

# DISTRICT DISASTER MANAGEMENT PLAN (DDMP) 2022

District Kasur  
Division Lahore



BULLEH SHAH PAPER MILLS FIRE



MONTHLY DDMA MEETING IN DEOC KASUR



FLOOD 2018



FLOOD 2010

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XX

**Flood**

Estimated number of people at risk of Floods in 2021 of total population  
Risk: High

XX

**Drought**

Estimated number of people at risk of Drought in 2021



Of total population Risk: Medium

XX

**Earthquake**

Estimated number of people at risk of earthquake in 2021 of total population

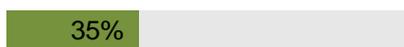


Risk: Low

XX

**Epidemic**

Estimated number of people at risk of epidemic in 2021 of total Population



Risk: Medium

**EXECUTIVE SUMMARY**

Kasur district is bounded by the Ravi River in the north-west and river Sutlej in the south-east. Whereas the old course of Beas River bifurcates the district into two equal parts locally known as Hither and Uthar or Mithan Majh. Both of the areas have a height differential of approximately 5.5 meters. The district administration of Kasur has adopted a multi hazard approach to plan and strategize disaster response system. Based on consultations with different government stakeholders, most common form of hazard in the area are floods, earthquakes, drought and environmental hazards including deforestation and groundwater contamination. Kasur is generally considered as flood-safe district, as water rights of both rivers flanking the district reside with India, under Indus Water Treaty

The local governments have a key role in identifying and understanding the hazards and risks that could impact on the safety and sustainability of their communities. At local level, DDMA, with technical assistance from PDMA, will prepare District DRR/DRM Plan keeping in view the detailed analysis of risks and vulnerabilities of the area, mapping of capacities available with public and private sector, and clearly defined roles and responsibilities of district line departments to be performed in pre- and post-disaster phases. The District Disaster Management Plans will also provide long-term DRM vision, key priorities and financial arrangements necessary for implementing programs and activities aimed at making the local communities resilient to hazards and threats from potential climatic changes. The DDMPs will not entirely focus on structural or engineering solutions but equal importance will be given to non- structural aspects of DRM. DDMA will endorse the DDMP for final approval.

## **AIM AND OBJECTIVES**

The plan is aimed to manage emergencies by putting in place requisite mitigation measures and a well-coordinated and integrated response at district level.

The main objectives of the plan include:

- To develop a plan of action for the District Disaster Management Authority and other district stakeholders to set priorities and provide directions for disaster management;
- To define the roles of various stakeholders in disaster management in all the phases pre, during and after disaster;
- To raise awareness of stakeholders about disaster risks and the requirements for disaster management;
- To introduce coordination mechanism for immediate response and rehabilitation at district level;
- To enhance the effectiveness and timeliness of emergency response through the clarification of goals, strategies, roles and responsibilities;
- To strengthen response coordination between government departments and humanitarian organizations (UN agencies, NGOs).

## **DISTRICT PROFILE**

District Kasur is situated near Lahore. The total area of the district is 3,995 square kilometers and Kasur city is the district capital. The district is administratively subdivided into 4 tehsils (Kasur, Chunian, Pattoki and Kot Radha Kishan) and 125 Union Councils. Earlier it was part of Lahore District but was declared as a separate district on 1 July 1976 with two tehsils; Kasur and Chunian. In 1992, the tehsil Chunian was bifurcated into two tehsils, Chunian and Pattoki. Later, Kot Radha Kishan was declared as a separate tehsil. The district is connected to Lahore and the adjacent districts by a network of roads and rail.

In ancient time, Kasur was known for its education and fish. The history of Kasur is more than 1,000 years. Kasur region was agricultural region with forests during the Indus Valley Civilization. The Kasur region was ruled by Maurya Empire, Indo-Greek kingdom, Kushan Empire, Gupta Empire, White Huns, Kushano-Hephthalites and Shahi kingdoms. The Mughal Empire ruled Kasur for 200 years. After and during the decline of the Mughal Empire, the Sikhs took over the Kasur District. Most of the Punjab region was annexed by the East India Company in 1849, and was one of the last areas of the South Asia to fall under British colonial rule. During the British Raj, the irrigation canals were built that irrigated large areas barren lands of the Kasur District. The principal tribes and clans residing in Kasur District are Rajput, Arain, Jat, and Dogars. Other smaller tribes and clans in Kasur include Bhatti, Malik, Sunyare Mayo, Dogar, Ansari, Sheikh and Pathan. The refugees from East Punjab that settled in the district largely belonged to these tribes and clans.

### **Geology and Climatology**

Kasur district is bounded by the Ravi River in the north-west and river Sutlej in the south-east. Whereas the old course of Beas River bifurcates the district into two equal parts locally known as Hither and Uthar or Mithan Majh. Both of the areas have a height differential of approximately 5.5 meters. The natural surface elevation of the district is 198 meters above the sea level, having a general slope from north-east to south-west. Whereas the east and west ends of the district comprise the flood plains of the rivers Satluj and Ravi, characterized by breaching of looping river channels braided around meander bars. Kasur district is situated at a distance of about 55 km towards south of Lahore, on the Lahore-Ferozpur Road. The district has Indian Territory on the south and east, across the Sutlej River, Lahore district on the north, Okara district on the south-west and Nankana Sahib district on north-west.

Kasur's climate is a local steppe climate. There is little rainfall throughout the year. According to Köppen and Geiger, this climate is classified as BSh. The temperature here averages 23.9 °C. About 424 mm of precipitation falls annually. Precipitation is the lowest in November, with an average of 3 mm. The greatest amount of precipitation occurs in July, with an average of 125 mm. At an average temperature of 33.7 °C, June is the hottest month of the year. The lowest average temperatures in the year occur in January, when it is around 12.2 °C. Between the driest and wettest months, the difference in precipitation is 122 mm. The variation in temperatures throughout the year is 21.5 °C.<sup>1</sup>

Table 2: Monthly Climate

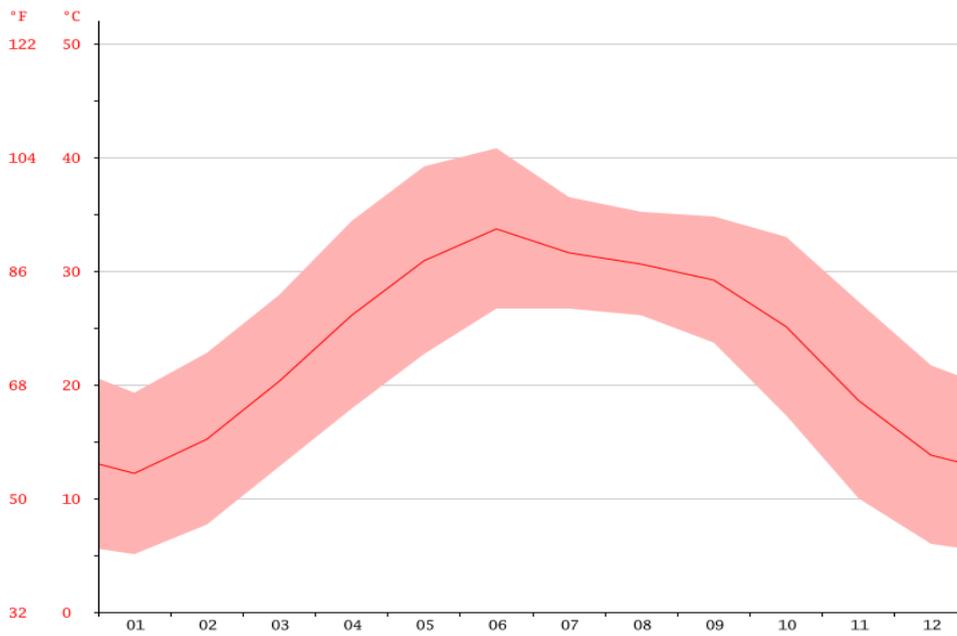
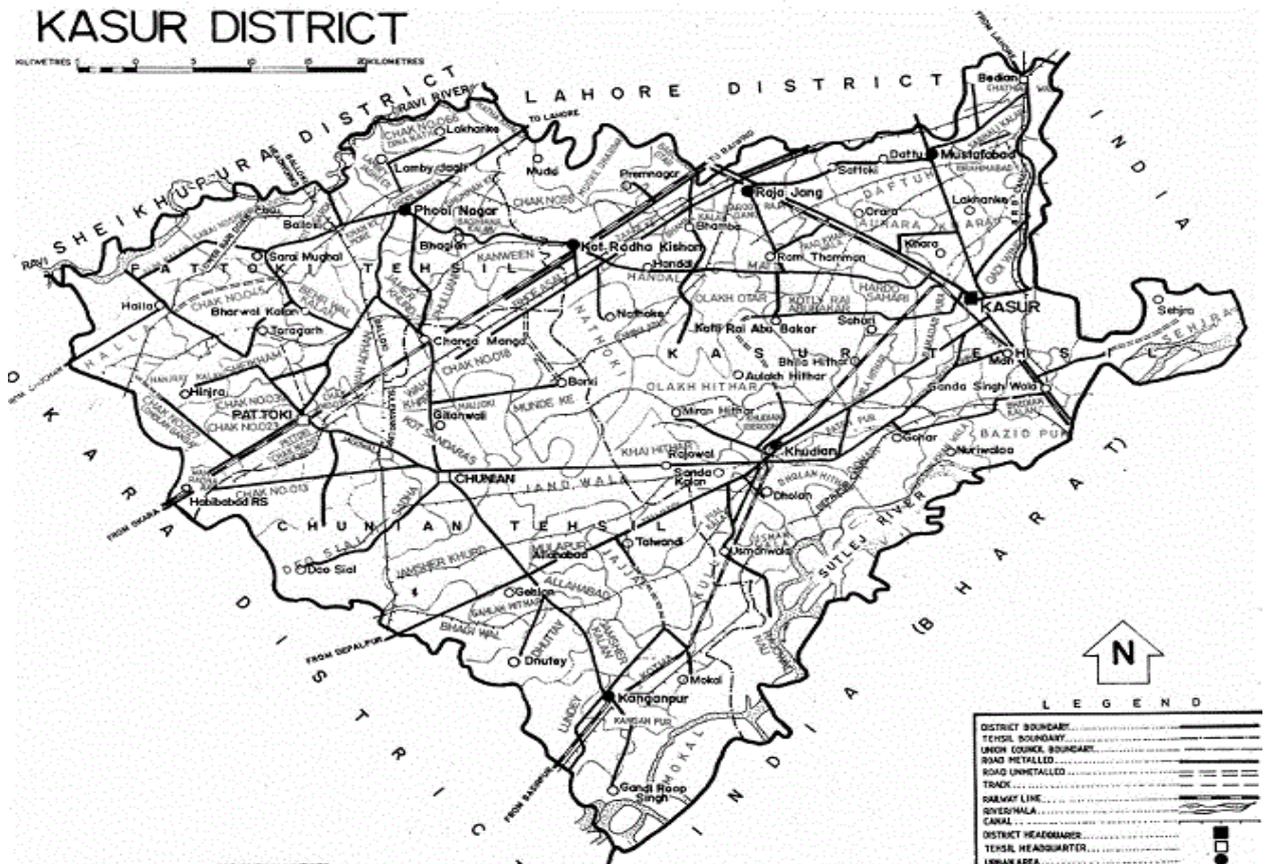


Figure 1: District Kasur Map



**Socio-Economic Indicators (Average)**

Sr. No.	Particulars	Numbers
1.	Population	3.46 M
2.	No. of Tehsils	4
3.	No. of UCs	125
4.	No. of Revenue Estates	641
5.	Population Density (people per km <sup>2</sup> )	594.9
6.	Family Size	7.0
7.	Pop Growth Rate	2.03
8.	PCI	-----
9.	District GDP/Annual Income	-----
10.	Poverty Rate	-----
11.	Patient/Doctor Ratio	1/1300
12.	Average Mortality Rate (AMR)	6.8/1000
13.	Infant Mortality Rate(IMR)	48.7/1000
14.	Mother Mortality Rate (MMR)	140/100000
15.	Literacy Rate	36.2%
16.	Punjab Malnutrition Rate (PMR)	38%
17.	Malnutrition Rate in District Kasur	38%
18.	Percentage of population having access to clean drinking water	30%
19.	Annual Crime	-----

**Population**

Total	Male (above 18)	Female (above 18)	Minor (M) (less than 18)	Minor (F) (less than 18)	Vulnerable People (PLWs, disabled, aged)
237,587,5	50.8%	49.2%	44.0%	45.2%	2.6%

Source/Note: Population Department

Number of Dwelling Units	Kaccha (Mud/clay)	Pakka (Bricks& Morter)
337,649	111,750	225,899

Source/Note: ADLG Office

**Area (in acres)**

Total Area of District in Km <sup>2</sup>	Area under cultivation	Cultivation in Settled Area	Cultivation in Baid Area
3,995	808,110	30,000	7,000

**Literacy Rate**

Source/Note: Education Department Kasur

Overall	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
36.2%	44.7%	18.1%	57.2%	40.6%	47.6 %	23.1 %

## Government Schools

		Schools	Enrollment
Total/ Overall			
Boys	Primary	450	70055
	Middle	108	41362
	High	102	87043
Girls	Primary	464	70697
	Middle	142	52313
	High	92	83199
Co-Education	Primary	0	0
	Middle	0	0
	High	0	0
Special Education		6	904

## Private Schools

		Schools	Enrollment
Total/ Overall			
Boys	Primary	39	7765
	Middle	189	30360
	High	127	19383
Girls	Primary	42	9188
	Middle	251	42162
	High	121	19404
Co-Education	Primary	83	17695
	Middle	85	12945
	High	28	
Special Education		1	140

## Higher/Technical/Professional Education (Public &amp; Private)

Particulars	College	Universities	Professional	Technical	Commerce	Total
No of Institution	16	0	0	0	3	19
No of Students	22084	01	01	01	1353	23437

## Health Facilities

Particulars	Primary	Secondary	Tertiary	Private Hospital	Total
No. of Facilities	125	5	-	42	172
Annual OPDs	901255	855845	-	40967	1798067
No of beds	404	490	-	1645	2539
Doctors Available	146	278	-	118	542
Paramedical staff	661	319	-	336	1316
Ambulances available	Handed over to 1122	Handed over to 1122	-	--	--
Mobile Medical Units	--	--	-	--	--

**Livestock:** Small Animals (goats, sheep etc.): **323,406** Big Animals (cows, buffalos, camel etc.) **1,017,885**

## Main source of livelihood of the community? (in percentage)

Agriculture	Livestock	Poultry	Fish Farming	Services (Public & Pvt)	Business	Expatriates	Industrial Labor	Skilled Labor	Unskilled Daily Labor	General Labor
%	61%	35%	%	%	%	%	%	%	%	%

## Disaster History - Floods (since 1970)

S#	Year	No. of people affected	No. of deaths	No. of Revenue Estates affected	Houses Damaged (Partially)	Houses Damaged (Fully)	Compensation Paid (Rs.)	Financial Impact (including infrastructure damaged)
1	2011	12941	--	--	--	--	--	--
2	2013	16530	--	--	--	--	--	--
3	2015	24440	--	--	--	--	--	--
4	2018	6387	--	--	--	--	--	--

