

# Provincial Level Simulation Exercise (SimEx – 3/2023) Quetta, Balochistan 15-17 Nov, 2023



**National Institute of Disaster Management (NIDM)**



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## **Background**

1. The Provincial Level Multi Hazard Simulation Exercise (SIMEX-3/2023) for Balochistan was conducted by the National Disaster Management Authority (NDMA) to enhance response capacities and preparedness plans against earthquake, forest fires, coastal hazards, floods and extreme weather events in Balochistan. The exercise (table top) was held from 15<sup>th</sup> to 17<sup>th</sup> November 2023, at Quetta, Balochistan. Participants from various Government departments and agencies, armed forces as well as international partners, donors, academia, media, and other stakeholders attended the workshop. The exercise was sponsored by the UNFPA, USAID, Concern Worldwide, Unicef and CRS while the National Institute of Disaster Management was responsible for its conduct. Provincial Disaster Management Authority (PDMA), Balochistan Civil Services Academy (BCSA) and related departments assisted in the conduct of exercise.
2. The exercise was designed to enable preparedness and response planning at all tiers of the provincial and district levels. The participants were grouped into syndicates, while maintaining departmental entities, which assessed and planned responses against various scenarios related to floods, earthquake, cyclone and forest fire emergencies. A total of six syndicates were formed including 1X Provincial syndicate; PDMA Balochistan, 1X Armed Forces syndicate, 1X Humanitarian syndicate and 3X Divisional syndicates; Kalat and Makran Div, Naseerabad Div, Quetta & Zhob Div, with varying numbers of officers in each. The exercise syndicates operated from cubicles depicted as respective HQs located in the hall of the venue.
3. The exercise was controlled and managed by Exercise Control. Each syndicate was set up with sufficient seating, computers with reference material, printers, internet, whiteboard, and stationery. The exercise was scenario-based which included activities related to contingency planning, rescue, relief, rehabilitation, reconstruction, logistics, community engagement, and communication.
4. Syndicates were tasked to present their responses that included recommendations, action plans, and coordination strategies. The impact-based simulation narratives were focused on situations like; floods (Naseerabad, Jhal magsi, Jaffarabad and Lasbela), Earthquake (Chaman Fault line), Forest fire (Sherani and Zhob), Cyclone (Gwadar). Following the written situations issued with requirements appended, the exercise

commenced with a Master Scenario followed by situations /narratives with appropriate time jumps at different levels. The participants responded to the requirements as a syndicate after due deliberation and planning. Responses were presented by the syndicates to the Exercise Control and experts from NDMA, NIDM, PDMA and BCSA.

5. The exercise was conducted over three days, and observers were invited, including the Relevant Provincial Departments including Local Heads of UN agencies / INGOs, Vice Chancellors of Universities and Media. The exercise was a success, and the outcomes achieved through it are detailed in this Report.

6. The Provincial Simulation Exercise 2023 played a vital role in enhancing Provincial preparedness and response capabilities against emergencies such as earthquake, cyclones, floods and forest fires.

## **Purpose & Objectives**

7. The SIMEX was aimed to evaluate the emergency response, preparedness, and decision-making processes of various stakeholders of the provincial disaster management system at different tiers. The purpose of exercise was to examine the technical-driven probabilistic recurrence of earthquake, floods, forest fires and cyclone emergencies in time jumps of 2023 and enable preparedness plans at all tiers of provincial and district departments. To achieve this, a Narrative Impact-based Simulation (*with assistance from NEOC tech team*) was developed for each syndicate appraisal in advance for consideration and preparation of response. Simulation was developed to figure out local hazards, hotspot areas, vulnerabilities, risks, anticipated damages/spread, support activities needed in all phases of rescue, relief, rehabilitation/relocation, reconstruction, logistics stocking from community to public domain, individual actions, mass communication, rehearsals, plenary and feedbacks.

8. The objectives of the Exercise were to:

- a. To assess the functionality of different systems, including early warning, inventory management, logistics, reporting, communication, and coordination.
- b. to identify strengths and weaknesses in preparedness and emergency response.
- c. to evaluate DM plans and preparedness of various stakeholders at different

- tiers, improve mitigation and response capacities.
- d. to examine technical driven probabilistic recurrence of floods, earthquake, cyclones and forest fires emergencies and enable preparedness plan at all tier of provincial departments.
  - e. to assess the implementation of DM Plans, challenges in implementation of plans against a given situation.

