BALOCHISTAN

FLOOD RECOVERY PLAN 2022

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THE PLANNING AND DEVELOPMENT DEPARTMENT

GOVERNMENT OF BALOCHISTAN

CHIEF MINISTER'S MESSAGE

MIR ABDUL QUDOOS BIZENJO
Chief Minister Balochistan

The 2022 floods were a serious natural disaster. Almost one-third of the country's surface was affected by inundation, which damaged or destroyed livelihoods and infrastructure. At a macroscopic level, economic activities came to a standstill for an extended period of time, or were slowed down to a significant extent. During the weeks and months of emergency, several sectors including trade and commerce and the provision of government services in the spheres of health, education, and rule-of-law, were seriously curtailed. Infrastructure for transport, energy and water production and distribution, manufacturing and food production, communication, as well as shelter and housing was seriously damaged or shattered across almost one-third of the country.

In Balochistan, the devastation caused by the rains and floods in almost the entire province of Balochistan has severely disrupted the lives and livelihood of the people. The flood caused the loss of many lives and damaged the infrastructure around the province. My office immediately initiated the response through concerned departments to rescue the affected people on an emergency basis. Now, the provincial government has drafted this Flood Recovery Plan which encompasses a compact set of sustainable and resilient interventions in order to recover from the damages and losses in the province, in a resilient manner.

The Government of Balochistan has collaborated with the Federal Government, International Development Partners, UN-Agencies, CSOs, and other humanitarian organizations to undertake its rescue and relief operations, including the provision of relief items, in the flood-affected areas. Complementary to the aforementioned short-term rescue and relief efforts, the present plan proposes an integrated recovery strategy and action plan which shifts the focus of the intended results, impact and related transformative changes (in the sense of risk

reduction, enhanced preparedness, mitigation of future catastrophes' negative effects, and socio-economic resilience), towards the mid- to long-term horizon. "Building back better" is a core principle of any related recovery efforts in view of boosting systemic capacity to better withstand and bounce back from similar disasters, in the future. In this respect, the affliction of the flood crisis presents an opportunity to turn the losses into future benefits and strengths, in the areas of resilient public and private infrastructure, food production, storage and distribution systems, etc.

The provincial government is determined to cope with the current challenge of rehabilitation and future contingencies of climate disasters, in a sustainable manner. This Flood Recovery Plan (FRP) shows our commitment to the principle of, and lays the groundwork for, further climate resilient growth and development in Balochistan. In order to deliver relief and repair major damages, the Government of Balochistan (GoB) has already committed as many resources as possible from the provincial PSDP to ramp up the listed priority interventions. I would like to conclude by underscoring that I sincerely appreciate the efforts of the Planning and Development Department (P&DD) and the support provided by the United Nations Development Programme (UNDP) for creating an effective recovery plan for the province.

CHIEF SECRETARY's MESSAGE

Mr. ABDUL AZIZ AUQALI

Chief Secretary Balochistan

Pakistan is prone to natural disasters, especially Balochistan, the largest province by geographical surface area. The 2022 flood caused by heavy monsoon tempests affected various parts of the province. Many districts in Balochistan rank among Pakistan's most vulnerable areas to natural calamities, and faced several calamities such as floods and earthquakes, including in the recent past.

The Torrential rains during the month of June and July 2022 were 5.1 times higher than 30-year average rainfalls. The floodwater affected at least 360,000 people, including 336 casualties and 186 people injured as at 27 August 2022, according to the National Disaster Management Authority (NDMA). The floods caused severe repercussions for human life, property, infrastructure, livelihoods, public services, and losses to the economic infrastructure in the affected districts of the province.

Across the province, where livestock is a critical source of nutrition and livelihoods, more than 500,000 heads of livestock perished as a consequence of the floods. At least 17,500 houses were destroyed and another 43,900 houses partially damaged, during the floods.

In addition to houses and croplands, 1,000 km of roads and 18 bridges were also damaged, impeding access across flood-affected areas. Increased internet outages have also been reported, with the Pakistan Telecommunications Authority attributing widespread internet cuts in central and northern Pakistan to technical faults in the fiber optic network resulting from the heavy rains and floods.

Climate calamities are becoming more frequent and impactful. Our related response must at least equal projected future impacts, by reducing and mitigating negative consequences from similar large-scale disasters.

Through the present Balochistan Flood Recovery Plan 2022 (BFRP), the provincial government initiates the recovery phase. With the support of the Federal Government and our development partners, the projected funding and required expertise can hopefully be mobilized, in view of executing the operational aspects of the plan.

External support is direly needed to aid both post-damage rehabilitation and the required resilience-building measures identified through concerned departments and other humanitarian organizations working in the flood affected areas, in Balochistan.

This Flood Recovery Plan will serve as a road map for systemic reforms to rebuild the lives of affected people and reduce their future vulnerability in providing a safe and secure future for Balochistan.

ADDITIONAL CHIEF SECRETARY's MESSAGE

HAFIZ ABDUL BASIT

Additional Chief Secretary

The 2022 floods in Balochistan created an outrageous systemic challenge for the provincial authorities, exposing vastly insufficient systemic operational response capabilities. The floods thus represented a harsh reality check highlighting the new quality of mega-catastrophes caused by global warming. It has become clear that there is a pattern behind such crises, which are showing signs of becoming recurrent events. Therefore, it is important to invest into resilient disaster risk reduction and preparedness, across the board, including setting up appropriate systems, sensitizing and educating the population, investing into sustainable infrastructure and development approaches, training administrative staff, to address the widespread, general lack of resilient disaster preparedness.

Across Balochistan, 32 districts out of a total of 36 districts are considered vulnerable to floods. Among these 32 vulnerable districts, 17 have been identified as extremely vulnerable that are at risk of experiencing flash floods or fluvial floods. All of these districts were severely hit during the 2022 floods and will remain similarly exposed to future natural calamities unless urgent action is taken to address related shortfalls and flaws in disaster preparedness and risk mitigation. During the initial response phase the provincial government carried out emergency response actions with the support of federal government, UN-Agencies, CSOs and other humanitarian organizations. The immediate objective of these emergency activities was to rescue human lives and provide basic food items to the relief camps. The GoB operated on the basic principle of rescuing as many people as possible and ensuring the uninterrupted delivery of essential services. The Rescue 1122 teams provided a timely and effective response with the support of concerned district administration to provide immediate relief items, planning logistics for temporary relocations and integrated response.

The provincial government has now moved out of this emergency phase by herewith establishing a Flood Recovery Plan to rehabilitate the people and their livelihoods, the biosphere and overall environment and infrastructure in the affected areas through sustainable and resilient interventions. Through the present FRP, the GoB intends to address two major challenges, namely:

i) The articulation of an integrated set of resilient and sustainable development and recovery solutions to address the negative consequences of the 2022 flood disaster in a resilient fashion that will result in forestalling and reducing, preventing, mitigating and reducing negative consequences of, similar future crises, through enhanced preparedness, risk reduction measures, and building relevant response management acumen and appropriate recovery mechanism and systems;

ii) Leveraging local and international financial resources and technical assistance to help in implementing the projected rehabilitation and reconstruction initiatives. The BFRP 2022 is our collective initial effort and more importantly sets out an agenda of work (implementation strategy) for the next 3-5 years.

The GoB also intends to continue further planning and developing mitigation measures to cope with future disasters. I acknowledge Mr. Arif Achakzai, Chief of Section (Foreign-Aid) Planning and Development Department, GoB in leading the development of this Flood Recovery Plan. Additionally, this document is a product of GoB long-standing partnership with the United Nations Development Programme (UNDP). Their technical assistance and support throughout the design stages of this document is highly appreciated.

TABLE OF
CONTENTS

LIST OF
FIGURES

LIST OF
TABLES

ACRONYMS AND
ABBREVIATIONS

BEPA	Balochistan Environment Protection Agency
CBDRM	Community-Based Disaster Risk Management
CSOs	Civil Society Organizations
DDMV	Divisional Disaster Management Villages
DHQ	District Headquarter Hospitals
DRR	Disaster Risk Reduction
EIA	Environmental Impact Assessment
EPA	Environment Protection Agency
FFC	Federal Flood Commission
FMD	Foot and Mouth Disease
GBV	Gender-Based Violence
GHE	Greenhouse Gases Emissions
GIS	Geographic Information System
GoB	Government of Balochistan
HH	Households
HMIS	Health Management Information System
ICH	Intangible Cultural Heritage
IEC	Information, Education and Communication
IOM	International Organization for Migration
INGOs	International Nongovernmental Organizations
LEAs	Law Enforcement Agencies
MHVRA	Multi Hazard Vulnerability Risk Assessment
NDMA	National Disaster Management Authority
NFI	non-food items
NGO	Non-Governmental Organization
NPLs	Non-Performing Loans
P&D	Planning & Development

PDMA	Provincial Disaster Management Authority
PDNA	Post-Disaster Needs Assessment
PFM	Public Financial Management
PHED	Public Health Engineering Department
PKR	Pakistan Rupee
PSDP	Public Sector Development Plan
PSEAHR	Preventing Sexual Exploitation and Abuse in Humanitarian Response
PTA	Pakistan Telecommunication Authority
QESC	Quetta Electric Supply Company
RISE	Research on Improving Systems of Education
RNA	Rapid Needs Assessment
SBP	State Bank of Pakistan
SC	School Council
SDGs	Sustainable Development Goals
SIA	Social Impacts Assessment
SME	Small and Medium Enterprise
SOP	Standard Operating Procedures
SSG	Sui Southern Gas Company
TLC	Traditional Learning Centre
T&T	Travel and Tourism
TDPs	Temporarily Displaced Populations
THQ	Tehsil Headquarter Hospitals
TLC	Temporary Learning Centre
TVET	Technical and Vocational Education and Training
UHC	Universal Health Coverage
SRO	Strategic Recovery Objective
UNDP	United Nations Development Programme
UNITAR	United Nations Institute for Training and Research
VBDs	Vector Borne Diseases
WAPDA	Pakistan Water and Power Development Authority
WASH	Water, Sanitation, and Hygiene
WRI	Water Resource and Irrigation

EXECUTIVE
SUMMARY

Pakistan, despite being a low contributor to global greenhouse gas emissions, remains highly vulnerable to the impacts of climate change. The recent torrential monsoon rains in Balochistan in the summer of 2022 have caused severe flooding, resulting in significant damage to lives, infrastructure, and livelihoods of the affected population. The floods have led to loss of human life, destruction of houses, damage to roads and bridges, loss of livestock, and disruptions to public services. The estimated damage to Balochistan province amounts to PKR 349.00 billion ($1.625 billion), with an additional PKR 491.00 billion ($2.286 billion) required for reconstruction and rehabilitation efforts. The Balochistan Flood Recovery Plan is organized into four Sector Strategic Response Recovery Objectives (SROs) comprising 22 subsectors, with activities classified under three categories: Policy/Procedure, Investment/Programme, and Institutional Effectiveness. The planning process focuses on mid-term priorities for the most affected districts, aligning with the World Bank Response Plan and the Balochistan Comprehensive Development and Growth Strategy (2021-26). The plan integrates with the Provincial Public Sector Development Program (PSDP), exploring opportunities to reorient existing projects and develop new interventions to address the specific needs of the province.

The financial review of the recovery plan takes into account assessed damages and losses, designing detailed actions and budgets for resilient recovery. The budget allocation is based on best estimates of damages, with teams of experts analyzing the intersection between recovery plan activities and the government's planned schemes. The total budget of US$ 553.79 million is distributed among the SROs, with SRO 4 accounting for the largest share (68%), followed by SRO 2 (21%), and SRO 1 (9%), and SRO 3 (2%).

The investment/programme category accounts for the majority (81%) of the total budget, while policy/procedure and institutional effectiveness each account for 11% and 8% respectively. The total of 123 key activities presented in the activity matrix across categories is evenly spread (33% in the policy/procedures category of activities, 38% for investments/programmes, 29% for institutional effectiveness).

In conclusion, the Balochistan Flood Recovery Plan outlines a comprehensive strategy to address the devastating impacts of the recent floods in Balochistan province. With a focus on mid-term priorities and close alignment with existing development plans, the plan aims to restore lives, infrastructure, and livelihoods in the affected areas. The budget allocation reflects the importance of investment/programme activities in driving the recovery process, while considering the necessary policy and institutional measures. By implementing this plan, Pakistan can take significant steps toward building climate resilience and ensuring the well-being of its population in the face of future climate-related challenges.

1.

INTRODUCTION

Pakistan is one of the most vulnerable countries to climate change despite being amongst the least contributors to global Greenhouse Gas Emissions (GHE). The torrential monsoon rains triggered the most severe flooding in Balochistan. The pre-monsoon spell and monsoon that hit 32 out of 34 districts in the province of Balochistan has severely affected the lives, infrastructure, and livelihood of the people.

Torrential rains during June and July 2022 were 5.1 times higher than the 30-year average rainfall. The floodwater affected at least 360,000 people, including 336 people killed and 186 people injured[1] as of 27 August 2022, according to the National Disaster Management Authority (NDMA). The floods caused severe repercussions for human life, property, infrastructure, livelihoods, public services, and losses to the economic infrastructure in the affected districts of the province. More than 500,000 livestock died across the province, where livestock is a critical source of nutrition and livelihood for the people of Balochistan.

At least 68,992 houses were damaged and another 123,613 houses partially damaged. In addition to houses and croplands, 1,000 km of roads and 18 bridges have also been damaged and impede access across flood-affected areas. Internet outages were also reported, with the Pakistan Telecommunications Authority attributing widespread internet cuts in central and northern Pakistan on 19 August to technical faults in the fiber optic network resulting from the heavy rains and floods.

Of 515 villages assessed, 178 villages reported displacement. Some 20,000 people including 178 villages were reportedly displaced, with 90 per cent living with host families. As of the assessment, only 16 per cent of the assessed villages reported receiving some assistance. 69 per cent of villages reported problems in accessibility as per Rapid Needs Assessment (RNA) report.

The top twelve[2] most affected districts in terms of completely damaged houses are Jhal Magsi, Lasbela, Nushki, Naseerabad, Jaffarabad, Sohbat Pur Kharan, Killa Saifullah, Killa Abdullah, Quetta, Khuzdar, and Kachhi.

The estimated damage to Balochistan province is PKR 349.00 billion (US$ 1.625 billion). The reconstruction and rehabilitation of damages incurred will require an estimated further PKR 491.00 billion (US$ 2.286 billion) to restore the routine of life for the people of the province. The plan herewith presented encompasses a number of higher-level, systemic activities, in particular at the policy level and in terms of capacity development, awareness building and sensitization, that concern the entire province with its 34 districts. However, many of the investment-related programming specifically focuses on the 10-12 most vulnerable districts.

The needs analysis combined macro level data from 2022 and most recent data directly linked to the design of the current Action Plan presented further down in this document, in the form of a comprehensive matrix emulating the 4RF's three interrelated phased work streams/timelines, namely: addressing any remaining short-term reconstruction and rehabilitation needs where applicable, linking these to the mid-term and long-term perspectives (3-5 years and 7+ years, respectively).

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1   Provincial Disaster Management Authority-2022

2   Provincial Disaster Management Authority-2022

The Balochistan Flood Recovery Plan (BFRP) thus embraces the logic of bridging the gap between humanitarian emergency aid, reconstruction and rehabilitation, and resilient recovery and development. Given that Balochistan, like the country as a whole, is henceforth likely facing a recurrent crisis, the situation analysis has been framed as a living document. Future flood response-related humanitarian work is bound to benefit from the BFRP's envisioned results and impact, namely the newly introduced systems, enhanced mechanisms and capabilities, and heightened public awareness.

2.

THE GOVERNMENT OF BALOCHISTAN'S FLOOD RESPONSE

The Government of Balochistan is collaborating with the Federal Government, International Development Partners, Non-Government Organizations (NGOs), and other relevant stakeholders to undertake its rescue and relief operations, including the provision of relief items, in the flood-affected areas. Concurrent with the rescue and relief efforts, the Government of Balochistan has been focusing on rehabilitating the affected population through the core principle of 'build-back-better' to withstand such disasters in the future.

The recent Post Disaster Needs Assessment prepared by international experts from the World Bank, Asian Development Bank, European Union (EU), and the United Nations Development Programme (UNDP) attempted to quantify the scale of damages, losses, and needs with preliminary estimates. The following overview shows the related assessed damages and losses incurred as well as related financial needs for the recovery for a number of key macroeconomic sectors.

Sectors	Damages/Losses	Recovery Costs PKR million (US $ million)
Environment	1,002 acres forestry, 296 acres protected areas and 876 landslide/soil erosion	786 (2.76)
Culture, Heritage, Tourism	56 mosques, 1 museum, and 3 archaeological	1,105.89 (3.894)
Agriculture	25% of arable land affected	306,877.87 (1,080.55)
Livestock	325,000 Animals lost including 200,000 Poultry losses	79,619 (280.34)
Fisheries	4% of the total damages	1,285.49 (4.52)
Commerce & Industries	12 Small and Medium Enterprises (SMEs) completely and 8 partially damaged	350,318.94 (1,233.51)
Mines and Natural Resources	4.3 million workers suffered (14%),7 mines sites damaged	13,100 (46.12)
Finance and Marketing	114 Bank branches damaged	8,800 (30.98)
Education	2,850 Institutions are fully or partially damaged	12,439.2 (43.8)
Nutrition	57% HH lost stored cereal stock, 23% HH food insecure	25,700 (90.5)
Health	587 health institutions fully and partially damaged	5,006.5 (17.62)
WASH	89 Water supply schemes fully damaged	4,606.2 (16.2)
Housing	192,605 units of houses fully and partially damaged	52,654 (185.4)
Irrigation	Infrastructure 36%, Channels 32%, Drainages 14%, Weirs/Dams 9%, Supporting Infrastructure 8% damaged	150,600 (530.28)
Transport & Communication	878km road fully & 1009km partially damaged, 43 bridges & 1 railway line	45,109.4 (158.83)

Table 1: Damages and Losses and Recovery Costs per Sector

The Government of Balochistan (GoB) initiated emergency response immediately after the flood with the support of UN Agencies, International Nongovernmental Organizations (INGOs), Civil Society Organizations (CSOs), volunteer groups, communities and other humanitarian organizations to provide food and non-food items (NFIs) and other support to the flood-affected people across the province. They also provided safe placement and evacuation along with attention to the daily needs of the households and risk mitigation of infectious diseases.

The government tried to provide clean drinking water and safe washrooms to prevent the spread of waterborne diseases, which remained a high post-flooding priority. The food and shelter arrangements were made to save people from worsening food availability and weather extremes.

A total of 241,000 families (amounting to in excess of 1 million individuals) were affected. 770[3] temporarily displaced people were evacuated from completely submerged areas and many of them are still not settled due to inundated villages. The GoB established 103 relief camps in the flood-affected districts to provide an emergency response to the affected population. The UN agencies, INGOs, and local NGOs distributed overall 94,490 food items, 142,000 Food and NFIs, and cash assistance to 31049 individuals in the affected districts.

The Provincial Disaster Management Authority (PDMA), UN agencies, INGOs, and NGOs distributed food items to 154,062 Households (HH) and NFIs to 76,000 HH. They covered overall 195,661 with the support of NDMA and other humanitarian organizations. The UN Agencies along with 41 INGOs and CSOs supported the provincial government in 24 flood-affected districts.

Additionally, the PDMA with the support of district administration and humanitarian organizations established relief camps in schools, masjids, community centers, and colleges for the displaced population. The health department declared an emergency in health institutions throughout the affected districts and capital city Quetta to provide rescue and relief on a priority base.

The concerned authority mobilized clear communication routes and restored electricity and gas to carry on the supply/relief to far-flung districts and protection of people due to severe weather respectively. The armed forces and the provincial government also provided Heli-services for rescues and transport of food and NFIs.

The PDMA activated Intersectoral Working Groups as part of the emergency coordination forum jointly managed with the United Nations (UN) and other humanitarian organizations to organize emergency-relief operations and data collection from the affected districts. Through emergency life-saving operations, a total of 125,000 people were rescued and/or evacuated. Overall, 1 million individuals benefited from emergency support.