## Disaster History – Other disasters (since 1970)

S#	Year	Disaster Type	No. of people affected	No. of deaths	Remarks
1	2020	Covid-19	687	11	-----
2	2020	Rains	20	10	-----
3	2021	Rains	13	8	-----
4	2021	Covid-19	2299	5	-----
5					
6					
7					
8					
9					
10					

## General Information

Particulars	Detail
Neighboring districts and their vulnerabilities	Lahore is at Medium Risk to Flood Okara is at low risk to River flood Sheikhupura is at medium Risk to River Flood Nankana Sahib is at medium Risk to River Flood
Topographical Features	Topographically Speaking, District Kasur lies between the river Sutlej which flows along its boundary with India and river Ravi which flows along its boundary Sheikhupura. The district may divided into two parts a low lying or riverine area also bordering rivers and upland away from the rivers. The riverine area is generally during monsoon season. The water level in this area is higher than the upland area. The upland is flat plain sloping from north-east to south-west. The generally the area is from 150 to 200 meters above the sea level.
Weather/Climate pattern	Kasur's climate is a local steppe climate. There is little rainfall throughout the year. According to Köppen and Geiger, this climate is classified as BSh. The temperature here averages 23.9 °C. About 424 mm of precipitation falls annually. Precipitation is the lowest in November, with an average of 3 mm. The greatest amount of precipitation occurs in July, with an average of 125 mm. At an average temperature of 33.7 °C, June is the hottest month of the year. The lowest average temperatures in the year occur in January,

	when it is around 12.2 °C. Between the driest and wettest months, the difference in precipitation is 122 mm. The variation in temperatures throughout the year is 21.5 °C. <sup>2</sup>
Major Rivers	River Sutlej along its boundary covering two tehsil (Kasur and Chunian) of district Kasur. Ravi River along its boundary covering two tehsil (Kot Radha Kishan and Pattoki) of district Kasur.
Major Nullahs / Streams	Name of river, passing through areas along with length in the district Flood levels
Motorway/Highway	Vulnerable points of motorway/highway 0
Railways	Vulnerable points of Railway 0
Geological features	E.g. fault line, mountainous areas etc. 0

**Dams (including small dams)**

Name of Dam	Location	GPS Coordinates	Capacity	High Flood Level	Critical Points, if any	Remarks
0	0	X: 0 Y: 0	0	0	0	0
0	0	X: 0 Y: 0	0	0	0	0

**Major Embankments/Bunds**

Name of Embankment	Length (Miles)	Starting Point (Revenue Estate /Tehsil Name)	Ending Point (Revenue Estate /Tehsil Name)	Name of Critical/vulnerable Points	GPS Location of Critical/Vulnerable Points	Remarks
Haya Bund	2.22	-----	-----	0	0	This bund joins Right Marginal bund at RD. 35+600. This bund is also used for the Defense purpose. The bund was constructed to protect area from the spill of Rohi Nullah Diversion
Left Marginal Bund	8.64KM	Tehsil Pattoki	Tehsil Pattoki	RD 12000 to 13000 of left marginal bund	31.2405 46N 73.8967 49E	This bund is recently rehabilitated by PIU and in excellent condition

Right Marginal Bund	2.62	-----	-----	0	0	This portion of Right Marginal Bund of Ferozpur head works falls in the territory of Pakistan. This bund will protect the nearest villages i.e. Ladeke, Sheikh Pura, Kamalpura, Mahiwala etc. The main gauge of Talwar post exists on its RD. 30+000. This bund is also used for the Defense purpose.
Link Bund	2.56	-----	-----	0	0	This bund along right Marginal bund and Railway guide bund are very important for the protection of large area of nearest villages like as Burg Rajuke, Chanda Singh Wala, Sultan Shah Wala, Bhedian Kalan and Ganda Singh Wala etc.
The Bund (A)	0.27	-----	-----	0	0	This is very small bund constructed near to save the Link Bund.
The Bund (B)	0.15	-----	-----	0	0	This is very small bund constructed near to save the Link Bund.
Railway Guide Bund	1.5	-----	-----	0	0	Before partition of Indo-Pak a railway track was provided from Ganda Singh Wala to Ferozpur Head works for carriage of stone. After partition, the track was removed and the formation was converted into a regular flood bund. This bund is also used for the Defense purpose.
Right Retired Embankment	1.5	-----	-----	0	0	Right retired embankment was constructed in set back position of the portion of right Marginal bund which exists in the territory of India to save the Right marginal bund and also to protect the nearest village of Nizam Sanda and Sanda Kalan.
Loop Bund	0.35	-----	-----	0	0	Due to Indian action of demolishing the portion of Right marginal bund and other allied spurs on right side of Sutlej River falling in Indian Territory, a loop bund was constructed to join the Sufaida Bund with Right retired embankment and to protect the same areas of

						Nizam Sanda etc. This bund is also used for the Defence purpose.
Sufaida Bund	0.47	-----	-----	0	0	This bund was constructed to protect the large area of the villages of Fatuhi Wala, Singh Sahib wala and saa Jughian etc, it meets with the Ferozpur road from its starting point. This bund is also used for the Defense purpose.
Flood/Defense Bund near village ullake	1.9	-----	-----	0	0	In order to check the river area a defense bund in a length of 9500 ft was constructed during 2001-2002. This bund will protect the areas of village Ullake and Walle Wala.
Flood / Defence Bund near village Bedian Usman Wala	1.7	-----	-----	0	0	The flood/defence bund from village Bedian Usman Wala to village kot Chak Bodal had been constructed to check the River erosive action during flood. This flood embankment has been constructed by the Pak Army during year 2001-2002.
Lower Ganja Minor Flood Embankment	8.57	-----	-----	0	0	Left Bank of Lower Ganja Minor Head to tail has been converted into flood embankment to Project large area falling on Right side of Minor from spills of River Sutlej.
Flood embankment along lower Ganja Sub Minor	2.04	-----	-----	0	0	The flood embankment along left bank of lower Ganja Minor from RD.0-10200 was constructed during 1989 to check the spill of River Sutlej and to save Sub Minor from damage.
Flood embankment along left bank of Depalpur Canal	4.17	-----	-----	0	0	Depalpur Canal runs parallel to Sutlej River at a short distance. To save the Channel and area on the right from spill water during floods, the left bank of Depalpur Canal from RD-136000 to 156860 was converted into flood embankment.
Flood embankment along Fateh Muhammad Disty	17.52	-----	-----	0	0	River Sutlej has been meandering towards Pakistan since 1952 consequently some portions of Fateh Muhammad Disty were washed away during different times and diversions had to

						be made in setback position. Subsequently, left bank of the channel was converted into flood embankment.
Flood embankment along Laluguddar Disty and Kanda Minor	2.86	-----	-----	0	0	Laluguddar Disty also remained under the river action. The channel was damaged at various places. A flood embankment along the channel was constructed to save the same from its further damaging.

## Breaching Section

Name of Bund/ Embankment	Name of Breaching Section	Location with GPS Coordinates	Likely Affected Population			Likely Affected Revenue Estate	Remarks
			Male	Female	Children		
		X: Y:					
		X: Y:					
		X: Y:					

## Power Houses/Grid Station/Oil Depot/other sensitive installations

Name of Power Houses	Capacity	GPS Coordinates
OREINT POWER HOUSE BALLOKI	-----	X: ----- Y: -----
NISHAT POWER HOUSE MULTAN ROAD BS LINK	-----	X: ----- Y: -----
NISHAT CHUNIAN POWER HOUSE GAGGA ROAD SARAY CHEENBA	-----	X: ----- Y: -----

## Power Houses/Grid Station/Oil Depot/other sensitive installations

Name of Grid Station	Capacity	GPS Coordinates	Name of Grid Station	Capacity	GPS Coordinates
132 KV Old Kasur	132 KV	X: ----- Y: -----	132 KV Raiwind New Glamour Adda	132 KV	X: ----- Y: -----
132 KV New Kasur	132 KV	X: ----- Y: -----	132 KV Century Paper B-IV Jumber	CONSUMER GRID	X: ----- Y: -----
132 KV Lullyani	132 KV	X: ----- Y: -----	132 KV Amir Cotton B-III Jumber	CONSUMER GRID	X: ----- Y: -----
132 KV Khudian	132 KV	-----	132 KV Sphire Finishing B-III By Pass Raiwind	CONSUMER GRID	-----
132 KV Chunian	132 KV	-----	132 KV Barket Grid B-III Ittefaq Adda	CONSUMER GRID	-----

132 KV K.R.K	132 KV	-----	132 KV M-Bux Grid B-IV By Pass Raiwind	CONSUMER GRID		-----	
132 KV Kangan Pur	132 KV	-----	132 KV Master Grid B-IV By Pass Raiwind	CONSUMER GRID		-----	
132 KV E/Abad	132 KV	-----	132 KV Colony Grid B-IV By Pass Raiwind Ham Aziz Chowk	CONSUMER GRID		-----	
132 KV W.R.R	132 KV	-----	132 KV Ghazi Grid B-IV Golden Adda	CONSUMER GRID		-----	
132 KV Pattoki	132 KV	-----	132 KV Bulley Shah B-IV Kasur	CONSUMER GRID		-----	
132 KV Chak No.65	132 KV	-----	132 KV Shafi Steel B-IV Rosa Bhail	CONSUMER GRID		-----	
132 KV Raiwind	132 KV	-----	132 KV Queta B-IV Golden Adda	CONSUMER GRID		-----	
132 KV Phool Nagar	132 KV	-----	132 KV Nishat Chunian Golden Adda	CONSUMER GRID		-----	
132 KV Manga Mandi	132 KV	-----	132 KV Hira Terry Chak No.65	CONSUMER GRID		-----	
220 KV Sarfraz Nagar	132 KV	-----	132 KV Chuchak	132 KV		-----	
132 KV Ahmad Abad	132 KV	-----					

### Airport / Landing Strips

**Govt. Wheat Storage Facilities/Warehouses in the District Kasur**

NAME OF CENTRE OR STROGE PLACE	NO. OF GODOWNS	PER GODOWN CAPACITY	TOTAL ACCOMMODATION		Location
			STANDARD (M.T)	OPERATIONAL (M.T)	
PRC KASUR	6	500	3000	4500	Near Railway Station Kasur
	8	1000	8000	10800	
	2	350	700	700	
	1	2000	2000	3000	
	1 Set of 55 Bins	2000	2000	2000	
Total	1 Set Bins + 17 Godowns	5850	15700	21000	
PRC KHUDIAN	2	1000	2000	3000	Near Railway Station Khudian
PRC USMANWALA	5	1000	5000	7000	Near Ghalla Mandi Usmanwalla
PRC CHUNIAN	14	1100	15400	18900	Cant Chunian
PRC PATTOKI	8	500	4000	6000	Near Degree College Pattoki
PRC HABIBABAD	5	1000	5000	7000	Near Railway Station Habibabad
TOTAL	1 Set Bins + 51 Godowns	8450	45100	60900	

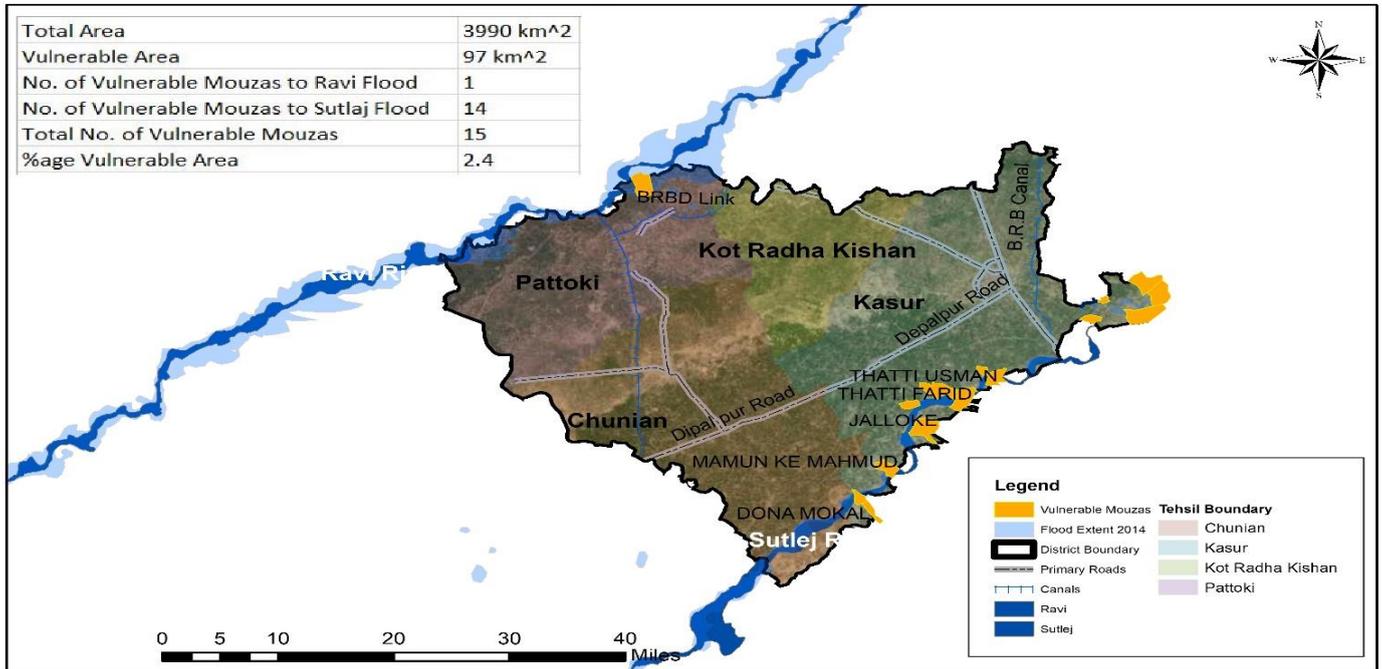
**FLOOD RELIEF CENTRES**

Sr.No	Tehsil Name	Relief Centers Name
1	Kasur	Sehja (BHU Sehja and Govt. H/S Sehja)
2	Kasur	Bhedian usman Wala (Govt. Boys Primary School)
3	Kasur	Talwar Post
4	Kasur	Baqarkey Rest House
5	Kasur	Najabat Rest House
6	Kot Radha Kishan	Kot Radha Kishan
7	Pattoki	Jamia Hameedia High School, Sarai Mughal
8	Pattoki	Govt. Elementary School, Bhadian Chak No. 35
9	Pattoki	Govt. High School, Islamia, Pattoki
10	Pattoki	Govt. Elementary School, Old Mandi Pattoki
11	Chunian	BHU, Mokal
12	Chunian	Govt. Primary School, Gara Singh