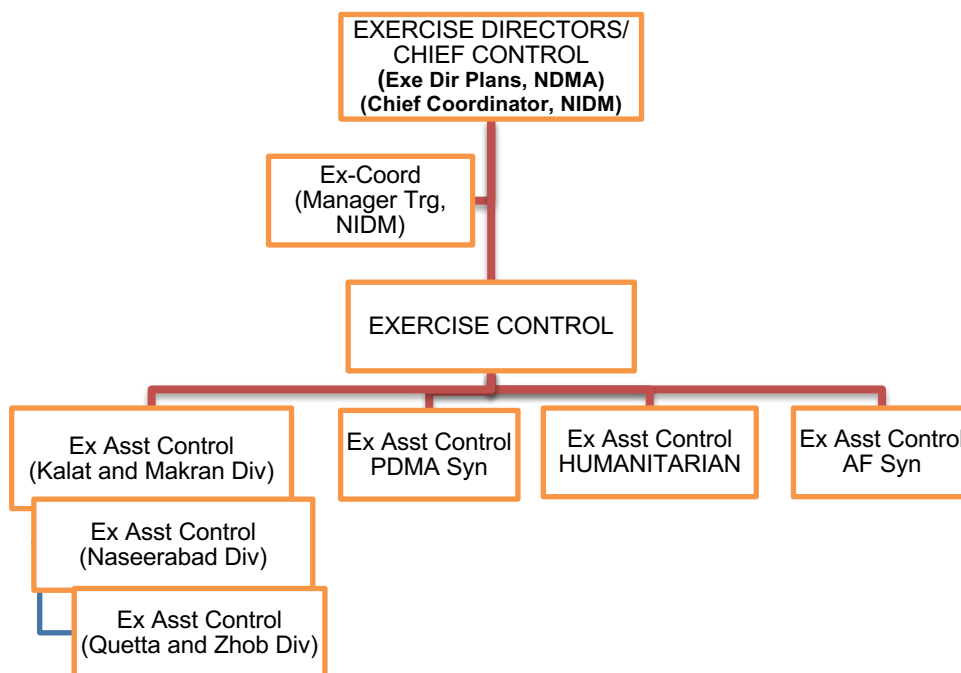
### **Expected Outcomes**

9. Expected outcome of the SIMEX: -
- a. The exercise improves coordination and communication between different stakeholders involved in emergency response and preparedness, including Government agencies, humanitarian organizations, armed forces and other actors ensuring quick and efficient information sharing.
  - b. As a result of the exercise, bottlenecks and inefficiencies in emergency response procedures are identified and streamlined, leading to a more efficient and effective response in future emergencies.
  - c. The roles and responsibilities of different stakeholders in emergency response is clarified as a result of the exercise, including those of Government agencies, humanitarian organizations and other actors.
  - d. The exercise identifies gaps or weaknesses in emergency response preparedness at provincial and district levels, and recommends follow-up actions to address them. This ensures more effective response in the future.
  - e. The provincial and district plans are validated based on SIMEX exercise, ensuring well-coordinated and efficient response at the onset of any disaster.

### **Scope & Structure**

10. The exercise took place from November 15 to 17, 2023 at the Quetta Club, Quetta. The National Institute of Disaster Management (NIDM), the national Think Tank at NDMA, was in charge of organizing and conducting the exercise, with support from DRR Wing of NDMA, the provincial Government and related departments.

11. The Exercise was controlled and managed by an Exercise Control. The Executive Director, NDMA served as the Chief Control/Director of the Exercise, while the Chief Coordinator acted as Exercise Controls. Additionally, each syndicate was supported by dedicated Assistant Controls.



12. 90x representatives from government departments, Armd Forces, UN agencies, NGOs and media participated in the exercise. from During the Exercise, the participants were divided into syndicates while maintaining their departmental entity. Following 6x syndicates were formed:

1x Provincial syndicate (PDMA Balochistan),

1x Armed Forces syndicate,

1x Humanitarian syndicate and

3x Divisional syndicates including

(a) Kalat and Makran Division

(b) Naseerabad Division

(c) Quetta & Zhob Division



| Ser | Syndicate                  | No of Officers in each Syndicate   |
|-----|----------------------------|--|
| a.  | PDMA Syndicate (1)         | Officers of Provincial Disaster Management Authority (6)   |
| b.  | Armed Forces Syndicate (1) | Army (4), Air Force (3), Navy (2), PMSA (2), Pakistan Coast Guard (1)  |
| c.  | Humanitarian Syndicate (1) | <b>UN &amp; I/NGOs</b><br>UNOCHA (3), UNFPA (1), UNICEF (1), IOM (1) IRC (1), IRP (1), CRS (1), MMD (1), HOPE (1), NHN (1), HHRD (1), BSDSB (1), Women Dev Org (1)   |
| d.  | Divisional syndicate (3)   | Divisional Syndicates to comprise of officers from:<br><br>DDMA (DCs/ADC's), S&GAD, Irrigation Dept, Health Dept, Agriculture Department, Forest Department, LG&RD, Building & Roads Dept, PHE, Balochistan Coastal Development Authority, Gwadar Development Authority, population Dept, Culture Dept, EPA, Mines Department, IT Department, Energy Department.<br><br><b>Note:</b> 26 x undertraining officers of 2 <sup>nd</sup> MCMC at Balochistan Civil Service Academy (BCSA), were divided into different syndicates as per their departments and previous districts of posting. |

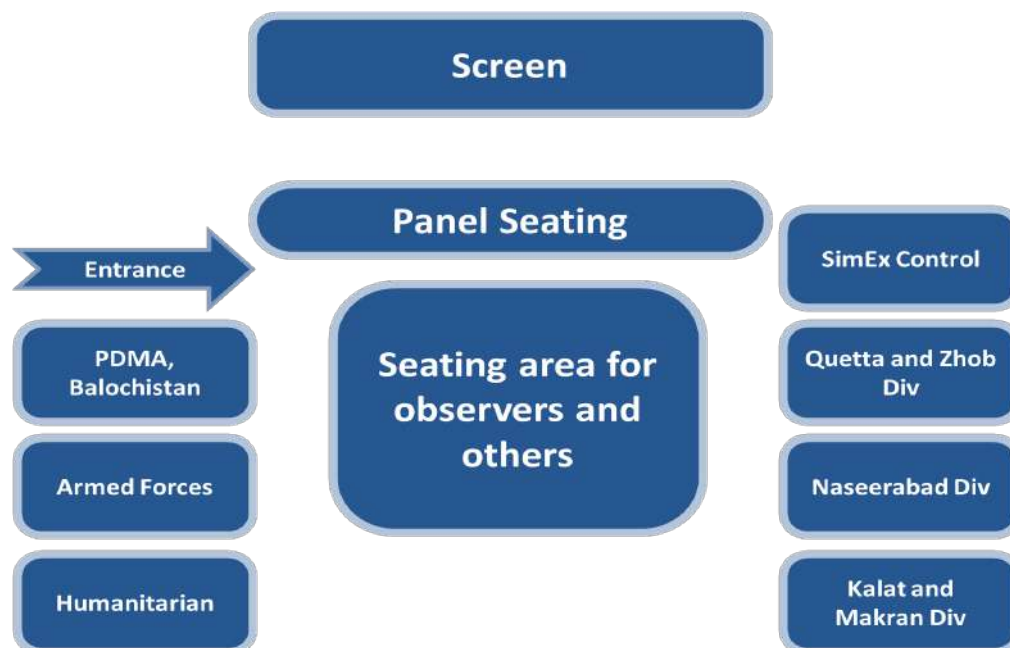
13. The syndicates operated from cubicles located in the venue hall, designed to function as their respective headquarters. Each syndicate was equipped with ample seating, computers containing reference materials, printers, internet, whiteboards, and stationery. The reference material provided included maps, relevant publications, sitrep format, resource mapping, presentation format, and other details that facilitated planning.