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3   Provincial Disaster Management Authority-PDMA Balochistan 2022

The tabulations below show the number of emergency support items distributed among the population in the immediate aftermath of the inundations:

Tent	Food Packages	Flour (KGs)	Tarpau-lins	Mosquito Nets	Quilts	Jerry Cans	Water Coolers
43693	59572	72300	30886	79916	15756	13000	12690
Kitchen Sets	**Gas Cylinders (10KGs)**	**Plastic Mats**	**Charpoy**	**Solar Lights**	**Buckets**	**Blankets**	**Water Tanks**
9526	9436	11556	1875	734	350	13686	224
Canopy Tents	**School tents**	**Hygiene Kits**	**Sleeping Bags**	**Life Saving Jackets**	**First Aid Kits**	**Mineral Water (Ltr)**	**Biscuit Packs**
112	65	3450	2450	207	806	31580	100
Cooking Oil (Ltr)	**Dates (Carton)**	**Rice (KGs)**	**Genera-tors**	**Soaps**	**D-Watering pumps**	**Portable Wash-rooms**	
1000	4053	1250	15	1563	50	15	

Table 2: Relief Provided by PDMA Balochistan

The provincial government allocated PKR 10,108.206 million to PDMA, the Agriculture Department, the Irrigation Department, the Communication and Work Department, the Public Health Engineering Department, the local government, the Health Department, and the Livestock Department for the flood rehabilitation activities. The concerned provincial authorities shifted the development funds for the non-development interventions during the flood relief campaign.

The GoB has no specific projects for the flood recovery and rehabilitation phase in the fiscal year 2023-24 except the general development project reflected in the Public Sector Development Plan (PSDP) for the flood-affected sectors and areas.

The Provincial government still needs Shelter, food, water, health & education for the displaced population in the flood-affected areas besides economic damages and losses to be recovered. The provincial government planned to have the sector-wise interventions with the support of donor agencies in the flood-affected areas as below:

» Provision of Low-Cost Climate-Resilient Housing in the flood-affected areas. The damages and losses have been estimated as per Post-Disaster Needs Assessment (PDNA), PDMA and Planning & Development (P&D) department data.

» On a priority basis, revitalize key sectors such as health, education, agriculture, housing, irrigation, communication and works (Transport), Livestock and Water, Sanitation and Hygiene (WASH) through the financial support of international donors and feasible budgeting of PSDP.

» Reviving livelihood in the province affected by the flood, especially agriculture, livestock, fisheries, and private sector activity.

» Rehabilitating damaged roads, solar panels, bridges, irrigation, agriculture, livestock, health, education infrastructure along with the WASH facilities.

» Repurposing existing projects and conceiving new projects with international partners (including World Bank, Asian Development Bank, EU, UN Agencies, INGOs, and other donors).

» The provincial government will also re-align the provincial budget with flood related interventions.

» PDMA is establishing the Divisional Disaster Management Villages (DDMV) in each division to respond timely and effectively.

» The PDMA Balochistan is establishing Planning Management Unit with the support of International Organization for Migration (IOM), so far no agreement has been signed with IOM.

» PDMA is launching Community-Based Disaster Risk Management (CBDRM) program.

» Multi Hazard Vulnerability Risk Assessment (MHVRA) studies were conducted in four districts, namely Jaffarabad, Naseerabad, Lasbela and Gwadar.

» Proper studies on climate-resilient cities is in progress.

» Draft of the Disaster Management Policy has been prepared.

» Monsoon Contingency Plan 2023 has been prepared.

3.

SECTORAL PRIORITIZATION FOR THE PLAN

While the BFRP is reflecting Balochistan's customized recovery and rehabilitation strategy, it follows the general architecture, and thereby contributes to the set goals, of the 4RF. More specifically, the Balochistan Flood Recovery Plan (BFRP) is based on the 4RF's logic of four Strategic Recovery Objectives (SROs). After identifying related key needs and gaps, the key sectors affected during the flood prioritized related interventions. In doing so, the structural logic of the 4RF SRO was followed in grouping sectors for sectoral needs assessments and related planning of interventions to proactively reduce, mitigate and manage disaster risks in view of minimizing future calamity-induced losses and damages across key sectors.

Sector focal points convened in a series of technical workshops to draft interventions and group them by type (policy/upstream vs. investment/programming vs. capacity building for institutional efficiency), allocated a geo-level focus (central level, all districts or a selection of priority districts). Furthermore, specific timelines were allocated, initial timing and sequencing projections were added and the action items were costed.

In discussing the type and scope of action items to be added to the list of activities, care was taken to avoid overlap or duplication with other existing flood-related programme frameworks. The BFRP therefore is complementary to (a.) the short-term Emergency Flood Assistance Project implemented by the provincial irrigation and agriculture departments with the support of Asian Development Bank (ADB); (b.) the mid-term "Post-Flood 2022 Reconstruction Program: Resilience Enhancement and Livelihood Diversification" run by the Ministry of Planning, Development & Special Initiatives (GoP) through the World Bank; and (c.) the sustainable development strategy of the province of Balochistan.

3.1

STRATEGIC RECOVERY OBJECTIVE 1:
Enhance Governance and the Capacities of the State Institutions to Restore Lives and Livelihoods of the Affected People, especially the Most Vulnerable

Governance

Effective governance provides sustainable, quality services to citizens, and this role becomes more important during disasters and relies on accessible and conducive infrastructure, and the efficiency and effectiveness of processes, procedures, and operations. The district administration has played a vital role to coordinate actions on the ground and provide emergency support to citizens. As the flooding worsened the key responding agencies were the NDMA/PDMA, Federal Flood Commission (FFC), Pakistan Armed Forces, and district administrations. Despite having lost numerous administrative buildings, their ability to act in the field was only marginally compromised and local administrations acted as the focal coordination point of all efforts. In Balochistan, 32[4] public admin-

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4   Planning and Development Department, GoB 2023

istrative buildings were damaged. Similarly, [5]764 buildings of Police, Judiciary, Prisons & Prosecution were also affected.

Sector	Governance
Losses/Damages	764 police, judiciary and prisons buildings
Recovery/Rehabilitation	PKR 559.48 million (US $1.97 million)

Table 3:Damages and Losses and Recovery Costs SRO-1

The Law Enforcement Agencies (LEAs) suffered more damage than other public administration buildings. In Balochistan, the damages to LEAs were estimated at Pakistan Rupees (PKR) 100 million. The prisons were badly affected in the aftermath of the floods. These impacts may lead to a rise in crime, Gender-Based Violence (GBV) and SGBV, and impede access to justice services; these effects will be worsened by weak coordination and institutional capacities, and loss of official records and evidence.

In terms of key gaps that have been identified at the upstream policy level, there is need for full-fledged PFM (Public Financial Management) & accountability reforms. Furthermore, there is need to establish a provincial level framework for gender and climate change responsive public investment. The provincial Government of Balochistan has recently created a special unit within the civil secretariat to oversee the overall development and management of such an initiative. The required funding for such efforts is yet to be secured and falls at least partially under the remit of the recovery plan. Another key priority among projected BFRP activities is the drafting and subsequent implementation of resilient zoning and construction/infrastructure bylaws at the provincial level, on an urgent basis. Finally, there is need for developing and implementing a cross-sector risk communication strategy including a risk communication strategy and action plan.

Once the normative and legal bases for programmatic investments are in place, actual work in terms of repairing, reconstructing and re-operationalizing damaged and destroyed infrastructure can be carried out, targeting district level offices and rule of law infrastructure, police stations and prisons. In addition, this will include establishing new/additional infrastructure where none was in place prior to the floods in spite of the existing needs. Repairs and (re)construction of such buildings will need to be carried out using resilient designs and materials in conformity with norms and guidelines for resilient infrastructure. Activity-wise, the initial related step would be to carry out related surveys to pinpoint exact requirements based on the current extent of damages and losses.

Last but not least, in terms of enhancing institutional effectiveness, there is need to establish an M&E dashboard to ensure proper monitoring and guiding the performance of concerned institutions. Also, the human resource department's capacity requires a specific, dedicated activity under the BFRP.

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5   Post Disaster Need Assessment (PDNA), 2022

Environment and Climate Change

Environment sector damages and losses are by their nature difficult to assess, especially in a short period of time. As such, physical and monetized impacts are expected to be significantly underestimated. For the purposes of PDNA assessment, flood-related environment sector damages include:

1. Damage to the natural environment including protected areas, forests, rangelands, wildlife;
2. Damage to the land (landslides, debris flows, erosion, and sedimentation); and
3. Pollution and waste (chemical and hazardous waste spills)

An assessment of environment sector income and livelihood losses, including the loss of ecosystem services and their benefits to rural households has only been partially attempted, based on initial literature estimates. This requires further study. Total assessed losses and damages are estimated at PKR 786 million (US$2.76 million). Approximately 1,002 acres of forestry, 296 acres of protected areas and 876 landslide/soil erosion accounted for in Balochistan province.

There is need for rehabilitating damaged forest and protected areas, including tree nurseries, landslide stabilization, debris flow removal, cleaning up of contaminated sites, and construction debris management. Further, there is need to strengthen provincial climate change and environmental governance capacities including regulating Environmental Impact Assessments (EIAs) and conducting related technical studies.

Area	Protected Areas (acres)	Forestry (acres)	Landslides/ Soil Erosion (Spots)	Loss (PKR Million)
No. of Damages/ losses	296	1,002	876	786

Table 4: Damages and Losses Environment Sector

More specifically, requirements in the realm of policies and procedures include the design of an Environmental Sector Plan for Balochistan, following a comprehensive and reliable baseline study on the identification and enumeration of ecological zones, ecosystems and biological diversity. There is also need for a Strategic Environmental Assessment (SEA), as enshrined in Section 13 of Balochistan Environment Protection Agency(BEPA) Act, 2012, of the Flood Recovery Plan. In terms of investment programmes, there is need for a systematic decontamination of water bodies, water channels and removal of debris from residential areas. To this end, a comprehensive WASH program should be introduced in flood-affected areas, including a clean-up campaign and decontamination of human settlements. A further priority requirement is the establishment of a well-equipped Strategic Climate Change Cell in Balochistan's Environmental Protection Agency (EPA).

To strengthen institutional efficiency and effectiveness, there is a need to strengthen the mobility of the EPA for effective implementation of its mandate in cities and remote areas Amendments in the rules, policies and HR hiring. To this end, the EPA fleet of vehicles needs to be increased so that EPA can reach required levels of interaction with the district level administration and other concerned departments. In order to improve the regulatory framework of Balochistan EPA, there is a need of revamping its code of rules and regulations through needs-based amendments. Finally, Balochistan EPA's technical capacities must be strengthened. This can be achieved through the provision of national training facilities and a dedicated updated training programme. Trainings abroad should also be part of the programme, for specific content, targeting higher-ranked staff who required specialized, state-of-the-art training in specific technical domains.

Disaster Risk Reduction

In the sub-sector of disaster risk reduction (DRR), at the policy level, there is a need to introduce a PDMA Act. Another gap to be filled on a priority basis is the mainstreaming of resilience into development planning. This needs to be ensured through the inclusion of a DRR lens in drafting planning/programmatic documents especially for the water, agriculture and infrastructure sectors.

Programmatic gaps that require specific investments on a priority basis, comprise the need for introducing a state-of-the-art system for meteorological monitoring and early warning. Moreover, there is a need to establish capacity building trainings of relevant government officials for response, humanitarian assistance and long term resilience. Upgrading of public emergency/evacuation shelters and awareness raising for their proper utilization is also required.

Institutional effectiveness must be enhanced through institutional strengthening at district and provincial levels with linkages to the community level in all matters related to DRR. This includes strengthening of resilience at community level through local level organizations; as well as a multi-hazard risk assessment to inform better recovery and development planning.

3.2

STRATEGIC RECOVERY OBJECTIVE 2:
RESTORE LIVELIHOODS AND ECONOMIC OPPORTUNITIES (AGRICULTURE, LIVESTOCK, AND FISHERIES)

Agriculture

According to the results of the PDNA analysis, around 1,717,117[6] acres out of 6,936,775 acres of agricultural land were adversely impacted. In addition, damages to public and private infrastructure such as government buildings, research centers, including animal shelters, fishponds, and on-farm irrigation systems and equipment were reported and are presented below.

The direct and indirect effects caused by the floods, including damage to and destruction of agricultural land and irrigation systems, increased salinity and siltation of lands, coupled with roads and farm access constraints, especially in Balochistan. The estimated production losses in the crop subsector was PKR 319,048 million. In Balochistan, the most affected crops were rice, cotton, onion, fodder, and fruit trees.

Monsoon rains and flooding have damaged 43%[7] of crops/vegetables and around 30% of orchards with varying proportions in the surveyed districts. The highest crop/vegetable damage was reported in Sibi, Naseerabad, Jaffarabad, Sohbatpur, Usta Muhammad, Kachi, Quetta, Mastung, Musakhail, Loralai, Harnai, Nushki, Lasbela, Pishin, and Jhal Magsi, whereas orchards are mostly affected in Killa Saifullah, Kharan, and Pishin.

PKR-Millions (US $ Million)	Damages	Losses	Recovery
	171,236.24 (602.94)	399,917.04 (1,408.15)	306,877.87 (1,080.55)

Table 5: Damages and Losses and Recovery Costs Agriculture Sector

6   Post Disaster Need Assessment (PDNA) 2022

7   Rapid Needs Assessment (RNA)-PDMA August 2022

In the area of policy level priority requirements, there is need to frame official Provincial Acts for the regulation of nurseries, cotton production and quality control, and seed production. The Nursery Act is needed to create a regulatory framework that is transparent, efficient, and effective in regulating the production, sale, and distribution, ensure quality and health of plants, and improve the efficiency and effectiveness of nurseries. Furthermore, the production, sale, and distribution of cotton requires a proper regulation to ensure the quality and health of the produce. To this end, technologies and practices need to upgraded to the latest international standards, to improve the efficiency and effectiveness of the industry. Finally, to produce and distribute high-quality seeds that are adapted to local environmental conditions, and are free from pests and diseases, Balochistan's relevant entities need to be able to collaborate with national and international organizations to exchange knowledge and expertise, and to promote the adoption of best practices, support research and development activities etc.

With regards to programmatic investments, the province is in need of the provision of agricultural inputs such as seeds, fertilizer, pesticides etc. Related activities would entail carrying out a detailed survey to record the exact quantity of such as agricultural inputs as seeds, pesticides and fertilizers required for the rehabilitation of destroyed crops, and subsequent increase in the average volume of production. Also, there is need for agricultural machinery equipment including mechanical implements (tractors, harvesting and cropping machinery, tools etc.). Further, the destroyed orchards need to be re-established, which implied the provision of fruit trees (fruits, dates, olive, pistachio, almond etc.). Last but not least, there is need to repair the Agriculture Extension Services' office buildings as well as staff residences, especially in the most vulnerable districts.

Institutional effectiveness of the Agriculture Department needs to be strengthened through the provision of technical and financial support. Soil and water laboratories are in need of being upgraded through trainings for field staff, study tours and other related measures. The establishment of an agriculture MIS is also a priority. Furthermore, the gender wing of the Department requires technical support to strengthen its capacity.

Livelihoods

Livelihoods of the population in the flood affected districts were severely affected by the overall negative effect of the floods on productive activities at the grassroots level. Given that their regular source(s) of income, including salaries, were curtailed, in many cases the decision makers at the household level were forced to sell off productive assets among their private possessions to cope with the sudden absence or severe reduction of incoming monetary transfers such as wages, salaries, proceeds from regular sales of goods/produce/services, and any other relevant types of remuneration depending on the respective aggregate economic profile of households or, in other words, the collective activity mix of their members.

The monetization of household level wealth stored in those assets (cattle that survived the floods, mechanic implements, food reserves, even land plots etc.) generated much-needed cash to pay for basic needs (food, medicines, mobility, replacing lost household goods indispensable for maintaining immediate short-term sustenance etc.). This selling off of household level wealth undermined their mid-term resilience, thus weakening their prospective ability to further withstand any additional external shocks through causes such as the potential, if not quite likely, imminent recurrence of floods, or other idiosyncratic crises (e.g., the prolonged illness or death of the key breadwinner(s) or other, external catastrophic events such as earthquakes, landslides, droughts etc.).

At the upstream level of policies and procedures, relevant interventions under the BFRP in view of bolstering the households' livelihoods would include the accelerated re-establishment of gainful and productive jobs and employment. More specifically, the Labor and Manpower Department needs to establish a provincial level policy to engage the private sector in jobs creation including e-commerce, freelancing and soft skills. Other, additional specific reforms are required to boost demand aimed at creating alternate jobs and employment. This could include the accelerated implementation of the already existing Public Private Partnership Act 2018 through the injection of resources or the provision of incentives to the private sectors for investment in the province.

At the level of programmatic investments, there is need to restore, replace and, if possible, expand and/or improve previously existing jobs and livelihoods through e-commerce, emergency employment services etc. Another priority activity is the recovery and reconstruction of critical assets, services and infrastructure, e.g. by implementing the Youth Policy to create more opportunities in the province especially emergency employment services. Strengthening governance and stakeholder capacity for reconstruction will need to include, and have a specific focus on, the community level. This will need to include the strengthening of coordination mechanisms among the concerned government departments and vulnerable communities.

Institutional effectiveness must be strengthened through the targeting of affected vulnerable households. Relevant tools and mechanisms include household/community-level Poverty Wealth Ranking and the introduction of a Poverty Scorecard system. Such an approach would allow for data driven, evidence based targeting of vulnerable community members for technical and/or vocational training.

Finance, Markets, Commerce and Industry

The Non-Performing Loans (NPL) of commercial banks amounted to a total volume of PKR 3,300 million (US$ 46.12 million) while 104 banking institute branches were damaged. Similarly, the NPL among Microfinance banks increased to PKR 790 million (US$

2.78 million) with 11 branches damaged. The NPL of Microfinance institutions increased to PKR 2 million (US$ 0.0070 million). Meanwhile, the insurance sector damages and losses are estimated at PKR 4,708 million (US$ 16.57 million.

The floods and their direct and indirect impacts have exacerbated the challenges being faced by Balochistan's industries and retail and wholesale services sectors. Around 12[8] Small and medium enterprises have been damaged completely and 8 partially damaged in different districts of the province. The estimated building and fixture cost is around PKR 264,750 million (US$ 932.21 Million). The economic cost of the floods on the firms operating in the industries and retail and wholesale services sectors in the province is estimated at PKR 85568.94 million[9] (US$ 301.29 million).

In the domain of policies and procedures, concrete activities to be included in the BFRP need to address legal, policy and institutional hurdles standing in the way of dynamic growth of commercial activities, manufacturing and trade. Currently, the space for private sector growth is constrained by a number of factors that effectively thwart if not shackle the potential for the generation of wealth through private enterprise. This will spur employment including through self-employment and trickle down effects for additional income generating activities within the concerned communities. For instance, access to private sector credits for micro, small and medium level enterprises must be enhanced to boost private sector business development and overall economic growth. In addition, public administrative reforms need to be introduced so as to remove regulatory tiers and simplify procedures, including through the introduction of IT based solutions and one stop shops for business registration.

There is an urgent need to introduce sustainable financing solutions for reviving SMEs. This could be done through such instruments as matching grants and easily accessible, interest free loans. The growth of SMEs and start-ups would be boosted through enhanced, more easily accessible credit guarantees and a simplified regimen of modalities. On the supply side, the growth of financial credit providing entities would be boosted by the introduction of a more conducive regulatory environment. Related measures would comprise, for instance, the provision of credit guarantees microfinance to credit providing entities. Establishing the requisite infrastructure and incentives to encourage the development of technology based companies would attract private sector investment.

Furthermore, in terms of boosting operational effectiveness, local NGOs need to also be provided with interest free loans, especially in the flood affected districts. Finally, the flood crisis has exposed the severe need to invest into the strengthening of rescue authorities' disaster responsiveness. To improve its institutional capabilities, the concerned provincial government department needs to initiate crash courses for its staff.

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8   Planning and Development Department, GoB 2023
9   Post Disaster Need Assessment (PDNA) 2022

Food Security

The area of food security is closely linked to the sub-sectors of agriculture, livestock, fisheries, commerce and trade, livelihoods, transport etc. Policy-wise, the BFRP should serve the purpose of introducing institutional reforms by the Food Department. This should start with the launch of a thorough study to revise the Food Manual of 1986 and submitting the statistical systems, rules and procedures of the Food Department to an in-depth review. It would also be necessary to carry out to revisit the department's procurement policy and plan, and upgrade the software used by the department's operations and accounting department, for its financial management.

Infrastructure repair and rehabilitation needs in the sub-sector comprise of the reconstruction, renovation and rehabilitation of warehouses and silos at the 16 Provincial Reserve Centre, and the rehabilitation of food siloes in Quetta. In terms of institutional effectiveness, there is need to upgrade the technical capacities of the provincial Food Department's staff. This would require training of field level staff on such technical issues as wheat and grain storage, warehouse storage management system, supply chain systems, along with training on Food Security systems.

