding nature. Degradation of ecosystems, including deforestation, competing use of land, uncontrolled expansion of agriculture particularly for intensive farming, infrastructure development, and the unsustainable exploitation of wild species intensified climate challenges. Mr. Muhammad Fawad Hayat, Head of Climate Change represented NDRMF stance on the subject.



News and Events

Interactive Session with the Development Partners on NDRMF Initiatives

The interactive session organized by NDRMF on January 25, 2024, chaired by Dr. Muhammad Jehanzeb Khan, the Chairman of the Board of Directors, aimed to delve into several key topics regarding the evolving role of NDRMF in Pakistan's resilient building agenda. Deliberations centered on how NDRMF's role is adapting and evolving within Pakistan's agenda for building resilience. It involved discussions on emerging challenges, strategic shifts, and new opportunities for NDRMF to contribute effectively to the nation's resilience efforts. The session provided a brief overview of NDRMF's repurposing, indicating potential changes in its objectives, strategies, or operational focus. Repurposing could entail realignment of resources,

redefining priorities, or expanding the scope of activities to better address evolving needs and priorities. Views from development partners were sought to understand how their respective country programs align with NDRMF's mandate. Further on collaborative initiatives, joint projects, and areas of synergy between NDRMF and its partner organizations aimed at enhancing resilience-building efforts in Pakistan.

Overall, the session aimed to foster dialogue, exchange insights, and explore opportunities for collaboration to strengthen NDRMF's role in advancing Pakistan's resilient building agenda.



Successful Completion of Inaugural PMP Workshop



The inaugural batch of Project Management Professional (PMP) workshop successfully concluded from February 1st to 4th, 2024. It was meticulously designed to equip NDRMF's participants with essential project management skills and knowledge to excel in their professional endeavors. Over the course of four intensive days, participants delved into key project management concepts, methodologies, and best practices. Led by seasoned industry experts, the workshop provided a comprehensive

overview of project initiation, planning, execution, monitoring, controlling, and closing phases. Participants learned how to develop robust project plans, manage resources efficiently, and navigate challenges with confidence. Building on the success of this inaugural workshop, NDRMF remains committed to offering high-quality professional development opportunities to empower professionals across industries.

National Disaster Risk Management Fund (NDRMF)

Workshop on NDRMF's Accreditation Criteria & Project Proposal Development

The Fund has introduced an accreditation process for the non-public sector organizations. Due to diversification of Fund's portfolio also based on lesson learnt during execution of Phase- I and project grant financing, a need emerged to update accreditation criteria in order to cater NDRMF's current mandate. Two days' workshop was organized on 13-14 February, 2024 in backdrop of initiation of phase –II of NDRMF funding to help achieve an enhanced level of coordination, involvement and capacity building of the prospective FIPs for accreditation application, understanding of NDRMF's proposal format and related documentation to seek improve quality of project proposals and submission to NDRMF to achieve quality projects and well defined deliverables.



13 February, 2024



14 February, 2024

Event on Coastal Resilience: A Case for Climate Finance” in Karachi

An event on coastal resilience was organised by Islamic Relief Pakistan on 28th February 2024 to address the most pressing issues faced by the local communities such as climate change, livelihoods and water access in Sindh. The purpose of the event was to equip coastal communities of Sindh with tools, knowledge and opportunities to cope with the changing climate to support the process of climate transition and adaptation. Also discussed and highlighted importance of protecting coastal ecosystems in preventing climate change as they protect coastal communities from harmful impacts, such as rising seas and flooding that later on leads to migration. CEO NDRMF attended the session as keynote speaker and shared insights on climate action financing and the intersection of climate and development.