14. The Exercise was scenario-based featuring floods, earthquake, forest fire and cyclone emergencies situations to be played at various locations of vulnerable districts. Written situations were issued with requirements appended.

15. The exercise began with a Master Scenario, followed by situations/narratives with appropriate time jumps at different levels.

16. Participants responded to the requirements as a syndicate after careful consideration and planning, and presented their responses to the Exercise Control.

17. Layout of the syndicates is as below:



18. The disaster situations that were played included rain-induced flooding, forest fires, cyclone and earthquake, in some areas with ensuing issues, as well as check dam management SOPs, integrated response, safer camp site selection and camp management, and relief operations. The requirements included assessment of the situation at different levels, identification of courses of action available and adopted at different levels, coordination measures at all levels, practicing of SOPs, identification of gaps and needs, and clarification of processes, roles, and responsibilities of different stakeholders. Mediabriefings were also included.

19. The Exercise ended with a debriefing session in which the nominated syndicates debriefed on the Exercise, allowing participants to reflect on their strengths, weaknesses, and lessons learned.

## **Exercise Limitations**

20. The scope of the simulation exercise was limited to a few key scenarios and disasters due to time and resource constraints.

- a. Due to space limitations, participation was limited to only selected number of participants.
- b. The exercise was set for the multi-hazard situations related to summer and winter contingencies and mainly focused on related scenarios to avoid extended time jumps.
- c. The SIMEX aimed to test the existing response mechanism, although there were deviations in real-time (actual) response due to evolving ground realities.

## Provincial Level Simulation Exercise

### Inaugural Session

21. The Provincial Simulation Exercise 2023 commenced with participants' registration and settling down, followed by a recitation of Quran, and then the inaugural session. Chief Coordinator of the National Institute of Disaster Management (NIDM) delivered the opening remarks, on behalf of Chairman NDMA. CC NIDM explained the functioning of NDMA under



proactive approach and shared the dividends of recently established state of the art National Emergencies Operation Centre (NEOC) in saving lives and reducing losses, in the context of cyclone BIPARJOY and Sutlej floods 2023. He highlighted the importance of simulation exercises and interactive sessions in enhancing the institutional as well as departmental response capacities. He also briefed about NIDM research, national & international academic linkages development, think tank's membership and capacity building initiatives.

22. Esteemed guests, including Capt. Zubair Jamali (Retd), provincial minister for Home, Prisons and PDMA, Mr. Jehanzeb Khan Ghorezai, DG PDMA Balochistan, and Dr. Hafeez Jamali, DG Balochistan Civil Services Academy (BCSA) were invited for their remarks.



23. During his inaugural speech, the provincial minister emphasized on the importance of multi-hazards simulation exercises and emphasized that such exercises at the provincial will surely enhance the preparedness and response capacity of Government and other functionaries. He stressed the importance of being vigilant and

prepared for emergencies, and how proactive measures can improve overall resilience and the ability to cope with natural as well as human induced disasters. The minister reiterated the importance of conducting such exercises regularly and lauded the efforts of NDMA in organizing such exercises to maintain a high state of preparedness. The chief guest, later, visited all syndicates and appreciated the enthusiastic engagement of the participants in SimEx.



24. The Director General PDMA Balochistan, called for a collective approach to attain disaster resilience from provincial to the community level. He praised the efforts of NDMA in adopting proactive approach and extending the preparedness exercises to provincial level. He also highlighted the importance of collaboration across Government agencies, humanitarian organizations, civil society, and the private sector for disaster mitigation and building a well-prepared Pakistan.



25. The Director General BCSA, Dr. Hafeez Jamali also commended the efforts of NDMA and appreciated NDMA for including the under training civil servants of 2<sup>nd</sup> MCMC, in the exercise. He stressed upon the need for mainstreaming DM related training and simulation exercises in the Government





run training academies including provincial civil services academies. He reflected his resolve to make the Multi-hazard SimEx model, an integral part of the all promotional course run by the BCSA, in future, for which he requested NIDM to arrange a master trainer course on SimEx for the faculty of BCSA.

26. Mr. Raza Iqbal, Chief Exercise Control, briefed participants on the exercise's aim and objectives, hazards to be addressed and conduct modalities to familiarize them with the proceedings and responses expected from the syndicates.

## **Scenarios & Simulation Exercise**

### **Day 1 Proceedings**

27. At the beginning of the simulation exercise, the syndicates were given a master scenario that provided an overview of the situation and established the context for subsequent scenarios. The purpose of the master scenario was to ensure that all participants had a comprehensive understanding of the environment in which the simulation would take place. Master Scenario outlined the likelihood of facing precipitation generated flash flooding, riverine flooding, forest fires and earthquakes in the months of July, August, and September 2023. Therefore, all stakeholders need to be prepared to face these challenges in a comprehensive manner.