Forest and Wildlife

The province's density of forests and the characteristics of its wildlife are a direct function of the existing riverine system. In total, there are eighteen rivers that, taken together, form three distinct drainage basins. These are the Indus Drainage Basin (consisting of 7 river systems), the Inland Drainage Basin (containing 4 river systems), and the Coastal Drainage Basin (comprising of 5 river systems).
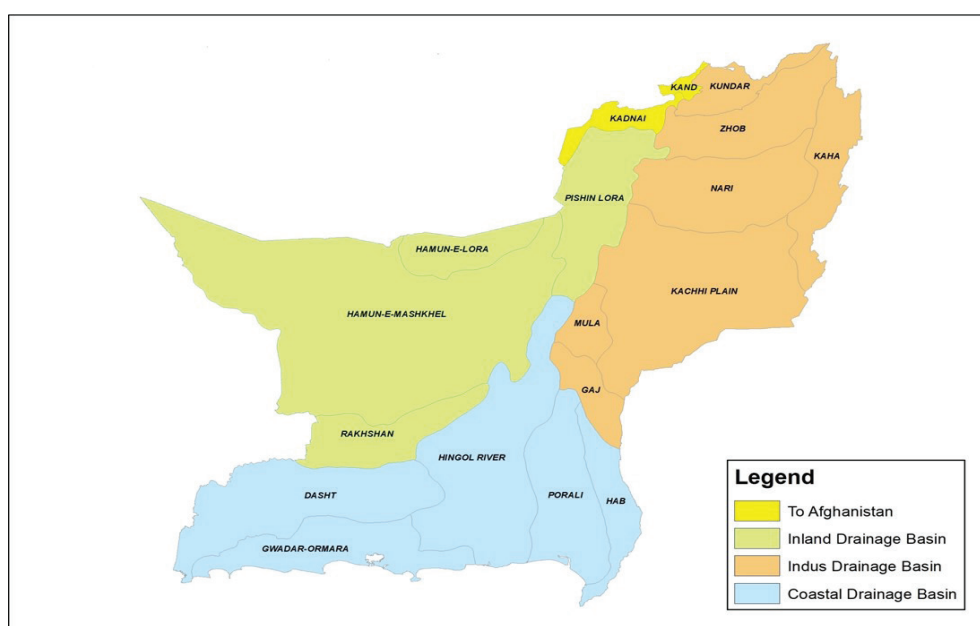

Figure 1: Map of Drainage Basins in Balochistan

There are various pressure factors in the catchment area which weigh on the ecosystem

including flora and fauna. Among the key issues, one can count i. negative effects of climate change and related extreme weather events (drought, flood); ii. immense grazing pressure (province hosts approx. 50% small ruminants); iii. deforestation due to a lack of energy alternates (cutting of trees and saplings for firewood and charcoal production without taking commensurate measures securing reforestation, resulting in the depletion of the foliage, reduced coverage of the soil and destroying the habitat of birds, insects etc.); iv. changes in the use of land.
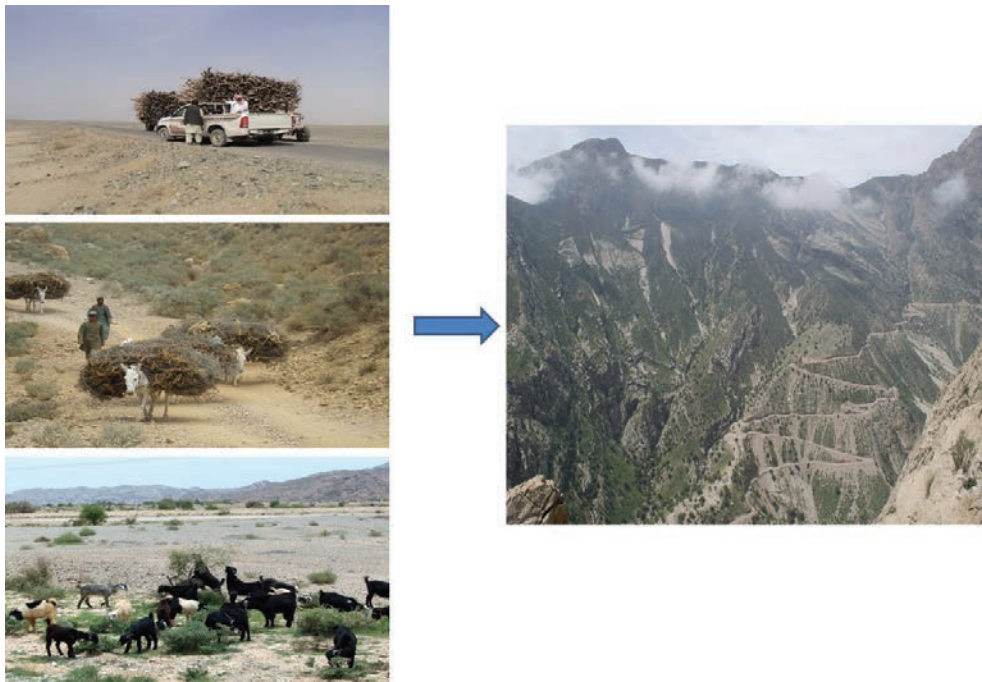
Figure 2: Illustration of Deforestation

All of the above results in complex negative consequences for flora and fauna, which are interlinked in many ways. First and foremost, there are serious knock-on effects affecting the trophic cascades, i.e. changes to the structure of the province's ecosystem resulting from changes to animals or plants at one or more levels of the food chain, potentially leading to dramatic effects on ecosystem structure and ecological nutrient cycles.

To address the above, there is need to promote an appropriate model of watershed management. An approach for Integrated Watershed Management combines activities across the components of physical, biological and social factors. In geographic terms, in the high hills, specific activities would imply the protection of vegetative cover and measures in favor of soil and water conservation; whereas in the foothills, wood and forage production would be required to supplement rural livelihoods. Last but not least, in the lowlands, farm resilience could be increased through adequate measures in the area of agro-forestry.

To restore, improve and sustain vulnerable watersheds, a series of key steps would be required, viz.: i. designation of responsible basin authorities, ii. design of a management plan for each basin, iii. draft a programme strategy and action plan, iv. integrate commu-

nities through sensitization and inclusive involvement in planning, v. integration of communities, vi. provision of alternates to communities and measures in view of diversifying livelihoods. The anticipated outcomes would include increased water storage capacity through soil conservation resulting in decreased losses, and increased catchment and channel roughness due to enhanced tree cover and bio-technical measures. In addition, this would lead to reduced flood risks thanks to the effect of de-synchronising peak flows from tributaries.

At the upstream level, required policy changes would include the introduction of an integrated watershed management policy, at the provincial level. Related to this, under this policy, there should be a strengthening of Basin Management Authorities' through the design of a related master plan and specific management plans for the three drainage basins. The drafting of these plans would need to be based on comprehensive studies of the provincial vegetative cover, challenges, and an action plan presenting a series of relevant, phased activities.

At the programme level, investments are required to enable the formulation of long-term strategic programmes and related projects. For instance, this should include a number of pilot projects to enhance the resilience of specific catchment areas, including participatory activities in flood affected watersheds such as providing community/farmer grants. To enhance institutional capacities, measures should be taken to strengthen the capacity of key officials and field staff. Topics to be addressed include watershed circles and similar technical and managerial issues. Furthermore, there is need to invest into the strengthening of existing GIS Nodes at divisional level.

Fisheries

The total value of damage in the fisheries and aquaculture sector was estimated at PKR 887.28 million (4% of the total damages across the provinces). About 91 percent of the total amount of damage was reported in Sindh. Partial and total damages related to public and private fishponds and fish/fingerlings stocks, hatchery facilities, laboratory equipment, and production material such as incubators, generators, water tanks, pipes, and tubes were recorded. In Balochistan, production losses from private aquaculture facilities were reported at PKR 1,250 million, mainly in Lasbela district.

Much needed interventions include the reconstruction of the fish hatchery at Dera Murad Jamali, including the hatchery's rearing ponds, nursery ponds and circular tanks. Other than repairs there is need to remove debris from the productive infrastructure. There is also an urgent need to repair or reconstruct damaged government department buildings, offices and staff residences and, where applicable, the compound boundary wall, particularly in the locations of Naseerabad, Jaffarabad, Jhal Magsi.

Institutional effectiveness needs to be boosted. This would be achieved through organizing capacity building trainings and exposure visits for the benefit of the Fisheries department. Another requirement it to boost the capacity of the Fisheries department's HR unit. At present, the latter does not possess the adequate skills to cope with disaster and to carry out routine tasks, on an effective and efficient basis. Therefore, the HR unit is in need of capacity support measures including, for instance, visiting other provinces' concerned departments to identify best practices, benefit from lessons learned and exchanges with fellow expert practitioners, to gather lessons learned and spark innovative ideas.

Livestock

The total value of damage in the livestock sub-sector was estimated at PKR 79,619 million. The largest fatalities were experienced in the goat population followed by sheep, cattle, and buffalo. Balochistan was the second most affected with around 325,000 animals lost. Of this total amount, over 200,000 commercial poultry losses from the private sector were reported in the district of Lasbela alone. Most damages (both partial and full destruction) under the livestock sector mainly comprised of public infrastructure such as government offices and veterinary hospitals and clinics, followed by private animal shelters, and commercial poultry and dairy farms

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Livestock production losses from the death of animals include the failure of and reduction in meat, milk, eggs, and wool production, and fewer births. The spread of animal diseases such as foot and mouth disease (FMD) was also registered; and, coupled with a lack of fodder, feed, shelters, and drugs, these diseases may limit production presently and in the future. These are the main assumptions that were used to estimate the final production losses in terms of dead and alive animal populations. 36% of livestock holders have lost at least one animal/poultry due to the heavy rains and flooding. Households with dead/lost livestock were mostly reported in Jhal Magsi, Lasbela, Killa Saifullah, Nushki, and Khuzdar.

Needs at the policy level include the design of a policy for coping with natural and man-made catastrophes in order to improve fodder and water availability on rangelands. This would need to include a related implementation strategy and regulatory mechanism to cope with droughts and floods. The GoB is also in need of creating a livestock hub and a service company for the development of the sector.

At a programmatic level, there is a need to design and implement an integrated rangeland improvement program in view of enhancing the coordination between concerned stakeholders. This would need to include skills upgrading of livestock farmers on how to cope with different types of catastrophes. In addition, such a programme would include the introduction of new varieties of rangeland grass seeds, the development of water channels and ponds to increase the availability of water, and training livestock farmers

on how they can play their role in improving rangelands while grazing animals. In addition, the private sector requires support and training in silage making. Linked to this, an animal feed manufacturing mill should be established. The planting of trees around livestock farms is needed, since they could serve as protection against floods while at the same promoting biodiversity. There is also need for a programme to make water available on livestock migratory routes and on various rangelands. To empower rural women, small ruminants and chicken could be distributed to promote backyard poultry and dairy product manufacturing using milk from goat and sheep. Commercialization of these products would require support to develop market linkage opportunities to establish supply chains (distribution networks including transports, wholesale retailers, end point consumer interface through shops, kiosks etc.) from producers to consumers.

Institutional effectiveness needs to be enhanced through supporting departmental technicians in the design of animal sheds for the private and public sectors. The sheds should be designed in such a way that they can be easily assembled and disassembled, are weather resilient and can keep animals at optimal temperature (both for Private and Public Sector). Such sheds should replace damaged or destroyed, previous sheds. There is also need to develop a surveillance system to hold animal diseases in check. This would allow for early detection in view of limiting them from spreading and related negative effects, the development and manufacturing of effective vaccines, district-level animal disease risk and prevalence/trend mapping etc. Related to this, there is need to train veterinary professionals on software for animal disease surveillance and disease mapping as per official OIE guidelines. Genetic improvement needs to be pursued by way of introducing mutton producing goats, conducting breeding trials local breeds and external varieties based on imported sexed semen of purebred Holstein Friesians etc. Support to establishing BSL-III level vaccine laboratories is needed. Boosting institutional capacity to fight zoonotic diseases such as the Congo Virus, external parasites such as the Warble Fly etc. would require the establishment of related control schemes.

Mines and Minerals

In Balochistan all 7 coal field were badly hit by the heavy rain and flash flood. Due to flash flood and heavy rains 29 sites were damaged in Hernai region, 52 sites in Loralai region, 31 sites in Quetta region and 28 sites in Mach region. The damages included mine sites, link roads, hospitals, machines, incline (haulage) lines and boundary walls. This also caused losses in labor costs in terms of unemployment. Using the baseline employment figures and considering the vulnerability level of each status of employment, the number of people impacted by disruptions and loss of employment in the flood-affected districts is estimated at 4.3 million workers.

The biggest share of job losses and disruptions were experienced in the domain of mines and natural resources, at 14%. Sector-wise, in line with the baseline distribution of employment, the highest proportion of employment loss was likely experienced by those

engaged in the agriculture sector at 43 percent (1.9 million), followed by the service sector at 36 percent (1.5 million), and then industry, at 21 percent (0.9 million).

The highest share of labor income loss is estimated in Balochistan at PKR 13.018 billion (US$ 46.12 million).

In order to provide increased mineral production and employment rates, there is need to establish a long term sustainable infrastructure plan for the mining sector on a provincial level. A long term strategic plan should be designed by the concerned departments together with the private sector. Also, there is need to review current mining sector disaster contingency plans including specific flood alert and management plans, through a thorough assessment of the performance during the floods, in view of strengthening the sector's ability to come up with an integrated response.

In addition, damaged mine sites require investments for repairs. Those mines that still remain closed need to be made operational, again. Related to this, access roads to the mines and roads connecting mines to the market places require refurbishment. Flood protection walls need to be installed near major mining sites around water channels in Duki, Mach, Hernai. Also, there is need to establish sustainable mineral depots and stocking sheds. This should lead to generating increased mine revenues, the creation of jobs, and incentives for public private partnerships.

To enhance institutional effectiveness in the mining sector, there is need to train the officers of Mines & Mineral Development Department. Institutional capacity would benefit from providing new equipment to the Development section, especially in the areas of consultation service provision and outreach, and field level monitoring. Training of mine owners, labor and all stakeholders is required in view of strengthening district-based emergency response and evacuation plans. Furthermore, training drills on the early warning system need to be carried out by simulating the occurrence of catastrophic events. Finally, there is need to invest into training departmental staff on rescue procedures and rescue team management. Safety Officers require technical training, and Rescue Centers of the Inspectorate of Mines need to be set up and become fully functional.

3.3

STRATEGIC RECOVERY OBJECTIVE 3:
RESTORE LIVELIHOODS AND ECONOMIC OPPORTUNITIES (AGRICULTURE, LIVESTOCK, AND FISHERIES)

Social Sustainability, Inclusion and Gender

Female home-based workers and female on-an-off agricultural and dairy/livestock workers were disproportionately affected. Livelihood impacts vary based on geography, location, and agro-economic activity of different social groups, and affect precarious workers associated with agricultural and livestock sectors most severely (specifically women, older people, people with disabilities, and landless farmers).

In most Social Impact Assessment (SIA) sites, children had either been pulled out of school (particularly girls) or shifted to public schools (where available). Poor families reported an inability to provide their children with school supplies, while other children missed school for extended periods because they were repairing family homes. Girls became more vulnerable to child and early marriages as a coping strategy by dislocated families. In this regard, 640,000 adolescent[10] girls are vulnerable and at increased risk of coercion, GBV and child marriage in the aftermath of the floods.

The SIA further found that despite these social problems, no knowledge of avenues for psychosocial and mental health support could be identified by communities, government officials or civil society representatives interviewed. District and Tehsil administration officials were mostly unaware of GBV referral mechanisms, whereas NGO representatives and community leaders noted GBV to be an issue requiring immediate attention at the local level. These findings are consistent with a recent Balochistan Disaster Management Authority's survey report in which key protection concerns identified by the communities included inter-communal disputes (10 percent), child marriages (9 percent), and GBV (7 percent), followed by other issues including violence against children, harassment, physical assault, and human trafficking.

10   UNFPA Estimates

Over 300,000 Afghan refugees are living in calamity-declared areas. Their access to services is severely limited due to lack of adequate documentation (computerized national identity cards in particular), which is required by many organizations to obtain relief. Much aid and support is available to registered Pakistani citizens only. It is estimated that 3.8 million people with disabilities have been impacted across 4 provinces[11] People with disabilities also faced specific challenges during evacuation due to disability-unfriendly evacuation services and lack of appropriate equipment for self-help groups according to the SIA. The estimated cost to this sector is around PKR 28.4 million (US $ 0.1 million).

A suitable gender centric policy framework needs to be developed and made operational, to ensure critical protection services through inclusive crisis centers including psycho-social support. In building on the example of the recent "Pandemic Fund", similar funds need to be created to provide emergency goods and services for specific sub-sectors under which the fund is divided (food security, women's needs, etc.). The funds need to be made more inclusive to support the affected marginalized groups at the time of natural calamities. Further coordination efforts are needed to assist marginalized groups and conduct trainings of social welfare staff, and channel additional sub-grant funding to community development councils, committees, and village councils, to support recovery at the community level.

Increased coordination among concerned departments is required to support the recovery at the community level following disasters. WDD and Social Welfare require enhanced coordination mechanisms linking their activities to those of PDMA, the Meteorological Department and the Environment Department, to ensure the timeliness of emergency support-related operational activities.

The Gender and Child cells require support in data collection, communications, outreach and M&E to enhance their performance. Community sensitization interventions need to be conducted covering main protection concerns (including GBV and PSEAHR). There is need to conduct awareness sessions at community level for behavioral change, and share information on available services through NGOs/CBOs in accessible formats. Similarly, public awareness and knowledge about readily available service provision in terms of medical and psychological aid for disaster hit communities, needs to be increased through adequate sensitization, awareness raising and communication measures, and related training sessions for professional staff of various departments (on referral mechanisms, symptoms/signs to detect trauma, pre-counseling support and accompaniment etc.).

Institutional effectiveness needs to be upgraded through the establishment of a community disaster management system linked to existing community service delivery platforms. This would need to address existing gaps in the early warning system, in a way

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11   UNICEF. The estimated affected people with disability/ies are calculated by using PBS population estimates as of 30th August 2022 for age groups 18 and above. Estimated numbers may be higher because the data do not include affected population below the age of 18.

that is tailored to the needs of women, people with disabilities, the elderly and other groups. The design process should ideally be inclusive, allowing female community level decision makers to be involved in the process of identifying gaps, flaws and any potential missing links in the community level early warning mechanisms. There should also be provisions to ensure the translation of related DRR systems features into the relevant local language(s) of vulnerable communities. Last but not least, there is need to ensure proper mechanisms and systems to ensure donor liaison, through M&E, communication and reporting on progress and results.

Culture, Tourism and Heritage

Intangible Culture Heritage forms the foundation of social systems and is also an important livelihood for community members. Displacement and forced migration are a significant threat to the survival and transmission of Intangible Cultural Heritage (ICH). Around 56 mosques, 1 museum, and 3 archaeological[12] and historic sites have been heavily damaged in Balochistan. Early estimates indicate that at least 149 sites across the country have suffered partial but considerable damage in Balochistan.

Balochistan only reported losses to private sector enterprises, estimated to be around PKR 440 million (US$1.54 million)[13]. Hotel occupancy decreased significantly due to reduced volumes in tourism. Numerous cultural heritage sites have been heavily damaged or were destroyed, including mosques. Heavy rains caused lakes to overflow, which damaged bridges and led to landslides along key routes. Several areas are still facing connectivity issues.

No of Damages and Losses	Damages	Losses	Recovery
PKR-Millions	70 sites	77 sites	98 (US $.345)

Table 6: Damages and Losses and Recovery Costs Culture, Heritage and Tourism Sector

Priority needs include the strengthening of a provincial DRR policy for the Culture, Tourism and Heritage sector, and establishing a mechanism for effective implementation. Along with amending the policy, a proper implementation strategy along with an action plan need to be designed. A tourism development corporation should be set up to facilitate entering into PPPs for establishing hotels and resorts, and the rehabilitation of tourist sites. A dedicated fund for the support of artists including musicians, actors and singers could be part of the strategy.

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12   Post Disaster Need Assessment (PDNA) 2022

13   Post Disaster Need Assessment (PDNA) 2022

A detailed damage assessment is required to support flood affected heritage sites, and fortify and prepare vulnerable non-affected sites in view of any potential future calamities. There is need to invest into data collection on the impact of the floods on the artists and other professionals working in the culture sector, to find out about and address their specific recovery needs. This includes the design of a recovery plan for, and the rehabilitation of, affected sites; as well as consultations with stakeholders to update regulations concerning the management and preservation of heritage sites.

