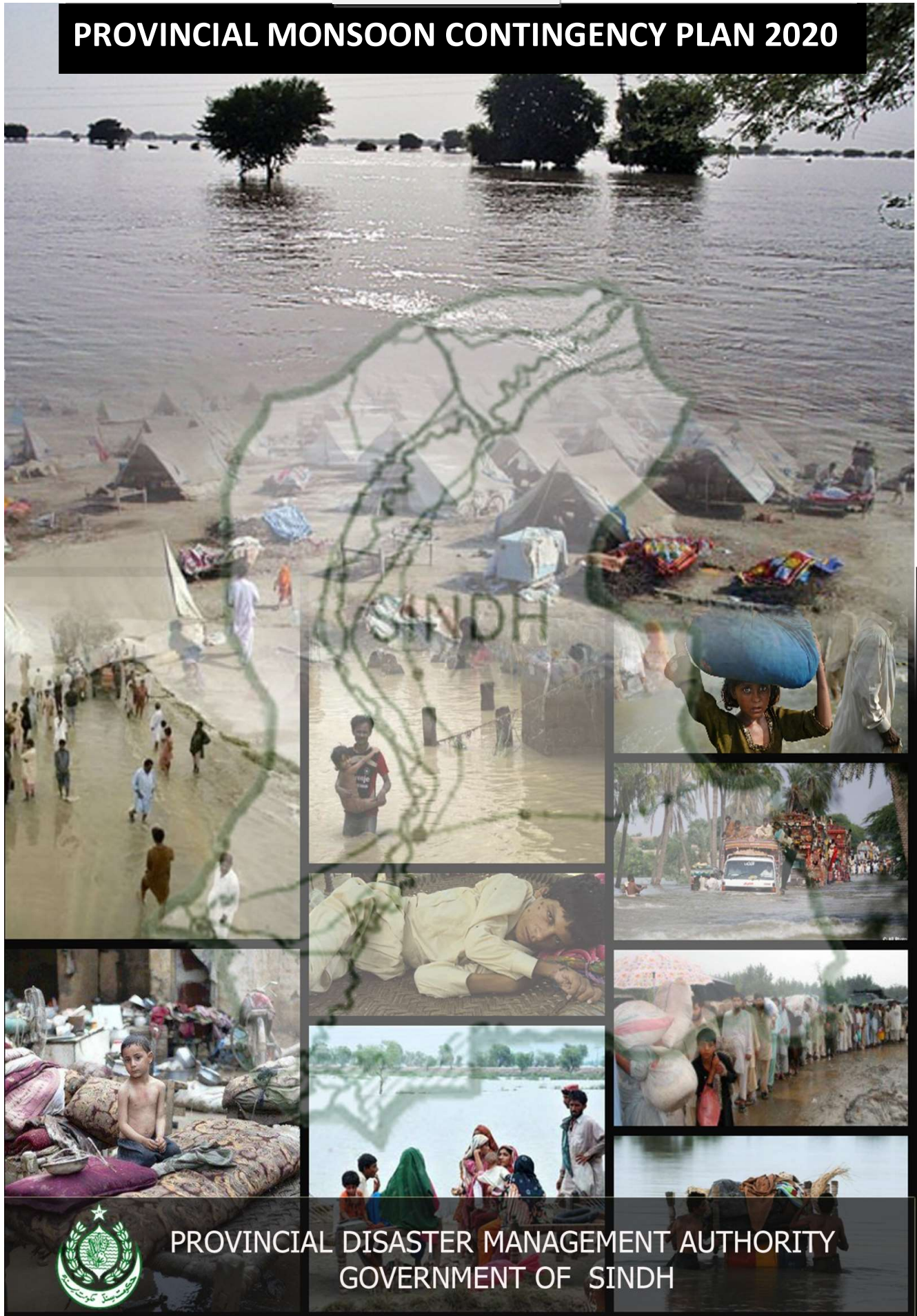


PROVINCIAL MONSOON CONTINGENCY PLAN 2020



PROVINCIAL DISASTER MANAGEMENT AUTHORITY
GOVERNMENT OF SINDH

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LIST OF ACRONYMES

DDMA	District Disaster Management Authority
DRR	Disaster Risk Reduction
DEOC	District Emergency Operation Center
DMA	Disaster Management Authority
ERC	Emergency Relief Cell
FDP	Flood Displaced Person
FFC	Federal Flood Commission
FFD	Flood Forecasting Division
FFT	Flood Forecasting Telemetry System.
GHQ	Army General Headquarters
HH	Households
INGO	International Non-Governmental Organization
LBOD	Left Bank Outfall Drain
MIRA	Multi Cluster Initial Rapid Assessment
NDMA	National Disaster Management Authority
NGO	Non-Governmental Organization
NHA	National Highways Authority
NHEPRN	National Health Emergency Preparedness and Response Network
OCHA	UN Office for the Coordination of Humanitarian Affairs
O&M	Operations and Maintenance
PDMA	Provincial Disaster Management Authority
PEOC	Provincial Emergency Operations Center
PMD	Pakistan Meteorological Department
PRCS	Pakistan Red Crescent Society
RBOD	Right Bank Outfall Drain
SASCOF	South Asian Climate Outlook Forum
SITREP	Situation Report
SUPARCO	Space and Upper Atmosphere Research Commission
SOPs	Standard Operating Procedures
UN	United Nations
UNICEF	UN Children's Fund
USAR	Urban Search and Rescue Team
Wash	Water, Sanitation and Hygiene
WHO	World Health Organization
WMO	World Meteorological Organization

EXECUTIVE SUMMARY

The nature and intensity of natural disasters has changed considerably over the period of time. Disaster risk reduction and management, attempting to address risks associated with potential hazards is an integral part of development. Consequently, it is less events and more process oriented. It is based on a continuous assessment of vulnerabilities and risks involving the role of multiple actors and stakeholders. Given the complexity, contingency planning is required to define what preparedness mechanisms will be used, when and where. Before a response is required, contingency planning affords agencies, both government and humanitarian the opportunity to define when, where and why their emergency response resources will be deployed, when emergency funds will be used and what kind of responses, materials and types of personnel they will need.

The lessons learnt from unprecedented floods of 2010 followed by heavy monsoon rainfalls of 2011, flash flooding in 2012 and subsequent disasters required quick and effective actions to control the situation and above all, to save lives. However, effective action depends on the existence of practical and well tested contingency plans. The Provincial Contingency Plan has been formulated to translate recommendations from district administrations, line departments and other stakeholders into action. However, the devastation caused due to floods/ rainfalls witnessed during recent years has necessitated for taking on board all agencies for an integrated contingency planning, involving government departments, districts administrations, armed forces and humanitarian assistance organizations, thereby ensuring synergized and optimal utilization of resources by agencies in the field while complementing each other with appropriate linkages and better coordination to support actions along lines of command.

PDMA continues to emphasize upon the Contingency Planning process as a preparedness measure for response to natural hazards particularly Monsoon Contingency. Following catastrophic floods since 2010, this plan

focuses on planning for the upcoming Monsoon – 2020 hazards to identify and analyze related risks for not just their humanitarian impacts but also the associated adverse affects on private and public infrastructure, and to define roles and responsibilities of diverse stakeholders for preparedness and response.

It is worth mentioning here that PDMA shared guidelines for 2020 Monsoon contingency planning with district administrations, line departments, and other stakeholders primarily for anticipating likely scenarios and perceiving threat levels. While further drawing conclusions from the inputs through the technical experts and relevant departments, it mainly involves identifying gaps and challenges to effective emergency response and then planning and implementing a series of actions to increase response capacity and reduce potential gaps. Unlike former simple or generic plans scenarios were used as a basis for developing preparedness plans. The key anticipated outcomes are:

- Awareness for Building Capacities for Response,
- Depict anticipated threat perception for earmarking required resources,
- Build Integrated Planning Capacities, and
- Define required gaps ensuing Preparatory Measures.

The preparations have been made keeping in view the recent years. Whereas, the PMD have predicted that Monsoon rainfall is expected to remain near normal (+10%) during July to September 2020 in Pakistan. Sindh and Kashmir are likely to receive moderately above normal (+20%) rainfall during August and September.” Area weighted normal rainfall of Pakistan during Jul - Sep is 140.8 mm.

Due to prevailing emergency of Covid-19, the District Administrations remained preoccupied and some of them could not furnish their updated Contingency Plans, hence the data regarding available resources etc. has been taken from their last year plans.

CHAPTER – 1

OVERVIEW OF MONSOON / FLOODS

1.1 FLOODS

When rivers overflow their banks they cause damage to property and crops. Floods are common and costly Natural Disasters.

Floods usually are local, short-lived events that can happen suddenly, sometimes with little or no warning. They usually are caused by intense storms that produce more runoff than an area can store or a stream can carry within its normal channel. Rivers can also flood when dams fail, when ice jams or landslides temporarily block a channel, or when snow melts rapidly. In a broader sense, normally dry lands can be flooded by high lake levels, by high tides, or by waves driven ashore by strong winds.

Small streams are subject to floods (very rapid increases in runoff), which may last from a few minutes to a few hours. On larger streams, floods usually last from several hours to a few days. A series of storms might keep a river above flood stage (the water level at which a river overflows its banks) for several weeks.

Floods can occur at any time, but weather patterns have a strong influence on when and where floods happen. Cyclones, or Storms that bring moisture inland from the Ocean, can cause floods. Thunderstorms are relatively small but intense storms that can cause floods in smaller streams. Frontal storms form at the front of large, moist air masses moving across the Country and can cause floods. Hurricanes are intense tropical storms that can cause floods.

The size, or magnitude, of a flood is described by a term called Recurrence Interval. By studying a long period of flow records for a stream, it is possible to estimate the size of a flood that would, for example, have a 5-year Recurrence Interval (called a 5-year flood). A 5-year flood is one that would

occur, on the average, once every 5 years. Although a 100-year flood is expected to happen only once in a century, there is a 1 percent chance that a flood of that size could happen during any year.

Flood plains are lands bordering rivers and streams that normally are dry but are covered with water during floods. Floods can damage buildings or other structures placed in flood plains. They also can change the pattern of water flow and increase flooding and flood damage on adjacent property by block

The confluence of River Basins, the Canal Irrigation Network and Interrupted Drainage System and control of Head works on three major rivers, part of Indus River System with India are some of the major reasons of flooding in Pakistan.

1.1.1 CAUSES OF FLOODS

Floods can be divided In five major categories

(I) Monsoon Floods: Flooding along rivers is natural and inevitable. Some floods occur seasonally, when monsoon rains coupled with melting snows fill river basins with too much water, too quickly. Torrential rains from decaying Hurricanes or Tropical Systems can also produce river flooding.

It has been argued that El-Nino and La Nina factors have upset the system of rains in India, Pakistan, Iran and Afghanistan. Incidentally El-Nino events are a local manifestation of a global phenomenon, which begins with the relaxation of the wind stress that drives warm water towards the West. In the case of the monsoons, which are also part of a global phenomenon, the atmospheric pressure at sea level at the South-West of the Indian Peninsula, the ocean temperature in the Bay of Bengal and the rainfall fluctuation across South Asia are inter-related critical factors. Whereas, La-Nina is a counterpart of El-Nino.