Enhancing Operational Efficiency through SAP ERP Implementation at NDRMF

NDRMF rolled out an Enterprise Resource Planning (ERP) system in SAP (S/4 HANA) Systems, Applications and Products on 29th February, 2024 to simplify and optimize the core business processes, reducing manual efforts and minimizing the risk of errors. CEO NDRMF and Managing Director SAP Pakistan, Mr. Saqib Ahmad launched SAP at NDRMF. The primary objective of implementing SAP ERP at NDRMF is to modernize and integrate its core business functions and bring the paperless culture in the organization. This initiative aims to achieve Streamline Operations, Productivity Improvement, Enhance Data Accuracy, Improve Financial Management, Improve Internal Control

The SAP ERP implementation will cover key functional areas within NDRMF: -

- a. Financial and Controlling (FI/CO) including Fund & Grant Management
- b. Human Capital Management (HCM)
- c. Material Management (Purchasing and Inventory Management)



NDRMF Board of Directors Meeting

The Board of NDRMF convenes on a quarterly basis to discharge its legal obligations. The Board reviews the Company's progress, engages in decision-making processes pertaining to significant policy matters, and establishes the strategic direction of the Company in alignment with its business plan. The Board Meetings serve as a platform for the Board to discharge its fiduciary responsibilities, ensuring the effective governance and sustainable growth of the Company.

To date, NDRMF has successfully conducted its 39 Board Meetings. The Board Committees within NDRMF operate with utmost efficiency, diligently executing their respective duties, actively contributing to the decision-making processes of the Board, ensuring that their collective efforts are directed towards advancing the best interests of the Company.



4 March, 2024



3 April, 2024

National Disaster Risk Management Fund (NDRMF)

International Women Day



Equal participation of women in all walks of life is the hallmark of a progressive nation. At NDRMF, we honour and celebrate the achievements of our female workforce.

Messages on the day 8th March, 2024



Women in NDRMF are the symbol of hope, innovation and courage! Lets commit ourselves to make NDRMF an ideal working place for them and contribute to the society.

Mr. Bilal Anwar
Chief Executive Officer



NDRMF has made significant contribution through funding its partners on multiple projects on the thematic areas ensured gender specific needs of the vulnerable groups through adopting community driven approach.

Aamina Jabbar
Deputy Manager Gender Development



NDRMF is ensuring women empowerment through fostering confidence in female staff by assigning them leading roles in the organization and career growth opportunities.

Amina Sadaf
Deputy Manager Project Appraisal & Management



By investing in women, we not only empower individuals but also contribute to the advancement of communities and nations. Together, let us invest in women today for a brighter and more inclusive tomorrow. By accelerating progress, we not only honor the achievements of women but also pave the way for a more equitable and prosperous future for all.

Asma Noman
Manager Finance & Accounts



No society can ever progress without investing in its Women. As once said by Mao Zedong "women hold up half the sky", significance of these words still resonates in the contemporary world. It calls for the equal rights, opportunities and representation for women as they play a crucial role in society.

Palwasha Aslam
Corporate Governance Executive



I wish all the incredible women out there realize that helping other women is a win, cheering up for them, praying for them and sharing resources with them does not take away the blessings from you.

Sabba Rasheed
Project Accountant

National Disaster Risk Management Fund (NDRMF)



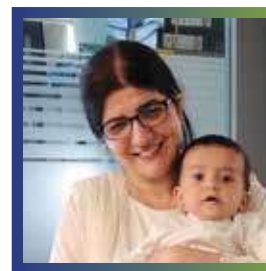
"Today's Empowered Little Girl - Empowered Women of Tomorrow" Even a small investment can pay off in the longer run with accelerated performance. I can relate one of such supportive investments in the form of "Day Care Initiative for Working Mothers" made by NDRMF. This initiative provided me with the opportunity and freedom to meet my obligations. I pledge to transfer the legacy of investing in empowerment of my little girl to help her achieve her bigger goals in the years to come.

Sadaf Tahir
Deputy Manager Project Appraisal & Management



Celebrating the amazing power and role of women in shaping our world. From nurturing families to leading change, women drive progress globally. Together, let's continue to champion gender equality and create a future where every woman's potential is fully recognized and realized. Here's to the strength, courage, and brilliance of women everywhere.

Shaista Ramzan
CEO Secretariat Coordinator



In the memory of my friend and her innocent 2-year-old daughter lost to domestic violence in 2023, I am dedicated to empowering women, teaching self-defence, and advocating against violence. Join me in supporting the UN theme 'Invest in Women: Accelerate Progress.' Together, we can create a world where women are safe, empowered, and respected.