There is need to design a database for tangible and intangible cultural heritage at the provincial level with the support of concerned stakeholders. Indigenous knowledge needs to be properly mainstreamed into cultural preservation practices, through direct engagement with local communities and stakeholders. Relevant tailor-made capacity building content and training formats needs to be designed for the specific audience of professional staff responsible for the management and protection of cultural heritage.

3.4

STRATEGIC RECOVERY OBJECTIVE 4:

RESTORE AND IMPROVE BASIC SERVICES AND PHYSICAL INFRASTRUCTURE IN A RESILIENT AND SUSTAINABLE MANNER (EDUCATION, HEALTH, DRINKING WATER, COMMUNITY PHYSICAL INFRASTRUCTURE, LINING OF IRRIGATION CHANNELS, SMALL AND MEDIUM WATER STORAGE DAMS)

Education

Overall 2,850 education institutions were affected in Balochistan. 1,076 institutions were completed destroyed and 1,774 partially destroyed. A total of 658,871 students were affected including 251,840 girls.

577 schools were used as shelters, including 254 in Killa Saifullah, 105 in Jhal Magsi and 84 in Lasbela. Similarly, 977 classrooms were completely destroyed, including 304 in Khuzdar, 193 in Lasbela and 167 in Jhal Magsi. Additionally, minor damage was reported in 975 classrooms, including 304 in Khuzdar, 174 in Jhal Magsi and 156 in Lasbela districts.

No. of damages/ losses	Damaged Identified		Loss Identified	
	Institutions completely destroyed	Institutions partially destroyed	Institutions completely destroyed (Total no of students)	Institutions partially destroyed (no of girls out of total)
	1,076	1,774	658,871	251,840
PKR-Million (US $ Million)	Damages		Losses	
	8349.6 (29.4)		4089.6 (14.4)	
	12439.2 (43.8)			

Table 7: Damages and Losses and Recovery Costs Education Sector

At the level of policy interventions, the education sector requires support in implementing flood-related aspects of the Balochistan Education Sector Plan (BESP-2020-25) which includes the updating and operationalizing of the school safety and education quality; and creating an education sector executive staff cadres for experts in district level education sector planning and management, and Head Masters. A detailed ALP is also required as part of the sector plan for out of school children. The emergency response and early warning system will also need to be included following thorough discussion with concerned stakeholders. There is need to develop a district based early warning system, emergency response and evacuation plans, and to conduct related training drills.

There is also a need to design a comprehensive learning continuity plan including the identification of related investment needs in terms of required infrastructure and equipment. A comprehensive TLC package and evidence-based local remedial plans to recover learning loss and bridge learning gaps for affected and out of school children are needed. While the provincial Education Department has already initiated the design of an ALP to cover the 200,000 out of school children, the GoB would also like to coordinate with the private sector to ensure enrolment of OOSC in alternate venues. In addition, there is need to invest into the construction of low cost, resilient school buildings.

Following an in-depth damage assessment of affected public/private education institutions, there is need to establish temporary schools (in makeshift locations and/or rented buildings) to absorb the students of fully damaged institutions, while rehabilitating and reconstructing damaged educational institutions applying the principle of building back better (BBB), using updated design standards and materials to build resilient education facilities. A campaign for (re) enrollment is required, including the use social media and mass media for messaging, especially targeting marginalized children and girls. This should include welcoming those formerly enrolled, to come back to school, as well as targeting first-time enrollees.

To enhance institutional effectiveness, there is need to establish a process to track recovery efforts, linked to the national flood recovery plan and integrated into the national, provincial and district level tracking and M&E processes. The education department's BEMIS and BESP 2020-25 need to be integrated with the national flood recovery plan. This includes advance community mobilization and sensitization on how to access learning opportunities, and on how to participate in response and recovery efforts. Under this approach, PTAs, SMCs and SCs needs to be involved in, and trained on, safe school reopening, MHPSS, IPC and GBV risk mitigation measures. This should also include public sector coordination with private sector entities, on such issues as capacity building-related training sessions and community-level mobilization.

Health and Nutrition

The floods led to shortages of food due to lost production and rising food prices in Baloch-istan. 57%[14] of households lost their stored cereal stock. In calamity-hit districts, analysis of pre-flood data indicates that, on average, 23 percent of households (1.6 million people) in Balochistan were moderately or severely food insecure. The estimated flood-related damages affecting the nutrition programme in Balochistan amount to 25700 million PKR (US$90.49 million)[15]. The flood affected nutrition facilities and services, anthropomet-ric tools, equipment, therapeutic supplies, furniture, Information, Education and Com-munication (IEC) materials, and medicines.

73% of affected HH have inadequate resources to purchase food from markets. The fol-lowing districts reported the most households with inadequate resources for purchasing food such as Pishin, Nushki, Killa Saifullah, Khuzdar, Kharan, Kalat Kachi, Jhal Mags, and Chaman.

The heavy rains and floods have resulted in total or partial destruction of health institu-tions 305 and 282 respectively in Balochistan province. District Pishin, Nushki, Killa Saiful-lah, Khuzdar, Kharan, Kalat Kachi, Jhal Magsi and Chaman reported prevalent diseases such as diarrhea/dehydration (19%), Malaria/Dengue (18%), coughs/cold/fever (17%) and skin infections (scabies) (13%). A significant increase in diarrhea occurrence was reported (52%), followed by an increase in skin infections (37%) and Malaria (37%), cough (25%), high temperature (21%) and Dengue (5%).

No. Of Losses/ Damages	Technical Hospital	DHQ (District Headquarter Hospitals)	THQ	CH	RHC	BHU	MCH	Dis-pen-saries	Total
Completely Damage	00	00	00	01	34	140	19	111	305
Partially Damage	01	03	02	00	21	127	35	93	282
Grand Total									587

	Cost Estimated to damages and losses							
Losses/ Damages (PKR Millions)	Infrastruc-ture	Equipment	Furni-ture	Vehi-cles	Dam-ages	Losses	Total	
	1,406.20	24.50	156.01	32.30	1,619.01	3,387.51	5006.52 (US $17.62)	
Recovery and Reconstruction							5006.52 (US $17.62)	

Table 8: Damages and Losses and Recovery Costs Health Sector

14   Rapid Needs Assessment (RNA)-PDMA August 2022

15   Post Disaster Need Assessment (PDNA) 2022

At the policy level, there is need to review current contingency plans and to assess their performance during the floods to strengthen the health sector's ability for an integral response. A risk mitigation plan needs to be developed for operational readiness during future emergency responses in the health sector.

Required programmatic priority investments include the provision of comprehensive essential health services including nutrition screening and supplementary support, immunization facilities for displaced people along with restoration of fixed site vaccination services such as Polio and EPI. This requires the purchase of essential medicines, equipment and supplies for the health facilities. Affected primary, secondary and tertiary health infrastructure damaged during the floods requires repairs, restoration and maintenance of facilities, as well as the renewal of equipment and supplies. Once the most blatant recovery gaps are filled, the GoB will require further support of international donors to establish and scale up integrated nutrition services including early detection and simplification of childhood treatment, community base health facilities.

Capacity development needs include the strengthening of provincial and district level nutrition coordination along with staff training to enhance provincial and district level coordination of nutrition surveillance, health services, and the management of severe acute malnutrition. This needs to include the strengthening of data collection and analytical skills as well as HMIS management capacity. There is no proper referral mechanism and no adequate transport system in place for complicated cases. Also, there is need to bridge critical HR gaps and build the requisite professional technical and managerial capacity of the health workforce. Health sector surveillance and response systems to detect the outbreak of diseases need to be strengthened.

Local Government and Rural Development

On the basis of the Local Government Act, lawmakers need to be trained on DRR and crisis management. This requires the development of Training Modules and technical training for the elected representatives and officials across the province. Therefore, a training manual presenting relevant training content in specific modules will need to be drafted. Subsequently, technical training sessions will need to be organized for the 14,998 elected representatives across the various echelons of decentralized government. This will include 1,075 Mayors or Chairmen, 6,058 reserved seats, 7,183 general and 682 official mandate holders.

In as far as programmatic investment needs are concerned, key priorities comprise of the following: i. rehabilitation or reconstruction of 969 Municipal Offices, Boundary Walls, Parking Shades, Grills/ Foot path and 210 servant quarters; ii. Re-enabling livelihood and rural agriculture support and water supply schemes (including the Karezat); iii. rehabilitate and reconstruction roads, streets and street lights, sewerage and solid waste.

Institutional effectiveness needs to be enhanced by way of introducing an integrated financial & HR management system and setting up a team of trained professional expert technicians to operate the system.

WASH, Municipal Services and Community Infrastructure

In Balochistan, the WASH-related damages were severe due to the flash floods and buildings, machinery, channels and pipework were washed away. Around 367 water supply schemes including 89 sanitation schemes have been damaged. The majority of the damaged schemes require rehabilitation, cleaning and disinfection, and repair of damaged components.

The RNA findings indicate that the primary source of drinking water is hand pumps and boreholes (35%) followed by open wells, an unimproved source (21%). Approximately 63% of the assessed locations in the affected districts reported access to safe drinking water as a serious problem, with a majority of respondents from Lasbela (84%), Nushki (79%), and Jhal Magsi (75%) reporting it as a serious issue. Primary issues reported include unclean water from the main source (29%), as the water is either turbid or has a bad smell and taste. (Table 8)

(PKR-Millions)	Total Schemes/ Small Works	PHED		Local Government	
		Water Supply	Sanitation	Water Supply	Sanitation
	456	358	00	09	89
	Damages		Losses		
	3,176.7		1,066.9		4,606.2 (US $16.2 Million)

Sanitation Infrastucture across Municipalities in Balochistan	Nature of Damage	Dimensions	Cost per Rft	Total Cost
	Drains & sewerage lines	(In Rft)	(In PKR)	(In Million)
	Open drains	671830 Rft	1200	806
	Piped/RCC drains	350724 Rft	3000	1052
	Total	1022554 Rft		PKR 1858 Million $ 6.54 Million

Table 9: Damages and Losses WASH Sector

In terms of policy support, there is need to improve the regulatory framework and tariff structure for enhanced private sector involvement in the operations and maintenance of WASH and municipal services. The PHED needs to improve the regulatory framework in order to properly monitor and regulate the department assets and allocation of responsibilities along with facilitation of communities. Designing the sector-wide policy framework should embrace the spirit of partnership with the private sector in view of ensuring the improvement of services.

A proper needs assessment of damages and losses is needed prior to the launching (re) construction efforts of larger, more complex schemes requiring complete reconstruction and resizing of damaged or destroyed community infrastructure. Required repairs and reconstruction works will include the (re)drilling of water boreholes that collapsed during the flood, repairing previously existing and/or installing new pipelines for the water distribution network, install solar panels along with QESCO transformers damaged during the flood, repair PHE infrastructure, water tanks, channels etc. A comprehensive re-assessment of damages reported by the district offices will need to be carried out, in order to avoid duplication as the initial data was collected during the emergency phase. Priority may be given to those schemes which require minor repair. During execution, higher staff of PHE shall be on board for monitoring purposes.

To recover and boost institutional effectiveness, there is need for strengthening the mobility of the Balochistan PHED. Technical and managerial capacities of the provincial PHE Department are also required to ensure enhanced services in urban and rural environments.

Energy

In the Energy sector, the areas of power generation, transmission and distribution to increase power supply coverage and alternative energy sources are all areas that require exploration and development. The Energy Department has an oversight role. It has a very limited mandate in terms of generating power and transmission.

The Department is in need of introducing a fast track procedure or mechanism for infrastructure restoration to allow it to quickly rehabilitate damaged facilities. Although the implementation agencies such as QESCO and SSGC worked on an emergency basis with the support of federal government to restore the damaged power generation facilities in Balochistan, there is need for additional funding of rehabilitating the distribution network. For the time being, its operational functionality could still not be re-established in all flood affected areas. In applying BBB principles, the existing power distribution network design ought to be submitted to a thorough review to ascertain if there is any potential for making it more resilient to natural hazards. If any related potential were to be identified, this should be reflected in the rehabilitation/recovery plan. Similarly, the rehabilitation of micro and mini hydroelectric power plants using climate resilient designs needs to be fast-tracked.

Energy sector emergency SOPs for disaster management will need to be drafted in order to prepare the sector for being able to better cope with natural calamities and maintain energy supply for affected communities. Specific issues to be covered include power storage back-ups, prioritization procedures (load shedding etc.), the costing and provision of renewable power equipment as emergency supply for cut-off areas etc.

Housing

Heavy rains and floods caused total or partial damage to more than 192,605 housing units in Balochistan. An estimated 68,992 houses were fully damaged and another 123,613 were partially damaged. Direct damage to houses caused indirect losses by depreciating the value of housing assets, appliances, and fixtures. The most affected districts were Kalat, Killa Saifullah, Nushki, and Jhal Magsi[16].

No. of damages/ losses	Katcha (Made of Mud)		Pacca (Made of concrete)		Total
	Completely Damaged	Partially Damaged	Completely Damaged	Partially Damaged	
	65,542	117,432	3,450	6,181	192,605
Recovery	Reconstruction		Repair		Total
PKR (Millions)	30,988		21,666		52,654
US$ (Millions)	109.14		76.28		185.4

Table 10: Damages and Losses and Recovery Costs Housing Sector

At the level of policies, Balochistan is lacking an up-to-date vision and a related strategy, principles, policies, standards, and guidelines for housing. Therefore, there is need to develop such strategic and regulatory frameworks and tools. There is need to establish and strengthen mechanisms for compliance, quality, accountability, and grievance redressal in the housing sector through respective related policies, strategies, and standards. In addition, the strategies for land use and settlement planning, management, and land administration need to be revised or designed from scratch, where applicable.

Furthermore, there is need to prioritize the reconstruction and rehabilitation of houses. This will help to ensure sustainable and inclusive urban and rural planning to develop affordable, disaster-resilient housing that provides safety and security during events such as floods. In doing so, the provincial authorities will consider to partner with the private sector for the reconstruction and rehabilitation of damaged houses. Multi-hazard climate-adapted reconstruction will be promoted. This will include the development of proper planning for flood water treatment and wastewater management during the reconstruction process; and ensuring sustainability and resilience in the reconstruction of houses. Special attention will be given to supporting vulnerable populations and other segments for resettlement through alternative means of living, such as flood-resilient shelters.

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16   Rapid Needs Assessment (RNA)-PDMA August 2022

Institutional effectiveness needs to be promoted through the establishment of provincial-level centralized institutional arrangements for housing reconstruction. This should comprise the following elements: i. strengthen the regulatory systems of concerned departments, including HR, logistics, and capacity building; ii. enhance the support to the public and private sectors for housing reconstruction; iii. establish a coordination mechanism for settlement-level mitigation, resilient measures, and inter-sectoral investment.

Transport and Communication

In terms of road infrastructure and transport Sindh is the hardest-hit province, followed by Balochistan. In Balochistan out of 42,000km road network 878.0km are completely damaged and 1009.0km are partially damaged including 43 bridges and 1 railway line in Bolan district. The telecommunication sector including various private sector companies (Jazz, Zong, Ufone, Telenor, Wateen, PTCL) collectively reported a direct loss of approximately PKR 17300 million (US $60.91 million) to the Pakistan Telecommunication Authority (PTA).

The reported loss includes damage to mobile towers, long-haul fiber optic cables, communication equipment in exchange sites, power backup systems, and other physical infrastructure. The damage also caused the temporary isolation of most of Balochistan province, including Quetta, which remained disconnected from both voice and data networks for extended periods.

Balochistan	Total Road network	Completely damaged	Partially damaged	Damaged bridges	Total
	42,000km	878.0km	1009.0km	43	
Damages/ losses	Damages		Losses		
(PKR-Millions)	16,071.9		4,474.4		20,546.3 $72.34
Area/Unit	Reconstruction and Recovery Costs	Costs Social Safeguards (10 percent)	Project Management & Capacity Building (8 percent)	Price Escalation (20 percent)	Climate Resilience (15 percent)	
(PKR-Millions)	16,071.9	1,607.2	1,285.8	3,214.4	2,410.8	24,563.1 (US $86.58)

Table 11: Damages and Losses and Recovery Costs Transport and Communication Sector

Balochistan is in need of conducting a flood susceptibility/vulnerability analysis of its entire infrastructure network. This requires the initiation of a digital study to oversee and monitor the existing strengths of the transport and communication means, while considering projected, most likely future climate change scenarios in the analysis.

Moreover, the province has not yet been able to address all required post-flood emergency works for the restoration of services, basic connectivity, and permanent repair of minor damages. Since the flood-related caseload of damages is still being dragged along, there is now urgent need to prioritize the areas based on geo-spatial analysis and evaluate the damaged infrastructure. Thereafter, an infrastructure network analysis will need to take place, in order to identify the key areas requiring restoration. This will need to be followed by the drafting of a comprehensive plan for rehabilitation and reconstruction in the communication sector, considering prioritization criteria at the district and sub-district levels. Said reconstruction and rehabilitation plan of the communication sector will then need to be implemented as of the second year of the BFRP, focusing on the identified areas.

Priority activities addressing institutional effectiveness that the province is in dire need of including capacity development support to enhance project management and staff skills in the areas of HR, logistics, procurement, and project management (including M&E/reporting/knowledge management).

Water Resources and Irrigation

The total damages to the (Water Resource and Irrigation) WRI sector by the 2022 floods are estimated at PKR 152600 million (US$530.28 million). The highest damage was reported to the flood protection infrastructure at PKR 55500 million (US$ 195.42million) (36 percent) and irrigation channels at PKR 49400 million (US$ 173.94 million) (32 percent). This is followed by the drainage system at PKR 20700 million (US$ 72.88 million) (14 percent); dams, headwork, and weirs at PKR 14300 million (US$ 50.35 million) (9 percent); and supporting infrastructure at PKR 12700 million (US$44.71 million) (8 percent).

The damage to the Provincial Irrigation Departments' tube wells and inspection roads are reported under this assessment. The damage to watercourses is not included as watercourses are considered under the agriculture sector. The damage to public sector assets is estimated at PKR 150400 million (US$ 529.57 million) and private sector assets at PKR 2200 million (US$ 7.74 million) and Balochistan damages in the sector is 13.1%[17] of the total amount.

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17   Asian Development Bank, Government of Pakistan, World Bank. 2011. "2011 Pakistan Floods Preliminary Damage and Needs Assessment."

The province of Balochistan requires PKR 19,943.1 million (US$ 70.22 millions) to ensure recovery of partially or fully damaged, selected dams and storages. The reconstruction, refurbishment and rehabilitation including building complementary, new infrastructure will require rework of the existing earthwork, improved spillways and energy dissipating solutions. To build back better weir systems, flood protection, and canal systems, a total of PKR 22,849.0 million (US $80.45 millions) is required.

In terms of policy support, the province is in need of introducing an Integrated Water Resources Management Policy. This would include the establishment of a functional Water Resources Management Commission, setting up a Commission and Committees for effective implementation, and developing an implementation strategy for the Integrated Water Resources Management Policy.

As alluded to further above, there is need to rehabilitate and restore flood-affected irrigation systems. This will require carrying out a detailed assessment of the irrigation system by concerned departments (PHED, Agriculture) and communities within the first year. The repair and restoration of breaches, temporary works, canals (Patfeeder, Kirther), drains, 22 damaged or destroyed dams and dikes, and 36 Weir & Perennial Irrigation Schemes will need to wait until the second year of the BFRP.

Implementing institutional reforms and capacity-building training for HR development will need to include the training of 150 Sub-Division Officers (SDOs) and key field staff at district level and the provision of the latest software for hydrological modeling, climate modeling, hydraulic design, water demand assessment, and GIS (Arc-GIS). These investments should then put the province in a position to establish a functional Flood Control and Monitoring Center to effectively monitor and manage future natural calamities.

Identifying opportunities for public-private co-design and community contracting is another priority need. This will need to be based on assessing the capacity of institutions providing consulting services. Based on the assessments findings, public-private partnerships could then be initiated, while communities could be involved in relevant decision-making processes concerning contracting and other such matters.

Digital Infrastructure

The provincial authorities are lacking a Disaster Management Information System (MIS). In fact, there is need for different interrelated applications including a data repository, an evidence-based data-driven, resilient satellite-based telecommunication and early warning system, and a post-flood/disaster GIS-based data collection system. IT staff will need to be trained and linkages with other government departments will need to be established. The above should be based on a needs assessment among stakeholders, as well as a mapping and subsequent analysis of the entire digital infrastructure network, to

identify which of the above-mentioned functionalities could, should or would necessarily need to be, combined and integrated into the same platform.