28. The master scenario (b), was Balochistan specific which detailed the climatic conditions of Balochistan and how it is vulnerable to floods, earthquakes, cyclones, drought and forest fires. The participants were made familiarized with the geographical terrain of southern Balochistan, northern Balochistan and the coastal belt of Balochistan. The scenario also provided details of kind of disasters



which are likely to hit these areas. Additionally, scenario encompassed check dams in Balochistan and how flooding can lead to bursting of these dams can affect infrastructure and loss of human life. The master scenario (b), sketched the everyday life of people of Balochistan and their dependency on Agriculture and livestock. This built the context of participants in developing their response.



29. After the issuance of the master scenario, the opening situation was presented, which required all syndicates to take preparatory planning and coordination measures based on the seasonal forecast and experiences of the previous year. The stakeholders were also required to be vigilant to face any situation that could lead to a multi-hazard emergency.

30. To manage the heavy precipitation and any unlikely earthquake, cyclone and forest fires, the syndicates identified hazards and likely scenarios, vulnerable areas, at risk population, anticipated damages and spread, and provided detailed resource mapping. They also listed the preparatory measures undertaken, such as logistic stocking, selecting camp sites, and procedures for evacuations, early warning, mass communication, rehearsals, and support envisaged. In addition, the syndicates outlined the coordination measures to be undertaken to ensure effective inter-departmental collaboration.



31. The few key points highlighted during the presentations by the syndicates included; Quetta and Zhob syndicate shared the preparedness related to earthquake, forest fire and heavy snowfall in the winter season, by describing the details of resources and any future requirement. The Naseerabad syndicate identified the potential areas of the division

that were more vulnerable to disasters and outlined stakeholders district to provincial level in disaster preparedness and response.

32. Kalat and Makran Syndicate stressed the importance of increasing awareness among coastal community and also highlighted the difficulty in disseminating the information to scattered population, especially the fishermen. The PDMA syndicate presented the gap analysis in coordination and resource mobilization at district level where they



highlighted the need for PDMA's presence at divisional level. Armed Forces syndicate indicated preparedness level at flood operation centers and availability of necessary resources including dedicated emergency rescue teams and equipment. The Pakistan Navy had diving teams on standby, Zulu boats, hovercrafts, and PN Avn ready and on standby. PAF assets were also ready and standby for logistic support. However, in case of forest fire, availability the purpose built fixed wing aircraft was still a challenge.

33. Humanitarian syndicate discussed their role in sharing assessment data with PDMA, social activation, relief operations and their community level disaster risk reductions and response plan. The humanitarian community syndicate outlined gaps in more reliable forecasting, enhanced early warning systems, mitigation and prevention, and insufficient support apart from food and tents, such as protection and life-saving drugs. They also emphasized the need for offshore procurements and enhanced preparedness in the private sector. Additionally, they noted that humanitarian agencies possess a strong outreach and could offer further support to the provincial response system.

34. All the syndicates identified similar key areas of focus for their preparatory measures. They emphasized the importance of conducting a risk profile analysis and resource mapping, as well as jointly inspecting flood protection embankments and other key infrastructure to ensure their effectiveness. They also recognized the need for capacity building and drills as well as the removal of encroachments from water ways to mitigate the risk of floods. Mapping and visibility of stakeholders capacities in terms of



expertise and stocks was identified as critical to avoid duplication of efforts. These measures were seen as essential in order to adequately prepare for and respond to potential disastrous situations caused by heavy precipitation, heatwaves, geological and coastal hazards.

35. Afterwards, the first situation 1(a) was issued to all the six syndicates. The situation was of forest fire in the pine and olive forests of District Sherani. The fire erupted due to long dry spell and rise of temperature in the months of May and June. Along with situation also provided the scale of area, number of trees and number of population affected. The syndicates prepared their presentations and showcased their comprehensive plan to control the fire and mitigate the after affects.

36. The Quetta and Zhob syndicate assessed the situation and planned to deal with the challenges. The arranged preparatory / coordination meeting among all stakeholders, started mapping of resources, taking line departments on board. After they initiated the mobilization of resources for recovery, relocation and mitigation. They established control room that was 24/7 operational at the DDMA (DC) offices. They also identified the number of Government schools and health facilities for the temporary settlement and treatment of affectees respectively. They prepared a media brief which included the details of incident and an emergency helpline number was also given to facilitate families of wounded and deceased. As the mitigation measure, they presented an overview of the Pine forests and policy options for effective forest fire management.

37. The Armed Forces syndicate presented the district profile of Sherani and identified the type of vegetation cover in Sherani. This included Pine Nut, Tamarisk, Pistachio, Juniper, Wild Olive, Wild Ash and Wild Almond. Pak Army and Air Force established an Ops room to coordinate the response activities. They identified the nearby water sources for heli operation. A mechanism was devised to coordinate the specialized aviation support from neighboring country, if needed, to extinguish the forest fire.



38. The Humanitarian Syndicate responded by effective coordination with relevant stake holders (NDMA, PDMA, DDMA & development partners) and established WCSS (case management services). The dry resources (wood) were translocated to safer place. The people subjected to forest fire were shifted to nearby friendly spaces and ensured basic services including Food, Medical and Emergency Kits. The capacity building session were organized to help the local community and development and dissemination of IEC material was ensured.