Shamsa Yousaf
Assistant Manager Monitoring & Evaluation

Charting Financial Integrity: Insights from the Audit and Finance Committee

At NDRMF, our internal audit (IA) function stands as a cornerstone of accountability and efficiency within our organization. Operating independently, the IA team ensures that all audit activities are conducted with integrity and objectivity, free from any undue influence. This independence allows them to provide thorough assurance and advisory services, guiding our organization towards optimal performance and compliance.

Through a risk-based approach, IA meticulously assesses and prioritizes areas of concern, focusing on both operational and project-based budgets. By scrutinizing financial transactions, operational activities, and information systems, IA safeguards the assets of NDRMF, mitigating the risk of fraud, misuse, and errors. These audits not only detect irregularities but also offer proactive recommendations to streamline processes, enhancing efficiency and effectiveness across the board. Moreover, their commitment to capacity building extends beyond our organization.



The incredible women of NDRMF! At this day, we honor your dedication, passion and invaluable contributions to NDRMF. Your resilience and leadership inspire us all to strive for excellence every day. Let's continue to champion gender equality and create a supportive environment where every woman can thrive.

Nabeel Khalid
Deputy Manager Human Resource Management



Meeting of Audit and Finance committee
12 March, 2024

IA team works closely with Fund Implementation Partners, reviewing their processes and suggesting controls to strengthen their operations. By empowering our partners with best practices and tailored solutions, we contribute to the overall success of our projects and initiatives.

Internally, Internal audit serve as catalysts for improvement, driving efficiency and effectiveness in our own processes. From financial management to project implementation, we continuously assess and refine our operations to better serve our mission. Through collaboration, innovation, and a relentless pursuit of excellence, our internal audit function plays a vital role in ensuring the success and sustainability of NDRMF.

Summit on Climate-Security Nexus

The Policy Practice Summit on Climate-Security Nexus: Security Risk Assessment of Pakistan convened on 21st March, 2024 in collaboration with the Foreign, Commonwealth & Development Office (FCDO) with the group heads of the leading think tanks, civil society organizations, academia, relevant government departments, and Pakistan’s development partners. The objective of the summit was to gain a comprehensive understanding of the impacts of climate change stressors on existing drivers of conflict, social tensions, and instability in Pakistan, and to identify contextually appropriate actions and interventions that have the potential to mitigate climate-related risks and contribute to conflict prevention and resolution. The climate security summit is a part of research endeavour aimed at analysing the contextual nuances of climate-related risks and conflict drivers, we seek to identify and prioritize interventions that promote cooperation, resilience, and sustainable peace.



Joining of CFO

I have joined NDRMF as a Chief Financial Officer during January 2024. Being a qualified Chartered Accountant from the Institute of Chartered Accountants of Pakistan as well as Institute of Chartered Accountants In England and Wales, I carry a vast experience of around 19 years.

The primary role in the Finance and Accounts department in any organization is to ensure the design and implementation of internal controls to promote the culture of transparency and accountability. To achieve the long term strategic objectives of the company, the role of Finance and Accounts is being evaluated to align with the core operations of the company.

The long term sustainability of the company is dependent on the returns on its investment portfolio. To achieve this, the company is also diversifying the investment avenues to create a healthy return on the investment portfolio.

The implementation of SAP will help us in providing robust accounting and financial management system to embrace the changes required for the implementation of the Business Strategy.



Chief Financial Officer
Bilal Zafar

World Bank Project Review Meeting

A review meeting on Pakistan Hydromet and Climate Services Project (PHCSP) with NDRMF held on 25th March, 2024 to discuss progress review on ongoing activities. The meeting was attended by representatives from WB, Ministry of Climate Change, Ministry of Planning and Special Initiatives and other relevant stakeholders.



National Disaster Risk Management Fund (NDRMF)

Tree Plantation Initiatives

Rooting for a sustainable world - Branching out for a better planet

Conducting annual tree plantation initiatives involving all employees during spring and monsoon seasons is a commendable practice that can have numerous positive impacts on both the environment and the company culture. As a sequel, NDRMF from outset assumed tree plantation initiative to induce a positive drive among company employees as an active community participant in elevating the cause during spring & monsoon sessions as mandatory/regular event.