(II) Flash Floods: An arroyo is a water-carved gully or a normally dry creek found in arid or desert regions. When storms appear in these areas, the rain water cuts into the dry dusty soil creating a small fast-moving river. Flash flooding in an arroyo can occur in less than a minute, with enough power to wash away sections of pavement.

Because of its rapid nature, flash floods are difficult to forecast and give people little time to escape or to take food and other essentials with them.

(III) Floods due to Breaches: Floods due to the breaches of river embankments and canal breaches are a frequent occurrence in all the districts of Pakistan.

(IV) Urban Floods: As undeveloped land is paved for construction, it loses its ability to absorb rainfall. Rainwater cannot be absorbed into the ground and becomes runoff, filling parking lots, making roads into rivers, and flooding basements and businesses. An urban area can be flooded by an amount of rainfall that would have had no impact in a rural area. But in crowded towns and cities, rainwater flows into storm sewers and drainage thus flooding them.

(V) Coastal Floods - Hurricanes and Tropical storms can produce heavy rains, or drive ocean water into land. Beaches and coastal houses can be swept away by the water. Coastal flooding can also be produced by sea waves called Tsunamis, giant tidal Waves that are created by Volcanoes or Earthquakes in the ocean.

1.2 MONSOON HAZARDS IN SINDH

River Indus after receiving water from 5 rivers' system, causes floods in the Sindh Province. The upper regions of the Sindh Province constitute the Districts of Kashmore, Shikarpur and Larkana on the right bank of River Indus and Ghotki, Sukkur, Khairpur, Naushahro-feroze and Shaheed Benazirabad on the left bank of River Indus. These Districts on the right and left of River Indus face a severe threat owing to passage of River Indus. The districts in the lower Sindh, prone to Riverine flooding include Dadu, Jamshoro and Thatta on the

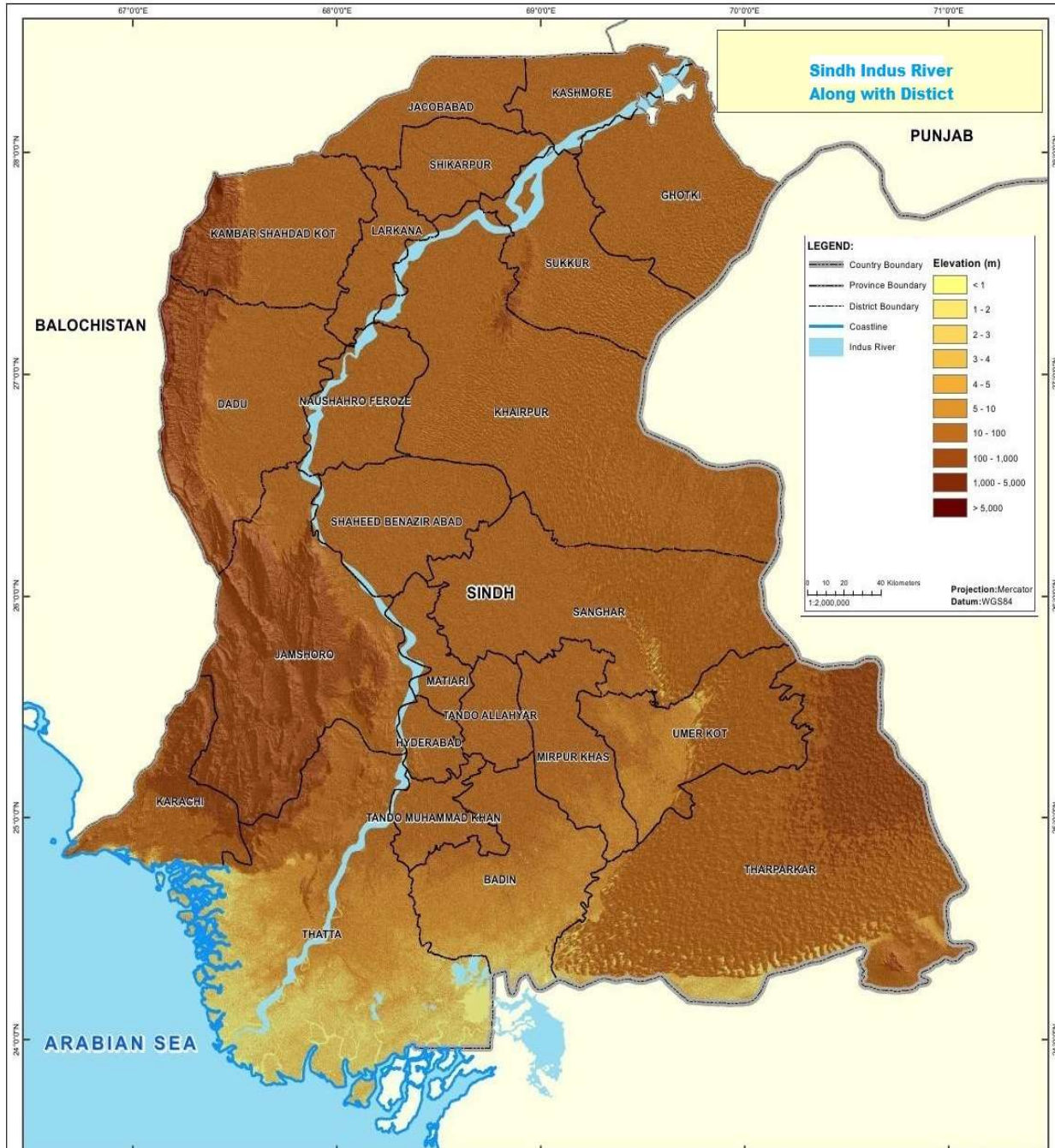
right bank of River Indus and Tando Muhammad Khan, Matiari, Hyderabad and Sujawal on the left bank. The length of River Indus through the province is 750 kms.

Districts of Jacobabad, Kambar@Shahdadkot, Larkana, Dadu, Jamshoro and Karachi East District, are also vulnerable to hill torrents which cause flash flooding, the early warning possibility for which is very minimal.

Monsoon hazards in Sindh emerge as a result of heavy precipitation and subsequent high floods at Panjnad in Indus river and through flash flooding in numerous hill torrents on the Southern part of the Province. The Province is also vulnerable to precipitation generated flash flooding and urban flooding because of cloud burst. In fact historical evidence suggests that natural and man-made disasters have a significant toll in human lives in Karachi alone. Given the complexity, the simultaneous occurrence of riverine and flash floods, heavy precipitation and cloud burst phenomenon can worsen the impacts of monsoon generated disasters in the province.

1.3 MAP WITH FLOW OF RIVER INDUS ALONG DISTRICTS OF SINDH

Fig.1 Flow of River Indus



1.4 CHANGES IN THE RIVER MORPHOLOGY

The unprecedented nature of 2010 Floods caused occurrence of unregulated river flow patterns resulting in widened spans and erosions at various places. During Monsoons these trends are likely to render populations residing close-by at risk; undermining the effectiveness of the protective arrangements; and, risk severance of bridges and communication infrastructure; therefore, river training or regulating river flows to defined channels is considered essential for flood impact mitigation.

1.5 PERFORMANCE OF WATER REGULATORY INFRASTRUCTURE

The unprecedented floods of 2010 in, addition to their colossal humanitarian impacts exposed the water regulatory infrastructure to tremendous pressures. The water which flowed surpassed the earlier records by manifolds; a detailed comparison is given in the table below. Moreover, the Schematic Model of flood routing of River system also shown below depicts that average travel time between the three hydraulic structures (Guddu, Sukkur and Kotri) is 24 hours; thus necessitating to put in place an effective and prompt decision making.

1.5.1 WATER FLOW COMPARISON

Barrage	Design Capacity (in cusecs)	Maximum Recorded (in cusecs)	Year	2010 Floods (in cusecs)	Comparison with Earlier Record (Ratio)	Comparison with Design Capacity (Ratio)
Guddu	1,200,000	1,199,000	1976	1,148,000	0.96	0.95
Sukkur	900,000	1,166,000	1976	1,130,000	1.295	1.25
Kotri	875,000	980,000	1956	964,000	0.98	1.10

Table 1: Water Flow Comparison

1.5.2 FLOOD ROUTING MODEL

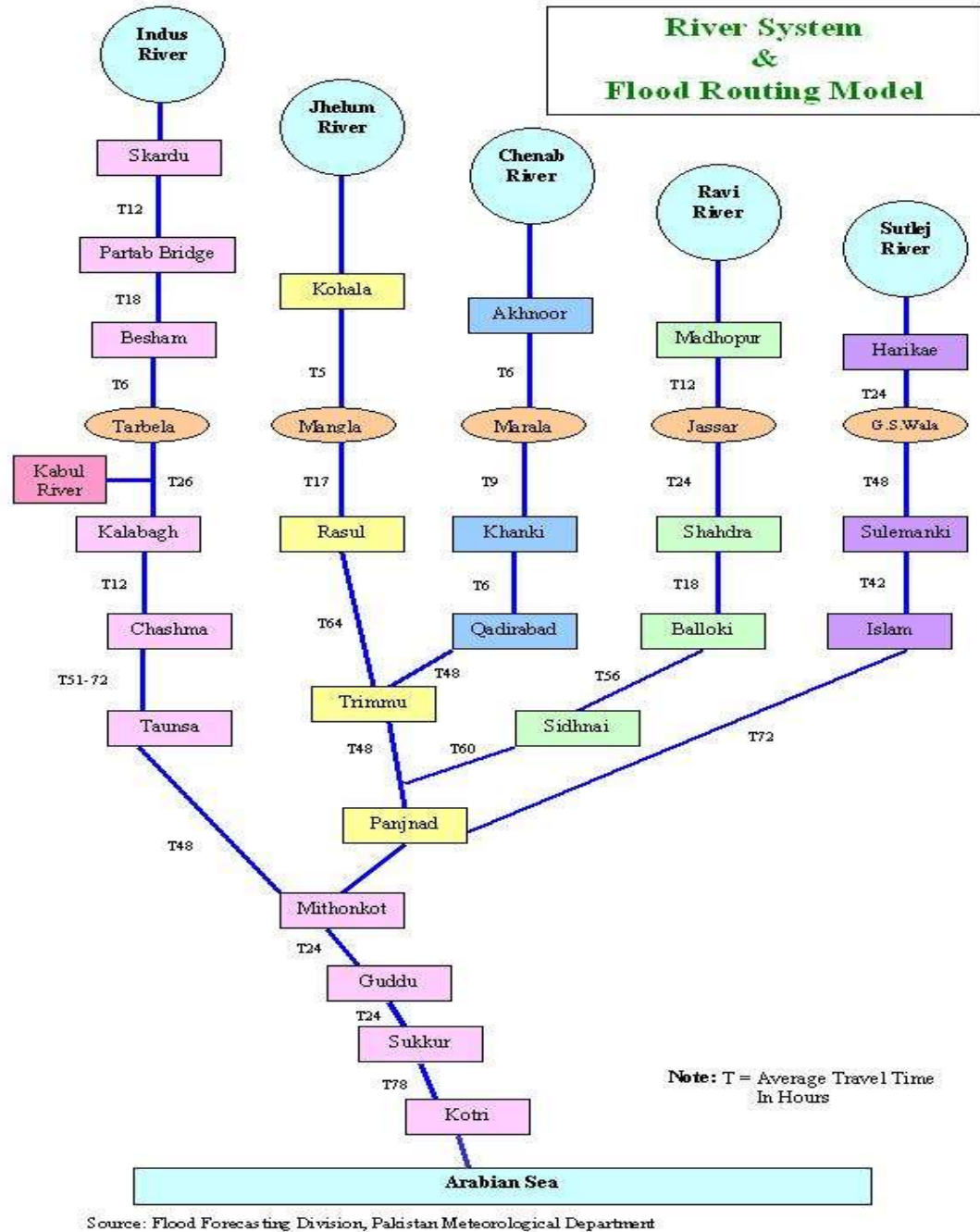


Fig. 2 Flood Routing Model

1.6 LATENT VULNERABILITIES

Some of underlying vulnerabilities which increase the threat of Monsoon hazards in Sindh are chalked out as under:

- New areas of Eastern Baluchistan and Northern Sindh have been impacted by floods in 2010, 2011, 2012, 2013, 2014 and 2015 consecutively, thereby compounding their vulnerabilities.
- 2011 monsoon rain induced floods in Southern Sindh, which does not directly fall in monsoon zone, had exposed a large segment of population, who were traditionally considered to be safe from adverse effects of monsoon, to the devastation of life and property.
- Population pressures have resulted in encroachments on river flood plains, thereby enhancing risks and vulnerabilities.
- Detailed flood plans' mapping covering entire Indus River System, its Tributaries, and Nallahs is yet to be done; this has been identified as a priority area in the Provincial Disaster Management Plan on the basis of which land use planning and demarcation of waterways would be done to reduce risks from flood hazard.
- Widespread Environmental Degradation had reduced the flood water absorption capacities of catchment regions and accentuated downstream vulnerabilities.
- Limited capacity in weather and flood forecasting, particularly for flash floods, necessitates preparedness to meet unpredictable challenges.
- Ensure cleaning and de-silting of all main Nallah and drains in the urban centres of Sindh.

- Installation of de-watering pumps along with continuous supply of electricity at low lying areas to avoid urban flooding during rains.
- Establish strong coordination mechanism among multiple stakeholders so that the emergency can be handled amicably. Especially in Karachi where there are more than 16 territories under control of different stakeholders.

1.7 DATA OF HISTORICAL FLOOD EVENTS

The historical data of losses from floods in Sindh shared by relief department have been covered in table attached at **Annex-A**

1.8 WEATHER OUTLOOK FOR SUMMER MONSOON 2020

Pakistan Meteorological Department has issued “Outlook for Monsoon 2020 (Jul-Sep)” on 30th June, 2020 which has been reproduced as under:

Global SST forecast shows that El Nino Southern Oscillations (ENSO) and Indian Ocean Dipole (IOD) are likely to remain neutral during coming monsoon season. Based on global and regional circulation models, the outlook for the season is as under:

“Monsoon rainfall is expected to remain near normal (+10%) during July to September 2020 in Pakistan. Sindh and Kashmir are likely to receive moderately above normal (+20%) rainfall during August and September.” Area weighted normal rainfall of Pakistan during Jul - Sep is 140.8 mm.

Impacts:

- Riverine flood potential in main rivers of the country.
- High probability of urban flooding in metropolis cities.
- High probability of flash flooding in hill torrents of Punjab.
- Good impact on rice crop and negative impact on cotton crop.

- Conducive environment for Locust breeding in deserts during monsoon season.
- Sufficient water availability for irrigation and power sectors.

South Asian Climatic Outlook Forum (SASCOF-14)

Normal rainfall is most likely during the 2020 southwest monsoon season (June – September) as a whole over most parts of South Asia, according to a new South Asian regional climate outlook.

Geographically, above-normal rainfall is most likely over the southern part and some areas of northwestern parts of the region, and below-normal rainfall is most likely over land areas around north Bay of Bengal and northern most parts of the region. Normal rainfall is most likely over the remaining areas.

From June through September, the Southwest Monsoon dominates life in much of South Asia. Accounting for 75-90 per cent of the annual rainfall in most parts of the region (excepting Sri Lanka and southeastern India), the monsoon has an all-pervading influence on the socio-economic fabric of the region and thus of the national economies of South Asian countries.

1.9 MONSOON 2020 PREPAREDNESS CONSULTATIONS

The monsoon preparedness was initiated in the Month of February. Detailed guidelines were shared with the District Administration and line departments with the request to prepare the Contingency Plan 2020 keeping in view the guidelines shared. However, due to prevailing emergency of Covid-19, the District Administrations remained occupied and some of them could not furnish their Contingency Plans.

Moreover, during multiple meetings held regarding Covid-19, the District Administrations were also sensitized for Monsoon 2020 preparations.

CHAPTER – 2

POSSIBLE IMPACTS OF FLOODS AT DIVISION

2.1 SCENARIOS

The Scenario have been considered for the purpose of calculating caseloads for the Provincial Contingency Plan as under:

2.1.1 LIKELY SCENARIO

While the possibility of Riverine / Flash floods cannot be ruled out, keeping in view the Monsoon Outlook issued by Pakistan Meteorological Department which indicates that monsoon rainfall is expected to remain near normal (+10%) during July to September and Sindh and Kashmir are likely to receive moderately above normal (+20%) rainfall during August and September. The inflow is likely to increase due to above normal to normal rainfall in upper parts of Country. Keeping in view, the unusually high temperature being experienced in pre-monsoon time coupled with isolated heavy rains, possibility of riverine / flash floods is being anticipated for Province of Sindh being the recipient of water from all over Pakistan in river Indus.

Therefore, the caseload is primarily based on anticipated displacement from low lying areas and katcha areas.

2.1.2 WORST CASE SCENARIO

The Monsoon Disasters during recent decade has almost affected whole Province of Sindh which reflects that worst scenario could be a combination of isolated heavy rains in upper and lower catchment areas. High releases of water from Dams coupled with heavy falls over hills. Such a scenario can never be

ruled out and the population affected could be 30-40% of the total population of the province with almost all of the districts affected.

2.2 OVERVIEW OF DIVISIONAL PLAN

2.2.1 LARKANA DIVISION

Larkana Division is prone to both Riverine and Flash Floods 02 out of 05 Districts .i.e Jacobabad and Kamber are prone to Flash Floods due to water gushing from hill torrents of Baluchistan, whereas Larkana Kashmore and Shikarpur are prone to Riverine floods.



Fig. 3 Map of Larkana Division

The plans anticipated the likely caseload based on the population to be possibly affected due to riverine and flash flooding. The anticipated population is **40,700** (approx.: 6839 families) in likely scenario case of Larkana Division. The caseload is calculated on 5.5% of the total population of Katcha area and 0.5% of flash flood areas i.e. Kambar and Jacobabad.

District	Likely
Larkana	9,988
Kambar	6,893
Kashmore	9,304
Shikarpur	9,343
Jacobabad	5,172
Total	40,700

Early warning system has been specified and safe evacuation sites have been identified along with evacuation plans for vulnerable districts in accordance to their vulnerability. Moreover, an elaborated coordination mechanism has been worked out in which roles and responsibilities of government departments/offices have been identified in detail. Various committees have also been constituted at district level.

However, preparations are based on worst case scenario in the light of experiences and lessons learnt from unprecedented floods and heavy monsoon rainfalls witnessed in the past.

2.2.2 SUKKUR DIVISION

The entire Sukkur Division is prone to Riverine Floods. All Districts of the Division are highly prone to Riverine floods due to passage of River Indus.



Fig. 4 Map of Sukkur Division

The plans anticipated the likely caseload based on the population to be possibly affected due to riverine floods. The population is 38,580 (approximately 6,430 families) in likely scenario case of Sukkur Division. The caseload is calculated on 5.5% of the total population of Katcha area.

District	Likely
Sukkur	13,768
Khairpur	12,841
Ghotki	11,971
Total	38,580

Early warning system has been specified and safe evacuation sites have been identified along with evacuation plans for vulnerable districts in accordance to their vulnerability. Moreover, an elaborated coordination mechanism has been worked out in which roles and responsibilities of government departments/offices have been identified in details. Various committees have also been constituted at district level.

However, preparations are based on worst case scenario in the light of experiences and lessons learnt from unprecedented floods and heavy monsoon rainfalls witnessed in the past.

2.2.3 HYDERABAD DIVISION

The Hyderabad Division is prone to multiple monsoon hazards i.e riverine, flash, urban and LBOD floods.

- Hyderabad District is prone to both Riverine and Urban Flooding;
- Dadu and Jamshoro are prone to Riverine and Flash Flooding;
- Thatta, Sujawal, Matiari and Tando Muhammad Khan District are prone to Riverine
- Low lying areas of Tando Allahyar district is prone to Urban Flooding.
- Badin is prone to LBOD flooding



District	Likely
Hyderabad	6,829
Dadu	7,585
Jamshoro	14,726
Matiari	13,857
Thatta	16,061
T.M Khan	4,735
Sujawal	12,427
Total	76,220

The plans anticipated the likely caseload based on the population to be possibly affected due to riverine flooding. The population is 76,220 (approximately 12,703 families) in likely scenario case of Hyderabad Division. The caseload is calculated on 5.5% of the total population of Katcha area.

Early warning system has been specified and safe evacuation sites have been identified along with evacuation plans for vulnerable districts in accordance to their vulnerability. Moreover, an elaborated coordination mechanism has been worked out in which roles and responsibilities of government departments/offices have been identified in detail. Various committees have also been constituted at district level.

However, preparations are based on worst case scenario in the light of experiences and lessons learnt from unprecedented floods and heavy monsoon rainfalls witnessed in the past.

2.2.4 SHAHEED BENAZIRABAD DIVISION

The Shaheed Benazirabad division is a new division recently notified by the Government of Sindh. Three districts constitute this new division i.e. Shaheed Benazirabad, Sanghar and Naushahro Feroze districts.



Shaheed Benazirabad and Naushahro Feroze districts are prone to riverine flooding and Sanghar district is prone to LBOD Flooding.

The plans anticipated the likely caseload based on the population to be possibly affected due to riverine flooding. The population is 23,732 (approximately 3,955 families) in likely scenario case of Shaheed Benazirabad Division. The caseload is calculated on 5.5% of the total population of Katcha area.

District	Likely
Shaheed Benazirabad	9,209
N. Feroze	14,523
Total	23,732

Early warning system has been specified and safe evacuation sites have been identified along with evacuation plans for vulnerable districts in accordance to their vulnerability. Moreover, an elaborated coordination mechanism has been worked out in which roles and responsibilities of government departments/offices have been identified in details. Thus various committees have also been constituted at district level.

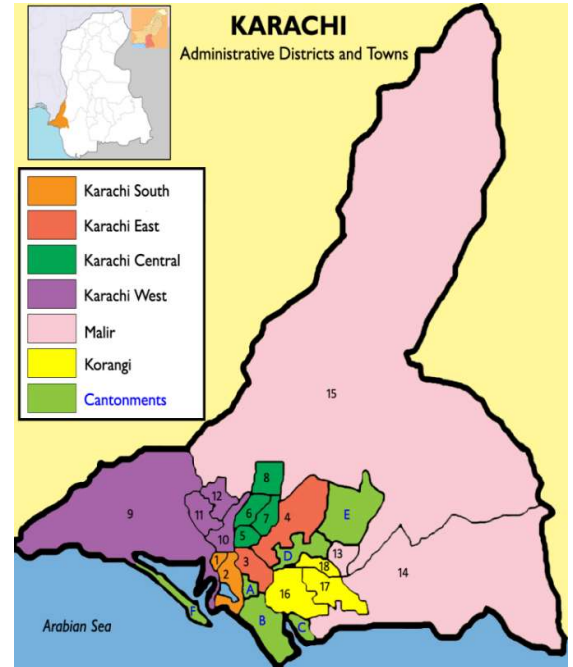
However, preparations are based on worst case scenario in the light of experiences and lessons learnt from unprecedented floods and heavy monsoon rainfalls witnessed in the past.