In addition, there is need to restore relevant affected digital infrastructure components. This includes the CCTV network of the PR Center Sariab in Quetta which was damaged by the floods. Also, there is need to restore the IT Training Centers in Ziarat, Jaffarabad, and Naseer Abad. Designing and implementing a rehabilitation and reconstruction plan for the communication sector would imply the prioritization of criteria for rehabilitation based on thorough planning, initiating the implementation phase for resilient rehabilitation of the IT sector within concerned Departments, and conducting a comprehensive gap and needs assessment.

Boosting institutional effectiveness can be achieved by enhancing Institutional Capacity including but not limited project management, latest technologies and allied field. This would need to entail providing specialized project management, GIS, MIS, Software and Mobile app development, and allied/relevant trainings for professional IT staff, and introducing a mechanism for staff hiring and training in routine tasks and emergency services within the IT department.

4.

INTEGRATED ACTION PLAN AND BUDGETARY FRAMEWORK

Balochistan Flood Recovery Plan / Action Plan Matrix							
Sector Name	Activity/ Intervention	Degree of priority A = high B = medium C = low	Geographic Scope a. Provincial center b. All districts c. Subset of districts	Timeline (from/to)	Additional information about planned activity logic, timeline, sequence	Responsible Entities	Required Budget (US$ in millions) a. Annual b. Total
SRO1: Enhance Governance and the Capacities of the State Institutions to Restore Lives and Livelihoods of the Affected People, especially the most Vulnerable							
Governance	Policy/Procedure 1. Support PFM (Public Financial Management) & Accountability Reforms	A	a+b	July 2023-August 2024 (14 months)	1. In view of successful reforms, a special unit has already been established in civil secretariat to oversee the overall development and management but funding is required to make it serve its purpose and ensure sustainability	LEA/P&D Dept./Federal and Provincial government in collaboration with International donors/ UNDP/ Women Development Dept./ Environment Protection Agency (EPA)	0.1
	2. Establish flood resilient zoning & provincial level construction/infrastructure bylaws	A	a+b	August 2023-July 2024 (12 months)	2. Bylaws on zoning & construction/Infrastructure to be designed along with implementation strategy		0.2
	3. Establish framework for gender and climate change responsive public investment	A	a+b	August 2023-July 2024 (12 months)	3. Framework for responsive gender and climate change investment designed & implemented		0.1
	4. Development and implementation of cross-sector risk communication strategy	A	a+b	August 2023-July 2026 (3 years)	4. Year 1: Risk communication strategy designed; Year 2: Action plan rolled out with/ through concerned stakeholders, roll-out of strategy implementation initialized; Year 3: Full implementation of the strategy		0.1
	Investment/ Programme 1. Repair and operationalize damaged/ destroyed district level offices and Rule of law infrastructure (except police stations/prisons since covered under activity 2.), and establish new/ additional infrastructure where none was in place but required	A	b+c (Naseerabad, Jhal Magsi, Kachi, Jaffarabad, Killa Abdullah)	July 2023-June 2025 (2 years)	1. Year 1: Survey/assessment carried out to identify remaining extent of damages and losses; Year 2: Fully functional offices constructed and operationalized	LEA/P&D Department/ Federal and Provincial government in collaboration with International donors	15
	2. Rebuild flood resilient police stations and prisons	A	b	July 2023-June 2026 (3 years)	2. Year 1: Proper survey and planning rehabilita-tion/re-constuction; Year 2: Roll-out of implementation strategy; Year 3: Ground work (Rebuild)		25

Governance	Institutional Effectiveness 1. M&E dashboard and system	A	a+b+c	August 2023-July 2024 (12 months)	1. M&E dashboard to be established for proper monitoring and guiding the performance of concerned institutions	LEA/ P&D Dept. in collaboration with UNDP/ International donors	0.5
	2. HR and capacity building activities	A	a+b+c	August 2023-July 2024 (12 months)	2. Training manuals and capacity building of HR		0.5
Environment & Climate Change	Policy/ Procedure 1. Environmental Sector Plan for Balochistan	A	a+b	July 2023-December 2024 (18 months)	1. Year 1: Sector Plan to be completed and ready for the implementation; Year 2: final amendments of the plan and design operational implementation strategy	Environmental Protection Agency (EPA) in collaboration with UNDP/ UN Agencies/ International Donors/ CSOs	0.5
	2. Comprehensive and reliable baseline study on the identification and enumeration of ecological zones, ecosystems and biological diversity of Balochistan	B	a+b	August 2023-July 2025 (2 years)	2. Year 1: Environmental Baseline study of Balochistan carried out Year 2: Amendments of plan and design of action plan/operational implementation strategy		0.5
	3. Strategic Environmental Assessment (SEA), as enshrined in Section 13 of BEPA Act, 2012	B	c. 12 most vulnerable districts	July 2023-Dec 2023 (6 months)	3.Assess the current status of the diverse ecological zones and ecosystems of Balochistan		0.5
	Investment/ Programme 1. Decontamination of water bodies, water channels and removal of debris from residential areas	B	c. 12 vulnerable districts	July 2023-December 2024 (18 months)	1. Decontamination of water bodies and water channels in affected districts	Balochistan Environmental Protection Agency (EPA)	1.5
	2. Implement a comprehensive WASH program in flood-affected areas	B	c. 12 vulnerable districts	August 2023- July 2024 (12 months)	2. Cleaning up and decontamination of human settlements		0.5
	3. Establishment of well-equipped Strategic Climate Change Cell in Balochistan EPA	A	a	August 2023- July 2024 (12 months)	3. State of the Art Strategic Climate Change Cell for climate actions and research		1
	Institutional Effectiveness 1. Strengthening mobility of the Balochistan Environmental Protection Agency (EPA) for effective implementation of its mandate in cities and remote areas	A	a+b	August 2023-July 2025 (2 years)	1. Year 1: Amendments in the rules, policies and HR hiring; Year 2: Provision of vehicles and interaction with districts administration and other concerned departments	Environmental Protection Agency (EPA)/ UNDP in collaboration with UN Agencies/ International Donors/ CSOs	0.5
	2. Improving the regulatory framework of Balochistan EPA	A	a+b	July 2023-December 2024 (18 months)	2. Amendments in the existing framework		1
	3. Strengthen technical capacities of Balochistan EPA at provincial level and provision of national and abroad trainings facilities	B	a+b	July 2023-December 2024 (18 months)	3. Training of high-ranked (17th scale and above) officers and officials of EPA along with exposure visits within the country and abroad		1.2

Disaster Risk Reduction	**Policy/ Procedure**					
	1. Preparation of PDMA Act/Policy	A	a+b+c	July 2023-June 2024 (1 Year)	1. PDMA has already begun to work on the disaster risk reduction policy and is committed to establishing a respective Act, as well;	PDMA/ NDMA in collaboration with UNDP/ UN-Agencies/CSOs	0.1
	2. Mainstreaming resilience in development planning through inclusion of disaster risk consideration in planning documents especially for water, agriculture and infrastructure sector	A	a+b+c	July 2023-June 2025 (2 Years)	2. Year 1: Engagement of concerned govt and other stakeholders, technical support of UN agencies and other donors.\n\nYear 2: Hiring of consultant, follow up of review process culminating in final approval		0.1
	Investment/Programme					
	1. Strengthening system for meteorological monitoring and early warning	A	a+b+c	August 2023-July 2024 (12 months)	1.The provincial govt previously coordinated with donor agencies and concerned stakeholders to set up the existing early warning system. UNDP provided technical support to install the early warning system which is now in need of updates/ repairs/scale-up etc.	PDMA/ NDMA in collaboration with International donor agencies	0.2
	2. Training and Capacity Building of relevant government officials for response, humanitarian assistance and long term resilience	A	a+b+c	August 2023-July 2024 (12 months)	2. The concerned govt departments especially PDMA staff need emergency trainings to cope with disasters and sustainability		0.3
	3. Upgrading of Public Evacuation Shelters and Awareness Raising for proper utilization	A	a+b+c	August 2023-July 2025 (2 years)	3. Year 1: Carry out a full survey of the vulnerable districts and identification of location; Year 2: Additional fundraising, to be followed by roll-out of implementation incl. sensitization		2
	Institutional Effectiveness					
	1. Institutional strengthening at district and provincial levels with linkages to the community level	A	a+b+c	August 2023-July 2024 (12 months)	1.Proper policy and implementation rules drafted along with coordination mechanism among the districts and provincial level authorities	PDMA/ NDMA in collaboration with UNDP/ UN-Agencies/ CSOs and other donor agencies working in the districts	0.2
	2. Strengthening of resilience at community level through local level organizations	A	a+b+c	August 2023-July 2024 (12 months)	2. Engagements of CSOs at community level through specific projects		0.1
	3. Undertake multi-hazard risk assessment to inform better recovery and development planning	A	a+b+c	August 2023-July 2024 (12 months)	3. PDMA has already pre-positioned itself for this activity by launching general assessment initialization (road map etc.) but funding is required for full implementation of activity		0.2

SRO2: Restore Livelihoods and Economic Opportunities							
Agriculture	Policy/ Procedure						
	1. Framing of Balochistan Nurseries Regulation Act	A	a	August 2023-July 2024 (12 months)	1.Creating a regulatory framework that is transparent, efficient, and effective in achieving regulating the production, sale, and distribution, ensure quality and health of plants improve the efficiency, and effectiveness of nurseries	Agriculture Extension in collaboration with UN Agencies/ CSOs	0.035
	2. Framing of Balochistan Cotton Control Act	A	a	August 2023-July 2024 (12 months)	2.Regulating the production, sale, and distribution of cotton to ensure its quality and health, adoption of new technologies and practices to improve the efficiency and effectiveness etc.		0.035
	3. Framing of Balochistan Seed corporation act	B	a	August 2023-July 2024 (12 months)	3. Produce and distribute high-quality seeds that are adapted to local environmental conditions, and are free from pests and diseases, collaborate with national and international organizations to exchange knowledge and expertise, and to promote the adoption of best practices, support research and development activities etc.		0.05
	Investment/ Programme						
	1. Provision of Agriculture inputs (Seed, fertilizers, pesticides etc.)	A	a+b	August 2023-Dec 2024 (18 months)	1.Detailed survey to record the exact quantity of seeds, pesticides and fertilizers required for the rehabilitation of destroyed crops, increase in volume of production, productive resources and inputs	Agriculture Extension in collaboration with WFP/ FAO/ CSOs and Federal Government	1.5
	2. Provision of Agriculture Machinery equipment/ Implements (Tractors, harvesting and cropping machinery, tools etc.)	B	a+b	August 2023-Dec 2024 (18 months)	2.The agriculture department is already working to assess the exact number of damaged and required machinery (6months); implementation/provision of agriculture equipment		0.5
	3. Provision of Planting trees (Fruits, dates, olive, Pistachio, Almond etc.)	A	a+b	August 2023-July 2024 (12 months)	3. 43% of crops/vegetables and around 30% of orchards trees damaged especially in Lasbela, Pishin and Jhal Magsi, whereas orchards are mostly affected in Killi Saifullah, Kharan and Pishin		0.5
	Institutional Effectiveness						
	1. Provision of technical and financial support to strengthen the Agriculture Dept.	A	a+b	August 2023-Dec 2024 (18 months)	1.(6 months) Planning and timeline (1 Year) Strengthening of soil & water laboratories, technical trainings of field staff, Study tour/Scholarship Program for high ranked (scale 17 and above) technical staff, Establishment of agriculture MIS and strengthening gender wing	Agriculture Extension in collaboration with WFP, FAO/ CSOs and Federal Government	8
	2. Strengthening of Agriculture Extension Services in Balochistan (Repair of Building offices and residences/ homes)	A	a+b+c (Naseerabad, Jaffarabad, Jhal Magsi, Pishin, Zhob)	August 2023-Dec 2024 (18 months)	2.Proper study and reconstruction of resilient Agriculture building/offices, especially in the vulnerable districts		5

Livelihoods	Policy/ Procedure 1. Policies that accelerate gainful and productive jobs and employment	A	a+b+c	August 2023-July 2024 (12 months)	1.The concerned Labour and Manpower Department will establish a provincial level policy to engage private sector in jobs creation especially e-commerce, freelancing and soft skills	Labor and Manpower Dept./ SMEDA/ Provincial and federal government/International donors and UN Agencies	0.2
	2. Specific reforms that boost demand aimed at creating alternate jobs and employment	A	a+b+c	August 2023-July 2024 (12 months)	2. Functioning of Public Private Partnership Act 2018 and provision of incentives to the private sectors for investment in the province		0.1
	Investment/ Programme 1. Restoration of jobs and livelihoods through e-commerce, emergency employment services etc.	A	a+b+c	August 2023-July 2024 (12 months)	1.The provincial govt will implement the Youth Policy to create more opportunities in the province especially emergency employment services	Labor and Manpower Dept./SMEDA/ Provincial and federal government in collaboration with International donors and UN Agencies	10
	2. Recovery and reconstruction of critical assets, services and infrastructure	A	a+b+c	August 2023-July 2024 (12 months)	2.The data is already shared with the concerned provincial department and federal govt to reconstruct the critical assets		8
	3. Strengthening governance and stakeholder capacity for reconstruction especially communities	A	a+b+c	August 2023-July 2024 (12 months)	3. Strengthening coordination mechanism among the concerned govt departments and beneficiaries (communities)		2
	Institutional Effectiveness 1. Targeting deserving households through Poverty Wealth Ranking and Poverty Scorecard, if feasible	A	a+b+c	2023-2026 3 years)	1.The concerned department will conduct a survey to target the vulnerable community (Households/ Individuals) for technical (Vocational trainings) and financial support	Labor and Manpower Dept./ SMEDA/ Provincial and federal government/International donors and UN Agencies	3

Finance, Markets, Commerce, Industry	Policy/ Procedure 1. Address legal, policy and institutional hurdles that currently limit the development of market for credit information, business development and SMEs	A	a+b+c	August 2023-July 2024 (12 months)	1. Public administrative reforms by removing unnecessary regulatory tiers and simplifying procedures, introduction of IT based solutions and one stop shops for business registration	Commerce & Industry Dept. in collaboration withUN Agencies/ INGOs	0.8
	Investment/Programme 1. Sustainable financing solution for reviving SMEs (e.g. matching grants, interest friendly loans)	A	a+b+c	August 2023- July 2026 (3 years)	1.GoB shall establish a Technology Park at Quetta to provide infrastructure and incentives to encourage development of technology based companies (to be established under CPEC, a long term intervention)	Commerce & Industry Dept. in collaboration with UN Agencies/ INGOs	15
	2. Strengthening the capacity of rescue authorities to improve disaster responsiveness	A	a+b+c	August 2023-July 2024 (12 months)	2. The concerned department will initiate crash courses for key staff to have effective and efficient response during disaster		0.4
	3. Credit Guarantee Facility for Micro-finance Sector Creditors	A	a+b+c	August 2023- July 2024 (12 months)	3.In order to facilitate credit and financing to SMEs and start-ups, GoB shall coordinate with SBP for introduction of a credit guarantee scheme		N/A
	Institutional Effectiveness 1. Local NGOs including commercial banks and other financial institutions to provide Interest Free Loans	A	a+b+c	August 2023- July 2024 (12 months)	1.Under the Public Private partnership Act 2018, the GoB shall facilitate the provision of interest free loans to local NGOs, especially in the flood affected districts	International donors	N/A
Food Security	Policy/ Procedure 1. Institutional Reforms by the Food Dept.	A	a+b	August 2023-July 2025 (2 years)	1.Year 1: Conduct a thorough study to revise the Food Manual of 1986, Statistical Reforms of Food Dept., Documentation of procurement plan & policy book and development of financial management software; Year 2: All these documents to be reviewed and approved, to be followed by implementation	Balochistan Food Department in collaboration with Australia / Canada / China/ USA /UNDP/FAO	0.8
	Investment/ Programme 1. Re-Construction / Renovation / Rehabilitation of House Type warehouses and silos	A	a+b	August 2023-July 2025 (2 years)	1.Year 1: Re-Construction/ Renovation/ Rehabilitation of House Type warehouses 16 Provincial Reserve Centre; Year 2: Rehabilitation & Functionalization of Quetta Food Silos	Balochistan Food Department in collaboration with-Australia / Canada / China/ USA /UNDP/FAO	7.4
	Institutional Effectiveness 1. Strengthening of technical capacities of Balochistan Food Department's Staff	A	a+b	August 2023-July 2024 (12 months)	1.Training of field Staff (National / International level of Grains / wheat and warehouse storage management system / supply chain system) Along with training on Food Security system	Balochistan Food Department in collaboration with Australia / Canada / China/ USA /UNDP/FAO	0.3

Forest & Wild Life	Policy/ Procedure 1. Balochistan Integrated Watershed Management Policy	A	a+b+c	August 2023- July 2024 (12 months)	1.Strengthening of Basin Management Authorities under this policy, Master Plans/ Management Plans for 3 Drainage Basins based on comprehensive studies on Vegetative Cover, Problematic Areas and Plan of Phased Activities	Forest & Wildlife Department (Lead)/ Board of Revenue Irrigation Department/ Irrigation Dept. / Agriculture Dept./UN Agencies/ International donors	0.5
	Investment/ Programme 1. Formulation of Long-term Strategies Programmes and Projects	A	a+b+c	August 2023-July 2025 (2 years)	1. Year 1: Pilot Resilience Enhancement Projects for specific catchment areas, pilot nature-based participatory activities in flood affected watersheds, provide Community /Farmer Grants for Catchment area, Flood Plains, and Command Areas; Year 2: Pilot activities through community participation demonstrated, Community Grant availed and areas conserved for restoration and resilience	Forest & Wildlife Department (Lead)/ Board of RevenueIrrigation Department/ Irrigation Dept. / Agriculture Dept. in collaboration with UN Agencies/ International donors	19
	Institutional Effectiveness 1. Strengthening capacity of key officials and field staff on Watershed Circles, Strengthening of GIS Nodes at Divisional Level	A	a+b+c	August 2023- Dec 2024 (18 months)	1. Capacity of key officials and field staff strengthened regarding Watershed Circles, Strengthening of GIS Nodes at Divisional Level	Forest & Wildlife Department (Lead)/ Board of RevenueIrrigation Department/ Irrigation Dept. / Agriculture Dept. in collaboration with UN Agencies/ International donors	2.5

Fisheries	Policy/ Procedure 1. Conceive an operational procedure for rapid rehabilitation/ reconstruction of Fish hatchery including rearing ponds, nursery ponds and circular tanks at Dera Murad Jamali	A	b+c (Naseerabad,Jaf-	August 2023- July 2024 (12 months)	1.Restore fish hatchery and its infrastructure at Dera Murad Jamali	Fisheries Department	0.5
	Investment/ Programme 1. Repair and reconstruction of damaged building and offices	A	a+b+c	August 2023- July 2024 (12 months)	1.Reconstruction of boundary wall and repair of office residences and offices in Naseerabad, Jaffarabad, Jhal Magsi. Repair of damaged pounds and removal of flood debris from the premises of fish hatchers	Fisheries Department/ federal Government in collaboration with Donor Agencies	0.5
	Institutional Effectiveness 1. Capacity building training and exposure visits for the benefit of the Fisheries department	A	a+b	August 2023- July 2024 (12 months)	1.The HR unit of the Fisheries department does not have adequate skills to cope with disaster and to carry out routine tasks, effectively and efficiently. They need to have exposure visits of other provinces' concerned departments to learn about related best practices	Fisheries Department/ federal Government in collaboration with Donor Agencies	0.5

Livestock	Policy / Procedure 1. Design a policy for coping with natural and man-made catastrophes/ calamities/ disasters and to improve fodder and water availability on rangelands; including related implementation strategy to cope with drought and floods	A	a+b	August 2023- July 2024 (12 months)	1.Develop a provincial level policy along with an implementation strategy to cope with natural calamities and drought along regulatory mechanism. The GoB will also create a livestock hub ("livestock city") and a service company for the development of this sector	Livestock & Dairy Dev. Dept. in collaboration with concerned Depts./ INGOs/ UN-Agencies	0.2
	Investment / Program 1. Design and implement a Rangeland Improvement Program	A	a+b+c	August 2023- July 2026 (3 years)	1. Year 1: Develop a programme for Integrated Range Land Management with Forest Dept., coordination with concerned stakeholders and training of livestock farmers on how to cope in various types of catastrophe; Year 2: Seeding new varieties of rangeland grasses, develop water channels / water ponds for availability of water, training of livestock farmers on how they can play their role in improving rangelands while grazing animals; Year 3: Support Private Sector to establish Silage Making and establishing Animal Feed Manufacturing Mill, To plant trees around livestock farms to serve as protection and biodiversity promotion, design a plan/ program to make water available on livestock migratory routes and on various rangelands (through Irrigation Department, Forest Department, Environment Department)	Livestock & Dairy Dev. Dept. in collaboration with concerned Departments, INGOs and NGOs/ Forest Dept./ EPA	0.8 (Year 1) 13 (Year 2) 2 (Year 3)
	2. Women Empowerment (Backyard Rural Poultry) and Distribution of Milking goats	A	a+b+c	August 2023- July 2024 (12 months)	2. Backyard Rural Poultry Support Program (with feed support), Milking goat distribution Program in rural areas for household females Develop market linkage opportunities from producers to consumers		3