39. The Situation 1(b) was issued to all six syndicates. The situation highlighted a daunting challenge during the heavy rainfall across the southern parts of the country, resulting in flash floods caused inundation and ensuing damages in Sohbatpur, Dera Allah Yar, Dera Murad Jamali, Jhal Magsi, part of Khuzdar and Lasbela especially in agriculture, housing sector and livelihood with partial damage to community infrastructure mainly schools, irrigation channels, small road bridges, link roads and Hub railway bridge. Two check dams were burst due to heavy rains resulting in flooding leaving hundreds of people homeless, destroying hundreds of acres of agricultural land, and causing massive damage to infrastructure including washing away of sections of the Makran Coastal Highway, as well as destroying numerous roads and bridges.

40. Utility and telephonic services were also severely disrupted. Most of the affected areas during the rainy season were inaccessible for several days, leading to need for relief assistance through other means. A large number of people and livestock were trapped and the number of people in need were expected to be 30 - 40% of total affected population. Failure of electric power and other utility services,



increased cases of electrocutions and collapse of structures have caused loss of lives, choked sewerage system, contamination of drinking water and sequential water borne diseases with requirements to evacuate the affected population to safe areas.

## Day 2 Proceedings

41. Day 2 of the simulation exercise started by getting the responses of the Situation-1(b). In response, the Armed Forces syndicate, Air Force highlighted the emergency evacuation of people from affected area to clear area and provide basic food item & medical treatment. The critical injured persons were evacuated by air sorties. Pakistan Maritime Security Agency (PMSA) bases at Jiwani, Gwadar, Pasni and Omara coordinated with civil agencies on initial basis. PMSA facilitated the fisherman community by running awareness campaigns, distribution of tents, medical aid, food, drinking water and clothing. Meanwhile PMSA worked on De-flooding of effected area in the vicinity of the bases. PMSA fast response boats and ships were standby at Ormara Naval Harbour & Gwadar Port to respond, if warranted. PMSA ships and boats facilitated the transportation of aid by sea 02 x Ships at Gwadar, 02 x Ships at Ormara, 02 x Ships at Karachi.



42. Pakistan Army established a Balochistan Flood Control Centre (BFCC) that was in contact (24/7) with civil administration for fast-track rescue operation. The troops already placed in vulnerable areas along with flood rescue equipment and engineer plant equipment moved to effected areas. Aerial search and rescue by aviation assets followed and aerial evacuation of emergency cases also done on priority basis. The distribution of aids through helicopters also ensured to inaccessible areas. Depending upon the situation, more troops were transported to areas in need to support by establishing flood rescue camps and field medical camps.



43. Kalat and Makran Division syndicate highlighted the rescue / evacuation operation and established 5x camps (1 camp at each tehsil) at a cost of Rs.37.50 Million for Khuzdar and 5x camps (1 camp at each tehsil) Rs 56.25 Million for Lasbella expended covering all aspects. Funds were allocated for recovery and reconstruction of schools (1000 million), Irrigation channels (500



million), house hold rehabilitation (2750 million), seed and fertilizers (1547 million), relive items e.g. food items (37.5 million) for Khuzdar and (45 million) for Lasbella, dewatering of the inundated areas (20 Units for Lasbella and 10 Units for Khuzdar), health facilities (50 million for medicines, food supplement), livestock shelter-medicines-vaccines (3 million), clean drinking water (10 Water filtration plant for Khuzdar and 20 for Lasbella in the flood affected areas with complete solar system established.

44. The challenges faced by “Kalat and Makran Division” include lack of funds to meet flood situation, however the necessary support was provided for carrying out the reconstruction and rehabilitation, thus support from provincial Government, and humanitarian actors were called for support. Technical expertise and the GIS and remote sensing technologies were highly required and was anticipated that the province lacked the capacity. The logistics were required to be mobilized thus only the PDMA was not in a position to address it appropriately. These actions require necessary funds mobilization, commitment and devotion by all stakeholders at all tiers to come out for this unfortunate situation and to regain life to normal. Around 15723.000 million were provided for restoring lives, infrastructure, community services, provision of shelters (tents), compensation for house damages, repairs / restore, irrigation network, subsidized seeds and fertilizers for generation of lively hood, sustain food / nutrition support for vulnerable segments.

45. “Quetta and Zhob Division” syndicate organized the response by planning relief rehabilitation activities such as search, rescue, evacuations, establishing relief camps,



dewatering of areas, free medical health camps, veterinary medical camps. The educational activities, drinking water, disrupted utilities (water, gas, electricity) also restored. The NGOs and community groups engaged for compensatory measures and Ex-gratia assistance (3 Months) for compensation (Rs. 2 million for deceased, 0.3 million for injured). Support from rescue resources assistance (Amed Forces, Sis. Provinces) was availed for enhancing the capacity to meet the challenges & coping huge level disaster and to save / restore the lives, community infrastructure, essential services, and shelters.

46. The “Humanitarian Agencies” syndicate focused on inter-agency coordination, identifying areas of coordination/response by sector. They also added their inputs by coordinating with PDMA, DDMA regarding NOC and got the details of flood affected areas at UCs and district level for their interventions. Meetings with the stakeholder within the community were done to conduct need assessment in most vulnerable areas. Facilities provided on early basis included temporary shelter, basic health services, food items, food packages, NFI kits, hygiene kits, dignity kits, wash facilities:(drinking water, temporary wash rooms, and hand washing units). Establishment of WCSS/WGSS was also focused for providing session on MHPSS, MHM, health and hygiene. Capacity building of communities also done through awareness campaigns and micro grants also given to support farmers.

47. Naseerabad Division syndicate analyzed the flood situation by getting weather information and monitoring metrological reports and deployed field team as per severity of the flood. Displaced population rescued by local



community engagement. Data collected by using GIS/Survey to know the depth of flood. Vulnerable communities and priority areas of interventions identified to assess the risk and vulnerability. Local and national authorities coordinated for health and safety related issues e.g., evaluate health facilities and drinking water.