2.2.5 KARACHI DIVISION

The Karachi is the Mega City of Pakistan with a population of approx: 15 million (as per census 2017) and is the Industrial Hub. The entire Division is prone to Urban Flooding as witnessed in some areas during 2017. The two Rivers namely River Malir and River Lyari flow through the division.

Karachi division and surroundings are crisscrossed by many Nallahs which generally flow from North East to South West. These Nallahs act as Natural drains and carry storm water from Kirthar Range down till sea. The major rivers in the area are Malir River in the East and Layari River in the West, which further have their own small tributaries

(Nallahs), which originates from Khirthar Range, as identified which caused flooding in Karachi Division. Based on the experience of urban floods of 2013 and 2017, it can be generally concluded that the drainage of Karachi is dependent on three Rivers/ Nallahs, which may cause Flooding, due to overflow. These are Malir River in the East, Wateen Wari Nallah in the middle and Layari River in the West. The population is 118,741 (approximately 19,790 families) in likely scenario case of Karachi Division. The caseload is calculated on 0.7% of the total population.



District	Likely
East	21508
West	28959
Malir	14861
Korangi	18176
Central	21983
South	13254
Total	118,741

In order to mitigate and minimize the impacts of urban flooding, it is important to take pre-emptive measures such as:

1. All agencies mandated to ensure smooth flow of drains and Rivers needs to de-silt and clean the water passage.
2. There is a dire need to remove encroachment and permanent settlements at Nallahs and Rivers as this has been a major hurdle / obstruction witnessed during rains resulting in increase the possibility of urban flooding
3. The situation during recent urban flooding in Karachi worsened due to electricity failure at Pumping stations. In order to avoid similar situations in future it is important that K-electric ensure un-interrupted supply of electricity along with provision of alternate in case electricity failure.
4. Establish strong coordination mechanism among multiple stakeholders so that the emergency can be handled amicably. Especially in Karachi where there are more than 16 territories under control of different stakeholders.
5. All future constructions should be made as per the master plan so that encroachments and illegal settlements can be avoided resulting in minimizing the impacts of urban flooding.
6. All civic agencies should ensure availability and functionality of de-watering pumps along with its operators as well as its placement at vulnerable points.

2.2.6 EXPECTED CASELOAD IN LIKELY SCENARIO

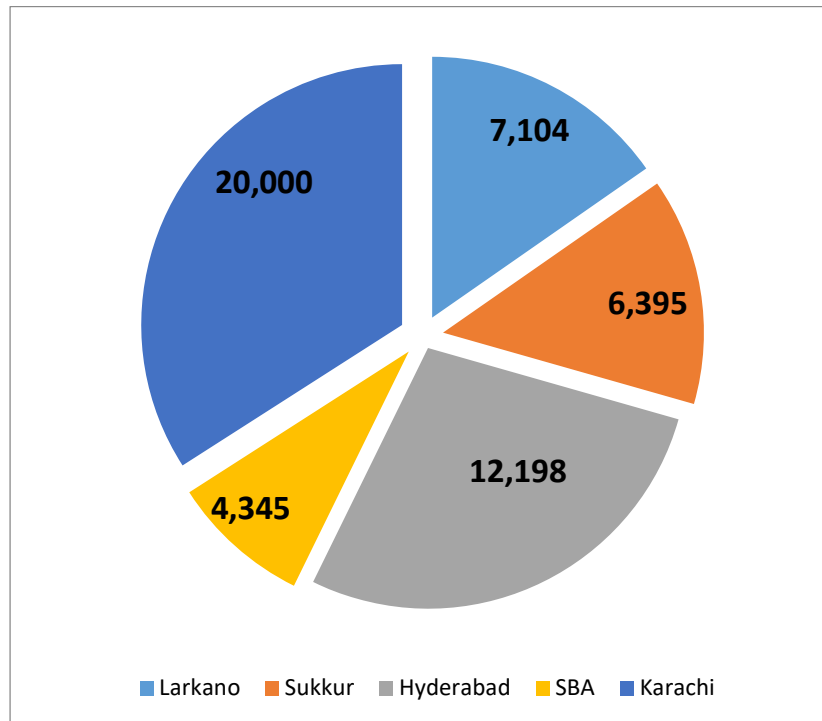


Fig. 9 Caseload in Likely Scenario

2.3 PLANNING PARAMETERS

Preparedness measures have been made/ carried out in the light of following observations:

- Possibility of heavy rain induced emergencies, especially due to hill torrents from Koh-e-Suleman and Khithar range cannot be ruled out.
- Level of preparedness of flood protection structure, as indicated by Irrigation Department has improved manifolds.
- Level of preparedness of Disaster Management Authorities, especially of Districts that are vulnerable to floods / urban flooding have been improved through capacity building programs.
- Division / Districts are expected to meet the needs of their respective caseloads, for the likely scenario from within their own resources. PDMA and other agencies will facilitate in generating additional resources in case the magnitude of disasters exceeds local capacities.

- The contingency planning will cater for the humanitarian needs of the affected population for four weeks i.e. the time required to mobilize additional resources, if needed.
- The preparatory measures on DRR, undertaken so far, are likely to considerably reduce / mitigate the likelihood of floods and its adverse consequences.

2.4 STOCKING LEVELS NEED AND GAP ANALYSIS FOR RELIEF

The gap for Relief has been calculated on the basis of Relief Stores available with PDMA on the onset of Monsoon 2020. The following relief stores will be available with PDMA.

2.4.1 LIKELY SCENARIO

Caseload 49,717 families

S. NO.	Items	Available	Need	Gap
1	Shelters/ Tents	41,840	49,717	7,877
2	Food Baskets	-	49,717	49,717
3	Mosquito Nets	134,472	49,717	-
4	Blankets	57,418	49,717	-
5	Solar LEDs	500	49,717	49,217

Inventory of stocks available with PDMA and the other relief items / heavy machinery, earth moving equipment held by Districts Administrations are at **Annex- B and C** respectively.

2.5 URBAN FLOODING

Urban Flooding is caused by heavy downpour due to sudden cloudburst, high density of population, large impervious areas, clogging of drainage systems

resulting in loss of high economic values of properties and infrastructures, etc. Impacts due to urban floods are significant but not limited to in terms of economic losses both direct and indirect, it further causes physical, economic, social and environmental damages. Damages in urban context are more complex. In addition to the vulnerability, the magnitude of the damage depends on the flood type especially in terms of depth, flow velocity and duration. One of the major factors for the rise in urban flood damages is simply the increasing number of population and assets that are physically exposed to floods in cities. Cities in many developing countries are growing rapidly. Unprecedented migration from rural areas to cities has led to uncontrolled urban sprawl with increasing human settlements, industrial growth and infrastructure development. Often, urban growth in flood plain expands over some flood ways, hence reducing its flood drainage capacity which can be witnessed specially in Karachi, where most of the nallahs and rivers are encroached.

2.5.1 URBAN FLOODING IN SINDH

The Sindh Province consist of 6 Urban Cities which are Karachi, Hyderabad, Mirpurkhas, Sukkur, Shaheed Benazirabad and Larkano. The sudden heavy downpour in these cities can turn the rains into urban flooding which was observed in Karachi division whose surroundings are covered by many Nallahs which generally flow from North East to South West. These Nallahs act as Natural drains and carry storm water from Kirthar Range down till sea. The major rivers in the area are Malir River in the East and Lyari River in the West, which further have their own small tributaries (Nallahs), which originates from Khirthar Range, as identified which caused flooding in Karachi Division. Based on the experience of recent urban floods, it can be generally concluded that the Drainage of Karachi is dependent on Rivers/ Nallahs, which may cause Flooding, due to overflow.

2.5.2 MAJOR CAUSES OF URBAN FLOODING IN SINDH

- Heavy Rainfall / Flash floods Water concentrates and flows quickly through urban paved area and impounded in to low lying area raising the water level.

- Silting of the drains carry large amounts of sediments and deposited in the lower courses making beds shallower thus channel capacity is reduced.
- Poor Water and Sewerage Management / Old drainage and sewerage system.
- Lack of attention to the nature of hydrological system.
- Lack of flood control measures.
- Multiple authorities in a city but owning responsibility by none.
- Non-functioning of De-watering machines installed at major junctions.

2.6 BROAD CONTOURS OF THE PLAN

Respective DDMAAs, backed by PDMA would be the first responders in case of flood situation.

- Early warning of approaching weather system will be provided by PMD/ FFD and communicated to all concerned by DDMAAs. DDMAAs are expected to translate weather forecast and flood warnings into usable early warning for vulnerable communities and ensure its timely dissemination to all concerned.
- In case, there is continuous rise in river water level, the people residing in Katcha Areas will be evacuated to the safer places, which is estimated to be 2.6 million as of the report of 2014. The details are at **Annex – D**.
- Threatened population will be evacuated by DDMAAs as per prepared plan.
- DDMAAs would be responsible for provision of search and rescue, medical and emergency responses.
- Camps will be established at pre-selected sites by DDMAAs.
- All Division / Districts must be ready to handle the initial caseloads within their own mechanism and resources.
- DDMAAs would be responsible for effective and transparent relief distribution including relief provided by PDMA, NDMA and other Humanitarian Agencies.
- All stakeholders would take necessary actions to facilitate early recovery and rehabilitation of affected population.

- In case, the districts fall short of meeting the humanitarian needs, PDMA will assist by making available the required stocks. In case, when disaster exceeds capacities of the Provincial Government, NDMA will be requested to make available the additional stocks from national reserves, prepositioned across the Country.
- When required, Armed Forces may be requested for assistance by PDMA Sindh at any stage, particularly for rescue, evacuation and emergency relief phases. Thus, the DDMA's will have to submit the request to PDMA for assistance of armed forces in aid of civil administration.
- Special requirements of Aviation / Naval support by any agency will be coordinated by PDMA.
- Resources of Government Departments and Agencies such as, Pakistan Red Crescent Society and domestic philanthropy may be requisitioned, if the intensity of the situation so entails for an effective response.

CHAPTER-3

COORDINATION MECHANISM

PDMA will coordinate with key National Stakeholders including PMD, FFC, Armed Forces, Federal Agencies, DDMAs and Line Departments for management of the entire spectrum of Provincial Disaster Response. System of coordination of PDMA is depicted below.

3.1 MITIGATION

3.1.1 MINISTRY OF WATER AND POWER

The ministry is responsible for the overall flood management and impact mitigation efforts through its attached departments (FFC, WAPDA, PCIW and IRSA). The Ministry deals with monitoring of preventive and preparedness measures as well as resource allocation for the protection works.