Livestock	Institutional Effectiveness						
	1.Reconstruction of Damaged Animal Shed	A	C	August 2023- July 2024 (12 months)	1. Modern Design Animal Shed that can easily be assembled, disassembled, weather resilient and keep animals at optimal temperature (both for Private and Public Sector)	Livestock & Dairy Dev. Dept. in collaboration with concerned Departments and INGOs and NGOs/ UN Agencies/ EPA	3
	2.Developing of Animal Disease Surveillance and District-wise Animal Disease Mapping	A	a+b+c	August 2023-July 2024 (12 months)	2. Training of Veterinary Professionals Software of animal disease surveillance and disease mapping as per guidelines of OIE		2
	3.Genetic Improvement	A	a+b+c	August 2023-July 2024 (12 months)	3. Introduction of high mutton producing goats, after successful breeding trial with local breeds will be propagated, Import of Sexed Semen of purebred Holstein Friesian		1
	4.Support for producing animal vaccines (under resilience framework) by Livestock Dept.	A	a+b+c	August 2023-July 2024 (12 months)	4. Training in vaccine producing techniques, Support in establishing BSL-III level vaccine laboratories		0.5
	5.Support for Zoonotic Disease Control Program	A	a+b+c	August 2023-July 2024 (12 months)	5. Fight against Congo Virus External Parasite Control Program and Warble Fly Control Program		1
Mines and Minerals	Policy/ Procedure						
	1. To provide long term sustainable infrastructure plan in Mining Sector on provincial level to achieve increased mineral production and higher employment ratio	A	a	August 2023-Dec 2024 (18 months)	1.Long term strategic plan with the support of concerned departments and private sector; review current contingency plans, assess their performance during the floods and strengthen Mining sector for integral response	Mines & Minerals Dept. in collaboration with International Organizations/UNDP	0.24
	2. Design and implementation of Awareness and Training Program (overlap with "Institutional Effectiveness" category, below)	A	b+c (Harnai, Quetta, Duki, Lasbela)	August 2023-July 2024 (12 months)	2.Training mine owners, labor and all stakeholders to strengthen district-based emergency response and evacuation plans and training drills on early warning system; training of staff in terms of Rescue Teams/Safety Officers / Rescue Centers of Inspectorate of Mines		0.08
	Investment/Programme						
	1. Repair and operationalize damaged mine sites, access roads to the market places and establishment of sustainable mineral depots	A	b+c (Quetta, Duki, Shahrig, Chagai)	August 2023-July 2025 (2 years)	1.(Year 1) Mines still closed need to get operationalize Access Roads to the Market need to be constructed. Need Sustainable Mineral Depos/ Mineral Stocking Sheds for stocking minerals (Year 2) Increase mines revenue, jobs creation and incentives to public private partnership	Mines & Minerals Dept. in collaboration with International Organizations/ UNDP	4

Mines and Minerals	Institutional Effectiveness 1. Training of officers of Mines & Mineral Development Department and institutional capacity building to better equip the Development section for provision of consultation and monitoring	A	a	August 2023-July 2024 (12 months)	1.Assessment of capacity of existing staff, Trainings of the Officers for technical consultancy, monitoring, rehabilitation and safety, Provision of necessary equipment	Mines & Minerals Dept. in collaboration with International Organizations / UNDP	0.3
	2. *Cf. training component of item 2. under Policy/Procedure category, above*						
SRO3: Ensure Social Inclusion and Participation
Social Sustainability, Inclusion and Gender	Policy/ Procedure 1. Gender centric policy framework developed and introduced	A	a+b	August 2023-July 2024 (12 months)	1. The policy framework needs to be implemented to ensure critical protection services through inclusive crisis centers, including psychosocial support	WDD, P&D, BCSW in collaboration with INGOS, NGOs, Food Dept., Provincial/Federal Govt/ INGOs	0.5
	2. Creation of Disaster Fund at WDD	A	a+b	August 2023- July 2024 (12 months)	2.The department needs to creat "Pandemic Fund" to provide emergency goods and services with specific sub-sectors under which the fund is divided (food, women's needs, etc.). Such funds need to be more inclusive to support the affected marginalized groups at the time of natural calamities. Further coordination efforts are needed to assist marginalized groups and conduct trainings of women development department staff;channel additional sub-grant funding to grass root institutions and civil society to support recovery at the community level		1

Social Sustainability, Inclusion and Gender	Investment/ Programme						
	1. Increased coordination among concerned departments to support/ recovery at the community level during disaster	A	a + c (Naseerabad, Jaffarabad, Jhal Magsi, Killa Saifullah, Kachi, Sohbatpur, Sibi, Lasbela, Usta Muhammad, Quetta, Nushki, Mastung, Loralai, Pishin)	August 2023- July 2024 (12 months)	1. WDD and Social welfare to enhance coordination mechanism with PDMA, Meteorological and Environment Dept. to ensure timeliness of interventions	Social Welfare Dept., WDD, Health, PDMA in collaboration with NGOs and INGOs	0.5
	2. Strengthen Gender and Child cells	A		August 2023- July 2024 (12 months)	2. Support data collection, ongoing needs assessment, communications, outreach and M&E to enhance the performance of cells, To ensure additional sub grants funding to grass root institutions/local government institutions and civil society to support recovery at the community level		1
			a + c (Naseerabad, Jaffarabad, Jhal Magsi, Killa Saifullah, Kachi)				
	3. Conduct community sensitization interventions on main protection concerns (including GBV)	A	a+b+c	August 2023-July 2024 (12 months)	3. Conduct awareness sessions at community level for behavioral change, share information on available services (through NGOs/ CBOs) in accessible formats, provision of medical aid and psychological aid to the disaster hit community		0.8
	Institutional Effectiveness						
	1. Establish a community disaster management system linked to existing community service delivery platforms, addressing gaps in the early warning system tailored to the needs of women, people with disabilities, the elderly and other groups	A	a+b+c	August 2023- July 2024 (12 months)	1. Community Disaster management system designed, introduced and fully operational 2. SOPs drafted linking the system to the existing service delivery system 3. Notify female members' committee, responsible for identifying gaps and commuting early warnings in local languages to communities 4. Donor liaison through M&E/communication/re-poreporting on progress and results, to ensure regular funding in the interest of the system's viability/ sustainability	Social Welfare Department/ PDMA/ BCSW/Local bodies/ Rescue 1122 in collaboration with INGOs/ WDD/ UNFPA/UN-WOMEN	1

Culture, Tourism and Heritage	**Policy/ Procedure** 1. Strengthening of provincial policy and establishing mechanism for effective implementation	A	a+b+c	August 2023-July 2024 (12 months)	1. Amend the policy with proper implementation plan by setting up a tourism development corporation for entering into PPP for establishing hotels, resorts and rehabilitation of tourist sites	Culture and Tourism Dept. in collaboration with International donors/ UNESCO	1.2
	2. Development of a DRR strategy for the Culture sector	A	a+b+c	August 2023-July 2025 (2 years)	Year 1: Design the strategy; Year 2: implement the strategy in order to promote culture, arts, crafts and folk lore with renewed vigor. The strategy will also highlight the rich history and traditions of the province. A dedicated fund for the support of artists including musicians, actors and singers will also be part of the strategy		0.05
	Investment/ Programme 1. Detailed damage assessment for flood affected heritage sites and urgent stabilization for most vulnerable sites	A	a+b+c	August 2023-July 2024 (12 months)	1. Data collection on the impact on cultural professionals and specific recovery needs. Recovery plan and rehabilitation of the affected sites	Culture and Tourism Dept. in collaboration with International donors	1.5
	2. Consultations with stakeholders to update regulations around heritage sites	A	a+b+c	August 2023-July 2024 (12 months)	2.Updating and/or developing database for tangible and intangible culture heritage at the provincial level with the support of concerned stakeholders to be reserved properly. Integration of Indigenous knowledge into mainstream practices, through direct engagement with local communities and stakeholders		0.05
	Institutional Effectiveness 1. Capacity building for heritage management staff	A	b	August 2023-July 2024 (12 months)	1.Design specialized capacity building trainings for the culture and heritage protection field staff	Culture and Tourism Dept. in collaboration with International donors	0.2

SRO4: Restore and Improve Basic Services and Physical Infrastructure in a Resilient and Sustainable Manner							
	Policy/ Procedure						
	1. Implementation of Balochistan Education Sector Plan (BESP-2020-25)	A	a+b+c	August 2023-July 2024 (12 months)	1.Design effective and efficient implementation strategy	Education Dept. in collaboration with International donors/ UNICEF/	0.3
	2. Update and operationalize the school safety and education quality	A	a+b+c	August 2023-July 2024 (12 months)	2. Creation of an education sector executive cadre with two sub cadres: i) District Planning and Management and ii.) Head Master cadre, in view of updating and operationalizing school safety and education quality	Federal Government/ CSOs	0.1
	3. Develop district based i) emergency response and evacuation plans and training drills ii) early warning system, and iii) learning continuity plan	A	a+b+c	August 2023-July 2024 (12 months)	3.A detailed ALP is part of the sector plan for out of schools' children. The emergency response and early warning system will also be included after thorough discussion with concerned stakeholders		0.05
Education	Investment/ Programme						
	1. Resume learning via a comprehensive TLC package, and develop evidence-based local remedial plans to recover learning loss and bridge learning gaps for affected and out of school children	A	a+b+c	August 2023-July 2025 (2 years)	1.(Year 1) The concerned department has already initiated ALP to cover the out of school children, however the GoB would also coordinate the private sector to cover the losses through enrolment of OOSC in alternate venues and (Year 2) construction of low cost, resilient schools	Education Dept. in collaboration with international donors/ UNICEF/ Federal Government/CSOs	42
	2. Conduct damage assessment of affected public/ private education institutions establish temporary or hired facility in fully damaged institutions, rehabilitate and reconstruction damaged educational institutions applying BBB (Building back better) principle with update design standard	A	a+b+c	August 2023-July 2025 (2 years)	2. (Year 1) The damages and losses have already been shared with provincial/ federal govt along with international donor agencies for (Year 2) reconstruction of resilient education facilities		15
	3. Set up enrollment campaign, use social media and mass media for messaging, especially targeting marginalized children and girls	A	a+b+c	August 2023-July 2024 (12 months)	3. GoB to partner with the private sector to reach out of school children (OOSC) on an urgent basis, to support enrolment of a minimum of 200,000 additional children; ICT and social media campaign to also be part of the plan		0.8

Education	Institutional Effectiveness 1. Establish a process to track recovery efforts, linked to national flood recovery plan and integrated into the national, provincial and district level tracking and M&E processes	A	a+b+c	August 2023-July 2024 (12 months)	1.The education department already has BEMIS and BESP 2020-25 to be connected with national flood recovery plan	Education Dept. in collaboration with International donors/ UNICEF/ Federal Government/CSOs	0.3
	2. Advance community mobilization/ sensitization on access to learning opportunities and participation in response and recovery efforts	A	a+b+c	August 2023-July 2024 (12 months)	2. The BESP 2020-25 needs to be inclusive by participation and inclusion of local communities to sensitize them in response and recovery efforts		0.6
	3. Mobilize and train PTAs, SMCs and SCs on safe school reopening, MHPSS, IPC and GBV risk mitigation measures	A	a+b+c	August 2023-July 2024 (12 months)	3.The provincial government is already planning to coordinate with private sector entities, on capacity building/training sessions and mobilization		3
Health and Nutrition	Policy/ Procedure 1. Review current contingency plans, assess their performance during the floods to strengthen the health sector's ability for an integral response	A	a+b+c	August 2023-July 2024 (12 months)	1. Develop a risk mitigation plan for operational readiness during emergency response in the health sector	Health and Nutrition Dept. in collaboration with Int'l donors/ WHO/ UNICEF/ Federal Government/CSOs	0.15
	Investment/ Programme 1. Provide comprehensive essential health services	A	a+b+c	August 2023-July 2025 (2 years)	1.Provide health and nutrition services, immunization facilities for displaced people along with restoration of fixed site vaccination services such as Polio and EPI	Health Dept. in collaboration with Int'l donors/ WHO/WB/	20
	2. Essential medicine, equipment and supplies to the health facilities	A	a+b+c	August 2023-July 2025 (2 years)	2. (Year 1) The concerned department is working on restoration and maintenance of affected primary, secondary and tertiary health facilities and renewal of equipment and supplies; (Year 2) The GoB needs further support of international donors to establish and scale up integrated nutrition services including early detection and simplification of childhood treatment, community base health facilities	UNICEF/ Federal Government/CSOs	14

Health and Nutrition	Institutional Effectiveness						
	1. Establish referral mechanism	A	a+b+c	August 2023-July 2024 (12 months)	1.Establish a proper referral mechanism with attendant transport for complicated cases, bridge critical HR gaps and build capacity of health workforce, strengthen surveillance and response system to detect disease outbreak	Health and Nutrition Dept. in collaboration with International donors	0.5
	2. Strengthening provincial and district level nutrition coordination along with staff training and leadership role	A	a+b+c	August 2023-July 2024 (12 months)	2. Enhance coordination at provincial and district level for nutrition surveillance, health services and management of severe acute malnutrition, strengthening data collection, analysis and management of nutrition information system		0.7
Local Government & Rural Development	Policy/ Procedure						
	1. Capacity Building: Development of Training Modules and training for the elected representatives and officials across the province	A	a+b+c	August 2023-Dec 2024 (18 months)	1.(Year 1) On the basis of local govt Act, need to develop training manuals for the guidance and facilitation of elected members (6 months). Number of elected members across the province to be trained: Total of 14998 Elected representatives · Mayor/ Chairman = 1075 · Reserved seats = 6058 · General = 7183 · Official = 682	Local Govt/ Metropolitan Corporation/ Municipal Corporations in collaboration with International donors/UN Agencies	1.5
	Investment/Programme						
	1. Rehabilitation / reconstruction of Urban/rural streets	A	a+b+c	August 2023-July 2024 (12 months)	1.Rehabilitation/ reconstruction of roads, streets and street lights, sewerage/sanitation/solid waste management systems rehabilitated	Local Govt/ Metropolitan Corporation/ Municipal Corporations in collaboration with International donors/UN Agencies	11.45
	2. Municipal Offices/ buildings rehabilitated	A	a+b+c (Pishin, Mastung, Killa Abdullah, Surab)	August 2023-July 2024 (12 months)	2.Rehabilitation/ reconstruction of 969 Municipal Offices, Boundary Walls, Parking Shades, Grills/ Foot path and 210 servant quarters		8.25
	3. Livelihood (Rural Agriculture) supported and water supply schemes	A	b+c	August 2023-July 2024 (12 months)	3. Rehabilitation/ reconstruction of Karezat, Municipal Water Supply schemes		7.40
	Institutional Effectiveness						
	1. Integrated Financial & HR Management System	A	a+b+c	August 2023-July 2024 (12 months)	1.Set up a dedicated HR and financial management system and an effective and inclusive operating mechanism	Local Govt/ Metropolitan Corporation/ Municipal Corporations in collaboration withInternational donors/UN Agencies	0.15

WASH, Municipal Services & Community Infrastructure	**Policy/ Procedure**						
	1. Improve the regulatory framework and tariff structure	A	a+b	August 2023-July 2024 (12 months)	1. The PHED needs to improve the regulatory framework in order to properly monitor and regulate the department assets and allocation of responsibilities along with facilitation of communities	Public Health Engineering Department (PHED)/ UN Agencies/ Academia in collaboration with International donors	0.2
	2. Policy framework for enhanced private sector involvement for operation and maintenance of WASH and municipal services	A	a+b	August 2023-July 2024 (12 months)	2. Design sector-wide policy framework for partnership with private sector to improve the services		0.2
	Investment/Programme						
	1. Proper assessment of damages and losses	A	a+b	August 2023-July 2024 (12 months)	1. Re-assessment of damages reported by the district offices to avoid duplication as the initial data was collected during the emergency phase. Priority may be given to those schemes which require minor repair during the 1st phase. During execution, higher staff of PHE shall be on board for monitoring purposes	Public Health Engineering Department (PHED) in collaboration with UN Agencies/ Academia/ International donors	1
	2. Construction of larger, more complex schemes requiring complete reconstruction and resizing	A	a+b	August 2023-July 2024 (12 months)	2. (Re)drilling of water boreholes collapsed during the flood, set up distribution network pipelines and instal solar system along with QESCO transformers damaged during the flood, repair PHE infrastructure, water tanks, channels etc.		15.5
	Institutional Effectiveness						
	1. Strengthening mobility of the Balochistan PHED	A	a+b	August 2023-July 2024 (12 months)	1. Strengthen technical and managerial capacities of PHE Dept. for enhanced activities at urban and rural level	Public Health Engineering Dept. (PHED) in collaboration with UN-Agencies/Academia/ Int'l donors	0.5
Energy	**Policy/ Procedure**						
	1. Develop planning for power generation, transmission and distribution to increase power supply coverage and explore alternate source energy	A	a+b+c	August 2023-July 2024 (12 months)	1.The Energy Dept. has a very limited mandate in power generation and transmission despite its oversight role. The Dept. needs to explore alternative sources of energy in accordance with its mandate in the sector	Energy Dept. in collaboration with International donors/ QESCO/ SSGC/Federal Government	0.9

Energy	Investment/ Programme 1. Fast track infrastructure restoration by rehabilitation of the damaged facilities	A	a+b+c	August 2023-July 2025 (2 years)	1.(Year 1) Although the implementation agencies such as QESCO, SSGC worked on emergency basis with the support of federal govt to restore the damaged facilities, the rehabilitation networks requires additional funding to reach full functionality and be able to operate in all flood affected areas. Assess existing power distribution network design to identify potential for making it more resilient to natural hazards; (Year 2) Rehabilitation of micro and mini hydroelectric power plants using climate resilient designs	Energy Dept. in collaboration with International donors/ QESCO/ SSGC/Federal Government	23
	Institutional Effectiveness 1. Establish emergency SOP including disaster management, stores backup, prioritization, costing and providing renewable power equipment as emergency supply to cut off areas	A	a+b+c	August 2023-July 2024 (12 months)	1.Establish emergency SOPs in order to cope with natural calamities and maintain energy supply to the communities	Energy Dept./ International donors/ QESCO/ SSGC/Federal Government	0.4
Housing	Policy/ Procedure 1. Develop strategies vision with principles, policies strategies, standards and guideline for housing	A	a+b+c	August 2023-July 2024 (12 months)	1.Establish/strengthen mechanism for compliance, quality, accountability and grievance redress of the housing sector through proper policies, strategies and standards, strengthen strategies land use and settlement planning, management and land administration	P&D Dept./ C&W Dept./ PDMA/ Urban and Rural Development Dept./Federal Government in collaboration with International donors	0.5
	Investment/ Programme 1. Prioritize and reconstruct/rehabilitate houses	A	a+b+c	August 2023-July 2025 (2 years)	1. Year 1: Ensure sustainable and inclusive urban and rural planning to develop affordable disaster resilient housing providing safety and security during/in events such as floods etc.; Year 2: Reconstruction and rehabilitation of damaged housing sector through partnership with private sector	P&D Dept./ C&W Dept./ PDMA/ Urban and Rural Development Dept./Federal Government in collaboration with International donors	32
	2. Promote and ensure multi-hazard climate adapted reconstruction	A	a+b+c		2. Proper planning for flood water treatment as well as for treatment of wastewater. Ensure the sustainability and resilient during reconstruction of houses. Focus on the support of vulnerable and other segments for resettlement through alternate means of living such as flood resilient shelters		11