48. PDMA Balochistan issued alerts and advisories to concerned DDMA's and stakeholders for taking of precautionary measures. As the erratic rains started in 15<sup>th</sup> June 2023 in Naseerabad and Kalat Division that broke the past rain flood records. Farmers were advised to take care of their crops. Coordination meetings with concerned DDMA's and allied departments were conducted and heavy machinery / rescue teams were moved to flood affected areas. Relief & medical camps were established in the areas for displaced population with the collaboration of health department. PDMA Balochistan called inter-sectoral group and humanitarian organizations for assistance and established women and child friendly spaces. PDMA released funds to concerned DDMA's to carry out rapid need assessment for six districts that were severely affected by floods and emergency was declared by respective DDMA's.



49. In the mid of second day, SITUATION-2 was issued to all six syndicates indicating that the province was facing heavy rains in the monsoon season (previous situation) and had the focus of all the agencies, earthquake tremors were experienced in some areas of GB, KP, AJ&K and Federal Capital. The epicenter of this earthquake was 45 km north of Kandhar, Afghanistan along Chaman Faultline, at a depth of 90 km and having a magnitude of 6.8. Damages have been reported in Province of KP and in Balochistan in Districts of Killa Abduallah, Quetta, Mastung Pashin, Killah Saifullah and Ziarat.

50. In response of SITUATION-2 Armed Force syndicate played a significant role in earthquake rescue and relief operations. A capable team (USAR) equipped with specialized tools and trained individuals responded within 4 hours of incident and started search and rescue operation collapsed buildings. The aviation assets from Pakistan Air Force deployed for evacuation of casualties to nearby hospitals and CMH Quetta to assist in medical needs. The civil administration and building department engineers involved for the assistance in clearance of collapsed infrastructure, reopening of road and provision of food and shelter to affected individuals. Also, the earthquake emergency camps established at Awaran, Panjgur, Khuzdar and assisted civil administration in rehabilitation of the affected areas.



51. Naseerabad Divisional Syndicate responded the earthquake situation by adapting active emergency response plan (stakeholders under DDMA) and shared public alerts with district administration. The search and rescue teams assigned for the removal of debris of collapsed infrastructure, rescue of alive persons, shifting of affected people to medical camps and provide shelter to affectees. Registration of rescued persons also done with the support of Armed Forces and Provincial (USAR) teams. The restoration procedure initiated in parallel and request made to Pakistan Telecommunication Authority to run awareness campaigns on national media. Similarly, the restoration of basic facilities such as drinking water, rehabilitation of basic infrastructure (bridges, schools and hospitals), restoration of electricity also planned on priority.



52. Humanitarian Agencies Syndicate in response of earthquake situation deployed

trained teams equipped with facilities to rescue and focused on evacuation of injured people and affected communicates. The assistance was also provided in form of data collection and rapid assessment of damaged infrastructure. The organizations also played vital role in capacity building of effected communities and developed livelihood opportunities e.g. microfinancing, agriculture & livestock packages.

53. “Kalat and Makran division” coordinated with district administration, Armed Forces, PDMA, Line departments for mobility of heavy machinery. The civilian contractors also coordinated for machinery, relief items, medical assistance, hygiene kits and first aid for affectees. Survey of affected areas were done and a real time data was provided to concerned authorities for reconstruction planning of damaged infrastructure. Local media was also engaged to sensitize the masses about prevailing situation and to announcement precautionary measures and request for NGO’s need to rehabilitate the local health and education system.



54. “Quetta and Zhob Division” took quick action and controlled the flood situation by establishing relief camps at 10x safer sites. Three tent cities were established at tehsil level to accommodate affected population. Medical teams were deployed at the relief camps on priority basis and



required relief item were demanded from PDMA. Pak Army was approached for aerial operation to rescue people from inaccessible areas. The critically injured persons were immediately shifted to Karachi and Quetta hospitals through helicopters. An awareness campaign was also launched through social media and mainstream media to prepare the community for the possible aftershocks and precautionary measures to be taken.



55. PDMA Balochistan established a temporary camp office in earthquake effected area and coordinated with rescue operation through rescue teams to evacuate people safely. The injured ones were shifted to nearby hospitals. An emergency was declared keeping in view the situation and health department directed to ensure medical facilities and availability of staff. The relief items including (Food/Nonfood items) dispatched to concerned DDMA's. The inter-sectoral meetings with humanitarian organizations were also conducted to share the details of relief items. PDMA involved the education department to established temporary learning centres in relief camps, to avoid educational loss of the students. PDMA conducted a post disaster need assessment in affected districts and planned for rehabilitation activities.



### Day 3 Proceedings

56. The last day of SIMEX started with the presentations of syndicates that were prepared around the scenario of cyclone 'Badmast' which had hit the coastal areas of Balochistan. The scenario portrayed a category-4 cyclone which had made a landfall in Gawadar and caused inundation in low lying areas of Jiwani and Gawadar. The syndicates who presented included: PDMA Balochistan, Armed Forces, Kalat and Makran Division, and Humanitarian Organizations. The syndicates were required to plan for the power cut, early warning to the citizens, mobilization of resources, alternative traffic routes, evacuation plan, provision of relief camps, health related matters, coordination with other provincial departments and drainage of accumulated water.