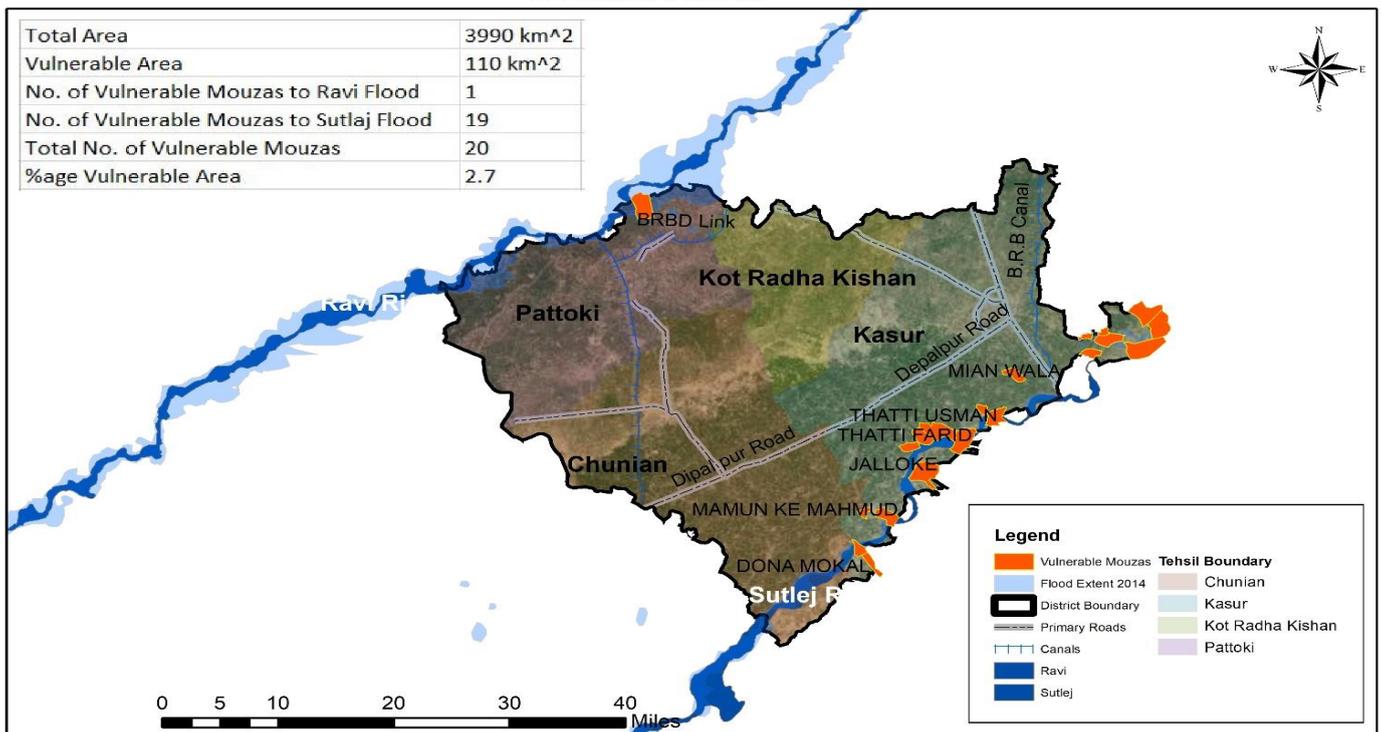
**Inundation Map-Mouzas at Low Level Flood**

**Inuandation Map-Mouzas at Low Level Flood  
District Kasur**



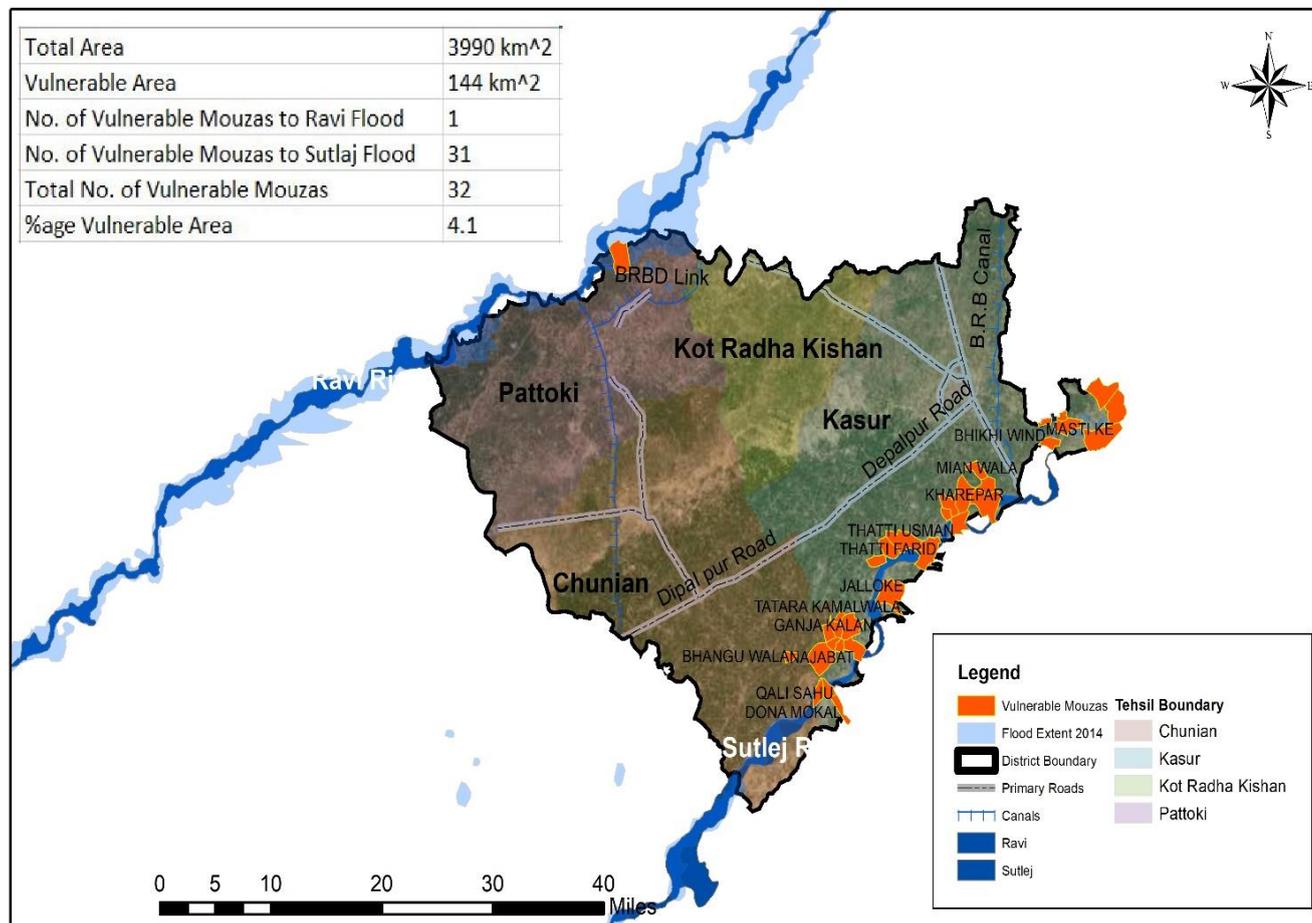
**Inundation Map-Mouzas at Medium Level Flood**

**Inuandation Map-Mouzas at Medium Level Flood  
District Kasur**



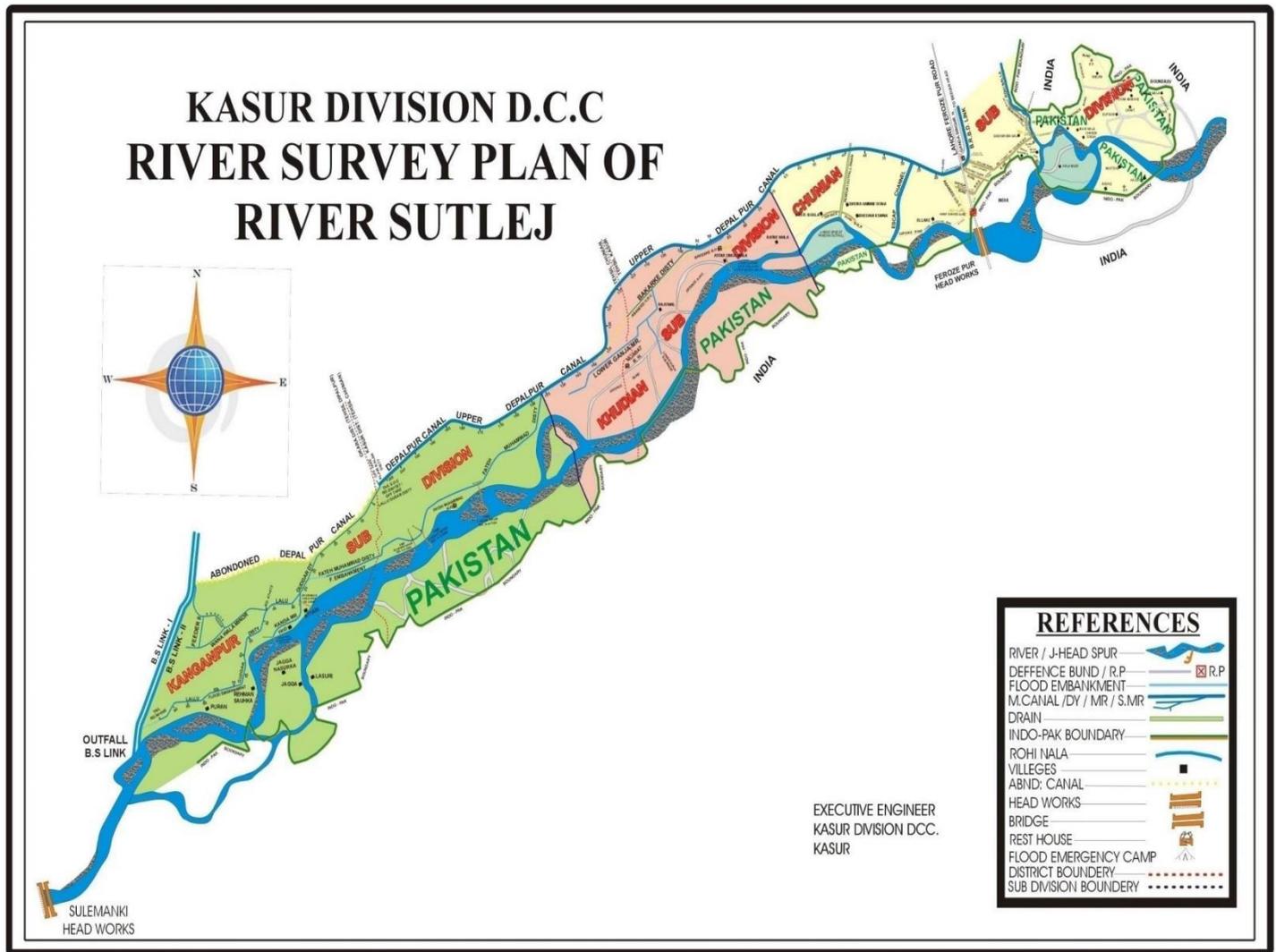
## Inundation Map-Mouzas at High Level Flood

### Inuandation Map-Mouzas at High Level Flood District Kasur



## Flood stages

Sr. No.	Category	Sutlej River (Cs)	Ravi River (Cs)
1	Low Flood	70,000	40,000-65,000
2	Medium Flood	150,000	65,000-90,000
3	High Flood	300,000	90,000-135,000
4	Very High Flood	425,000	135,000-180,000
5	Exceptionally High Flood	Above 425,000	Above 180,000



## Union Council Map of District Kasur, Punjab, Pakistan



Education Facilities in Kasur



Legend

School Level

- ▲ Higher Secondary
- △ High
- Middle
- Primary

- ▬ River
- ▨ MC Area
- ▭ Union Council
- ▭ Tehsil
- ▭ District
- ▭ Neighbouring District

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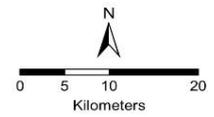
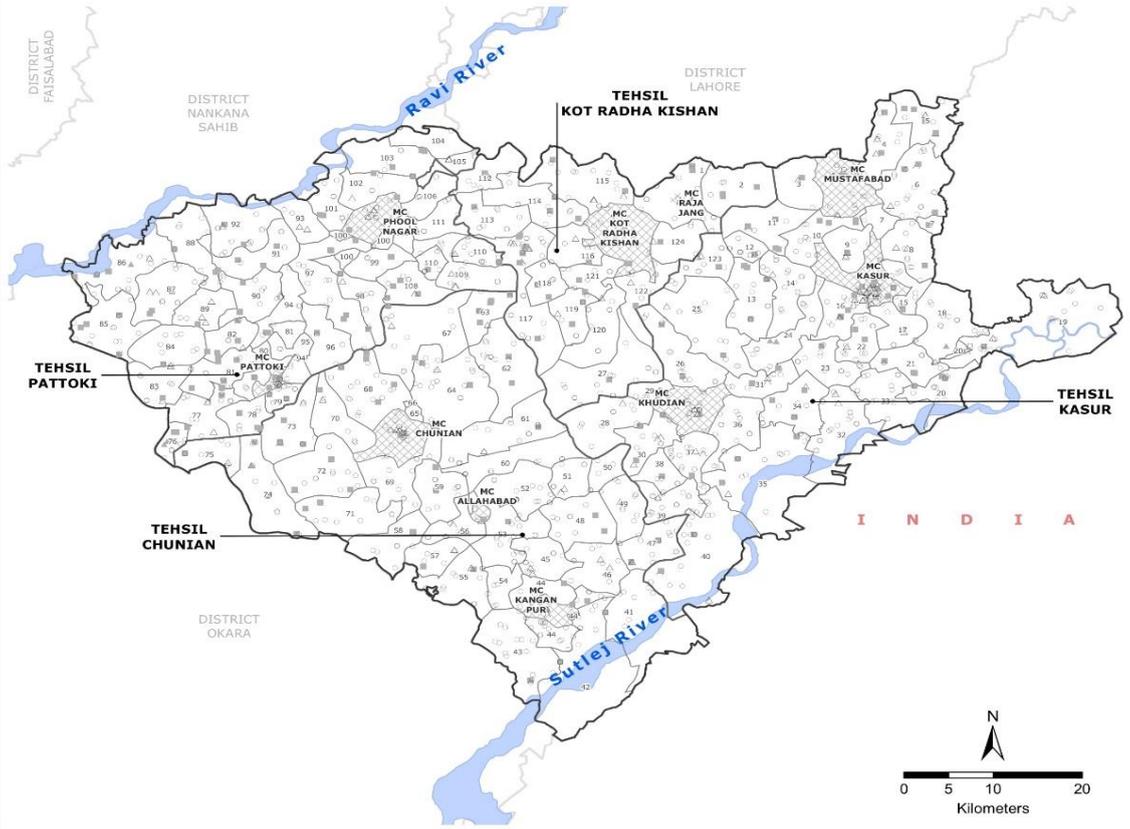
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 Datum: WGS 1984  
 Prime Meridian: Greenwich  
 Angular Unit: Decimal Degree

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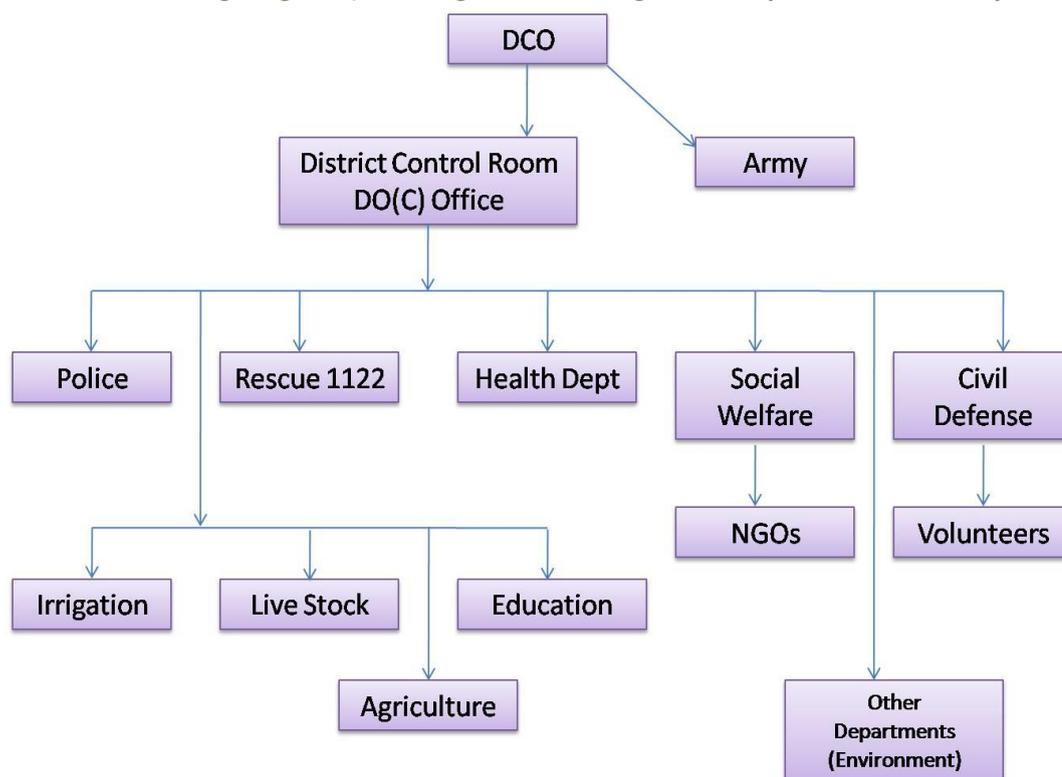


Project Implementation Unit (PIU)  
 Provincial Disaster Management Authority (PDMA)  
 Government of the Punjab



## COORDINATION MECHANISM

Coordination Organogram (including Sector lead agencies/departments, Military, NGOs and Volunteers)



### Powers and functions of District Disaster Management Authority under NDM Act 2010:

The District Authority shall be as the district planning, coordinating and implementing body for disaster management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National Authority and the Provincial Authority.