Play your part in reducing global warming

As part of monsoon tree plantation drive, NDRMF team observed tree plantation with children at Pakistan Sweet Home.



Deforestation can be Devastation- Plant in Plenty- Lets grow them together



February 2024



March 2023



National Disaster Risk Management Fund (NDRMF)

Plant More Trees- Contribute towards Climate Resilience-Grow a clean Environment



National Disaster Risk Management Fund (NDRMF)

World Health Day My Health, My Right

7 April, 2024



World Health Day is celebrated annually on April 7th. It is a global health awareness day sponsored by the World Health Organization (WHO). It serves as an opportunity to draw attention and mobilize action to important health issues and promote healthier living habits worldwide. The theme for this year aims to champion the right of everyone, everywhere to have access to quality health services, education, and information.

NDRMF recognizes the vital role that health interventions play in building resilience and reducing vulnerabilities in communities facing disasters. Strengthening healthcare system and improving health emergency response is an integral component of NDRMF interventions across the country.

NDRMF reaffirms its commitment to prioritizing health as an essential component of disaster risk management. Through strategic investments and partnerships, NDRMF aims to strengthen healthcare systems, enhance disaster preparedness and promote a culture of health and well-being. NDRMF is striving with stakeholders to ensure access to quality healthcare and strengthen healthcare systems.

Let's stand united in our efforts to promote the healthcare system of all individuals and communities and more resilient world. #WorldHealthDay #HealthForResilience

7 PROJECTS 62 DISTRICTS

3 GOOD HEALTH AND WELL-BEING
NDRMF directly contributed towards SDG 3



NATIONWIDE
FIP - National Disaster Management Authority (NDMA)



NATIONWIDE
FIP - National Institute of Health (NIH)



ACROSS ALL DISTRICTS
ICT, KPK, PUNJAB, SINDH & BALOCHISTAN
FIP - National Institute of Health (NIH)

National Disaster Risk Management Fund (NDRMF)

NDRMF interventions in Health



Strengthened Health Emergency Preparedness

- Timely assistance to Pakistan National Emergency and Response Plan for COVID-19 to stock the essential items/equipment required to deal with COVID-19 pandemic, strengthening Health System.
- Assisted NIH to hire the vaccination teams for the nationwide COVID-19 vaccination campaign.



Strengthening Healthcare System

- Strengthened capacity of NIH and Network of Pakistan Public Health Laboratories through provision of equipment, diagnostic services for public health preparedness and capacity building initiatives to build Healthcare Force.
- Assisted Health Department Govt. of Balochistan to improve and strengthen the Health Care Delivery System in Tertiary Care /Teaching Hospitals/District Head Quarter Hospitals. Equipment is being provided to 15 hospitals of Balochistan.
- By provision of necessary Specialized Medical Equipment and Machinery required for COVID-19 Medical Response that will ultimately improve overall Health Care Delivery System at Provincial, Divisional and District Level.
- Assisted Health Department Govt. of Gilgit Baltistan to invigorate the response and service delivery capacity of the health care system. Equipment is being provided to 18 hospitals of Gilgit Baltistan.



Strengthened Emergency Response Systems (Rescue 1122)

- Provision of rescue and response equipment Strengthening the Emergency Response Services (Rescue 1122) at Gilgit Baltistan and Khyber Pakhtunkhwa.