57. The Humanitarian Syndicate highlighted their coordination with key stake holders and deployed social mobilization units to conduct need assessment. For the communication purposes they displayed messages in local language and disseminated messages through different means of communication (public announcements, announcement through mosques, radio, SMS alert, social media campaign etc). The evacuation was carried out in coordination with local authorities which also included identification of high-risk areas, safe areas and safe routes. They made possible the provision of solar panels, generators, medical facilities and camp management. Community engagement to support relevant authorities to restore power. Coordination mechanism was established for cluster Information sharing to maximize the impact of relief activities and avoid duplications. Furthermore, they assisted DDMA in data collection and rapid assessment of damaged infrastructure.

58. The syndicate of “Kalat and Makran Division” worked on early warning system in coordination with National Institute of Oceanography (NIO). They also utilized traditional communication means such as mosques, announcement through loudspeakers and social, electronic and print media. They also issued Public Service Messages through mobiles. Section 144 was imposed to restrict un-necessary movement of fishermen and general public for fishing and visiting sea side. Their response plan included activation of



district emergency operation center (DEOC) at D DMA (DC office) where all relevant stakeholders such as district line departments, Gwadar Port Authority (GPA), Gwadar Development Authority (GDA), Balochistan Coastal Development Authority (BCDA). health, law enforcement agencies were represented to worked in close coordination.

59. Each line department was assigned to mobilize all available recourses. Alternative routes were identified which led to the designated relief camps. The National Highway Authority (NHA) was taken on board by the district administration for diverting the traffic on coastal highway. Koh-e-Batil, New Air Port, Koh-e-Mehdi, Gwadar University, and

Gwadar Zero Point were identified as safer evacuation sites. Makeshift shelter and water proof tents were arranged with the assistance of humanitarian organizations, in addition to the public building including schools for temporary shelter. Coordination with GDA, PDMA, BCDA, GPA, PMSA, Pakistan Navy, and PCG was carried out for rescue of stranded fishermen in the sea. Solar panels, solar lights, generators were provided by the PDMA. QESCO authorities were directed to chalk out a plan for restoration of power supply. The medium sized fishing vessels were docked inside the fish harbor and jetties. The resource package included food stuff, supplements for women and infants, and hygiene kits, mosquito net, repellents and financial assistance for rehabilitation. The post cyclone assessment was carried out with the support of Port and Shipping and Fisheries Dept, GPA, GDA and BCDA to analyze the damages.

60. The Armed Forces Syndicate presented their pre cyclone plan and post cyclone response plan. They started awareness campaigns among local populace to cooperate with AF & civil administration. They initiated patrolling up to 200 NM for return of fishermen from open sea along with continuous radio calls on Distress Frequency (CH 16) and extended support to stranded boats in the sea. The cessation of fishing activities was announced and alternatively these activities were directed towards East/ Sindh. The coordination with district administration was set up for shifting of local populace towards safe designated camps. PN & PMSA diving teams were also deployed.



61. The PDMA syndicate indicated that priority need in such situation was to conduct urgent meeting with allied departments which included GDA, Gwadar Port Authority, Fisheries Department, Coast Guard and PMSA. Coordinated with PDMA Sindh was also

done for any assistance, and carried out inter-sectoral meetings with UN, INGOs and NGOs. They were mobilized to contact with notables of the affected districts for the mobilization and motivation of community at risk. Armed forces were called for arial assistance and local transporters were engaged for evacuation of affected population to safe places. PDMA Balochistan stocked food and non-food items at evacuation sites. They engaged health department to establish medical camps and mobile units. The response teams were equipped with Thuraya sets for communication. They used advisories and technical analysis made by NEOC for updates and monitoring of cyclone. They Dispatched D-watering pumps for drainage of water. PDMA Balochistan provided cash assistance to fisherman for repairing of damaged boats/ships.

62. The scenario of cyclone required a well-coordinated effort of all stakeholders, including Government agencies, UN agencies, civil society organizations, and private sectors, to manage and facilitate the incoming relief. A comprehensive plan of action was required, which would address the urgent needs of the affected population, damaged infrastructure, destroyed crops, and ensure effective and efficient relief to the affectees.

63. Finally closing situation was released, which highlighted the need for implementable, out of the box, and cost-effective solutions for a cash-strapped and recession-hit Pakistan reeling from the floods of 2022. Valuable experiences were gainedby all stakeholders from the multitude of disasters, and efforts were made to shore up thelessons learned and accrue practical and implementable knowledge from them.





## **Closing Session**

64. The Closing Session of the SIMEX 3/23 was graced by Prof. Dr. Qadir Baloch, provincial minister for Education & Tourism, Balochistan, Dr. Hafeez Jamali, DG BCSA, Prof. Dr. Khalid Hafeez, VC BUIITEMS, Prof. Dr. Sajida Naureen, VC Sardar Bahdur Khan Women University and Prof. Dr. Malik Tareen, VC Makran University, Panjgur.

The session began with a brief recap of three days SimEx that was presented by the Chief Exercise Control Mr. Raza Iqbal (Executive Director Plans, NDMA). Recap included short fly-through of SimEx objective, contingencies, conduct modalities, situational scenarios given to the syndicates and summary of key responses by the syndicate presentations.



65. Chief guest of the closing session, Prof. Dr. Qadir Baloch, Provincial Minister for Education and Tourism, stated that the connection between academia and disaster management is a symbiotic relationship where academic research informs practical applications, and real-world challenges drive the need for further academic inquiry and innovation. This collaboration is crucial for building resilience, improving response capabilities, and reducing the overall impact of disasters on communities and societies. The chief guest while spotting the presence of vice chancellors of three universities, appreciated NDMA for taking the academia on board.

66. The simulation exercise culminated in the debriefing by the syndicates and the vote of thanks from Chief Coordinator Mr. Tanveer Piracha. The ceremony concluded with the distribution of certificates to all participants.