Without prejudice to the generality of the foregoing provisions, the District Authority may:

- a) prepare a disaster management plan including district response plan for the district;
- b) coordinate and monitor the implementation of the National Policy, Provincial Policy, National plan, Provincial Plan and District Plan;
- c) ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities;
- d) ensure that the guidelines for prevention, mitigation, preparedness and response measures as laid down by the National Authority and the Provincial Authority are followed by all departments of the Government at the district level and the local authorities in the district;
- e) give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
- f) lay down guidelines for preparation of disaster management plans by the departments of the

- Government at the districts level and local authorities in the district;
- g) monitor the implementation of disaster management plans prepared by the departments of the Government at the district level;
  - h) lay down guidelines to be followed by the departments of the Government at the district level;
  - i) organize and coordinate specialized training programs for different levels of officers, employees and voluntary rescue workers in the district;
  - j) facilitate community training and awareness programs for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations;
  - k) set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
  - l) prepare, review and update district level response plan and guidelines;
  - m) coordinate with, and give guidelines to, local authorities in the district to ensure that pre-disaster and post-disaster management activities in the district are carried out promptly and effectively;
  - n) review development plans prepared by the departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
  - o) identify buildings and places which could, in the event of disaster situation be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places;
  - p) establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
  - q) provide information to the Provincial Authority relating to different aspects of disaster management;
  - r) Encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grass root level in the district for disaster management.
  - s) ensure communication systems are in order and disaster management drills are carried out periodically; and
  - t) Perform such other functions as the Provincial Government or Provincial Authority may assign to it or as it deems necessary for disaster management in the district.

**District Plan:**

- a) There shall be a plan for disaster management for every district of the Province.
- b) The District Plan shall be prepared by the District Authority having regard to the National Plan and the Provincial Plan.
- c) The District Plan shall be reviewed and updated annually.

**Additional Powers of District Authority:**

For the purpose of assisting, protecting or providing relief to the community, in response to any disaster, the District Authority may:

- a) give directions for the release and use of resources available with any department of the Government and the local authority in the district;
- b) control and restrict vehicular traffic to, from and within, the vulnerable or affected areas;
- c) control and restrict entry of any person into, his movement within and departure from, a vulnerable or affected area;
- d) remove debris, conduct search and carry out rescue operations;
- e) provide shelter, food, drinking water and essential provisions, healthcare and services;
- f) establish emergency communication system in the affected area;
- g) make arrangements for the disposal of the unclaimed dead bodies;
- h) direct any department of the Government of the Province or any authority or body under the Government at the district level to take such measures as are necessary in its opinion;
- i) require experts and consultants in the relevant fields to advise and assist as it may deem necessary;
- j) procure exclusive preferential use of amenities from any authority or person;
- k) construct temporary bridges or other necessary structures and demolish structures which may be hazardous to public or aggravate the effects of the disaster;
- l) ensure that the non-governmental organizations carry out their activities in an equitable and non-discriminatory manner; and
- m) Take such other steps as may be required or warranted to be taken in such a situation.

**Revenue Department (Functions and Responsibilities)**

In case of any disaster or calamity the head of the revenue department in the district i.e. the DC should ensure that the following measures and steps have been taken:

- Taking everyone on board is perhaps the most important thing to do. Regular meetings of DDMA should be held to clearly highlight the roles and duties of DPOs, EDOs, and XENs etc.
- Pre-flood meeting should be held and duties of all concerned officers and departments should be clearly defined and assigned.
- A district disaster management plan should be prepared using the set template and updated regarding any disaster or emergency that may strike the district.
- A focal person for the disaster or calamity should be nominated and his/her number should be communicated to all concerned departments.
- Proper stock taking should be done regarding available stocks of food and rations. Similarly stock regarding machinery and equipment should also be taken and inventories should be prepared. Out of order machinery should be repaired or replaced.
- Committees should be formed and constituted which will deal with various functions during a flood or emergency. Purchasing of food items, food, and machinery should all be done through committees.
- Identification of Low lying, medium and high vulnerability levels with flood level
- In case of evacuation the district administration should be very clear about the places where the relief camps or shelters will be established. Teams should be formulated which will look after these camps and will be in-charge for provision of tents, food, water and maintaining general law and order. Provision of cooked food is also to be ensured.
- Proper ware houses and stores should be made available for storing of aid and donated items that may be received from authorities such as PDMA, WFP etc. A committee should be constituted to look after the record of all the items in the store.

- Proper crop surveys or girdawaris should be conducted through the revenue officials so that crop damage assessment can be made after disaster or flood affects the district. These surveys will also help in determining the identity of the true owners as well.
- Post damage assessment should be carried out by joint teams constituted of patwaris, teachers, and agriculture field assistants. Technology should be involved and android sets should be used to gather accurate data.
- Round the clock active control rooms should be set up and the numbers be circulated to all concerned. The control rooms should be equipped with wireless, telephones and computers. All info gathered or received should be conveyed to the concerned. The control room should have representatives of concerned departments such as police, health, 1122, and revenue.
- Early warning is critical in saving lives. The local revenue officials along with local police should be deployed to warn the people against the oncoming disaster and to urge them to vacate the disaster prone areas and villages. Loudspeakers, mosque speakers and word of mouth should be used. Banners and posters can also be used.
- Data collection is of prime importance and the senior network administrator should be declared as the focal person for collection of relevant information such as number of casualties, damages to infrastructure, injured, perished livestock etc. for onward submission to PDMA etc.
- Mock exercises should be carried out along with all concerned departments specially 1122, Police, civil defense and Pakistan army regarding the action plan during any emergency or flood. This will give a fair idea about the preparedness of the district.
- Availability of vehicles should be ensured for use during any emergency especially off road vehicles like jeeps.
- Suitable locations should be identified for accommodating armed forces like the Pakistan army. Normally schools, colleges or stadiums are allocated for the armed forces

#### **Checklist for Revenue Department:**

- Survey of entire District (Preparation of Village level information by Patwari)
- Identification of Low lying, medium and high: vulnerability levels with flood level
- Liaison of Patwari with Numberdars of their respective villages
- Contacts of all revenue staff posted near river belts and their output in flood prone areas
- List of Numberdars with their contacts, volunteer from low lying settlements with contact numbers
- Prepare list of vulnerable villages and make an estimate of likely affected population in such villages in the event of flood
- Name and contact numbers of private boat owners and operators Announcement of Flood Warning at settlement level – Patwari responsible Forced evacuation with police
- Rapid assessment for relief goods and ration provision Coordination and reporting
- Carry out survey of entire flood affected areas to assess losses in collaboration with Agriculture, Livestock and Education Department
- Conduct crop damaged/ house damaged surveys

#### **Tehsil / Town Municipal Committee**

- Tehsil / Town Municipal Committee plays an important role of providing municipal services in the district including clean drinking water, sanitation facilities, maintenance of parks and removal of encroachment etc.

- Tehsil / Town Municipal Committee will provide assistance to the District Government for setting up and management of relief camps/ operations.
- TMAs are responsible for provision & restoration of water and sanitation facilities in their municipalities besides disposal of waste or rain water/sewerage.
- TMAs are equipped with trucks, water bowsers, and tractors, dewatering sets, bulldozers, loaders and dump trucks. All of these equipment are utilized to restore proper sanitary facilities, ensure the delivery of clean water and remove debris or excess water.
- TMAs sanitary workers can be employed for cleaning relief camps, or other such areas which has been affected by any disaster. TMAs employ de-watering sets to remove excess water. All TMAs are required to ensure the maintenance of all dewatering sets prior to the monsoon season. The TMA maintains a list of all the choking points where rainy water accumulates as a result of heavy storms which can cause urban flooding.
- TMA should ensure supply of clean drinking in overhead reservoirs and ensure supply to the affected areas or relief camps through water bowsers. Clean drinking water is a major issue and requirement during any disaster.
- In case of any disaster that requires people to be relocated, the TMA under the concerned Administrator i.e ADC/AC will assist in the migration of the affected people.
- During the relief effort and subsequent rehabilitation effort the, the local TMAs manpower can be effectively used for the distribution of food and essential commodities among evacuated people or any other relief activity such as provision of cash compensation.

### **District Disaster Management Authority (DDMA)**

- DDMA's are created under the NDM Act 2010 under Chapter IV Section 18 and the law defines their composition and also outlines their functions, duties and powers.
- District Disaster Management Authorities are the first line of defense and the implementing arm of the government policy and plans. Within the district there are three to four key players/departments that have to put up a joint and coordinated effort in order to fight with and handle any disaster under the leadership and coordination of the DCO. The office of the DCO fully supported by the DPO and line departments such as Health, Agriculture, Livestock, Civil Defense, 1122, TMAs and the Revenue Department form the main disaster management team within any given district. This plan is an effort to highlight their sets of responsibilities followed by the role of provincial departments.
- All district administrations had prepared a detailed contingency plan to face any disaster or hazard specially floods which until recently have become an annual affair for some districts.
- The district administration will divide the area as per district division with the Assistant Commissioner as in charge of his her tehsil. All disaster related activities in a said tehsil will be coordinated through the concerned AC and the TMAs.
- On receipt of a flood warning, immediate warning will be conveyed to all the concerned officers. Immediate action will be taken in each sector / sub sector for evacuation of the population from risk prone areas to safer places or to Relief Camps. An Assistant Commissioner will ensure that announcements are made through loudspeakers of the mosques utilizing the services of the Revenue department. Each Patwari will inform the Numbardar, Headmaster of the School, Imam Masjid and councilors to make announcements etc.

- The tactical operations would be headed by the Additional District Collector (ADC). The ADC would be responsible for coordinating and supervising the disaster control and relief measures in the district.
- Provincial government had notified the following composition of DDMA for whole of the province:

**Deputy Commissioner (Chairperson)**

- i. **Deputy Commissioner Kasur**
- ii. District Police Officer
- iii. Additional Deputy Commissioner (R)
- iv. Two Elected Representatives to be nominated by the Chair
- v. Representative of Pak Army
- vi. Two Representatives of NGOs/Civil Society to be nominated by the Chair
- vii. District Officer (Coordination)
- viii. ADC (F&P)

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- ix. Chief Executive Officer (DHA)
  - x. Executive District Officer (Health)
  - xi. Executive District Officer (Education)
  - xii. Chief Executive Officer (DEA)
  - xiii. SP Special Branch
  - xiv. XEN Irrigation / Public Health
  - xv. District officer Civil Defense
  - xvi. Administrators of Tehsil Municipal Administrations
  - xvii. All Tehsil Municipal Officers in District
  - xviii. District Emergency Officer, Rescue 1122 (Secretary)
  - xix. Representative of Red Crescent
  - xx. Such other District level Officers to be appointed by District Government
- District Governments must establish a Disaster / Flood control room at the DCO's office, the numbers of which will be circulated to all concerned. The Disaster / Flood Control Room has to maintain updated information regarding the threat of disaster and statistics post disaster. The center will maintain a regular communication with the Flood Forecasting Division or the dam authorities up stream in case of a flood.
  - The District Government would immediately mobilize the equipment needed to tackle the challenges created by a disaster. The District Governments will provide a comprehensive list of flood fighting equipment to PDMA as part of their flood contingency plans.
  - Executive District Officer (Health) will ensure the availability of adequate medicines for treatment of common issues, particularly for snake and dog bite cases and general vaccines at each relief camp.
  - EDO (Agriculture) and DO Livestock would arrange fodder and feed supplement for livestock and animals displaced.
  - District Regional Transport Authorities (DRTA) in all 36 districts of Punjab are managed by Secretaries who would coordinate with local transporters to arrange for arranging transport required for evacuation of people from affected areas. In case of shortfall in transport in a particular district, the adjoining district would mobilize the transporters in his district to assist with the evacuation of people.

#### **Role of Rescue 1122 in districts during disaster**

- The immediate evacuation of people from the disaster prone and vulnerable areas.
  - Provision of immediate medical aid during any emergency and at the same time transporting the injured or sick to the nearby hospital through their team of ambulances.
  - In flood situations rescuing people from drowning in the strong currents is a specialty of 1122 as it has its own set of divers and boats. Similarly in case of collapsed buildings or structures the 1122 is equipped with heavy machinery to cut through heavy debris.
  - Apart from that responsible deployment of fire fighters, cordoning of hazardous areas, provision of first aid and medical treatment, immediate search and rescue of victims and management of the pre-hospital emergency system.
  - Rescue 1122 is well trained in setting up medical camps for provision of emergency medical treatment. These camps are setup by Rescue 1122's doctors and paramedic staff.
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**Pre-disaster Check list for DDMA**

- Meeting of DDMA held
- Identification of vulnerable areas
- Identification of Safe places and Preparation of contingency plan

Bunds and encroachments visited

- Sites identified for relief camps Evacuation routes/plan
- Safe custody of Government records and essential equipment and their shifting to safer areas on receipt of flood warning
- Enlistment of department wise available resources
- Preparation of list of required relief goods/ items
- Involvement of Volunteers, NGOs and other CSOs
- Designation of Focal Person
- Preparation of District vulnerability map with varying degrees of floods
- Evacuation well in time from vulnerable areas
- Establishment of Camps – All services under one roof
- Flood warning and weather forecast: Loudspeakers announcements
- Establishment of control rooms
- Cancellation of all type of leaves of all employees Designation of Focal Persons
- Assignment of duties and responsibilities of all officers for flood emergency
- Preparation of Telephone Directories with the cell numbers of all the members of DDMA's and volunteers
- No leave during flood days; No official will leave station

**Disaster Emergency Control Room (functions and responsibilities)**

For any emergency Disaster Emergency Control Room is a permanently operative section of District Government. It is located in System Network Administrative (SNA) Office, District Complex Kasur. This office is well connected with functionaries by Multimedia and multiple communication mediums including Telephone, Wireless and Internet service. This office is responsible for reporting the updated situation to the District Government and Provincial Control Room. The Actions are initiated to pass information to functionaries through the same office.