Housing	Institutional Effectiveness 1. Provincial level centralized institutional arrangements for housing reconstruction	A	a+b+c	August 2023-July 2024 (12 months)	1.Strengthening the regulator systems of concerned dept. (HR, logistics and capacity building) and enhance support to public and private sectors; establish coordination mechanism for settlement level mitigation and resilient measures and inter-sectoral investment	P&D Dept./ C&W Dept./ PDMA/ Urban and Rural Development Dept./Federal Government in collaboration withInternational donors	1.8
Transport and Communication	Policy/ Procedure 1. Flood Susceptibility Analysis of the entire infrastructure network	A	a+b+c	August 2023-July 2024 (12 months)	1. Initiate the digital study to oversee and monitor the existing strengthen of the transport and communication means and future climate change scenarios	Transport and communication Dept./C&W Dept./ PDMA/P&D Dept. in collaboration with International donors	0.6
	Investment/ Programme 1. Emergency work for restoration of services and basic connectivity and permanent repair of minor damages	A	a+b+c	August 2023-July 2025 (2 years)	1.(Year 1) Form geo-spatial prioritization, infrastructure network analysis and evaluation of damaged infrastructure in the first phase along with proper planning (Year 2) Implementation of rehabilitation and reconstruction plan in the communication sector based on prioritization criteria (districts and sub-districts) and its implementation	Transport and communication Dept./C&W Dept./ PDMA/P&D Dept. in collaboration with International donors	80
	Institutional Effectiveness 1. Project Management and Institutional Capacity Building	A	a+b+c	August 2023-July 2024 (12 months)	1. Institutional strengthening through HR capacity building and provision of logistics, ensure full funding of projects	Transport and communication Dept./C&W Dept./ PDMA/P&D Dept. in collaboration with International donors	4
Water Resource and Irrigation	Policy/ Procedure 1. Integrated Water Resources Management Policy Implementation	A	a+b+c	August 2023-July 2024 (12 months)	1. Establish an implementation strategy to functional Water Resources Management commission through a Commission and Committees Formulation	Irrigation Dept./P&D department/ PHED/ Agriculture Dept. in collaboration with International donors	0.15

Water Resource and Irrigation	Investment/ Programme						
	1. Rehabilitation and restoration of the flood affected irrigation system	A	b+c (Naseerabad, Jaffarabad, Jhal Magsi, Kachi, Killa Abdullah, Killa Saifullah, Sibi, Quetta, Lasbela, Usta Muhammad, Sohbatpur, Nushki, Loralai and Pishin)	August 2023-July 2024 (12 months)	1. (Year 1) Detailed assessment carried out by concerned departments (PHED, Agriculture) and communities. Coordination with federal govt. and other international donors to ensure funding. (Year 2) Repair and restore breaches and temporary works; recovery of canals (Patfeeder, Kirther), drains, dams (22 dams) dikes and 36 Weir & Perennial Irrigation Schemes	Irrigation Dept./P&D department/ PHED/ Agriculture Dept. /Federal Govt. in collaboration with International donors	53
	Institutional Effectiveness						
	1. Institutional Reforms and capacity building training for HR Development	A	a+b+c	August 2023-July 2026 (3 years)	1.(Year 1) Training of 150 Sub-Division Officers (SDOs) and key filed staff in the districts. (Year 2) Provision of Latest Software (Hydrological Modeling) • HEC-HMS (Climate Model) • HEC-RAS (Hydraulic Design) • WEAP (Water Demand Assessment) • GIS(Arc-GIS) (Year 3) Formation of Flood control and monitoring center to proper monitor and manage the future natural calamities	Irrigation Dept./P&D department/ PHED/ IT Dept./ Agriculture Dept. in collaboration withInternational donors	2.5
	2. Identify Opportunities for co-design and community contracting	A	a+b+c	August 2023-July 2024 (12 months)	2.Assess the capacity of institutions consulting services and initiate public private partnership along with community engagement		1.3

Digital Infrastructure	Policy/Procedure 1. Establishment of Disaster Management Information System (MIS)	A	a+b	August 2023-Dec 2024 (18 months)	1.(Year 1) Technology based Early Flood Warning system along with post flood/disaster GIS based data collection and resilient satellite-based telecommunication system	IT department, PDMA /Federal Government in collaboration with International donors	8.45
					2.(6 months) Training of IT staff and linkages with other government department		0.35
					3. Analysis of the entire digital infrastructure network		1.25
	Investment/Programme 1. Restoration of affected infrastructure	A	a+b+c (Ziarat, Jhal Magsi, Naseerabad	2023 July-2025 June	1.Restoration of flood damages caused to CCTV network of PR Center Sariab, Quetta and Restoration of IT Training Centers in Ziarat, Jaffarabad and Naseer Abad	IT department, PDMA /Federal Government in collaboration with International donors	9.8
	2. Design and implementation of rehabilitation and reconstruction plan in the communication sector, based on prioritization of criteria	A	a+b+c	2023 July-2025 June	2.Plan resilient rehabilitation of IT sector within concerned Departments. Based on a thorough plan and gap/needs assessment, initiate intervention's implementation phase		0.5
	Institutional Effectiveness 1. Project Management and Institutional Capacity Building	A	a+b+c	2023 July-2025 June	There is need for capacity building including but not limited project management, latest technologies and allied fields. This would need to entail providing specialized project managment GIS,MIS, software and mobile app development and allied/relevant trainings for professional IT staff of IT department and upgrade IT equipment	IT department, PDMA /Federal Government in collaboration with International donors	0.7
Total Estimated Recovery Cost							**553.79**

5.

FINANCIAL
REVIEW

The identification and design of required actions and related budgets for resilient recovery were informed by the assessed damages and losses as per the PDNA's figures which were, in several cases, best guesstimates. In designing the detailed action plan, teams of experts from every sector analyzed to what extent the recovery plan activities' design should and could, intersect and dovetail into, the Government of Balochistan's planned schemes under the Provincial Public Sector Development Program (PSDP).

This included discussions, where applicable, if any specific projects/schemes could be re-oriented to account for the provincial resilient flood response and recovery in Balochistan. Other than reorienting or repurposing existing and therefore ongoing projects, identified gaps led to newly coined interventions designed to address the specific needs of the province. Further analysis of the PSDP could be undertaken to gauge if additional components based on climate resilience and adaptation can be integrated into proposed or ongoing activities.

Figure 3 and Table 12 show the total budget of 553.79 million US$ split across SROs, with SRO 4 accounting for two-thirds, SRO 2 for a fifth, and SRO 1 for a tenth of the budget. SRO 3 accounts for two percent of the budget.
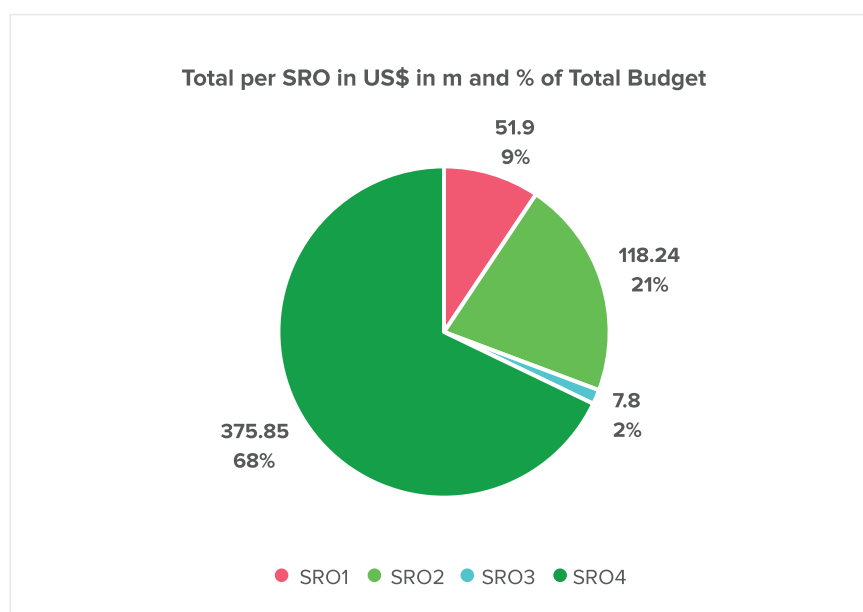

Figure 3: Pie Chart Total per SRO in US$ in m and % of Total Budget

SRO1	SRO2	SRO3	SRO4
51.8	118.24	7.8	375.85
9%	21%	2%	68%

Table 12: Total per SRO in US$ in m and % of Total Budget

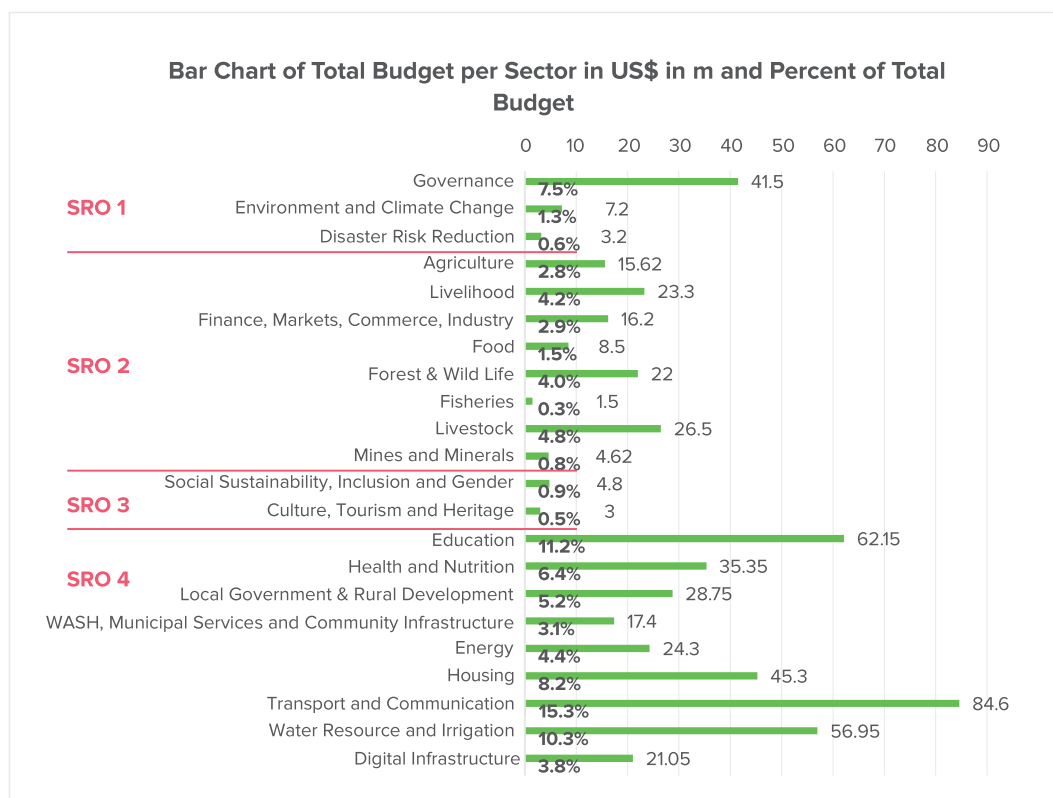Figure 4 and Table 13 show the total budget per Sector in US$ in m and the respective percentage of the total budget.

Figure 4: Bar Chart of Total Budget per Sector in US$ in m and Percent of Total Budget

Sector	US$ in m	Percent of Total Budget
Governance	41.5	7.5%
Environment and Climate Change	7.2	1.3%
Disaster Risk Reduction	3.2	0.6%
Agriculture	15.62	2.8%
Livelihood	23.3	4.2%
Finance, Markets, Commerce, Industry	16.2	2.9%
Food	8.5	1.5%
Forest & Wild Life	22	4.0%
Fisheries	1.5	0.3%
Livestock	26.5	4.8%
Mines and Minerals	4.62	0.8%
Social Sustainability, Inclusion and Gender	4.8	0.9%
Culture, Tourism and Heritage	3	0.5%
Education	62.15	11.2%
Health and Nutrition	35.35	6.4%
Local Government & Rural Development	28.75	5.2%
WASH, Municipal Services and Community Infrastructure	17.4	3.1%
Energy	24.3	4.4%
Housing	45.3	8.2%
Transport and Communication	84.6	15.3%
Water Resource and Irrigation	56.95	10.3%
Digital Infrastructure	21.05	3.8%

Table 13: Total Budget per Sector in US$ in m and Percent of Total Budget

Figure 5 and Table 14 show how many activities per category are planned for each SRO and the total across all SROs.
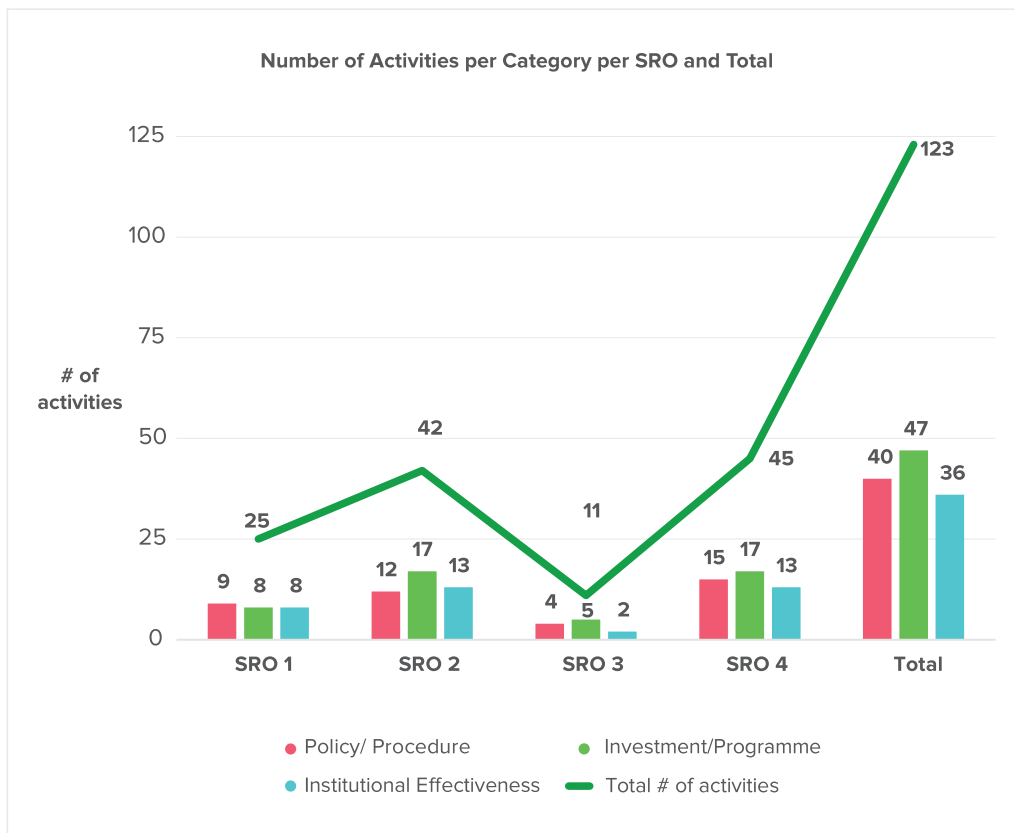

Figure 5: Bar Chart Number of Activities per Category per SRO and Total

	Policy/ Procedure	Investment/ Programme	Institutional Effectiveness	Total # of activities
SRO 1	9	8	8	25
SRO 2	12	17	13	42
SRO 3	4	5	2	11
SRO 4	15	17	13	45
Total	40	47	36	123

Table 14: Number of Activities per Category per SRO and Total

The total budget in US$ m is split between the three activity categories Policy/Procedure, Investment/Programme, and Institutional Effectiveness as illustrated in Figure 6 and Table 15. The category Investment/Programme accounts for four-fifths of the total budget while Policy/Procedure and Institutional Effectiveness each account for approximately a tenth of the budget.
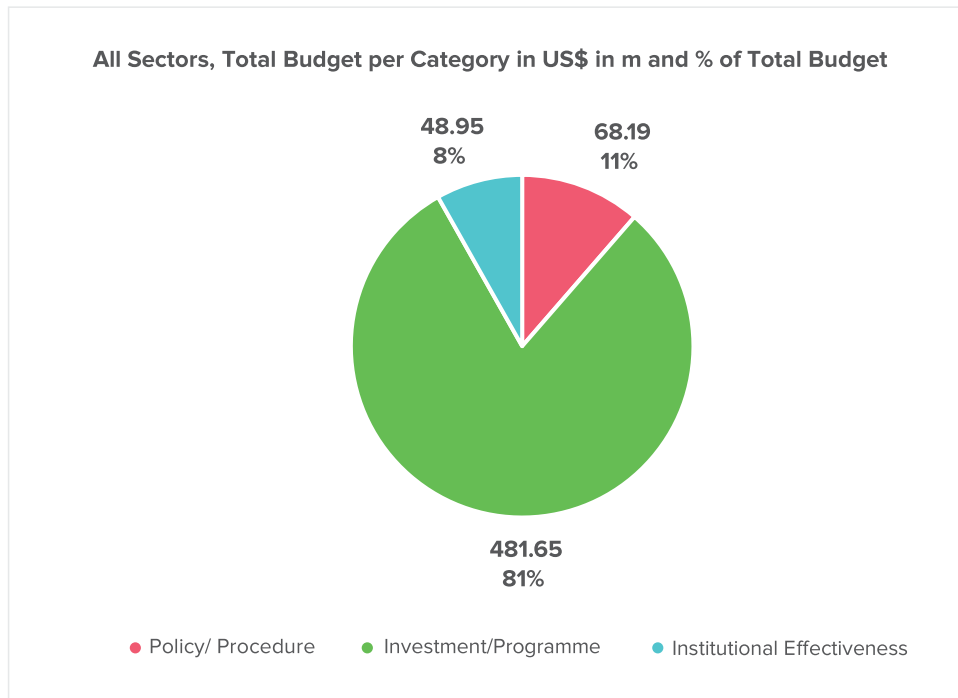

All Sectors, Total Budget per Category in US$ in m and % of Total Budget

- Policy/ Procedure
- Investment/Programme
- Institutional Effectiveness

Figure 6: Pie Chart All Sectors, Total per Category in US$ in m and % of Total Budget

All Sectors

Policy/ Procedure	Investment/Programme	Institutional Effectiveness
68.19	481.65	48.95
11%	81%	8%

Table 15: All Sectors, Total per Categories in US$ in m and % of Total Budget

The total budget for SRO 1 in US$ m is split between the three activity categories Policy/ Procedure, Investment/Programme, and Institutional Effectiveness similarly, as illustrated in Figure 7 and Table 16. The category Investment/Programme accounts for almost 90 percent of the total budget while Policy/Procedure accounts for 4 percent and Institutional Effectiveness for 8 percent of the budget.
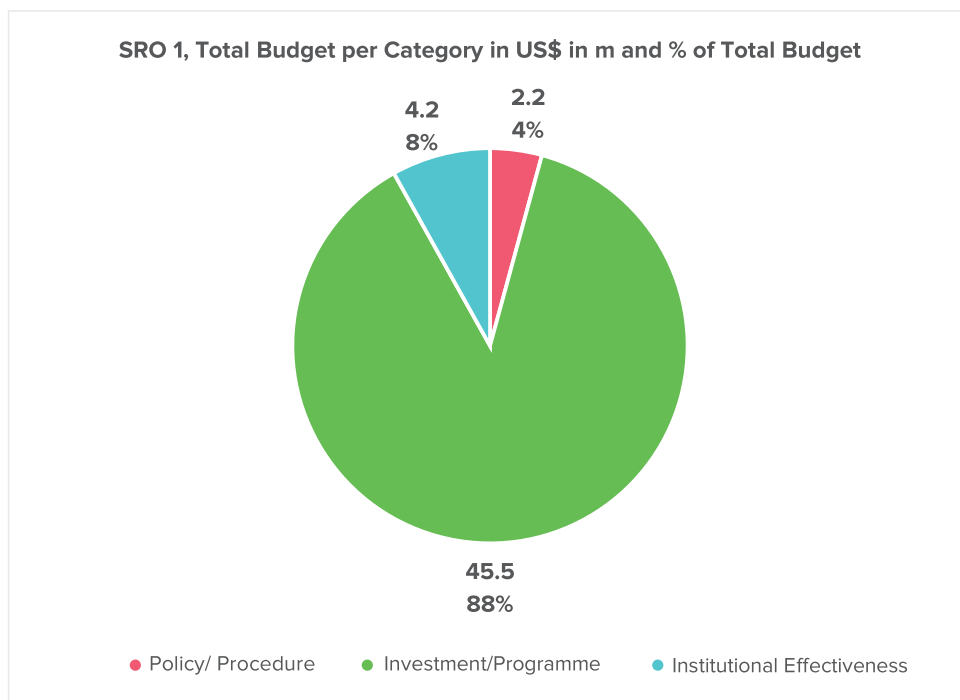
SRO 1, Total Budget per Category in US$ in m and % of Total Budget

- Policy/ Procedure
- Investment/Programme
- Institutional Effectiveness

Figure 7: Pie Chart SRO 1, Total Budget per Category in US$ in m and % of Total Budget