Federal Flood Commission implements Flood Risk Mitigation Projects which include flood protection works as well as flood forecasting/ warning system improvements. As part of preparedness measures for Monsoon Season. FFC undertakes the following:-

- Countrywide monitoring of flood works.
- Comprehensive Flood Management Plan for 10 years initiated.
- In case of Exceptionally High Floods, parts of the discharges are managed by breaching the bunds on the pre-determined sites for safety of the main Hydraulic Structures (Bridges & Barrages) and main cities.

3.1.2 WATER & POWER DEVELOPMENT AUTHORITY

WAPDA reinforces floods impact mitigation through operational management of major water reservoir i.e. Tarbela, Mangla Dams and Chashma

Barrage. It strengthens national flood early warning system through deployment of flood telemetry system.

3.1.3 INDUS RIVER SYSTEM AUTHORITY (IRSA)

IRSA defines the dam/water storage and release policy as part of its mandate during the Rabi and Kharif season.

3.1.4 IRRIGATION DEPARTMENT

It undertakes implementation of flood protection works, monitor flow in flood prone rivers and water channels, reinforce floods early warning and execute technical responses, O&M of existing flood protection infrastructure besides restoration and repair of damaged flood protection works.

3.2 EARLY WARNING

3.2.1 PAKISTAN METEOROLOGICAL DEPARTMENT (PMD)

PMD has a broad mandate of supporting agro-based economic activities, air and maritime traffic safety, disaster mitigation efforts and disseminating weather forecast to numerous end users. PMD will ensure the following during monsoon season:

- Inform public on the weather forecast and issue warning in case of potential threat.
- Collect rain data on a regular basis, consolidate and share it with all concerned.
- Disseminate flood information to the NDMA/ PDMA on a daily basis during flood season.
- Share weather forecasts and early warning information with NDMA, FFC PDMA's, and the Media on a regular basis in the monsoon period.

- Coordinate with FFC, WAPDA, PCIW, FFD, and SUPARCO in the Monsoon period to generate flood warning where wanted.

3.2.2 FLOOD FORECASTING DIVISION (FFD)

FFD is an affiliated organization of PMD. It disseminates flood early warning and river flow updates to relevant National, Provincial and District Governments and National Response Agencies, especially in the context of Monsoon Season.

3.2.3 PAKISTAN SPACE & UPPER ATMOSPHERE RESEARCH COMMISSION (SUPARCO)

SUPARCO deploys its satellite imagery capacities for disaster impact mitigation and also for early warning of disaster occurrence and trends monitoring. SUPARCO will play the following role during monsoon season:-

- Provide remote sensing and satellite maps before and during disasters in order to show their impact.
- Provide remote sensing and satellite maps for hazard risk zones to enable relevant agencies to take measures for minimizing damage to population and property.
- Assist post-disaster damage assessment.

3.3 RESPONSE AGENCIES (FEDERAL GOVERNMENT)

3.3.1 NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

- National Emergency Operation Center (NEOC) is activated in NDMA, Islamabad for monitoring of the situation and coordination of possible response during monsoon season 2020 on 24/7 basis. The NEOC will always be manned by a Duty Officer who functions under the overall supervision of Director (Response), NDMA.
- Coordinates emergency response of the Federal Government in the event of a National level Disaster through the NEOC.

- Require any Government Department or Agency to make available such staff or resource that are available for the purpose of emergency response, rescue and relief.
- Organize initial and subsequent assessment of disaster affected areas and determine the extent of loss/damage and volume of relief required.
- Coordinate and inform all concerned Department to get prepared for emergency response.
- Coordinate with Armed Forces, INGOs, UN Bodies and Philanthropist Organizations for resource mobilization.
- Mobilize and deploy resources e.g. search and rescue medical teams in the affected areas.
- Supply of food, water, medical supplies and NFIs to the affected population.
- Prepare a transition plan from relief to recovery program.

3.3.2 ARMED FORCES

The Armed Forces mobilize and deploy resources when called upon by District / Provincial / National DMAs and provide assistance in Search and Rescue, Evacuation, Camps Establishment and Management, provision and distribution of relief to the affected populations and provision of emergency medical services. The flood control centers will also be established from 15th June, 2020. Army, Pakistan Navy and Pakistan Air Force, which will also share information on resource deployment and flood management with respective PDMA/ NDMA on daily basis. The summary of flood relief equipment of Government of Sindh available with HQ Corps 5 is at **Annex- E**

3.3.3 PAKISTAN COAST GUARDS

Pakistan Coast Guards augment coastal search & rescue and relief operations on required basis.

3.3.4 NATIONAL HIGHWAYS AUTHORITY (NHA)

NHA is responsible for building and maintaining highways and motorways in Pakistan. It ensures road access during monsoon season.

3.3.5 PAKISTAN RAILWAYS

Pakistan Railways is an important organ which ensures access during monsoon season. To deal with a possible flood Situation, Flood Emergency Centers will be established as usual in 7 – operating Divisions of Pakistan Railways (Peshawar, Rawalpindi, Lahore, Multan, Sukkur, Quetta and Karachi).

3.4 RESPONSE AGENCIES (PROVINCIAL GOVERNMENT)

3.4.1 PROVINCIAL DISASTER MANAGEMENT AUTHORITY SINDH

Pre-Disaster

- DG PDMA in consultation with Chief Secretary Sindh will be responsible for response & relief operations. Director General PDMA on his behalf will head a Composite Team (comprising representatives of Lead Agencies/ Departments and focal persons of support organizations) to coordinate response & relief operations.
- Provincial Emergency Operation Centre has been made operational from the 2nd week of June 2020, so as, to make all arrangements for receiving forecast data from PMD and its dissemination.
- The PEOC will be functional till the termination of monsoon season / emergency.
- The PEOC shall receive and transmit flood/ water level information thrice in flood season and on hourly basis during emergency.
- Identification of available resources i.e. machinery, tents etc., and Gaps.
- Contingency planning as to identify role of each stakeholder during emergency.

- Ensuring coordination between line departments & other stakeholders for any emergency, through workshops, trainings etc.
- Assisting DDMA in provisions of adequate required resources for monsoon season.
- An inventory of NGOs working in these areas will be prepared prior to the crisis, in order to mobilize them quickly in case of emergency.

During-Disaster

- The coordination and collection of information and resources to support disaster/emergency incident management activities.
- The PEOC will be a central coordination, command and control facility responsible for carrying out emergency preparedness and emergency management functions at a strategic level in an emergency situation, and ensuring the continuity of response operations.
- Tents, Plastic Sheets, Mosquito Nets, De-watering Pumps, Water Purifying Filters, Jerry Cans and boats, are being procured to be placed at the disposal of DDMA.
- The PDMA will arrange the transportation of food and other relief items to the Flood Displaced Persons (FDP) for further distribution. District Administration will be requested to distribute the relief goods.
- PDMA shall undertake need based coordination with all UN agencies and other humanitarian partners to fill in the response and relief gaps before, during and after floods.
- PDMA has coordination with all UN agencies and humanitarian partners to maintain a stock (food and NFI including shelter).
- Prepare daily situation reports and circulate to all concerned as per **Annex- F.**

Post-Disaster

- The PDMA in collaboration with partners will have to closely monitor the situation on regular basis. Logistic arrangement should be done in

advance keeping in view the positions available in the case of crises. An initial rapid assessment will be carried out to identify the areas and targeted beneficiaries.

- Continue with relief and early recovery operation till affected people are settled back to their original abode and economic activity is resumed.

3.4.2 DISTRICT DISASTER MANAGEMENT AUTHORITY

- DDMA shall activate District Emergency Operation Centers (DEOCs)
- In the event of a disaster, organize emergency response through the District Emergency Operation Center (DEOC)
- Setup early warning mechanisms and dissemination of proper information to public, prepare district level response, plans and guidelines, establish stockpiles of relief and rescue material; provide information to PDMA on different aspects of Disaster Management.
- Inform / update PDMA regarding the overall situation.
- Organize evacuation on priority basis.
- Conduct initial and subsequent assessment of disaster affected areas and determine the extent of loss and damage.
- Collect information on damage status and promptly plan for the resources requirement for relief operation and share it with the PDMA.
- Provide food, drinking water, medical supplies and NFIs to the affected population
- Preferably set up tent cities/ relief camps on open land and provide relief to the affectees in camps (**Annex-G**).
- Coordinate with PDMA to deploy resources for emergency response.
- Mobilize community volunteer groups and civil defence for emergency operations.
- Forward timely situation reports (SITREP) on daily basis to PDMA for its timely dissemination to concerned quarters.
- Ensure registration of all relocated population in the camps and overall affected population on gender segregated basis.
- Prioritize vulnerable segments of society in their relief operations.

- Facilitate early return of relocated population and help in restoring their livelihoods.

3.4.3 HEALTH DEPARTMENT

Pre-Disaster

- Provide specific information required regarding precautions for epidemics
- Establish a health mobile team in district & town headquarter hospital
- Setup an Information Center to collect and share information amongst relevant stakeholders.
- Collaboration with relevant organizations/partner NGOs.
- Stocking of life saving drugs and vaccines.

During-Disaster

- Providing emergency treatment to the affected
- Provision of First-aid & water testing kits, chloramines and anti-snake venom serum & other emergency support
- Deployment of mobile medical teams & health staff
- Collaboration with all relevant stake holders

Post Disaster

- Establishment of medical camps, vaccination, ensuring safe food & water in camps
- Conduct impact assessment on health, intervene to stop outbreak of diseases
- Rehabilitation of health infrastructure

3.4.4 EDUCATION DEPARTMENT

Pre-Disaster

- Providing the necessary information, training to teachers & students regarding disasters with tips to save their families & themselves during disaster.
- In collaboration with Civil Defence and Boy Scouts / Girl Guides Association and gear up the volunteers force.
- Educate students about Health care Precautions

During-Disaster

- Mobilize the human resources for intervention during disaster
- Arrangement for evacuees to setup relief & temporary shelter camps
- Deployment of volunteers for camp management & emergency support

Post-Disaster

- Assessment of damages & needs of affected educational institutes
- Rehabilitation of affected educational institutes
- Continuing Education of children at camps and helping them to recover from shock by providing toys etc.

3.4.5 AGRICULTURE DEPARTMENT

Pre-Disaster

- Assessment of high risk prone areas and estimation of possible damage
- Create community Seed Bank at UC level
- Regular surveillance of Irrigation water supplies
- Close coordination with Meteorological Department & other stakeholders for weather information.
- Testing, functioning and pre-positioning the available machinery.

During-Disaster

- Immediate mass awareness and update of situation
- Arrangements for relief & temporary shelter camps in canal rest houses

- Vigilance for protection of Agriculture crops.
- Immediate activation of machinery and equipment.

Post-Disaster

- Assessment of damages & needs of affected crop area and submit to DDMA
- Assistance in repair & rehabilitation of Irrigation Systems.
- Timely compensation to affected farmers
- Mass awareness campaigns regarding epidemics & diseases to crops
- Inform the affected population regarding the land use and crop management on damaged / devastated areas.

3.4.6 LIVESTOCK AND FISHERIES DEPARTMENT

Pre-Disaster

- Estimation of possible damage
- Mass Awareness regarding precautions
- Close coordination with Agriculture, Irrigation, Meteorological Department & other stakeholders.
- Vaccination of livestock.
- Stocking of fodder and vaccines.

During-Disaster

- Update local communities of ongoing situation.
- Provide livestock vaccination
- Arrangements for relief & transportation of livestock.
- Provision of fodder for livestock in affected area.