**DDMA (District Kasur)****Checklist for Control Room:**

- Dedicated Staff as per magnitude of the disaster
- Duty roaster of the staff
- 2 Dedicated telephone lines
- Dedicated Fax
- Wireless
- Internet and Email or any other source of communication □ Power backup

**Checklist for Relief Camp Incharge:**

- List of staff displayed with name and department teams will work in shifts
- Presence of representatives of all service providers i.e. Health, livestock, Rescue 1122, Civil Defense etc.
- No movement without the permission of Centre Incharge
- Each shift in-charge to contact District Control Room on arrival and then on departure
- In-charge will keep close liaison with SHO of the respective area
- No of affectees in camp (sick, aged and children) shall be communicated daily
- Availability of at least one emergency vehicle at center be ensured
- Keep record of private boat owners and their contacts details
- List of Doctors and private hospital in the vicinity
- List and contact of philanthropists in the vicinity
- Keeping record of donations coming directly to Centre and report the same to Tehsil and District Incharge.
- Centre Incharge shall ensure vaccination of animals and humans against Communicable diseases List of missing persons must be displayed at all Relief Camps

**Role of Health Department**

The public sector health delivery system comprises of four tiers and as such will continue to provide services at these four tiers during and after any disaster:

Outreach and Community Based Activities, which focus on immunization, sanitation, malaria control, maternal and child health, and family planning. Primary care facilities include BHUs, RHCs. THQs and DHQs provide inpatient and outpatient care. Tertiary care hospitals located in the major cities for more specialized care. In case of any disaster or calamity the health department will ensure that the following measures are in place;

- To provide first aid to the injured people and arrange evacuation of patients for further assistance.
- Medical camps and mobile health teams should be arranged for prevention and control of communicable diseases, immunization and provision of essential drugs.
- Health department would make a roster of all medical officers and paramedics that would be deployed to these camps and teams.
- Drugs and other medical equipment should be available at all these camps and with mobile teams. The medicine should be for relevant flood related issues, **Particularly Anti-snake venom, Anti-rabies.**
- The shelters or relief camps established by the district administration should have medical centers with ambulances and special facilities for women and children.
- An emergency control room will be established in the office of Directorate General Health Services and a representative of this emergency control room would be designated to PDMA's control room.
- A list of essential medicines would be prepared by the Health department and it would ensure that medicines and other resources are present in sufficient stocks in hospitals in disaster hit areas.
- Medical colleges may be involved to create Emergency Response teams
- Health department would also coordinate with international organizations such as WHO and UNICEF.
- Extensive disease surveillances in the disaster hit areas should be carried out warnings if needed be issued through the Disease Early Warning System. Medical teams and paramedic staff should be mobilized and deployed for rapid assessment and quick response in the affected areas.

- A contingency plan will be prepared and submitted regarding preparedness for any disaster or calamity.
- The National Disaster Management Authority has designated WHO as the key organization that will fill the gaps in the supply of medicines, rapid diagnostic kits, and vaccinations etc.
- The department would employ female health workers in emergency areas specially, for spreading awareness regarding health risks in a disaster and for any vaccination or immunization program that may be needed during any emergency.
- A Health and Nutrition Cluster for overall management and oversight of Health department's disaster response would be formed at the Directorate General Health office.
- In case the medicine stocks or even the infrastructure is damaged due to floods, the department would draw up a plan for early recovery of health infrastructure and service delivery.

### **Civil-Military Coordination Mechanism**

The DC is responsible for all the coordination with Military. As the situation demands, the District Coordination Officer communicates and request for Mobilization and Demobilization of Army Troops through the procedure defined by the Provincial Government. District Government is responsible for facilitation of Army Troops deployed within Area of Emergency.

### **Livestock & Dairy Development**

The Additional Director (Livestock) will ensure that the animals are vaccinated in area likely to be affected by the Floods before the Commencement of Flood season.

During the Floods, the Additional Director (Livestock) will ensure that adequate drugs and Veterinary Officers are available at the relief camps.

- Mobile Teams consisting of the following will be covering the Flood affected area.
  - a. Veterinary Officer 1
  - b. Veterinary Assistant 2
- For the livestock, affected by Flood, in Tehsil Kasur, Chunian and Pattoki services of Livestock Department will be utilized.

### **Food Department**

The District Food Controller will ensure that adequate Atta is available on demand against payment for providing the same to the Flood affected persons.

### **LESCO**

- The Executive Engineer LESCO will ensure that his staff is stationed in the village likely to be affected by Flood. The LESCO staff will disconnect the electricity before the Flood water reaches the area to avert any loss to life and property
- The Executive Engineer LESCO will also ensure timely restoration of electric supply accordingly

### **Information Department**

- Coordination and close liaison with print and electronic media public message and local cable for flood warning, print and electronic media issue handouts regarding flood losses without creating panic while working in collaboration with District Flood Incharge.
- Issue hand outs to counter disinformation. wrong report to TV /Radio/Press and clarify the situation
- Assist District Flood Coordinator in holding press conference on daily flood situation
- After declaration of flood alert, furnish the press cuttings of flood related news to the District Flood Coordinator at 9 AM on daily basis.

- Projection and dissemination of Govt Rescue, Relocation, Relief, Rehabilitation and reconstruction efforts
- Close liaison and coordination with all Govt. Departments/ offices
- Establish of media desk during disasters and emergencies

## **Irrigation Department**

### **Before disaster**

- Equip irrigation department to mitigate floods and droughts with technical & managerial capacity and modern gadgetry and practices.
- Ensure development & maintenance of flood protection systems in the pre-flood season.
- Inspect and ensure the proper functioning of all the irrigation installations in the district.
- Identify the most vulnerable points of irrigation canals & headwork's in the district and takes corrective measures.
- Forge inter and intra departmental coordination mechanism, including coordination close with DC, DDMA, NGOs and PMD district office and share the information/updates about emergency with all the stakeholders.
- Demonstrate/assist & train local communities facing localized or regional droughts on cheaper rain water harvesting and storages techniques.
- Educate and train the drought affected communities on water use efficiency techniques/good irrigation practices.
- To establish a mechanism of early warning transmission, up and downstream across communities and establish special flood warning centers at UC level, with support of district administration and CSOs.
- Develop and regularly review the district level plans on water management.
- Prepare departmental contingency plan and circulate it among stakeholders before onset of Monsoon.
- Identify and discourage encroachment(s) of various water ways, with the help of other district authorities.
- Closely monitor discharge rates in the major water bodies, passing through the district and for this purpose and optimize functionality of the installed gauges.
- Arrange protection material such as sand-bags, stones, machinery, human resources and other material to be used at the time of need especially before the onset of moon soon.

### **During disaster**

- Ensure establishment and operationalization of Flood Control Cell (FCC) in proper order.
- Keep liaison with field staff, Provincial Irrigation Department and district authorities
- Institutionalize regular patrolling of vulnerable points/ irrigation canals and breach sites to warn the potential victims on time.
- Create and disseminate flood situation reports among the stakeholders

### **After Disaster**

- Do stocktaking exercise of disaster affected areas and examines all the existing flood protection systems like protection walls, spurs studs and head works of the irrigation canals.
- Estimate and collect damages data and do need assessment in terms of repair/maintenance; and disseminate the information to the relevant stakeholders for securing needed resources.
- Coordinate repair work of the damaged irrigation infrastructures.
- Prepare a sectorial specific recovery plan.

## **Education Department**

### **Before disaster**

- Conduct MHVRA for all education facilities, map all the educational facilities and identify structural vulnerabilities such as hazard-prone location, dilapidated condition, risks involved, and other secondary threats that may cause severe problems to educational facilities in case of a disaster
- During the construction of new school buildings or any other education facility, proper designing keeping in view the need of People with Disabilities (PWD) should be incorporated in the structure.
- Information about the existing hazards and risks in the district and the mitigation measures can be compiled in simple language, and share it with teachers and students at all levels (primary & secondary schools, colleges). The ultimate objective should be to incorporate inclusive DRR into school curriculum.

**DDMA (District Kasur)**

- Prepare Emergency Response Plan and DRR Plan for education facilities and arrange regular drills and exercises during pre-disaster phase.
- Gather information about me /NGOs working in the district in the education sector and make sure they mainstream DRR aspect into their project activities.
- Identify educational facilities that can be used as temporary evacuation centres for displaced population during or after any disaster. It is important that the identified facilities have water, proper sanitation and latrines facilities.
- Engage active student through Girls Guide, Scout Teams, and Parent Teacher Council (PTC) and conduct regular trainings on emergency response management for students, teachers and parents.
- Identify safe evacuation place in the school and in collaboration with other actors such as PTC, Civil Defense and I/NGOs, organize regular emergency response and evacuation drills with students and teachers.
- Promote the spirit of volunteerism amongst students through awareness raising and training sessions so that they become a useful resource for local communities in times of disasters.
- Build capacities of teachers in a way that they are able to prepare and implement disaster response plan for their respective educational facility.
- Educational facilities related data should be maintained and updated on regular basis along with data about those who are more vulnerable that include children under age of 10 and special persons.
- Teachers can be used for mass awareness and capacity building of the vulnerable groups through education & trainings and can disseminate messages by using students as a medium.

**During Disaster**

- Mobilize teachers and student volunteers to assist in the search & rescue operations to be followed by setting-up emergency evacuation and relief camps at already identified educational facilities.
- In case of flood, inform teachers of those schools where the water can probably hit the school building and cause damages. This information will help teachers to take any emergency preparedness measures with support from local communities.
- Conduct preliminary damages and needs assessment and submit flash reports to higher authorities, DDMA and DC office.
- Temporary shelters in the form of school's buildings can be provided for displace population during disaster, having water supply and latrine facilities available mostly in the buildings. Teachers can be used as valuable working force for smoothly running of the emergency operating centers established at evacuation sites.

**After Disaster**

- Undertake a detailed assessment of damages inflicted by disaster to the educational facilities. On the basis of this report, determine short, medium and long-term needs of the education sector in the district.
- Plan and provide provisional assistance on education after a disaster to ensure continuity of learning.
- Rehabilitation and restoration of damaged educational facilities should be given high priority.
- Nonstructural activities including preparedness, trainings, drills, awareness campaign and celebration of commemoration day in the schools should be continued.

**Civil Defense Department****Before Disaster**

- Render first aid, fire safety and rescue trainings to communities, individuals and organizations in the peacetime.
- Develop and emergency evacuation plan and conduct regular drills and exercises.
- Create community awareness on public safety.
- Recruit/induct operational staff for search and rescue teams with required specialized skills and equipment.
- Ensure provision of trained rescue workers / Raza Kars and First Aid staff.
- Educate and train volunteers on DRR, emergency response management including first aid, Search and rescue, emergency evacuations and protection procedures against poisonous gases, chemical/biological/radiological explosions or attack.
- Participate in emergency drills with other stakeholders.

**During Disaster**

**DDMA (District Kasur)**

- Undertake search & rescue activities immediately after a disaster. To do it in more efficient manners, coordinate with other district departments in order to reach to the needy and more appropriate place.
- Render first aid to injured persons and transport them to nearest hospitals/dispensaries.
- Ensure evacuation from damaged buildings/structures including demolition of damaged structures to avoid further loss of life and properties.
- Assist in debris clearance and restoration of essential services to the affected buildings.
- Search and defuse unexploded bombs in the affected areas.
- Work with the Fire Brigade in rescue and first aid operations related to fire and other rescue incidents.

**After Disaster**

- On the basis of the response activities that performed, make a detailed assessment of the capacities of the department and identify gaps and requirements.
- Prepare a plan of action for the department and start resource mobilization accordingly.

**Police Department****Before Disaster**

- Prepare details of inventory available at each police station that may be used during any disaster or emergency.
- Prepare and update regularly the contact information of staff, and always make sure that the main phone exchange and the wireless system works properly.
- Prepare Contingency and DRR plan for the department.
- Working with the Pakistan Meteorological Department and DC office, support in dissemination of warning to the affected communities.
- Support District Government Authorities in the process of evacuation to safer places.

**During Disaster**

- Ensure to maintain law and order situation during any disaster situation in the affected areas.
- Ensure security measures at evacuation points, in evacuated areas, at relief centers and godowns.
- Provide assistance in emergency warning, rescue, relief and evacuation operation.
- Ensure that over-loaded trucks are not coming/going to disaster affected areas.
- Divert traffic where necessary to keep the emergency relief operations going smoothly.
- Ensure security of humanitarian workers who perform duties after any disaster.
- Prevent harassment of women and children during any emergency.

**After Disaster**

- Keep order and prevent obstruction on public places.
- Aid and cooperate with other agencies for the prevention of destruction of public property by violence, fire or natural calamities.
- Provide assistance to victims of road accidents.
- Protect life and property of citizens.
- Preserve and promote public peace.

**Social Welfare & Community Development Department****Before Disaster**

- Develop disaster risk management plan and contingency plan with regards to the mandate of the department.
- Raise awareness of staff of the department about special vulnerabilities and capacities of women and children with relation to disasters.
- Encourage involvement of women and PWDs in disaster risk management activities.
- Promote awareness amongst women and PWDs in hazard-prone areas about disaster risks and disaster preparedness.
- Develop capacities of women's, PWDs and Children focused organizations on disaster risk and emergency management.

**DDMA (District Kasur)**

- Ensure that needs of women survivors are addressed in post disaster situations during the relief rehabilitation and reconstruction phases.
- Properly plan and provide shelter to the affected women, beggars at DarulKafala, Drug rehabilitation, special education, blind institute, disable registration, child protector and other socially excluded groups.
- Promote awareness regarding the children rights.

**During Disaster**

- Facilitate participation of women and PWDs in the management of relief, rehabilitation and reconstruction activities.
- Use of emergency phone numbers helpline for Child protection during disaster.
- Provide shelter provision to affected women, support in damages and needs assessment of the affected area, service provision through reformal, shelter provision to missing unaccompanied children's.

**After Disaster**

- Support post-disaster rehabilitation of livelihoods of women survivors, which is mostly in the informal sector and is ignored many times.
- Support the district government and PDMA for re-unification of missing unaccompanied children, women, PWDs, rehabilitation of families, psychosocial support provision

**Works & Services Department****Before Disaster**

- Develop district guidelines for safer construction of government buildings and infrastructure in hazard-prone areas multi hazard approach.
- Ensure DRR checklist of PC-1 has been seriously implemented in all new schemes.
- During the construction of any new buildings, proper designing keeping in view the need of People with Disabilities (PWD) should be incorporated in the structure.
- Develop sample designs of government buildings, high-rise buildings and infrastructure (bridges, roads) for safer construction in hazard-prone areas.
- Ensure environment impact assessment studies has been conducted for all new schemes
- Conduct training of builders, contractors and masons on safer construction methods and provide guidance on adopting inclusive DRR measures during the construction.
- Monitor construction of government buildings and infrastructure in hazard prone areas to ensure that safer construction techniques are followed.
- Incorporate disaster risk assessment in the planning process for construction of new roads and bridges.
- Construct, maintain and repair district and rural roads, bridges, tunnels and causeway etc.
- Prepare a disaster risk management plan and contingency plan with relation to departments programs and mandate.
- Develop guidelines on conduct of damage and loss assessment to infrastructure and government buildings in the wake of a disaster, and conduct assessments after disasters.