Invested in Health Projects: **PKR 13,528 Million**



Total Beneficiaries: **71,560,691**

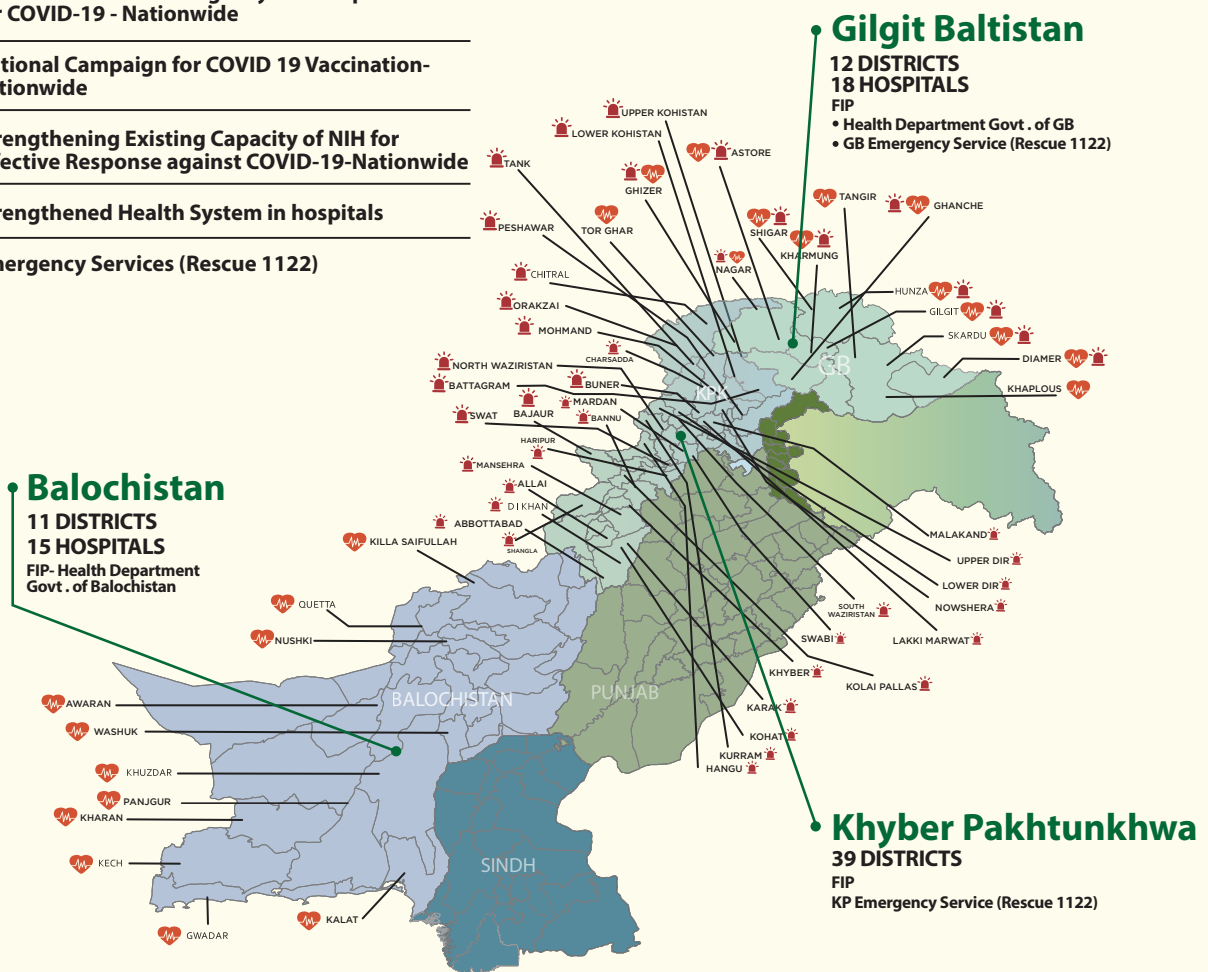
Pakistan National Emergency and Response Plan for COVID-19 - Nationwide

National Campaign for COVID 19 Vaccination-nationwide

Strengthening Existing Capacity of NIH for Effective Response against COVID-19-Nationwide

Strengthened Health System in hospitals

Emergency Services (Rescue 1122)



National Disaster Risk Management Fund (NDRMF)

Readers Corner



Transforming Neglected Areas into Thriving Green Corridors:

Sindh ECO-System Restoration and Community Engagement by NDRMF

ABSTRACT: The project "Restoration of Sindh Province's Ecosystems," approved by the National Disaster Risk Management Fund (NDRMF) and led by the Sindh Forest Department, has made significant progress in revitalizing various ecosystems with a PKR 2,130 million investment. Through careful planning, stakeholder involvement, and monitoring, the project has successfully rejuvenated neglected areas, creating vibrant green corridors that benefit the local ecology and communities. Native tree species were selected, and sustainable water management practices were implemented, utilizing drainage water for irrigation. Extensive community consultations fostered a harmonious relationship and generated employment opportunities, improving the socio-economic well-being of local

communities. The achievements include transforming dumping grounds into clean spaces, flourishing green corridors, combating excessive grazing pressure, and converting barren land into a lush green jogging track. Ongoing urban and roadside plantation intervention have also achieved significant milestones, positively impacting ecosystems and stabilizing river banks. The engagement of local communities has been crucial, benefiting their livelihoods and overall well-being. The article highlights the importance of careful planning, stakeholder involvement, and monitoring in restoring and enhancing ecosystems, leading to improved biodiversity, economic growth, and community well-being.