SRO 1

Policy/ Procedure	Investment/Programme	Institutional Effectiveness
2.2	45.5	4.2
4%	88%	8%

Table 16: SRO 1 per Category in US$ in m and % of Total Budget

As illustrated in Figure 8 and Table 17, three-quarters of the total budget for SRO 2 are allotted to the activity category Investment/Programme, almost a quarter goes to Institutional Effectiveness, and the remaining three percent is designated for the category Policy/Procedures.
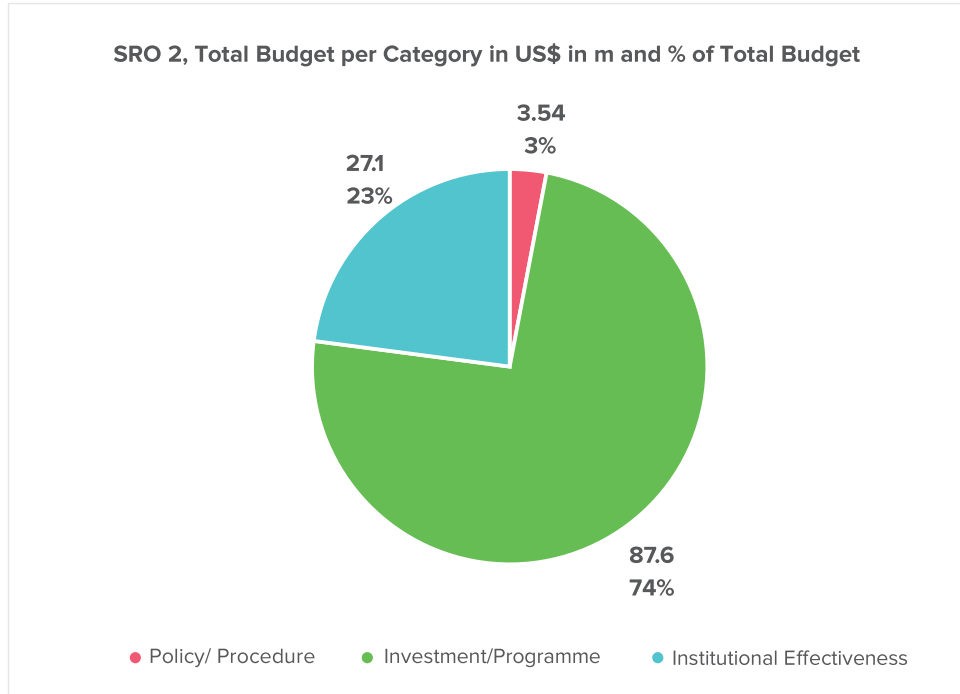

Figure 8: Pie Chart SRO 2 per Category in US$ in m and % of Total

SRO 2		
Policy/ Procedure	**Investment/Programme**	**Institutional Effectiveness**
3.54	87.6	27.1
3%	74%	23%

Table 17: SRO 2 per Category in US$ in m and % of Total

In SRO 3 half of the total budget is allocated to the activity category Investment/Programme, a third goes to Policy/Procedure and the remaining 16 percent is allocated to Institutional Effectiveness, as shown in Figure 9 and Table 18.
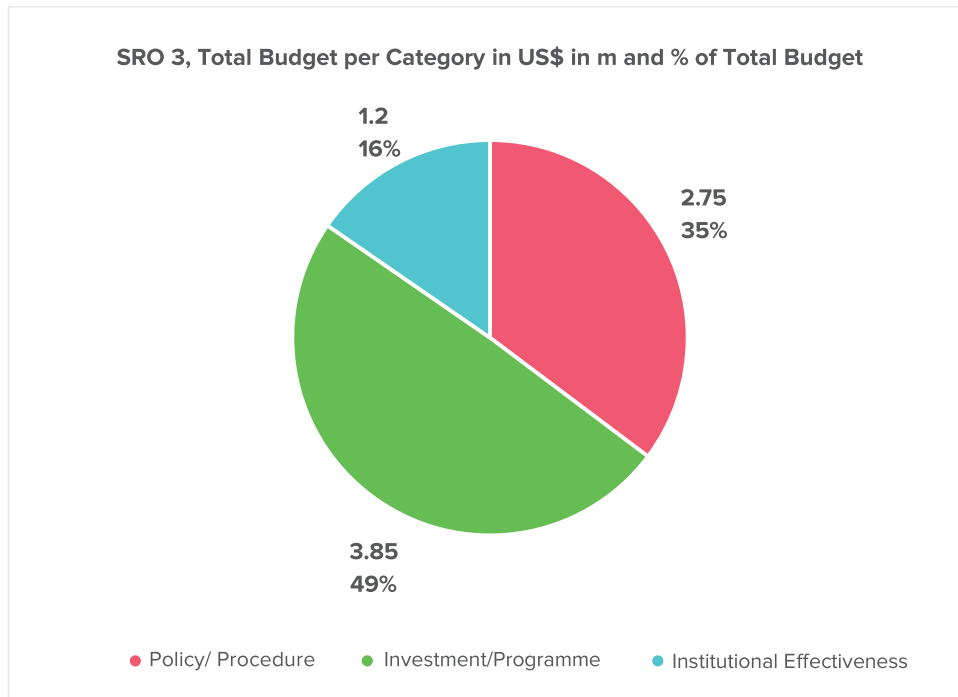

Figure 9: Pie Chart SRO 3 perr Category in US$ in m and % of Total

SRO 3		
Policy/ Procedure	Investment/Programme	Institutional Effectiveness
2.75	3.85	1.2
35%	49%	16%

Table 18: SRO 3 per Category in US$ in m and % of Total

Figure 10 and Table 19 show the division of the total budget between the three activity categories in SRO 4: Investment/Programme accounts for four-fifths of the total budget, Policy/Procedure for 14 percent, and four percent is allocated to Institutional Effectiveness.
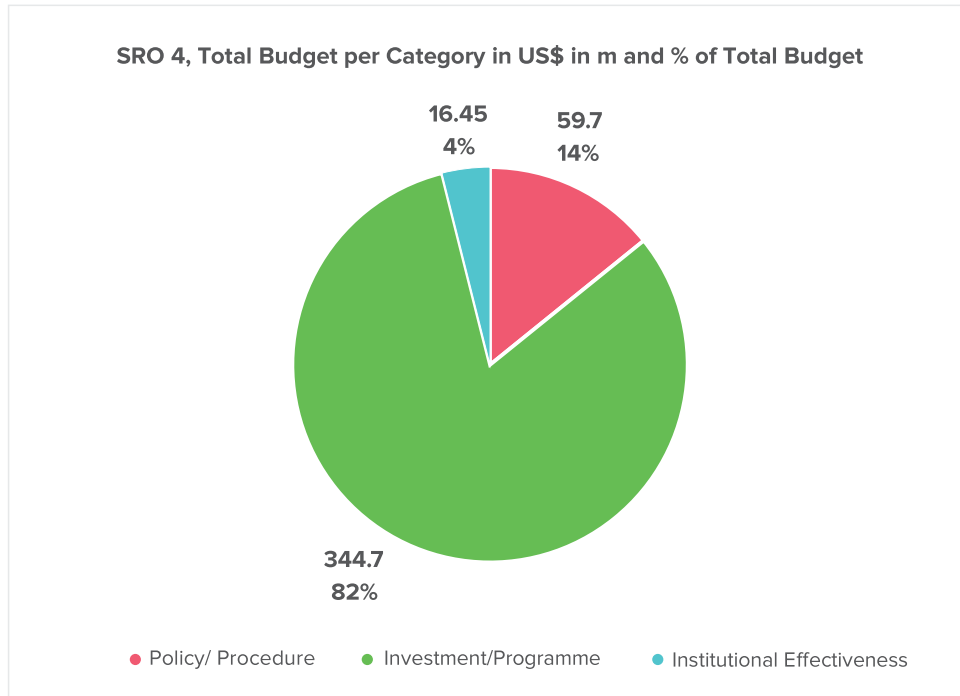

Figure 10: Pie Chart SRO 4 per Category in US$ in m and % of Total

SRO 4		
Policy/ Procedure	Investment/Programme	Institutional Effectiveness
59.7	344.7	16.45
14%	82%	4%

Table 19: SRO 4 per Category in US$ in m and % of Total

Figure 11 and Table 20 illustrate how the percentage of the three categories varies per sub-sector: SRO 4 has many subsectors with high percentages for Investment/Programme, except for the subsectors Education and Digital Infrastructure which requires a higher percentage of the budget for Policy/Procedure. SRO 2 groups the subsectors with the highest percentual allotments for Institutional Effectiveness, specifically for the subsector of Agriculture. SRO 3 comprises two subsectors with relatively high percentages for Policy/Procedures compared to the majority of subsectors. The subsector of Governance in SRO 1 and the subsectors of Wash and Housing in SRO 4 require only minimal budgets for Policy/Procedure.
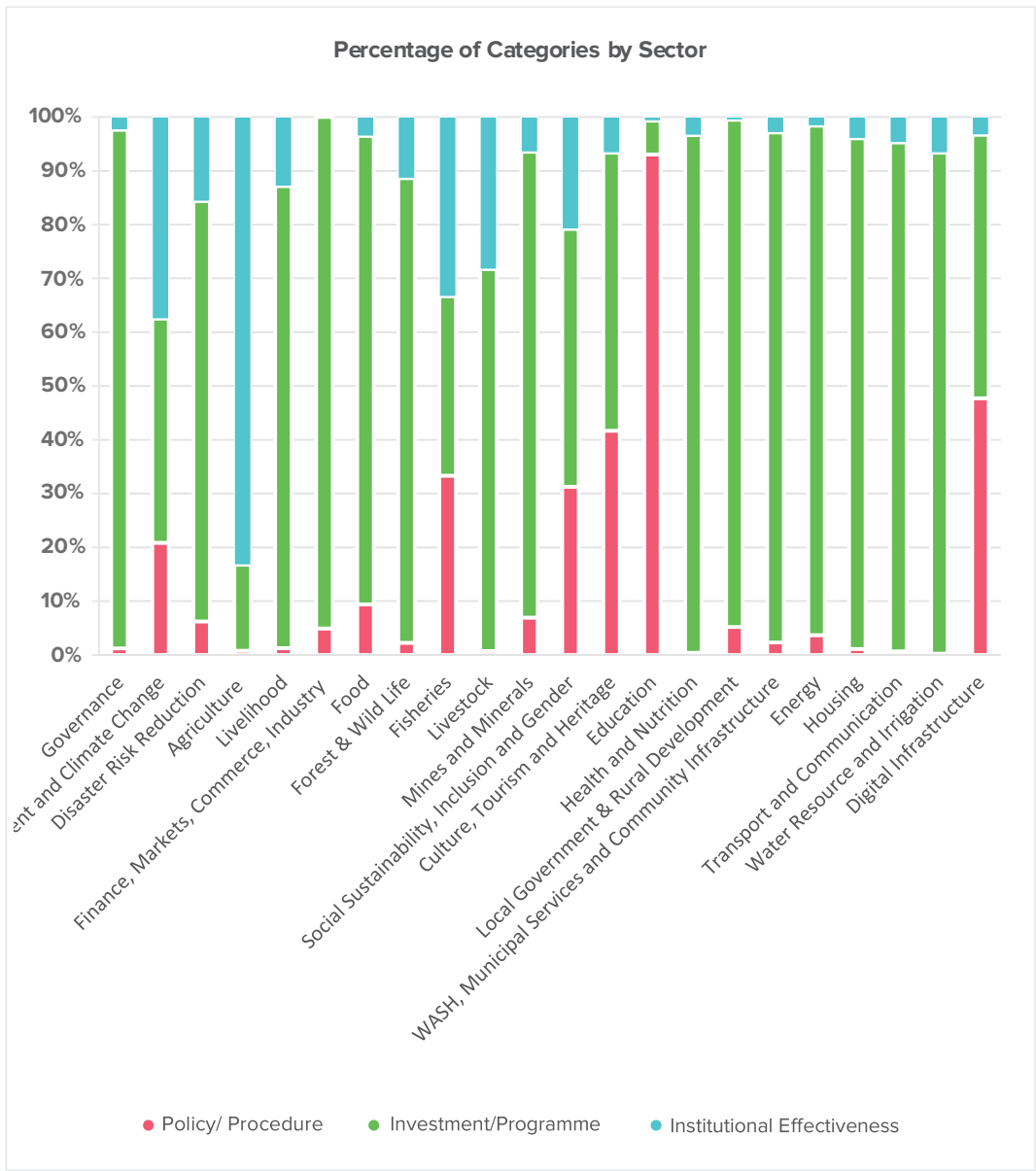

Figure 11: Percentage of Categories by Sector

SRO	Sector	Policy/ Procedure	Investment/ Programme	Institutional Effectiveness
SRO 1	Governance	0.5	40	1
	Environment and Climate Change	1.5	3	2.7
	Disaster Risk Reduction	0.2	2.5	0.5
SRO 2	Agriculture	0.12	2.5	13
	Livelihood	0.3	20	3
	Finance, Markets, Commerce, Industry	0.8	15.4	
	Food	0.8	7.4	0.3
	Forest & Wild Life	0.5	19	2.5
	Fisheries	0.5	0.5	0.5
	Livestock	0.2	18.8	7.5
	Mines and Minerals	0.32	4	0.3
SRO 3	Social Sustainability, Inclusion and Gender	1.5	2.3	1
	Culture, Tourism and Heritage	1.25	1.55	0.2
SRO 4	Education	57.8	3.9	0.45
	Health and Nutrition	0.15	34	1.2
	Local Government & Rural Development	1.5	27.1	0.15
	WASH, Municipal Services and Community Infrastructure	0.4	16.5	0.5
	Energy	0.9	23	0.4
	Housing	0.5	43	1.8
	Transport and Communication	0.6	80	4
	Water Resource and Irrigation	0.15	53	3.8
	Digital Infrastructure	10.05	10.3	0.7

Table 20: Budget of Categories by Sector in US$ in m

6.

MONITORING AND EVALUATION STRATEGY

The M&E strategy aims to ensure the effective implementation, quality assurance, and compliance of the recovery plan while providing accurate and timely information for decision-making, resource mobilization, and reporting to donors. The M&E strategy is underpinned by and aligned with, the overall M&E approach for the Resilient Recovery, Rehabilitation, and Reconstruction Framework (4RF), which provides the overarching guidance framework for the Balochistan flood recovery plan.

The 4RF emphasizes the need for a systematic approach to monitoring and evaluation, ensuring the achievement of targets, and measuring the collective outcomes of the recovery efforts. The M&E strategy is designed to align with the principles and objectives of the 4RF while also serving to oversee BFRP performance as expressed by progress against BFRP targets.

While the M&E strategy recognizes the importance of designing relevant and reliable indicators to measure the progress and effectiveness of the Balochistan Flood Recovery Plan, the final design and selection of BFRP-specific indicators will be designed based on the final set of targets established in line with actual resource mobilization results and the post-flood revision of the development strategy's indicators and targets, if applicable. These indicators will provide a clear framework for assessing the achievements and impact of the recovery plan.

Data collection is a critical component of the M&E strategy. It will be carried out by responsible provincial-level line departments involved in the implementation of the Balochistan Flood Recovery Plan. These departments will be entrusted with the task of collecting accurate and timely data related to the various sectors and components of the recovery plan. The data collection process will adhere to standardized principles (SMART formulation of indicators and related targets etc.), ensuring consistency and reliability.

The BFRP M&E data consolidation and reporting will be conducted in a comprehensive and aggregated manner. The collected data will be consolidated, analyzed, and synthesized to generate meaningful information on the progress, achievements, and challenges of the recovery plan. Comprehensive reports will be prepared based on the requirements of the donors in terms of format, frequency, and level of detail. These reports will serve as a key tool for accountability, transparency, and communication with the donor community.

The M&E strategy includes an institutionalized mechanism for quality assurance and compliance. Regular reviews and assessments will be conducted to ensure that the recovery plan is implemented according to the established standards, guidelines, and best practices. This mechanism will help identify any gaps or deficiencies in the implementation process and enable timely corrective actions to be taken. The compliance aspect of the strategy aims to ensure that the recovery plan adheres to the relevant policies, regulations, and legal frameworks.

The M&E strategy recognizes the importance of building the capacity of the provincial-level line departments involved in data collection and monitoring activities. Training programs will be conducted to enhance their skills in data collection, analysis, and reporting. Furthermore, knowledge sharing platforms will be established to facilitate the exchange of experiences, lessons learned, and best practices among stakeholders involved in the recovery plan.

By establishing an institutionalized mechanism for quality assurance, compliance, and data collection, the M&E strategy ensures the effective implementation of the recovery plan. The strategy's focus on designing relevant indicators, data consolidation, and reporting to donors strengthens accountability, transparency, and communication. Through capacity building and knowledge sharing, the M&E strategy aims to foster continuous learning and improvement in the implementation of the recovery.

ANNEX
SOURCES & LITERATURE CONSULTED

Literature Consulted

- National Disaster Management Ordinance (2006)
- Provincial Disaster Risk Management Planning (2007)
- Districts Disaster Risk Management Planning (2007)
- Disaster Risk Management Plan Quetta (2008)
- Planning Commission Circulation (2010)
- NDMA Act (2010)
- National Disaster Response Plan (2012)
- National Disaster Management Plan (2012)
- National Disaster Risk Reduction Policy (2013)
- National Policy Guideline on Vulnerable Groups in Disasters (2014)
- Gender Mainstreaming in Disaster, PDMA (2017)
- Post Disaster Need Assessment (2022)
- Resilient Recovery, Rehabilitation, and Reconstruction Framework (4RF) Pakistan (2022)
- Rapid Need Assessment Report-RNA (2022)
- Flood Recovery Programme (FRP)-UNDP (2022)
- Vulnerability Analysis and Mapping (VAM)-WFP (2018)
- Sindh's Strategic Policy for Floods Response (2022)
- Khyber Pakhtunkhwa Flood Response Plan (2022)
- Feasibility Study Balochistan Food Department's Supply Chain and Storage Infrastructure (2021)
- Lessons Learned Report-UNOCHA (2022)
- Balochistan Comprehensive Development and Growth Strategy (BCDGS) (2021)

Stakeholders Consulted

1. Members Provincial Assembly of Balochistan
2. Concerned Government Departments
   - Planning and Development Department, GoB
   - Provincial Disaster Management Authority, GoB
   - Senior Member Board of Revenue, GoB
   - Mines and Minerals' Department, GoB
   - Forest and Wildlife Department, GoB
   - Agriculture Department, GoB
   - Livestock Department, GoB
   - Environment Department, GoB

- Industries and Commerce Department, GoB
- Information Technology Department, GoB
- Communication and Works Department, GoB
- Commerce & Industry Commerce & Industry Department, GoB
- Culture, Tourism and Heritage Department, GoB
- Local Government Department, GoB
- Fisheries Department, GoB
- Irrigation Department, GoB
- Food Department, GoB
- Public Health Engineering Department, GoB
- Energy Department, GoB
- Health Department, GoB
- Education Department, GoB
- Social Welfare Department, GoB
- Women Development Department, GoB
- National Commission for Human Right (NCHR)
- Harassment at Workplace for Women Office, GoB
- Provincial Commission on the Status of Women (PCSW) Balochistan
- High Court of Balochistan

Academia
- University of Balochistan
- BUITEMS
- Sardar Bahadur Khan Women University

UN-Agencies
- United Nations Development Programme (UNDP)
- World Food Programme (WFP)
- Food and Agriculture Organization (FAO)
- United Nation's Office for the Coordination of Humanitarian Affairs (UNOCHA)
- World Health Organization (WHO)
- International Organization for Migration (IOM)
- United Nations Office on Drugs and Crimes (UNODC)
- UNWOMEN
- United Nations High Commissioner for Refugees (UNHCR)
- United Nations International Children Emergency Fund (UNICEF)
- United Nations Population Fund (UNFPA)

Civil Society Organizations (CSOs)
- SOCIO-PAK
- Aurat Foundation Balochistan
- Society for Empowerment Human Resource (SEHER)
- Al-Khidmat Foundation Balochistan
- Taraqee Foundation

- Center for Peace and Development (CPD)
- International Rescue Committee (IRC)
- Strengthening Participatory Organization (SPO)
- Balochistan Rural Support Programme (BRSP)
- Water Environment and Sanitation Society (WESS)
- Mercy Corps Balochistan

Marginalized Groups
- Quetta Online
- INCEPTION PWDs
- The Special Ones (TSO)
- SRD-Minorities
- Transgender Community

Media
- Press Club/ Media
- Associated Press of Pakistan
- Pakistan Federal Union of Journalists (PFUJ)
- INP

The Planning and Development Department
Government of Balochistan