**During Disaster**

- Send information to other district departments on road conditions especially regarding blocked or impassable roads after a disaster.
- Ensure draining the flood water from roads and remove debris from under the bridges for smooth flow of water.
- Monitor disaster situation (in case of flood and landslide) with regard to roads and coordinate with other district departments for transporting relief items to affected areas.

**After Disaster**

- Undertake a detailed assessment of damages of government buildings, roads infrastructure including bridges, culverts, etc.
- Prepare a report of damages to be shared with the district and provincial authorities along with budget requirements for the rehabilitation and reconstruction of damaged/destroyed infrastructure.

**Public Health Engineering (PHE) OR Building Department****Before Disaster**

**DDMA (District Kasur)**

- Repair and maintenance of the structure in command areas.
- Prepare contingency plan highlighting resources available with the organization.

**During Disaster**

- Collect damages data and prepare report for onward submission.

**After Disaster**

- Rehabilitation of the damaged infrastructure, including protection walls, retaining walls, check dams, water ponds, surface water tanks, land leveling, field terracing, small dams, spurs etc.

**Pakistan Army****Before Disaster**

- In consultation with NDMA, PDMA and other line department, identify areas that are most likely to be impacted in case of a disaster.
- Accordingly, prepare and upgrade necessary equipment, manpower and other necessary material to be used / deployed immediately after a disaster.
- Conduct regular capacity building programs for soldiers so that they are able to carry out emergency relief activities effectively.
- Evacuate people to safer areas and designated evacuation centers before and after a disaster.

**During Disaster**

- Provide search and rescue services where needed.
- Evacuate people to safer areas and evacuation centers with focus on giving priority to women, children and PWDs
- Close liaison with the District Government and Disaster Management Authorities and if required establish emergency relief centers and provide disaster victims with lifesaving food, shelter and health facilities.
- Install temporary bridges where appropriate to ensure mobility of affected population and smooth transportation of relief items.
- Provide logistic back-up in terms of trucks, boats, helicopters etc. to the civil administration, if need be.

**After Disaster**

- Supplement early recovery efforts of civilian administration and the humanitarian community.
- Reconstruct / repair roads and bridges at important locations.

**Private Sector (NGOs, and Pakistan Red Crescent Society, etc.)****Before Disaster**

- Conduct MHVRA at the Tehsil/UC/village levels according to the standard procedure set by the PDMA/NDMA under the supervision and with close coordination with the DDMA.
- Develop DM Plans at all level and share with the DDMA for coordination and implementation.
- Mobilize communities and develop local level capacities for early warning, disaster preparedness and response.
- Support DDMA in establishing the Tehsil/UC/Village level DM Committees according to the set criteria of the PDMA.
- Provide all necessary trainings, conduct drills/exercises and provide necessary equipment to the DRR committees with the close coordination of the DDMA.
- Participate in disaster risk management activities such as training, public education, damage assessment, rehabilitation and construction projects in hazard prone areas.
- Implement programs for community vulnerability reduction; e.g. strengthening livelihoods, safer construction practices, drought mitigation, etc.
- The Pakistan Red Crescent Society is to assist the district government in crises, emergencies and disasters. The main activities of the Society are relief work during and after conflict, disaster relief and supplementary health and welfare services, which include a wide range of activities for the less privileged and marginalized people in both urban and rural areas. The Society provides ambulance and search and rescue service at times of emergencies in addition to capacity building of volunteers, CBOs, and district government officials.

**During Disaster**

**DDMA (District Kasur)**

- Facilitate local authorities in emergency relief operations (search & rescue, establishment of evacuation/relief camps, food distribution to displaced, provision of health services, etc.)
- Establish information management centers at evacuation/relief camps with close coordination of the DC office and the DDMA.

**After Disaster**

- Mobilize disaster affected communities for early recovery and rehabilitation efforts.
- With the support of DM committees, assess Tehsil/UC/Village level damages/losses and needs and contribute it to the district government's data.
- Prepare village level early recovery and rehabilitation plans and mobilize resources for their implementation.
- Provide emergency livelihood support to communities in terms of providing agriculture inputs, conditional cash grants, etc.
- Work on promoting community based disaster risk management.

**Agriculture Department****Before Disaster**

- Keeping in mind the most significant hazards in the district, undertake a field exercise of risk assessment to identify vulnerabilities and risks vis-à-vis food security, agriculture activities such as cropping patterns in the face of climate change, and the livestock/dairy/poultry. This exercise should also look into the possibility of likely damages / losses which might occur in the wake of any disaster to all the sub-sectors of the Agriculture department. The outcome of the exercise will be an informed and practical DRR plan of the department.
- Establish and maintain farmers' groups to raise their level of awareness with regards to issues falling under the overall mandate of the department. The farmers' group may also be trained on basic disaster preparedness and response skills. They can potentially become extremely useful during disaster situations in their respective areas
- Prepare departmental contingency plan and organize regular drills/simulation exercises
- Maintain emergency stock of vaccination, fodder and seeds etc.
- Creating community seed banks at the Union Council level is a very viable option to support the small farmers with minimum seeds requirements after any disaster to enable them to resume and regenerate agriculture based livelihood activities.
- Mass awareness regarding epidemics and diseases to livestock, poultry and crops. Regular vaccination is an effective tool to prevent diseases.
- Regular surveillance of water sources, which may be damaged or cause flooding in monsoon.
- Close coordinating with Pakistan Meteorological Department and media to ensure that early warning messages are appropriately relayed / disseminated to hazard prone communities. It will help people to plan for sowing/planting and harvesting crops accordingly.
- Arrange different trainings on impact of global warming and climate change and adoptability of agriculture crops and enhance the productivity for the farmers
- Promote adoption of flood and drought resilient crops through research and dissemination to farmers with the help of agriculture extension workers.

**During Disaster**

- Immediately, start interacting with DDMA/DC office for coordinating emergency response activities.
- Make available all the technical and material resources to be made part of relief efforts.
- Carryout agriculture sectors damages/losses and needs assessment and prepares flash report for response.
- Help other relevant departments in establishing relief camps in safe places.
- Arrange feed and fodder for surviving livestock.

### After Disaster

- Prepare detail report of agriculture sector damages/losses and needs and submit it to DDMA/DC office for onwards transmission to PDMA/NDMA.
- Repair and rehabilitation of water sources to ensure that agriculture activities are resumed as early as possible.
- Livestock vaccination.
- Ensure foods and fodders availability.
- Provision of seeds, fertilizers and other agri-inputs/implements to farmers as disaster early recovery support.
- Document lessons learnt and revise the departmental contingency and DRR plan accordingly.

### Volunteer Network

DDMA & 1122 along with civil defense Kasur for operating a network in District Kasur. 72 Volunteers have been registered from Rescue 1122, Social Welfare and Civil Defense in the district. The head of Rescue 1122, Civil Defense and Social Welfare will activate their respective Volunteers, assigned their duties and issue their deployment plan as per need and nature of emergency. All respective department will coordinate in the district to meet any emergency disaster.

## RISK ANALYSIS

### 1. Potential hazards of the district

Hazards	Likelihood (Score 1-5)	Impact (Score 1-5)	Risk
Floods	3	3	9
Urban Flooding			
Flash Floods			
Hill Torrent			
Glacial Lake Outburst Flood (GLOF)			
Landslide			
Tornado			
Earthquake	3	3	9
Drought	3	3	9
Epidemic	2	2	4
Fire Incidents	3	3	9
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	2	2	4
Environmental Hazards (industrial accidents, severe pollution etc.)	4	3	12

Risk = Impact x Likelihood

Low : 1-7

Medium : 8-14

High : 15-25

## 2. Hazards

- *Disasters occurred over the past two to three decades and their impact on communities and development sectors*
- *Provide a brief description of the hazards being planned for (medium and high risks), including potential location that could be affected;*
- *Briefly outline the triggers*

Hazard mapping plans Risk reduction plans at Village and Union Council level are readily available with District Disaster Management Forum Kasur. Which may be available to District Disaster management Authority (DDMA)

## **Response & Operational Capacity**

*Briefly describe the existing response capacities in District (including government and NGO partners)*

At Government level DDMA, Rescue 1122 and Civil Defense have their plans ready, needs and shortfalls have been identified in their plans, duly communicated to competent authorities. Other line departments act according to instructions received from Flood Control center, all NGO working in the district response strategy is shared with district Govt.

## Strategic Reserves Rescue 1122

Items	Available	Functional	Repairable/Non Functional	Extra Demand
Navigators	0	0	0	08
GIS devices	0	0	0	25
Life Buoys	60	60	00	00
Life Lines	0	0	0	30
Scuba diving suit with complete accessories	3	3	0	3
Rescue Bag	45	45	0	0
Safety Harnesses	0	0	0	10
Ambulances	22	22	00	00
Fire Brigade	05	05	00	02
Water Tanks / Boozers	00	00	0	02
Extendable Ladders	0	0	0	02
Hydraulic Cutter	1	1	0	06
Sonar Rader	0	0	0	04
Jumping Sheet	0	0	0	0
Dumpers	0	0	0	0
Excavators	0	0	0	0
Cranes	0	0	0	0
Bulldozer	0	0	0	0
Boat Carrier/Trolleys	02	02	0	5
Pickups/Jeeps/4x4 vehicles/Mini Trucks	0	0	0	05
Searchlight	0	0	0	50
Mosquito Net	0	0	0	50
Any other main relief/rescue equipment	0	0	0	Search Cam-02 Rain Suit-100 Umbrella-30 Boat Paddel-30 pairs Binoculars-20
Gas-Cutters	00	00	0	0
Navigator/GPS Tracker	0	0	0	25
Floating Rope	0	0	0	100

**Strategic Reserves Rescue 1122**

Sr.No	Particulars	Availability 2022	FUNCTIONAL 2022	NON FUNCTIONAL 2022	NEW DEMAND 2022	RATIONAL DEMAND 2022
1	Pnumatic Boat(Inflatable)	03	02	1	0	0
2	Fiber Glass Boat 19ft	22	17	5	0	0
3	Fiber Glass Boat 24ft	05	05	0	0	0
4	OBM 40HP	21	21	0	03(30HP)	03(30HP)
5	OBM 60HP	0	0	0	0	0
6	Tent	55	55	0	0	0
7	Life Jacket	250	250	0	50	50
8	Life Ring	0	0	0	50	50
9	Dewatering Sets 1 Cusec	0	0	0	0	0
10	Dewatering Sets 1.5 Cusec	0	0	0	0	0
11	Dewatering Sets 2 Cusec	0	0	0	0	0
12	Dewatering Sets 3 Cusec	0	0	0	0	0
13	Dewatering Sets 4 Cusec	0	0	0	0	0
14	Generator with light stand set 5-KVA	1	1	0	06	06
15	Plastic Mat	50	40	10	30	30
16	Mosquito Net	0	0	0	50	50
17	First Aid Kit	31	31	31	0	0
18	Blankit	0	0	0	30	30
19	Quilt	0	0	0	30	30
20	Scuba Set	3	3	0	3	3
21	PICK Axe	0	0	0	20	20
22	Stretchers	0	0	0	25	25
23	Helmet	0	0	0	100	100
24	Rope Various Size	0	0	0	100	100
25	Iron Pans	0	0	0	30	30
26	Shovels	0	0	0	30	30
27	Kassi	0	0	0	30	30
28	Fire Extinguishers CO2	0	0	0	40	40
29	Fire Extinguishers DCP	0	0	0	40	40
30	Trolley Mounted Fire Extinguishers	0	0	0	10	10
31	Bucket	0	0	0	20	20
32	Gum Boot(Paires)	0	0	0	50	50
33	Jumping Sheet	0	0	0	0	0

### Strategic Reserves by Civil Defense Kasur

Item	Available	Functional	Repairable I Non Functional	Extra Demand
Life Buoys /Ring	02	02	---	05
Life Lines/Ropes	27	27	---	---
Rescue Bags	01	01	---	---
Ladders Aluminum	01	01	---	---
Jumping Sheet	01	01	---	01
Search Light	---	---	---	10
Shovels	56	56	---	---
Life Jackets	04	04	---	20
Tents	36	36	---	---
Blankets	35	35	---	---
Buckets	50	50	---	---
Gum Boots	06 Pair s	06 pairs	---	---
First Aid Kit	---	---	---	05
First Aid Kit				05

### Strategic Reserves by District Council Kasur

Sr.No	Particulars	Availability	FUNCTIONAL	NON FUNCTIONAL	NEW DEMAND	RATIONAL DEMAND
1	Dewatering Sets 1 Cusec	10	10	0	0	0
4	Generator with light stand set 5-KVA	5	2	3	3	0

**Strategic Reserves by MC Phool Nagar**

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Pneumatic Boat	Nil	Nil	Nil	Nil	
2	Fiber Glass Boat 19ft	Nil	Nil	Nil	Nil	
3	Fiber Glass Boat 24ft	Nil	Nil	Nil	Nil	
4	OBM 40HP	Nil	Nil	Nil	2	
5	OBM 60HP	Nil	Nil	Nil	1	
6	Tent	Nil	Nil	Nil	20	
7	Life Jacket	Nil	Nil	Nil	40	
8	Life Ring	Nil	Nil	Nil	90	
9	De-Watering Sets 1 Cusec	1	1	Nil	10	
10	De-Watering Sets 1.5 Cusec	Nil	Nil	Nil	6	
11	Generator With Lights and Stand 5KVA	1	1	Nil	5	3 Generators 100 KVA Fixed at Disposal Stations
12	Plastic Mat	Nil	Nil	Nil	75	
13	Mosquito Net	Nil	Nil	Nil	75	
14	First Aid Kit	Nil	Nil	Nil	20	
15	Blanket	Nil	Nil	Nil	100	
16	Quilt	Nil	Nil	Nil	100	
17	Scuba Set	Nil	Nil	Nil	5	
18	Any Other Item	Nil	Nil	Nil	-	

**Strategic Reserves by MC Pattoki**

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Pneumatic Boat	Nil	Nil	Nil	Nil	-----
2	Fiber Glass Boat 19ft	Nil	Nil	Nil	Nil	-----
3	Fiber Glass Boat 24ft	Nil	Nil	Nil	Nil	-----
4	OBM 40HP	Nil	Nil	Nil	2	-----
5	OBM 60HP	Nil	Nil	Nil	1	-----
6	Tent	Nil	Nil	Nil	25	-----
7	Life Jacket	Nil	Nil	Nil	50	-----
8	Life Ring	Nil	Nil	Nil	100	-----
9	De-Watering Sets 1 Cusec	Nil	Nil	Nil	10	-----
10	De-Watering Sets 1.5 Cusec	Nil	Nil	Nil	8	-----
11	De-Watering Sets 2 Cusec	Nil	Nil	Nil	8	-----