National Disaster Risk Management Fund (NDRMF)

In a remarkable example of environmental transformation and community involvement, the National Disaster Risk Management Fund (NDRMF) team, in collaboration with the Sindh Forest Department, has undertaken several canal side, road side & regeneration plantation interventions across Sindh, Pakistan. These initiatives have successfully rejuvenated once neglected areas into thriving green corridors, benefiting both the local ecology and the communities. By carefully selecting native tree species (Babool, Populus, Neem, Sukh Chain, Lai, Kandi & Sheesham, Siris & Amaltas compatible with the local ecology and utilizing drainage water for irrigation, project achieves several benefits; including Reforestation and forest generation, promote sustainable water management practices. Extensive community consultations have ensured stakeholder involvement & created a harmonious relationship between the community and the project. Alongside employment opportunities have been generated, improving the financial situation and socio-economic well-being of the local communities. This article provides a summary of the achievements & environmental implications of the project.

Shehdad Pur has witnessed the flourishing of vibrant green corridors through canal side plantation, benefiting biodiversity and attracting wildlife. In Hala Sanghar plantation has achieved 90% completion of the target to plant five thousand trees, with species selection based on climate and soil conditions. While some tree mortality occurred due to extreme weather and flooding, swift action is being taken to replace lost trees. Regular maintenance activities, including watering, pruning, and fertilization, have been carried out, and the local community has actively participated in sustaining the roadside trees.



Figure 1 Hala Sanghar canalside plantation

In Layari river, a notorious dumping ground has been transformed into a clean and environmentally friendly space through community efforts.



Figure 2 Layari river canal side before and after the project implementation



Shamsa Yousaf,
MS-Project
Management

Assistant
Manager-Monitoring
& Evaluation,
NDRMF, Author

Similarly, In Drig forest, a strategy has been implemented to address high grazing pressure by planting three different species within an enclosure. The project has already shown promising results, with pleasing survival rates and increased economic activity.



Figure 3 Drig forest riverine plantation

Keti Shah forest's plantation efforts have reduced soil erosion, increased vegetation cover, and improved biodiversity. The engagement of local communities has been crucial to the success of the project, benefiting their livelihoods and overall well-being.



Figure 4 Keti Shah forest regeneration plantation

At Kamal Dero forest, regeneration measures have positively impacted the ecosystem, increasing plant and animal species' diversity and abundance. The successful planting of Babool and Populus has stabilized river banks and provided habitats for wildlife, including rare and endangered species. Regular monitoring is recommended to track the long-term progress of regeneration efforts.

Conclusion:

In conclusion, these canal side, road side, urban and regeneration plantation in Sindh, Pakistan, have successfully transformed neglected areas into thriving green corridors, benefiting both the environment and local communities. The projects promote sustainable water management practices, involve extensive community consultations, and generate employment opportunities. The positive outcomes include improved biodiversity, economic growth, and community well-being.

Implications of Wet Bulb Temperature in the Era of Climate Change: A focus on Pakistan



By Dr. Mariam Saleh Khan (Weather and Climate Services, Islamabad, Pakistan)



Dr. Mariam Saleh Khan

With summers in Pakistan growing increasingly hotter and longer every year, heatwaves are worsening and so is common person's struggle to cope with extreme heat and humidity while carrying out daily activities. This experience of surviving through hazardous

heatwaves can be effectively understood through

the scientific concept of wet bulb temperature (WBT), which has gained prominence as a key metric in comprehending the impacts of climate change on human health.