Post-Disaster

- Assessment & submission of damages & need of affected livestock to DDMA
- Timely compensation to affected livestock owners
- Mass awareness campaign regarding epidemics & diseases to livestock

3.4.7 PLANNING & DEVELOPMENT BOARD

Pre-Disaster

- Gathering statistical data regarding possible damages & recovery needs from all relevant departments
- Plan & identify potential resources
- Facilitation to other department in planning

Post-Disaster

- Gathering statistical data regarding actual damaged & recovery needs from all relevant departments
- Plan & Identify potential resources
- Facilitation other departments in planning and execution of rehabilitation in cost effective manner
- Coordinate with all line departments

3.4.8 REVENUE DEPARTMENT

Pre-Disaster

- Assessment of high risk prone areas and estimation of possible damage and needs for recovery.
- Arrangement of financial resources.
- Identification of high grounds for establishment of tent cities.

During-Disaster

- Establish relief distribution centers/ camps and accept relief donation/ relief support
- Timely release of funds to DDMA.

Post-Disaster

- Assessment of damages of Industrial/ Business, Crops and Livestock and Settlement of applicable taxes accordingly
- Support PDMA in conduct of authentic damage assessment and compensation need.

3.4.9 POLICE DEPARTMENT

Pre-Disaster

- Information dissemination through "15 helpline Service" to local residents
- Prepare Contingency Plan, Teams & their training for emergency intervention.
- Deploying and give security cover to government agencies which are working / preparing for the monsoon season in areas where Law and Order is not good.

During-Disaster

- Rescuing affected, shifting, to hospitals and corpse disposal
- Providing easy access & security to rescue & relief teams.
- Maintain law & order and divert traffic on alternative safe routes as and when necessary.
- Maintaining Law and Order and provide security to relief stock piles and camps.

Post-Disaster

- Ensure security to workers of NGOs/INGOs
- Provide security in Un-safe areas
- Facilitation to institutions/NGOs/INGOs which focus on rehabilitation activities.

3.4.10 CIVIL DEFENCE

Pre-Disaster

- Information sharing regarding technical and personnel expertise with PDMA and DDMA's.
- Conduct training for volunteers in first aid & other activities
- Effectively train & mobilize volunteers and initiate mass awareness regarding necessary first aid-rescue activities

During-Disaster

- Deployment of volunteers at the disposal of DDMA for Rescue, Evacuation and initiate basic first aid.
- Communicate to DEOC any additional resources required for performing Rescue and Evacuation Activities
- Taking precautionary measures to stop Fire-incidents in camps and perform Fire fighting in emergency.
- Management of relief camps where required.

Post-Disaster

- Identify gaps, make future plan to overcome weaknesses
- Assisting District Administration and other Line Departments in Rehabilitation works

3.4.11 SCOUTS

Pre-Disaster

- Nominate the Scouts District wise from Riverine Districts which can be trained to handle flood emergencies
- Training will be imparted in the Scouts regarding Boat Handling and first response to the affectee during the emergency.

During-Disaster

- Trained scouts will be deployed / placed at the disposal of Deputy Commissioner
- The Scouts will perform the duties as per training and will report to respective Deputy Commissioner

Post-Disaster

- The trained Scouts would continue to impart the training in other scouts and volunteers in their respective districts.

3.5 STANDARD OPERATING PROCEDURES (SOPs)

- All the departments shall immediately prepare a comprehensive and up-to-date Contingency Plan for combating expected heavy rains and carrying out the Rescue and Relief work including the details of available staff, vehicles, machinery equipments and other resource in close coordination with PDMA, These all must be kept ready to mobilize / use to combat any emergency during the Monsoon season 2020.
- The Deputy Commissioners shall keep close liaison with all departments like Local Government, Health, Agriculture, Civil Defence, Irrigation, Works & Services, Education & Literacy, Police & other Law enforcement Agencies. Meetings in this regard are to be held on regular basis with concerned departments and minutes are to shared with other Divisional Commissioners and PDMA.

- If there is likelihood of heavy rains and flood emergency would be declared in the District and all Government functionaries and NGOs would be kept on high alert.
- Control Rooms would be established at District and Taluka level in the offices of the Deputy Commissioners. Assistant Commissioner, Mukhtiarkars (Revenue) and all other line departments during the Rain/Flood emergency. These Control rooms shall function round the Clock.
- The Executive Engineers Irrigation will establish round the clock control rooms in their offices for making liaison with all concerned & activate contingency Plan of the department. They shall identify the vulnerable points of the LBOD Sim-Nalahs / and all other irrigation canals and intimate PDMA before 30th June. They will be in touch with PDMA and the Meteorological Department & inform the concerned agencies about any development emergency. They will make special arrangements for watching and patrolling of vulnerable points and ensure that embankments remain in stable condition.
- Immediate arrangements for necessary machinery, sand bags and other material to be used for strengthening of embankments of canals and plugging breach shall be ensured and availability of communication network must be made at all vulnerable points.
- The Executive Engineers Irrigation / LBOD shall ensure regular, timely and proper de-silting of all canals, distributaries, drains, sub-drains and submit a certificate to his higher authorities with an information copy to PDMA. .
- The Deputy Commissioners shall ensure activation of Central District Control Rooms and already established control rooms at each Mukhtiarkar (Revenue) Offices round the clock, under the supervision of Assistant Commissioner concerned. They shall also ensure preparedness at proposed relief camps and also ensure immediate evacuation of people residing in low-lying areas to safer place/ relief camps, if required. He shall

also make immediate arrangements for the availability of sufficient quantity of relief Material like food, blankets, tents- plastic sheets etc.

- The Deputy Commissioners shall constitute Supervisory Committees for relief works at district level.
- The Deputy Commissioner must further ensure that special attention is given to the disabled people and women and children and extra ordinary measures are taken for such purpose.
- The Deputy Commissioner shall nominate the Assistant Commissioner as focal persons to coordinate with the Taluka and Town level local councils for drainage of accumulated rain water during monsoon season-2020.
- The Assistant Commissioners of the sub-division/ Taluka shall be focal persons in Talukas for the entire operations of rescue and relief. They must ensure the respective arrangements for tractor trolleys and manpower in coordination with Civil Defence, Boy Scouts Association and Police Department if needed and mobilize the village staff in the pre-and-post emergency work. They shall also ensure proper distribution of relief material among the actual needy persons.
- The Executive Engineer Drainage Division (LBOD), Irrigation Department shall ensure availability of bulldozers, excavators and earthmoving machines in sufficient number .and in proper working and ready to use condition in case of emergency.
- The Director Agriculture shall make arrangement for protection of standing crops from damages and diseases that may be caused from the stagnant rainwater in the fields. He shall manage required machinery from mechanical wing and must have the inventory of such machinery and equipment.
- The Deputy District Officer, Animal Husbandry Livestock and his staff shall ensure safety of livestock from flood diseases and losses and Veterinary Officers shall ensure regular and timely vaccination of cattle in the districts. They shall make all necessary arrangements for fodder for

the livestock to be shifted from marooned areas.

- The Deputy Controller, Civil Defence should ensure the enrolment of volunteers as early as possible in order to avoid any chaotic situation during emergency. He will continuously remain updated of weather forecast reports and with meteorological departments and will make arrangements for warnings in emergency situation through sirens, loudspeakers and media at Taluka and village level. He shall ensure presence of the Razakars / volunteers and scouts for rain relief and rescue activities in case of any emergency.
- The Deputy Director Food shall ensure availability of sufficient stock of wheat and other grains and shall coordinate with Deputy Commissioners for supply of ration/ food grains from local Food Grains dealers in case of need. He will also ensure that no stocks of government wheat, placed at depots, are damaged due to water accumulation, fire or rioting.
- The Executive Engineer K-Electric / HESCO / SEPCO, shall ensure that no case of electrocution occurs due to negligence of their respective departments and no loose wires are suspended from the electric poles. In case of any breaking of live electric wires immediate steps shall be taken for repair, Inspection of transformers.
- The Divisional Engineer Telephone, ensure full function-ability of telephones all over the district and provide assistance to all departments on demand at the, time of need.
- The Zonal Manager Sui-Southern Gas company ensure continuous supply of gas and proper safety of gas lines throughout its network in the districts of his Division / Zone . He shall ensure immediate repair work in case of any damage to the gas lines.
- The Deputy Commissioners shall ensure mobilization of the NGOs and business community in the rescue and relief activities in case of emergency

and shall depute volunteers on different emergency tasks.

- The Regional Director, Information shall keep close liaison with all control rooms of the division to provide correct and exact information to media regarding emergency. He shall also arrange briefings about the latest situation in case of emergency.
- The Red Crescent Society and other welfare associations and NGOs of the district shall provide food packets and other required material to the affected persons in relief camps in case of emergency.
- Proper arrangement for lifting of trees fallen due to heavy rain and gusty winds from the main Highways / Roads shall be made by the Executive Engineer, Provincial. Highways department.
- The incharge Utility Store Corporation shall ensure the availability of sufficient stock of edible items in case of need.
- The Revenue Department shall also conduct the survey of any loss of life houses, cattle, standing crops and other infrastructure after the heavy rains/floods-2020. In case of the highest degree of emergency, Pakistan Army may be requested for helping the district Administration in rescue and relief Operations.

3.6 IMPORTANT CONTACT NUMBERS

Annexed at H.

Annex – A

HISTORY OF PAST FLOOD EVENTS

Year	Deaths	Injured	Houses Destroyed	Houses Damaged	People Affected	Cattle Lost	Villages Affected
2013	47	43	14095	21400	534834	88	3068
2012	280	3687	116849	247851	3088970	849	12915
2011	462	756	608579	694519	8634995	104277	36008
2010	475	837	372089	245872	8065846	398769	13649
2008	40	29	3583	13026	0	219	0
2006	162	0	0	113475	1570881	5	95
2003	407	235	0	246464	831157	3618	3243
1995	114	0	21189	0	504455	1397	823
1994	264	0	129387	355554	690035	6090	7894
1992	232	0	239238	269085	0	66512	0
1988	8	0	0	16445	175000	25	1

STOCK AVAILABLE AT PDMA SINDH

S.#	ITEMS	Total
1.	Tents	41,840
2.	Water Purifier	2,661
3.	Blankets	57,418
4.	Mosquito Nets	134,467
5.	De-watering Pumps	122
6.	Rescue Boats	84
7.	Life Jacket	4,422
8.	Plastic Mats/ Chatai	4,034
9.	Generators 3KVA	15
10.	Generators 35KVA	03
11.	Generator 100KVA	1
12.	Generator 50KVA	1
13.	First Aid Kit	4,750
14.	Kitchen Sets	6,498
15.	Hygiene Kit	3,327
16.	Jerry Can	2,700
17.	Pedestal Fan	2,999
18.	Life Straw Purifier	3,072
19.	Life Ring	200
20.	Water Tank / Drums	104
21.	Hand fan	23,750
22.	Pillows	16,307
23.	Folding Bed / Tabular Charpoy	10,811
24.	Towels (Medium)	61,484
25.	Water Cooler	9,461
26.	Sleeping Bags	539
27.	Portable Chair	2,900
28.	Portable Washroom	2,253
29.	Hospital Tent	23
30.	Rubber Shoes	2,000