12	De-Watering Sets 3 Cusec	Nil	Nil	Nil	4	-----
13	De-Watering Sets 4 Cusec	Nil	Nil	Nil	4	-----
14	Generator With Lights and Stand 5KVA	Nil	Nil	Nil	20	Unit Pattoki have 2 Generator which have are fix at Disposal
15	Plastic Mat	Nil	Nil	Nil	100	-----
16	Mosquito Net	Nil	Nil	Nil	100	-----
17	First Aid Kit	Nil	Nil	Nil	20	-----
18	Blanket	Nil	Nil	Nil	100	-----
19	Quilt	Nil	Nil	Nil	100	-----
20	Scuba Set	Nil	Nil	Nil	4	-----
21	Any Other Item	Nil	Nil	Nil	-	-----

### Strategic Reserves by MC Ellahabad

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Pneumatic Boat	-	-	-	-	-----
2	Fiber Glass Boat 19ft	-	-	-	-	-----
3	Fiber Glass Boat 24ft	-	-	-	-	-----
4	OBM 40HP	-	-	-	-	-----
5	OBM 60HP	-	-	-	-	-----
6	Tent	-	-	-	-	-----
7	Life Jacket	-	-	-	-	-----
8	Life Ring	-	-	-	-	-----
9	De-Watering Sets 1 Cusec	2	-	2	-	-----
10	De-Watering Sets 1.5 Cusec	2	-	2	-	-----
11	De-Watering Sets 2 Cusec	3	-	3	-	-----
12	De-Watering Sets 3 Cusec	5	-	5	-	-----
13	De-Watering Sets 4 Cusec	-	-	-	-	-----
14	Generator With Lights and Stand 5KVA	-	-	-	2	Unit Pattoki have 2 Generator which have are fix at Disposal
15	Plastic Mat	-	-	-	-	-----
16	Mosquito Net	-	-	-	-	-----
17	First Aid Kit	-	-	-	15	-----
18	Blanket	-	-	-	-	-----

19	Quilt	-	-	-	-	-----
20	Scuba Set	-	-	-	-	-----
21	Mini Dewatering Set	1	1	-	-	-----
22	Sub-mersible pump	3	3	-	-	
23	Tractors	4	0	1	-	
	Tractor Front & Loader	1	-	-		
24	Trolleys	4	-	1	-	
25	Water Tank/ Bouzers	2	-	-	-	
26	Loader Rickshaws	1	-	1	6	

### Strategic Reserves by MC Khudian

Sr No.	Name of Machinery	Available	Functional	Non Functional
1	De-watering sets	3	3	-----
2	Rickshaws	3	3	-----
3	Fog Machine	2	2	-----
4	Tractors	2	2	-----
5	Trolleys	3	3	-----
6	Sucker Machine	-	-	-----
7	Jetting Machine	0	0	-----
8	Generator	2	2	-----
9	Disposal Stations	1	1	-----
10	Spray Pumps	2	2	-----

### Strategic Reserves by Irrigation

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Fiber Glass Boat 19ft	1	-	1	-	-----
2	Tents	1	-	-	-	-----
3	Life Jackets	10	10	-	-	-----
4	Generator With Lights and Stand 5KVA	1	1	-	-	Without light stand

**Strategic Reserves by Kangen Pur**

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Tents	10	10	-	-	-----
2	De-Watering Sets 1.5 Cusec	3	3	-	-	-----
3	Tractors	2	2	-	-	-----
	Tractor Front & Loader	1	1	-	-	-----
4	Trolleys	3	3	-	-	-----
5	Water Tank/Bouzers	3	1	-	-	-----
6	Louder Rickshaws	4	4	-	-	-----

**Strategic Reserves by Tehsil Council Chunian**

Sr. No.	Particulars	Availability
1	Tractors	10
2	De-Watering Sets 1.5 Cusec	3
3	Jetting Machine	2
4	Sewer Sucker Machine	1
5	Trolleys	3
6	Water Tank/Bouzers	3
7	Mini Dumper Rickshaws	4
8	Hand Cart	

**Strategic Reserves by Tehsil Council Kot Radha Kishan**

Sr. No.	Particulars	Availability	Functional	Non Functional	New Demand	Remarks
1	Tents	-	-	-	2	-----
2	De-Watering Sets 1Cusec	2	2	-	-	-----

### 13. Gaps and Constraints

- Communication gap is major issue during emergency / disaster between DEOC and the affected areas there must be a strong wireless communication for information timely decisions and coordination among the department.
- Transportation of staff at the location of disaster.  
Non availability of proper heavy and latest equipment's for search and rescue the victims specially in building collapse / earthquake and drowning cases
  - Major obstacles to providing humanitarian assistance Non accessibility of roads
  - Security issues
  - Logistic obstacles faced by District Govt time to time different sort of equipment as mentioned above is missing and request sent to concerned office technical man power is another bottle neck especially at the time of disaster.

### **Mitigation Strategy**

- Briefly describe what measure could be taken to reduce the impact of the potential disaster.
- Strategic pre-positioning of available relief stocks
- Public education and community awareness

Hazards	Mitigate Actions	Responsible Department
Floods	i. Strengthening of embankment with stone pitching and repair of embankment where local people cut down the embankment for ways or any other purpose. ii. Awareness Raising iii. Community Based Disaster Risk Reduction iv. Emergency Response Kits at Village Level v. Periodic Multi Hazard Vulnerability and Risk Assessment (MHVRA) studies vi. Enforcement of Flood Plain Regulations vii. Clear roles and responsibilities in pre flood, during flood and post flood scenarios viii. Identification of evacuation and relief sites ix. Implementation of PDMA guidelines regarding flood x. Establishment of Control Rooms by all concerned xi. Regular DDMA meetings xii. Rescue 1122 to submit their plan including CERT team deployment xiii. Readiness certificates submission by all concerned xiv. Timely updating of list of private boats and volunteers by ACs, Rescue, Civil Defense, Social Welfare etc. xv. Pre flood/monsoon contingency preparation by all concerned as per PDMA requirements xvi. Timely inspection of sites for relief camps and ensuring their suitability xvii. Timely vaccination of flood prone areas by health and Livestock department xviii. Updating of list of relief camp in charges and sector in charges etc. xix. Inspection of buildings during and after flood xx. XEN Highway to ensure breaches of respective roads xxi. Mobile teams of Health and Livestock department xxii. Disconnection of electricity of flood areas and timely restoration xxiii. Involving NGOs in all stages of flood preparation xxiv. Ensuring availability of Ata by Food Department xxv. Arrangement of fodder, husk, seeds, pesticides, fertilizers and medicines in adequate quantity by Livestock and Agriculture departments xxvi. Inspection of Flood Bunds and structures xxvii. Arrangement of Mock Exercise by Rescue 1122 involving all stakeholders xxviii. All department will ensure that the guide lines for prevention, mitigation, preparedness and	<ul style="list-style-type: none"> <li>• Irrigation and Revenue Department</li> <li>• DDMA</li> <li>• Recue 1122</li> <li>• Civil Defense</li> <li>• Social welfare</li> <li>• Health</li> <li>• Education</li> <li>• Livestock Department</li> <li>• Agriculture Department</li> <li>• Buildings Department</li> <li>• Highway Department</li> <li>• LESCO</li> <li>• Police Department</li> <li>• MCs</li> <li>• DFC Information Department</li> </ul>

	<p>response measures as lay down by national authority and provincial authority are followed in latter at spirit.</p> <p>xxix Tree plantation in flood prone areas</p> <p>Xxx Get the people of flood prone areas aware regarding the importance embankment.</p> <p>xxxi. Construction of embankment where it is still not constructed</p>	
Earthquake	<ol style="list-style-type: none"> <li>i. Compliance of seismic provisions of Building Codes of Pakistan as a minimum standard for existing and new construction</li> <li>ii. Conduction of Evacuation Mock Drills at public and private institutions.</li> <li>iii. Deceleration of dangerous buildings</li> <li>iv. Multi Hazard Vulnerability and Risk Assessment (MHVRA) study</li> <li>v. Earthquake emergency related Rescue equipment and machinery are available and are in functional condition</li> <li>vi. Periodic mock exercises have been conducted to test equipment and machinery.</li> <li>vii. Also ensure that human resources equipped with desired skills required to deal with earthquake emergencies are available in the district.</li> <li>Viii. Various drills and exercises along with awareness campaigns in community, schools and colleges</li> </ol>	<ul style="list-style-type: none"> <li>• MCs</li> <li>• C &amp;W Department</li> <li>• Education Department</li> <li>• Rescue 1122</li> <li>• Civil Defense</li> <li>• Education Department</li> <li>• Health Department</li> <li>• DDMA</li> <li>• Information Department</li> <li>• Building Department</li> <li>• TMA</li> </ul>
Drought	<ol style="list-style-type: none"> <li>i. Encourage high efficiency irrigation practices by use of drip Bubbler, sprinkler irrigation etc.</li> <li>ii. Desertification trends be dealt with practices like sand dune fixation and shelterbelts plantations.</li> <li>iii. Protection Walls</li> <li>iv. Stoppage &amp; reduction of irrigation induced seepage salinity &amp; water logging, in the whole Thal area, which due to irrigation induced seepage of Chashma – Jhelum Link Canal (Non-lined Kacha Canal in the sandy area of Thal desert)</li> <li>v. Awareness of drought mitigation technologies, actions and interventions for farmers</li> <li>vi. Introduction of drought and heat resistant arid zone crops that are tolerant to reduced rain spells and are less prone to insects and pest attacks.</li> <li>vii. Measures to save livestock. viii. Multi Hazard Vulnerability and Risk Assessment (MHVRA) study</li> <li>viii. Drought Contingency Plans at Tehsil and District level x. Clear roles and responsibilities for drought mitigation and response</li> <li>ix. Encouraging cultivation of drought resistant crops</li> </ol>	<ul style="list-style-type: none"> <li>• Agriculture Department</li> <li>• Forest Department</li> <li>• Civil Society Organizations</li> <li>• Water Management</li> <li>• Forest Department</li> <li>• Irrigation Department</li> <li>• Livestock Department</li> <li>• DDMA</li> <li>• Information Department</li> </ul>

Locust	<ol style="list-style-type: none"> <li>i. Ensuring implementation of national and provincial action plans.</li> <li>ii. Regular preparation and updating of yearly Locust Control Contingency Plan and submission to the quarters concerned.</li> <li>iii. Effective coordination mechanism.</li> <li>iv. Nomination of Focal Persons.</li> <li>v. Formation of surveillance committees at District, Tehsil and UC levels.</li> <li>vi. Feedback and Monitoring Mechanism</li> <li>vii. Regular survey and awareness activities in the farming community.</li> <li>viii. Mega seminars at District and Tehsil levels.</li> <li>ix. Maintaining proper stock of pesticides during the year</li> <li>x. Capacity Building and trainings for the concerned HR</li> <li>xi. Mock Exercises.</li> <li>xii. Training of farmers on locust control and corner meetings in villages</li> </ol>	<ul style="list-style-type: none"> <li>• Agriculture Extension Department</li> <li>• Pest Warning and Quality Control of Pesticides(PW&amp;QCP) Department</li> <li>• Revenue Department.</li> <li>• DDMA</li> <li>• LG&amp;CDD</li> <li>• MCs</li> <li>• Information Department</li> </ul>
Epidemics	<ol style="list-style-type: none"> <li>i. Preventive Actions</li> <li>ii. Awareness campaigns on regular basis</li> <li>iii. Medical Treatment of patients</li> <li>iv. Ensure 100 percent vaccination of the target group</li> <li>v. Convene regular meetings of all concerned departments to remain current and updated and plan for future course of action</li> </ol>	<ul style="list-style-type: none"> <li>• Health Department</li> <li>• MCs</li> <li>• District Government</li> <li>• DDMA</li> <li>• Information Department</li> <li>• TMA</li> </ul>
Fire Incidents	<ol style="list-style-type: none"> <li>i. Mock exercise, trainings, equipment</li> <li>ii. Installation of fire hydrants at narrow streets</li> <li>iii. Ensure installation of fire extinguisher at shops, offices and markets.</li> <li>iv. MCs should ensure that there is no encroachment</li> <li>v. On the way to potential fire prone buildings which can hinder firefighting operations.</li> <li>vi. Ensure that all building / potential vulnerable points have escape route for residents / workers in case of fire emergency</li> <li>vii. Ensure that fire extinguishing equipment is available and in functional condition and all security / firefighting teams know their location</li> <li>viii. Ensure that security staff / firefighting staff is well trained and physical and medically fit to combat fire in case of emergency.</li> <li>ix. Ensure that residents / workers of building and flashpoints are aware of emergency SOPs (to be followed in emergency situation) and know escape route</li> <li>x. Ensure that all equipment and material required to combat fire with rescue department is ready, in order, functional and firefighting team is trained and all members are physically and medically fit to</li> <li>xi. Combat fire.</li> <li>xii. Ensure that that health department has made all necessary arrangements (inclusive of human resources,</li> </ol>	<ul style="list-style-type: none"> <li>• RESCUE 1122</li> <li>• Civil defense</li> <li>• MCs</li> <li>• DDMA</li> <li>• Health Department</li> <li>• District Wildlife Department</li> <li>• Information Department</li> </ul>