Wet bulb temperature is a composite measure of heat and humidity, recorded by a thermometer with its bulb wrapped-around in a wet cloth. When water evaporates from the cloth, it leaves behind a cooling effect, indicating temperature below the regular dry bulb temperature. If air is fully saturated, it slows the evaporation process and WBT rises. This correlates with human body's reliance on sweat evaporation for cooling and is vital for understanding heat stress phenomenon.

A resting human body generates approximately 100 Watts of metabolic heat, that increases further with mild daily activities or higher external temperatures. To maintain a core temperature of around 37 °C, the extra heat must be dissipated, mainly through skin. Under normal conditions, the skin is strongly regulated at 35 °C or below to enable heat transfer from the body core. If the core temperature rises, approximately 80% of the excess heat is shed through the skin by sweating, a process known as 'evaporative cooling'. However, the effectiveness of this cooling mechanism depends significantly on the surrounding environmental conditions.

At a certain threshold of heat-humidity combinations in the surroundings, it is no longer possible for sweat to evaporate fast enough to prevent overheating the body core. A sustained rise of about 3°C in core temperature starts impacting human health and leads to serious issues like heat stroke, cardiovascular stress, organ failure, and eventual death under prolonged direct exposure to such humid-heat conditions.

In the past, the main parameter used in most scientific research for assessing impacts of heat stress on human body was dry-bulb or air temperature. Recent research emphasizes on investigating both heat intensity and the simultaneously increasing humidity under global warming, as contributing factors to heat stress in mammals, including humans.

Despite the uncertainty in future climate-change impacts, human body is often assumed to adapt to any possible warming. But in 2010, a landmark scientific study imposed a robust threshold at 35°C WBT, as the upper physiological limit humans can withstand, but anything exceeding 30°C could pose severe risks and potentially be fatal. Another study (2018) suggested productivity threshold at 32°C. However, more realistic human-centred models found these overly optimistic estimates valid only for ideal scenarios where direct exposure and other vulnerability factors were ignored. A 2022 study suggests that lethal limit for even young, fit and healthy adults could be as low as 25-28°C in hot-dry environment or 30-31°C in warm-humid conditions. A mere 1-2°C increase could trigger non-compensable impacts, even in shade or without extensive physical activity.

As per the IPCC's Sixth Assessment Report (AR6-2023), global mean temperature has increased by almost 1.2°C from the preindustrial level (1850-1900), attributed primarily to the anthropogenic activities. Every 1°C rise in air temperature increases its capacity to hold 7% more moisture, and warmer environments accelerate evaporation from water bodies resulting into humid-heat. The year 2023, intensified by natural El Niño event, became the warmest on record, with half of its days exceeding 1.5°C, and non-uniform impacts of varying frequency, severity and duration of climate extreme events across various geographical regions. This indicates the vitality of WBT measurements particularly in certain tropical and subtropical areas, where even a slight rise in humid-heat can push large populations to critical thresholds for human survivability and liveability.

New research demonstrates many regions already face "non-compensable" heat stress associated with frequently higher WBT, challenging earlier climate models that projected the first 35°C WBT occurrences by the mid-21st century. A comprehensive evaluation (2020) of global weather station data reveals that the frequency of extreme humid-heat has more than doubled since 1979, with several WBT exceedances of 31°-33°C. Recent study (2023) highlights a surge in frequency and geographic spread of extreme heat events, even at 1.5°C warming. Humid tropics including monsoon belts are all careening towards WBT threshold before end of the century. Around 30% of the global population is already exposed to lethal humid-heat, potentially reaching 50% by 2100, even with most drastic GHG emission reductions. Middle Eastern and South Asian countries, including Pakistan, are predicted to be inconsistently more affected.

Pakistan's Case: Socioeconomic Vulnerability and Adaptation

Heat is not alien to Pakistan and its people; however, it is going beyond physiologically tolerable limits as rapid climate change is making acclimatization impossible. In the context of WBT hotspots, the weather station in Jacobabad (dubbed as the hottest city on Earth) already breached WBT of 35°C multiple times. This is predicted to happen more regularly in the region by 2075, indicating conditions nearing or surpassing human survivability. A very tragic indicative example is 2015's Karachi heatwave, that resulted in thousands of deaths.