Machinery Available with Districts

	Districts	De-watering Machine	Dumper	Buildozers / Dozers	Excavator	Fire Brigade / Engine/ Tender	Tractor / Trolley / Blade\	Vehicle / Bus/ Van/Truck/	loader	shawal	Diesel / Petrol Engine	Cess Pool	Water Tanker	Tralor	Water Bozer	Ambulances
Hyderabad Division	Hyderabad	308	13	10	8	11	27	22	11	3	-	1	8	2	-	14
	Jamshoro	25	-	-	-	8	4	-	-	-	-	-	-	-	-	25
	Thatta	24	-	-	-	3	10	2	-	-	-	-	2	-	-	14
	Badin	2	-	-	-	-	5	53	-	-	1	-	-	-	-	5
	Dadu	10	-	-	-	6	9	1	-	-	12	-	-	-	-	-
	T.M Khan	41	-	-	-	-	-	-	-	-	-	-	-	-	-	12
	T. Allahyar	19	1	-	1	5	12	-	-	-	13	-	2	-	-	28
	Sujawal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Matari	20	-	3	-	4	5	1	-	-	-	-	-	-	-	10
Mirpurkhas	Mirpurkhas	40	-	-	-	7	16	-	-	-	-	-	-	-	-	-
	Tharparkar	26	-	3	-	10	15	1	-	-	-	-	7	-	-	13
	Umerkot	23	-	-	-	7	17	160	-	-	-	-	6	-	-	21
SBA	SBA	100	-	11	-	-	-	28	-	-	-	-	-	-	-	2
	Sanghar	114	-	-	-	9	25	-	-	-	-	-	-	-	1	-
	N. Feroze	74	-	5	-	10	28	-	-	-	-	-	3	-	-	5
Sukkur	Sukkur	9	-	1	5	12	30	8	2	-	17	-	-	-	6	32
	Ghotki	26	-	11	-	6	9	32	-	-	22	-	-	-	-	-
	Khairpur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Larkana	Larkana	5	-	14	4	5	-	71	-	-	2	-	-	-	-	56
	Kashmore	17	-	6	-	4	12	-	1	-	-	-	-	-	-	6
	Kamber	26	-	6	-	20	18	-	5	-	-	-	-	8	-	15
	Shikarpur	15	-	7	-	6	4	5	1	-	-	-	-	-	-	38
	Jacobabad	9	-	-	-	-	-	22	-	-	-	-	-	-	-	17
Karachi	East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	West	15	2	-	1	14	7	13	7	-	-	-	-	-	-	18
	Central	25	19	-	-	3	88	24	8	-	-	-	12	-	5	41
	Malir	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	South	5	35	-	-	1	17	-	7	8	2	-	1	-	-	2
	Korangi	22	21	-	-	-	6	2	4	4	-	2	-	2	-	-

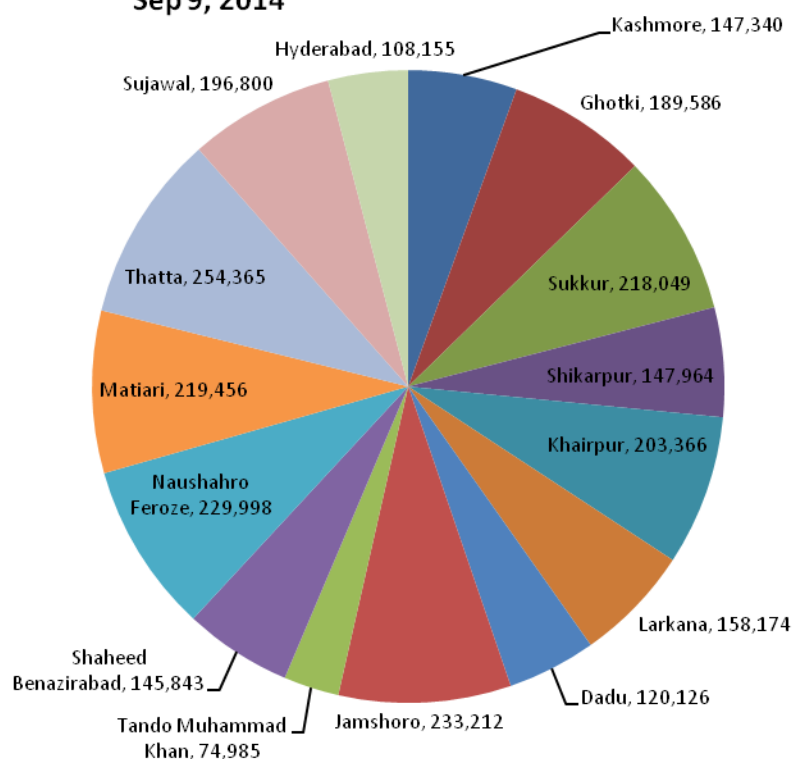
* The Details of Machinery provided by Districts.

Districts	Electric Van	Arm Roll	Mono Block	Sky Lift	Oil Engines	Earth Levelers	Fogging Van	Plastic Sheets	Succking Machine	Sprayers	Bobkit	Compactor	Tikan	Hand Moving Trolleys
Hyderabad	-	-	-	-	-	-	-	-	-	-	4	-	-	-
Jamshoro	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thatta	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Badin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dadu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T.M Khan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T. Allahyar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sujawal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Matari	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mirpurkhas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tharparkar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Umerkot	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SBA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sanghar	-	-	6	-	-	-	-	-	-	-	-	-	-	-
N. Feroze	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sukkur	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Ghotki	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Khairpur	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Larkana	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kashmore	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kamber	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shikarpur	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Jacobabad	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West	2	-	-	-	-	-	-	-	-	4	-	-	-	-
Central	14	31	-	-	-	-	-	-	-	-	-	3	-	-
Malir	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South	-	23	-	-	-	-	2	-	-	-	23	5	-	-
Korangi	3	1	-	2	-	-	-	-	-	1	-	-	-	-

ANNEX – D**Estimated Population at Risk in Katcha Areas of Sindh; (Reported as of Sep 9, 2014)**

District	At Risk Pop
Kashmore	147,340
Ghotki	189,586
Sukkur	218,049
Shikarpur	147,964
Khairpur	203,366
Larkana	158,174
Dadu	120,126
Jamshoro	233,212
Tando Muhammad Khan	74,985
ShaheedBenazirabad	145,843
NaushahroFeroze	229,998
Matari	219,456
Thatta	254,365
Sujawal	196,800
Hyderabad	108,155
Total	2,647,419

Estimated At-Risk Population in Katcha Areas of Sindh
Sep 9, 2014



S.No	District	Taluka	Vulnerable Union Councils	At-Risk Population in Katcha Areas
1.	Kashmore 147,340	Kandhkot	Dari (Ghouspur)	17404
			Haibat	18963
		Kashmore	Gublo	16440
			Badani	18494
			Gihalpur	20167
			Sodhi	20383
			Kashmore Colony-1	20239
			Khewali	15250
2.	Ghotki 189,586	Ghotki	HussainBeli	18775
			Kadirpur	26993
			Bagodeho	21246
			Ruk	17346
		Ubauro	Ranwat	30791
			Langho	23534
			WastiJiwan Shah	25364
			Khambra	25537
3.	Sukkur 218,049	New Sukkur	Bagerji	15551
			Arain	15431
			Tamachani	12,240

	PanoAqil	Sadhuja	18014
		Nauraja	19215
		Sangi	21364
		Hingoro	15875
	Rohri	Ali Wahan	16115
		Arore	18620
		Panhwar	24009
		LoungBhatti	22567
		Patni	19048
4. Shikarpur 147,964	Khanpur	GarhiThegho	19930
		MehmoodaBagh	19742
	Lakhi	Sehwani	18759
		Chak	17746
		Lakhi	16117
		Jehan Khan	11056
	GarhiYasin	Mirzapur	15850
		Amrote	16447
		JindoDero	12317

S.No	District	Taluka	Vulnerable Union Councils	At-Risk Population in Katcha Areas
5.	Khairpur 203,366	Sobodhero	Sagyoon	21580
			Pir Hayat Shah	19438
		Gambat	Agra	21479
			Ripri	15289
			Beharlo	19045
			Khemat	14138
		Kingri	Hadal Shah	21649
			Priyalo	24358
			Kot Mir Muha	21956
		Khairpur	Baberilo	24434
6.	Larkana 158,174	Ratodero	Bahman	23196
			Banguldero	24106
		Larkana	Akil	22178
			Phul	23098
		Bakrani	Purano Abad	20956
		Dokri	Bagi	24093
			Karani	20547
7.	Dadu 120,126	Dadu	Pat	22354
			Allahabad	19278
			Phulji Station	19153
			Monder	19877
			Sial	20749
		Mehar	Nao Goth	18715
8.	Jamshoro 233,212	Sehwan	Talti	22684
			Channa	19607
			Sehwan	19638
			Sehwan 1	18702
		Manjhand	Amri	18329
			Sann	18098
			Lakh	17547
			Manjhand	24951
		Kotri	Allah BachayoShoro	20954
			Jamshoro	20042
			Unerpur (Petaro Proposed)	13618
			Kotri	19042

S.No	District	Taluka	Vulnerable Union Councils	At-Risk Population in Katcha Areas
9.	Tando Muhammad Khan 74,985	Bulri Shah Karim	Saeedpur	22004
			MullanKatira	27292
			JahanSoomro	25689
10.	ShaheedBenazirabad 145,843	Kazi Ahmed	ShahpurJahania	19312
			Dulatpur	20956
			Said Kando	18043
			That	19965
		Sakrand	Gohram Mari	12134
			Bhura	8129
			Mahrabpur	24740
			Mariv	22564
11.	NaushahroFeroze 229,998	Kandiaro	MohabatDero	22076
			Kamaldero	21412
			Abad	21460
			Dabhro	24844
			Bhorti	19604
		NaushahroFeroze	Mithiani	22453
		Moro	Depareja	20942
			Lalia	27351
			FatooBalal	22814
			Gachero	27042
12.	Matiori 219,456	Saeed Abad	Saeed Abad	28991
		Hala	Bhanoth	25572
			Karam Khan Nizamani	26676
			Hala Old	26472
			Hala-2	23537
		Matiori	Sekhat	30531
			Matiori	26797
			Shah Alam Shah	30880

S.No	District	Taluka	Vulnerable Union Councils	At-Risk Population in Katcha Areas
13.	Thatta 254,365	Thatta	Jhurruck	17755
			Jimpir	20614
			Sonda	17897
			Chuto Chand	21264
			KalanKot	1867
			Thatta 1	20002
			Domani	19657
		KetiBander	KetiBander	25700
		Kharochan	Kharo Chan	25666
		Ghorabari	Khan	22008
			Kotri Allah Rakhio Shah	19309
			Mahar	21490
			Udassi	21136
14	Sujawal 196,800	MirpurBathoro	BachalGugo	17996
			Bano	19032
			Liakpur	18592
		Shah Bander	JongoJalbani	20207
			DoulatPur	19267
			Goongani	20362
		Jati	MureedKhoso	20101
		Sujawal	Bijora	20504
			Belo	22272
			Ali Bahar	18467
15.	Hyderabad 108,155	Hyderabad	MasuBhurgari	24362
			Hatri	29719
		Qasimabad	Qasimabad 4	25159
		Latifabad	Latifabad 5	28915