## **Key Outcomes & Lessons Learnt**

67. The simulation exercise culminated with debriefing presentations by the syndicates during the closing session. Each syndicate made a brief presentation on the lessons learned and challenges identified during the proceedings of the simulation exercise. Key outcomes are summarized below:

- a. There is crucial need to give a serious thought to disaster mitigation besides preparedness to reduce the disaster risk. It warrants prior investment by the provincial governments to save on the daunting cost of response and recovery.
- b. Development of a proactive, reliable and innovative technology driven early warning mechanism is critical for effective contingency planning. Further, availability of radar and remote sensing platforms, for monitoring water levels and cyclonic movements in the ocean is important.
- c. Strong coordination within the government departments as well with external organizations, augmented provincial to local level preparedness through the provision of micro level multi-hazard specific risk maps (the product of e-MHVRA), the construction of resilient infrastructure capable of sustaining extreme weather events, the provision of necessary equipment for flood fighting, forest fire fighting and capacity building programmes are crucial.
- d. The exercise provided a exceptional opportunity to assess the effectiveness of emergency procedures, contingency plans, and district level response mechanisms.
- e. The exercise served to validate and enhance preparedness for multi-hazards scenario in Balochistan and strengthen response plans, procedures, and systems. Stakeholders were able to understand their roles in a disaster scenario and refine their emergency response skills.
- f. Access to precise data of rivers (inland and cross border) during flood season, and satellite feeds from national and international technical agencies, and global forecasting models is paramount.

- g. The early warning system is critical in mitigating the impact of disasters. Therefore, the government should invest in enhancing the accuracy and coverage of the early warning system. Technical organizations including PMD, SUPARCO, NIO etc. need to work closely with NEOC, established at NDMA HQ, for this purpose.
- h. The provincial governments must prioritize climate change adaptation efforts, which could include measures such as implementing sustainable land use practices, constructing resilient infrastructure, and nature based solutions (NBS).
- i. Effective disaster management necessitates coordination and cooperation among assorted actors, including Government agencies, academia, NGOs communities, and the private sector.
- j. The Government should prioritize the implementation of indigenous predictive modeling-based solutions that can accurately forecast and simulate the impact of disasters, well in advance. Furthermore, the utilization of space-based solutions such as satellite imagery can assist in disaster management by providing real-time information on the affected areas and other elements including human settlements and crops etc.
- k. Initialization of Multi-hazard Simulation Model and other capacity building programmes in the government officers induction/training academies/institutes such as civil services academies is essential to develop DRR sensitized human resource.
- l. Government and other stakeholders including corporate sector must encourage the research & development initiatives by the universities and should invest in developing locally imbedded solutions crafted by the jointly by academia, industry and humanitarian actors, in support of local DM authorities.
- m. The exercise enabled continuous monitoring of changing situations to align response actions, identifying and correcting gaps, errors, and deficiencies, as well as determining strengths.
- n. The transition from relief to early recovery and reconstruction needs to be better understood, and it is essential to apprehend the capacities and

challenges of different departments and institutions.

- o. Comprehension of the bottom-up tiers of response i.e from district to provincial and federal level by the government line departs is critical to coordinate with the right actor during any emergency.
- p. Proactive and timely stocking of food and non-food items is crucial. The capacity to predict and forecast the needs, identify gaps and enable preparation is necessary.
- q. Mapping of Non-Governmental organizations along with their strengths and support potential, on the onset of any disaster, and devising a robust mechanism to avoid duplication of efforts and resources is a must.
- r. The importance of having a all-encompassing risk communication plan in place during an emergency situation cannot be denied. Frequent interaction and barrier free channels of communication among the stakeholders can help in avoiding delayed response.
- s. Capacity building programmes, for creating awareness, recognition of potential hazards, leading to an informed mitigation, preparedness and response planning are essential.



## **Recommendations**

68. The following recommendations have been identified based on the experiences and learnings of participants during a simulation exercise, aimed at improving provincial response mechanism and future disaster preparedness activities:

- a. Simulation exercise(s) should be conducted for cyclones and other prevailing hazards in the coastal belt of Balochistan.
- b. Comparable hazards specific exercises, involving first responders, should be conducted at the district level involving local community at risk.
- c. NDMA's successful SimEx model may be institutionalized in government training academies/institutes by making it part of induction as well as compulsory promotional courses.
- d. A 3-5 days Training of Trainers (ToT) for the Directing Staff/instructors of Balochistan Civil Services academy (BCSA) is recommended as it was requested by the DG BCSA. The BCSA has agreed to include the SimEx model in its curriculum for all promotional courses offered in the academy. ToT may be conducted in Islamabad where instructional staff of other civil services academies may also be invited to attend.
- e. GIS based simulation prepared by NEOC team may be improved by adding more data layers and making it more interactive and allowing multiple situational injects.
- f. A robust guiding document/SOPs need to be developed, in consultation with all stakeholders, to smoothly handle bulk international in-kind assistance, arriving in the country by air, sea and land routes.
- g. A transparent and inclusive reporting and monitoring mechanism for sharing sectoral updates among the stakeholders in all phases of disaster management.
- h. Crowd funding, public-private partnerships, and community-led initiatives to address the needs of affected communities may be encouraged to share the burden of government agencies.
- i. Sustainable infrastructure solutions, such as building flood walls, improving

drainage systems, constructing medium size dams, and mangroves plantation may be promoted to reduce the disaster risk.

- j. Restoration of natural waterways and removal of encroachments need to be addressed at appropriate forum.
- k. Increased engagement with media personnel is required to apprise them on responsible reporting during emergency situations.
- l. SimEx venue warranting strict security protocols may be avoided, for future activities, for convenience of the participants as well organizers.