Frequent occurrences of higher WBT challenges communities to maintain normal daily activities, reducing overall quality of life and economic productivity, especially for outdoor workers, the elderly, children, and those with pre-existing health conditions or limited access to cooling and health care. The impacts are worsened by poor urban design, ill constructed infrastructure, insufficient ventilation, and non-insulated walls etc.

Pakistan is also the fastest urbanizing country in South Asia, which indicates the acute vulnerability of its densely populated urban areas, where lethal humid-heat is not just a future projection but a current reality. This necessitates urgent and effective adaptation planning by integrating WBT consideration into relevant policies for urban planning, public health, early-warning systems and emergency response plans. Investments in sustainable infrastructure, green spaces, renewable energy, heat-resilient architectural designs and urban cooling are vital adaptation strategies. Community initiatives like awareness campaigns, adopting indigenous cooling strategies, local heat action plans, promoting heat-resistant

agriculture practices are also essential. At individual scale, investing in cooling technologies and infrastructure, personalized heat protection strategies, and considering potential migration to safer environments is crucial.

However, the feasibility of these strategies depends on socioeconomic status and resources. In developing nations like Pakistan, economic constraints of the government, communities and individuals severely compromise the ability to adapt. For communities grappling with frequent power outages or unreliable electricity, risks of extreme humid-heat events are compounded by economic limitations, leading to increased mortality and morbidity. Cost of adaptation, thus becomes a critical factor in determining survival. Balancing mitigation efforts with realistic adaptation strategies, while acknowledging their limitations, is key to effectively addressing the threats posed by increasing WBT.

In conclusion, as lethal humid-heat becomes increasingly probable in most populous regions, recognizing WBT as a key indicator is crucial. Currently, humid-heat risks are grossly underestimated. It's imperative to understand these risks fully and implement effective adaptation strategies for the health and safety of communities, especially in vulnerable regions with huge data gaps. This demands multidimensional approach by combining scientific research, policy-making and community involvement. International cooperation, resource allocation, and public awareness are needed more than ever, alongside a commitment to sustainable development, as we face the realities of a warming planet.

Gallery



ADB Mission headed by CD ADB, Mr. Yong Ye visited NDRMF



Interactive Session with Development Partners on NDRMF Initiatives



Workshop on NDRMF's Accreditation Criteria & Project Proposal Development 13 February, 2024

National Disaster Risk Management Fund (NDRMF)



NDRMF accreditation participants visit to NDMA NEOC 14 February, 2024



Meeting with Chairman NDMA, Lt. General Inam Haider 15 February, 2024



Symposium on ‘Silent Spring: A Nexus between Urbanization, Climate Change and Loss of Nature’ 26 February, 2024



Coastal Resilience: A Case for Climate Finance” in Karachi 28 February, 2024



International Conference Breaking Barriers through diversity and inclusivity 26-29 Feb 2024



UNDP-UNESCAP Training “Public Finance for SDGs in Pakistan: An Integrated National Financing Framework Approach”, February, 27-28, 2024

National Disaster Risk Management Fund (NDRMF)



CEO NDRMF and Managing Director SAP Pakistan, Mr. Saqib Ahmad launched SAP at NDRMF.
29th February 2024



16th ANNUAL CORPORATE SOCIAL RESPONSIBILITY SUMMIT
6 March, 2024



Seminar “Climate Change and Impacts on National Security of Pakistan” organized by SDPI
5 March, 2024



International Women Day event organized by IWMI.
8 March, 2024

National Disaster Risk Management Fund (NDRMF)



Meeting with Chief Secretary Gilgit Baltistan Mr. Abrar Ahmed Mirza. 18 March, 2024



Meeting with UNOCHA delegation 19 March, 2024



Capacity Building workshop on Enabling Advocacy in Carbon Markets for Sustainable Development. 28 March, 2024



Meeting with the Head of Program Welthungerhilfe Ms. Isabel Bogorinsky



Consultation on Climate Resilient Water Governance Models organized by International Rescue Committee. 2 April, 2024



Meeting with GCISC Team 16 April, 2024

National Disaster Risk Management Fund (NDRMF)



MEDIA DEPARTMENT NDRMF

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