Total 2,647,419

FLOOD STORES WITH HQ ENGINEER 5 CORPS

S.#	ITEMS	QTY.
1.	Fiber Glass Boats	138
2.	Pneumatic Boats	10
3.	OBM 30 HP	80
4.	OBM 40 HP	53
5.	Life Jackets (All Types)	2000
6.	Search Light	10
7.	De-watering Pumping Set (All Types)	60
8.	Anchors	142
9.	Life Ring/ Buoy	173
10.	GPS	70
11.	Generator Sets	20
12.	Walkie Talkie Sets (ICOM)	10
13.	Water Proof Torch	215
14.	Paddles	318
15.	Rope 25 m roll	6300 m

FLOOD RELIEF EQUIPMENTS PROVIDED TO PAKISTAN NAVY AND COMCOAST

S.No.	Equipment	Navy	COMCOAST	Total
1	Combo (Fish Finders / GPS Gram 421S)	02	--	02
2	Camera – COOLPIX AW110)	01	--	01
3	Goggles / Black Color	07	--	07
4	Fins (Pairs)	07	--	07
5	Under Water Flash Lights	04	--	04
6	Air Cylinder (Diving Cylinder 15 litres)	04	--	04
7	Regular (Diving Regular P-Synchro)	04	--	04
8	Pressure Gauge (Pressure Gauge Console 2)	04	--	04
9	Wet Suit (Body Fit)	04	--	04
10	Budy Lines	02	--	02
11	Jacket Master	04	--	04
12	Weight Belt with pockets	04	--	04
13	Diver Weight (soft weights)	04	--	04
14	Diver Hood (Standard)	04	--	04
15	Diver Gloves	04	--	04
16	Diver Boots	04	--	04
17	Diving Rope (Nyclone)	120 Ft.	--	120 ft.
18	Fiber Glass Boats (14 feet)	--	10	10
19	OBM 30 HP	--	10	10
20	De-Watering Machines	--	05	05
21	Generator	--	02	02



**GOVERNMENT OF SINDH
PDMA / RELIEF DEPARTMENT**

SUMMARY OF LOSSES / DAMAGES DUE TO RAIN / FLOOD - 2020
Date _____ at -----hours

Sr.	District	Talukas Affected	Villages Affected	Population Affected*	Displaced Persons (DPs) **				Relief Camps Established	Persons in Relief Camps				Crops Area Damaged (Acres)	Persons Died				Persons Injured				Cattle Head Perished	Houses Damaged		
					Male	Female	Children	Total		Male	Female	Children	Total		Male	Female	Children	Total	Male	Female	Children	Total		Partially	Fully	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1								-					-					-				-				-
2								-					-					-				-				-
3								-					-					-				-				-
GRAND TOTAL:					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* The population affected is the over all affected population of the district.

** The Displaced persons are those who depend upon government assistance but do not reside in relief camp.

DETAILS OF RELIEF CAMPS

S. No.	Division	District	Number of Relief Camps
1	Hyderabad	Hyderabad	29
2		Thatta	99
3		Dadu	33
4		T.M Khan	30
5		Tando Allahyar	92
6		Matari	33
7		Jamshoro	43
8		Sujawal	57
9		Badin	58
Total			474
10	Mirpurkhas	Mirpurkhas	145
11		Umerkot	70
12		Tharparkar	102
Total			317
13	Sukkur	Sukkur	15
14		Khairpur	-
15		Ghotki	13
Total			28
16	Larkana	Larkana	17
17		Shikarpur	53
18		Kamber	18
19		Kashmore	44
20		Jacobabad	11
Total			143
21	Shaheed Benazirabad	S. Benazirabad	71
22		Sanghar	-
23		N. Feroze	198
Total			269
24	Karachi	South	150
25		Malir	-
26		West	40
27		Korangi	17
28		East	-
29		Central	281
Total			488
Grand Total			1719

(-) Districts not provided relief camp information.

LIST OF DIVISIONAL COMMISSIONER / DEPUTY COMMISSIONER IN SINDH

S.#	Name	Designation	District	Tel . Off	Tel. Res.	Fax.
Commissioner Karachi Division						
1	Mr. Iftikhar Ali Shalwani 0341-1110800 Mr. Pasha (P.S) 03452501767		Karachi 021	99231161 99205604	9205610- 14 9205607	99205652 99205639
i.	Mr. Ahmed Ali Siddiqi PAS BS-18 03002272639 Mr Izhar (P.S) 03002588177	Deputy Commissioner	(East)	99231214 99231215		99230994
ii.	Mr. Faiz Alam Solangi 0333-2990299 Mr. Shujhat (P.S) 03002316508	Deputy Commissioner	(West)	99333177 99333172		99333173
iii.	Mr. Irshad Sodhar 03337549025 Mr. Sheraz shiraj (P.A) 03453529616	Deputy Commissioner	(South)	99205644		99202296
iv.	Mr. Farhan Ghani PCS BS-19 03002263261 Mr. Farhat (P.A) 03002782112_03111782112	Deputy Commissioner	(Central)	99260037 99260038		99260036
v.	Mr. Shehzad Fazal Abbasi 03212017728 Mr. Aijaz (P.S)03212017728	Deputy Commissioner	(Malir)	35011101	Camp Office 99248100	35001301
vi.	Mr. Shehriyar Memon 0300-8379517 Mr. Amanullah 03212613487	Deputy Commissioner	(Korangi)	99333922		99333923
Commissioner Hyderabad Division						
2	Mr. Muhammad Abbas Baloch 03002282356 Mr. Niaz P.S 03332688946		Hyderabad 022	9200112- 9200113	9200115 9200116	9200114 R.9201316
i.	Mr. Fuhad Ghaffer Soomro 03332273831 Mr Muhammad Noman Bhutto P.S 03332999921	Deputy Commissioner	HYDERABAD 022	9200244	9200570	9200976
ii.	Mr. Fariuddin Mustafa 0321-5222344 Mr. Feroz Mustafa P.S 03003674918	Deputy Commissioner	JAMSHORO 0223	870135 871942- 44	871199 870135	871199 871954
iii.	Mr. Raja Shah Zaman 03333647400 Shah Zaman Malkani P.S 0300306924	Deputy Commissioner	DADU 025	9200250- 9200251	9200251	9200252
iv.	Mr. Ghulam Haider Junju 03003201013 Mr. Kamran Khan P.S 03003099687	Deputy Commissioner	MATIARI 022	2760033 2760032	2760929	2760011
v.	Mr. Rasheed Ahmed Zardari 03009372704 Mr. Abdul Rehman Jawad P.S 03023045933	Deputy Commissioner	TANDO A. YAR 022	9250702-3	3891299	9250703
vi.	Mr. Yasir Bhati 03335727565 Mr. Azad Burti P.S 03003070168	Deputy Commissioner	T. M. KHAN 022	9260701-2-9	42160	9260709
vii.	Mr.Usman Tanveer 0321-8800022 Mr Raiz Shah 03332577734	Deputy Commissioner	THATTA 0298	920061 770359	920056 920057	R:920058 O:920069
viii.	Mr. Mohammad Ismail Memon 0300-8998118 Mr. Jamil Memon 03153238883	Deputy Commissioner	SUJAWAL 0298	510051	510178 510179	510051
ix.	Dr. Hafiz Siyal 0300-8379253 Mr. Ali Nawaz Kayamkhani P.S 03331222767	Deputy Commissioner	BADIN 0297	920013	861151 861048	861471 920021

Commissioner Sukkur Division						
3	Mr. Shafiq Ahmed Mahesar 03002551877 Mr Allah Dino P.S 03343286825	Sukkur 071		9310834 9310835	9310617 9310618	O:9310837 R:9310619
i.	Mr. Rana Adeel 03006320504 Mr Intezar P.S 03002670508	Deputy Commissioner	SUKKUR 071	9310601 9310600	9310601	9310602
ii.	Mr. Mohammad Naeem Chindu 0321-3366007 Mr. Syed Sikhandar Ali P.S 03337595139	Deputy Commissioner	KHAIRPUR 0243	9280200 9280201	9280200 9251009	9280202
iii.	Mr. Khalid Saleem 0345-2549181 Mr. Syed Shahbaz Ali Shah P.S 03065111772	Deputy Commissioner	GHOTKI 0723	661616 661675	661762	O:661677 R:651628 661395
Commissioner Shaheed Benazirabad Division						
4	Syed Mohsin Ali Shah 03002435098 Mr. Imad Kundhar P.S 03003214184	Shaheed Benazirabad 0244		9370333	PS M Qasim 03003028432	9370392
i.	Mr. Abrar Ahmed Jafer 03337920911 Mr. Zubair Malah P.S 03482376430	Deputy Commissioner	SBA 0244	381494 9370337	9370334 -7 9370337	9370338
ii.	Capt Bilal Shahid 03111451678 Mr. Abdul Aziz Ansari P.S 03002141493	Deputy Commissioner	N. FEROZE 0242	920101 448256	920111	920103
iii.	Mr. Imran ul Hassan Khuja 03213443440 Mr. Mazhar Qureshi P.S 03153635550	Deputy Commissioner	SANGHAR 0235	920116-7	541781	920101
Commissioner Larkana Division						
5	Mr. Mohd. Saleem Raza Khoro 03008108140 Mr. Ghulam Sarwar Dhani P.S 03313450923	Larkana 074 A.C Tufail Shaikh 03003417574		9410244 9410245	9410294 9410295	R:9410293 O:9410394-5
i.	Mr. Muhammad Noman Saddiqi 0333-9965496 Mr. Asim Baloch P.S 03332658988	Deputy Commissioner	LARKANA 074	9410318 9410243	9410337	9410336 9410293
ii.	Mr. Jawad Ali Jangari 03175588880 Mr. Imran Abbasi P.A 03149659199,03337552830	Deputy Commissioner	QAMBER SHAHDADKOT 074	4210625-30-29	4210634	4210632
iii.	Mr. Raheem Bakhsh Maitlo 03453658237 Mr. Kamran P.S 03342143594	Deputy Commissioner	SHIKARPUR 0726	920200 920201	920203 920201 920204	920202
iv.	Mr. Ghanzfar Ali Qadri 03343091426 Mr. Abdul Wahab PS 03003177187	Deputy Commissioner	JACOBABAD 0722	921201-2	652020 653720	921003
v.	Mr. Munawar Methani 03003415399 Mr. Ahmed Khoso P.A 03002675434	Deputy Commissioner	KASHMORE 0722	921641,40	570904 35843006	921642
Commissioner Mirpurkhas Division						
6	Mr. Abdul Waheed Shaikh PAS BS- 20 03133163954 Mr. Suresh Kumar P.S 03332961399	Mirpurkhas 0233		9290052 9290053	9290057-4	9290055-59
i.	Mr. Zahid Hussain Memon 03332990299 Mr. Khalid P.S 03343131260, 02339290069	Deputy Commissioner	MIRPURKHAS 0233	9290069 9290070	9290070	9290254
ii.	Mr. Nadeem-ur-Rehman 0300-8377697 Mr. Rafi P.S 03462125642	Deputy Commissioner	UMERKOT 0238	920019-20	920059 920060	920020
iii.	Mr. Shezad Tahir Singh 03002187984 Mr. Mahraj P.S 03332510711	Deputy Commissioner	THARPARKAR 0232	920667 920825	920925 03332512488 Ashraf	920818