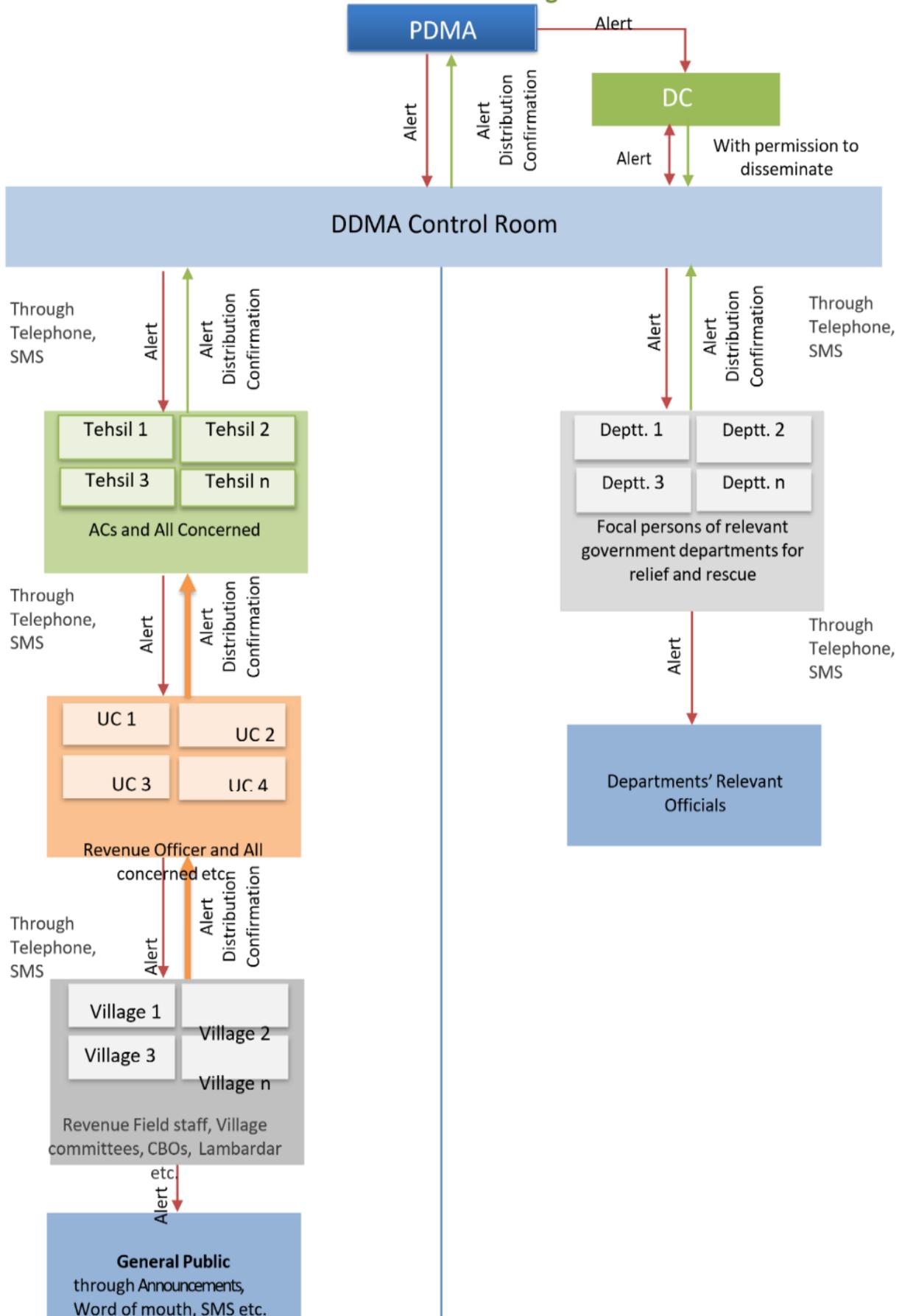
	<p>equipment and medicines etc.) to deal with burn cases resulting from fire break out.</p> <p>xiii. Ensure that mock drills have regularly been conducted and firefighters are aware of the potential threats of fire emergency in their area (involving all stakeholders Rescue, Health, DDMA's etc.)</p> <p>xiv. DDMA should convene periodic meeting with all owners of such building periodically and inspection teams should visit all tall building, flash points (petrol and gasoline station) to ensure that all precautionary measures have been taken and fire extinguish equipment is available (functional) and staff is trained.</p> <p>xv. Should also include forest department in all meetings and operations</p> <p>XVI Capacity building of volunteers/Raza Kars on rescue and relief mechanisms during fire incidents</p> <p>XVII. Provision of adequate fire mitigation equipment to different tehsil headquarters for prompt action</p> <p>XVIII. Mobilization of ambulances and vehicles</p>	
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	<p>i. First aid and RESCIE trainings Infrastructure maintenance basic life supports trainings, installation of cautionary &amp; informative sign boards and reflecting poles at roads/highways</p> <p>ii. Installation of reflectors at slow moving vehicles checking of vehicles certification / clearance certificate.</p>	<ul style="list-style-type: none"> <li>• Rescue 1122</li> <li>• Health Department</li> <li>• Highway Police</li> <li>• Traffic Police</li> <li>• DRTA</li> <li>• DDMA</li> <li>• Information Department</li> <li>• District Government</li> </ul>
Smog	<p>i. Close monitoring by Environment Protection Department. Shutting down of industries which are working without emission control equipment's or are using substandard fuel.</p> <p>ii. Imposition of ban on burning municipal wastes and crop residues. Awareness campaign among farmers regarding that and for environmentally safe disposal of crop residues.</p> <p>iii. Agriculture department to prepare, share and implement plan of disposal of crop residues.</p> <p>iv. Municipal corporations to ensure efficient collection and disposal of solid waste.</p> <p>v. Issuance of Health Advisories and maintenance of data of smog related patients by Primary and Secondary Health Care Department</p> <p>vi. Devising of fugitive dust control mechanism and its implementation</p> <p>vii. Checking of petrol pumps for safe storage of petroleum products</p> <p>viii. Ensuring Municipal Laws compliance reporting</p> <p>ix. Clean and green activities in the district</p> <p>x. Establishment of nurseries and tree plantation including awareness regarding this in the general public.</p>	<ul style="list-style-type: none"> <li>• Environment Department</li> <li>• Agriculture Department</li> <li>• Industries Department</li> <li>• Primary and Secondary Health Care Department.</li> <li>• District Police</li> <li>• LG&amp;CDD</li> <li>• Forest Department</li> <li>• Punjab Housing and Town Planning Agency</li> <li>• Building Department</li> <li>• Information Department MCs</li> <li>• Traffic Police</li> <li>• DDMA</li> <li>• Information Department</li> </ul>

	xi. Nomination of Focal Persons.	
Other Environmental Hazards (industrial accidents, severe pollution etc.)	<p>i. Awareness Raising campaigning on environment at community level</p> <p>ii. Initiating tree plantation and nurseries projects Carrying energy efficiency project that includes biogas and solar panel generated projects</p> <p>iii. Inspection &amp; Correction and capacity building of communities on environment hazards</p>	<ul style="list-style-type: none"> <li>• Environment Department</li> <li>• Building Department</li> <li>• TMA</li> <li>• Works Department</li> <li>• Education</li> <li>• Social welfare</li> <li>• Health Department</li> <li>• DDMA</li> <li>• Information Department</li> </ul>
Climate Change ( Heat & and Extreme Cold)	<p>i. Implementation of National Climate Change Policy (2013) followed by Climate Change Act (2017)</p> <p>ii. Implementation of Water Policy: Pakistan approved Water Policy in April 2018. Besides, Punjab has a provincial water policy. The government's approval and implementation of the draft Punjab Water Policy (April 2017).</p> <p>iii. Implementation of Agriculture Policies: selection and use of climate resilient crops/agriculture and cropping patterns together with water-efficient irrigation systems are need of the time.</p> <p>iv. Revision of infrastructure designs (such as bridge piers, buildings plinth levels, buildings HVAC, roads) based on climate change assessment.</p> <p>v. Provision of shelter during extreme cold and establishment of shades for extreme heat and other measures to control heat shocks including awareness campaigns</p> <p>vi. Adequate health facilities provision.</p> <p>vii. Adequate control and measures against viral disease</p> <p>viii. Encouraging urban forestation.</p> <p>ix. Adequate control and measures against viral diseases;</p> <p>x. Adaptation of best agriculture practices and use of climate resilient crops;</p> <p>xi. Use of least water-intensive crops and water efficient irrigation systems such as sprinkler and drip irrigation, particularly where rice and sugar cane is grown.</p> <p>xii. Adaptation of best water management practice, such as lining of watercourses and land leveling together with demand-based supplies using soil moisture sensors.</p> <p>xiii. Launching of farmers' awareness schemes to educate them about climate change risks, efficient irrigation systems, use of best available seeds variety, changes in cropping patterns.</p> <p>xiv. Growing of more trees to control temperature and to reduce water losses together with adverse</p>	<ul style="list-style-type: none"> <li>• Forest Department</li> <li>• Agriculture Department</li> <li>• Water Management Department</li> <li>• DDMA</li> <li>• Social Welfare department</li> <li>• Health Department</li> <li>• Environment Department</li> <li>• Information Department</li> </ul>

	<p>climate change impacts.</p> <p>xv. Changes in cropping patterns to increase food production and to cope up with the rise in food demand and water losses.</p> <p>xvi. Parthenium and other such types of weeds should be treated through biological treatment and Integrated Pest Management (IPM).</p> <p>xvii. Public awareness schemes, and capacity building of line departments' staff to educate people about climate change risks and adaptation measures.</p> <p>xviii. Well managed operation and maintenance to avoid water loss</p>	
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# EARLY WARNING

### Information Flow Diagram



## Alertness Levels

Following four levels alertness have been established:

**Level-D**  
**(Disaster threat**  
**is perceptible)**

DDMA shall conduct monthly meetings besides atleast 2 mock exercises as per DDMP, well in time, to make the concerned officers/officials understand their role and responsibility for better coordination and testing of rescue and relief equipment. DDMA shall also ensure the physical presence of concerned staff deputed and availability of equipment/resources for all designated vulnerable sites within given time frame during disaster. Vulnerable site's inspections and necessary works/action shall be carried out as mitigation measures.

**Level-C**  
**(Alert)**  
**(Warning**  
**issued but**  
**likelihood of**  
**occurrence is**  
**less than 100%)**

**Activities to be undertaken in level D**

+

DDMA shall issue "alert" to all concerned for the vulnerable area. DDMA and LDMA (tehsil level) control rooms be made operational 24/7 and ensure availability of all required (available and additional) resources for on call mobilization and monitor the situation 6 hourly. Only DC and DPO shall grant leave according to the situation.

**Level-B**  
**(High Alert)**  
**(Disaster threat**  
**is imminent)**

**Activities to be undertaken in level C**

+

DDMA shall issue EW to all stakeholders and "High Alert" for the district to ensure that all additional HR and material resources including volunteers has reported to their assigned duties, and all resources for evacuation and disaster management have been mobilized as per DDMP. All emergency (health, fire, rescue 1122, LOCAL BODIES etc) facilities shall work 24/7 with full staff strength. DDMA shall monitor the situation on hourly basis.

**Level-A**  
**(Red Alert)**  
**(Disaster is**  
**materialized)**

**Activities to be undertaken in level B**

+

DDMA shall respond to the emergency immediately and shall carry out rescue and relief operation as defined in DDMP and shall continuously monitor the situation. Resources of adjoining districts shall be mobilized and Army may be called keeping in view the magnitude of the disaster.

## Early Warning

- On the early warning will be communicated to the relevant population? E.g. through Patwari, SMS, Announcements, Media etc.
- The information / early warning will be received by DC / ADCR and District Control Room from provincial level control room.
- ADCR will be focal person for early warning / coordinating and supervising the disaster relief measures in the district.
- The district control room will intimate the information to the focal persons of DDMA, departments & Public Representatives and Tehsil Control room and will issue the alert to concerned department.
- After the intimation from Control Room all departments will take appropriate measures for evacuation, first aid, security and relief etc. as per their role and responsibilities
- Tehsil control room will issue early warning through telephone and revenue field staff to concerned chairman and councilors of the area.

## RESCUE STRATEGY

- DEOC / district control room shall intimate to all concerned department / agencies and Rescue 1122, Police, shall rush to emergency / disaster effected area. Evacuation, Medical assistance and rescue shall be made by rescue 1122 in coordination with line agencies in coordination with TMA and Health and other stake holders.
- Police will be responsible to maintain law & order situation and for security of peoples/ agencies. Complex emergencies shall be lead by police and rescue 1122 will support the rescue activates.
- Pak army will be requested by chairman DDMA in accordance with govt SOPs, after DDMA meeting keeping in view nature and magnitude of disaster / emergencies.

### Flood Forecasting and Early Warning System

Flood Forecasting and Early Warning System should be announced by Irrigation Department, Patwaris and through announcement in loud speakers of masjid. Master control Room which is controlled by Met office issues forecast information to Flood Control Room. Rescue 1122 is looking after Flood control Room and that disseminate area on alerts to residents living in vulnerable areas.

District Emergency Control Room disseminates immunity flood information to residents of low lying areas by blowing risers which are installed along River Sindh. District Control Room also plays role coordination & Communication along all stakeholders.

After receiving information of pre alert through District Flood control Room, all the relevant stakeholders are Part on high alert and their team start deployment in highly vulnerable low lying areas.

### DISASTER PREVENTION CONTROL CENTRE (DPCC)

A Central Flood Control Centre has been established at DC Office building, under the command of Deputy Commissioner & with the assistance of District Emergency Officer, Rescue 1122. This Control Room shall be the source of dissemination of information to the concerned departments and will also act as Operation Centre for coordinating all response activities. All the concerned departments / emergency service

## **HUMANITARIAN ASSISTANCE**

- Humanitarian Assistance is extremely helpful in coping up disasters.
- The DC will comprise a committee regarding collection of data of house damages and losses and communicated to higher level by the SNAs / ADCR.
- Relief camp incharges / revenue staff and the social welfare department will have determined the needs of the effected people. DDMA, civil society and local volunteers provide the assistance to affectees from early warning, search and rescue, medical assistance to relief activities.
- Government instructions shall be followed for standardization of different packages like food, kits etc. DC will establish a humanitarian assistance mechanism establishing a committee to avoid duplication and to identify gaps.
- Camp management SOPs shall be followed as per DDMP attached guidelines. District Govt have capacity for at least 18000 persons to provide assistance
- The District Govt is very keen for the protection especially Govt gender based protection is on the first in agenda, especially keen for children and person with disabilities. DDMA will ensure it with the help of NGOs and civil society.

## **ANNEX I: IDENTIFIED SITES FOR DISPLACED PERSONS**

S#	Location	No. of persons which can be accommodated	GPS Coordinates	S#	Location	No. of persons which can be accommodated	GPS Coordinates
1	District Public School, Kasur	3340	-----	11	Govt. Girls High School, Pial Kalan	2625	-----
2	Technical College, Raiwind Road, Kasur	2390	-----	12	Govt. Primary School, Usman Wala	650	-----
3	Cricket Ground Degree College, Kasur	1000	-----	13	Veterinary Hospital, Usman Wala	6645	-----
4	Govt. College for Boys, Kasur	3350	-----	14	Elementary School Chak No. 66	106	-----
5	Commercial College, Kamal Chisti, Kasur	3450	-----	15	Boys Elementary School, Cheemba	175	-----
6	Govt. College for Women, Kasur Govt. Islamia School, Kasur	3450	-----	16	Degree College for Girls, Phool Nagar	102	-----
7	Govt. Girls Middle School, Baqarkey	2650	-----	17	Boys Elementary School, Sindhu	200	-----
8	Govt. Boys Primary School, Baqarkey	2204	-----	18	Boys High School No. 2, Phool Nagar	271	-----
9	Govt. Boys High School, Usman Wala	7350	-----	19	Boys Elementary School, Katar Mal	67	-----

10	Govt. Girls High School, Usman Wala	1640	-----	20	Girls High School, Hala	117	-----
21	Boys High School, Alpa Kalan	76	-----	24	Govt. High School, Mokal	392	-----
22	Commuity Model School, Qazi Wala	1350	-----	25	Govt. Higher Secondary School, Kangar Pur	415	-----
23	Govt. High School, Mokal	1900	-----				

**Note: More camps will be established according to intnsity of flood and population affected.**

**ANNEX II:****LIST OF HAZARD PRONE VILLAGES/REVENUE ESTATE (NAMES REQUIRED)**

Hazards	Tehsils	UCs	Names of Revenue Estates	Names of Villages	POPULATION
Floods	KASUR	SEHJRA 19	Ganda singh wala	SEHJRA	5009
Floods	KASUR	SEHJRA 19	Ganda singh wala	NAGAR EMAN PURA	1257
Floods	KASUR	SEHJRA 19	Ganda singh wala	MABOKEY	372
Floods	KASUR	SEHJRA 19	Ganda singh wala	LUKHMER WALA	11
Floods	KASUR	SEHJRA 19	Ganda singh wala	CHANDA SINGH WALA	827
Floods	KASUR	SEHJRA 19	Ganda singh wala	MAHI WALA	546
Floods	KASUR	SEHJRA 19	Ganda singh wala	KAMAL PURA	989
Floods	KASUR	SEHJRA 19	Ganda singh wala	FATI WALA	293
Floods	KASUR	SEHJRA 19	Ganda singh wala	SHEIKHPURA NAU	543
Floods	KASUR	SEHJRA 19	Ganda singh wala	BHIKHI WIND	523
Floods	KASUR	SEHJRA 19	Ganda singh wala	KALANJAR HITHAR	524
Floods	KASUR	SEHJRA 19	Ganda singh wala	KALU WARA	53
Floods	KASUR	SEHJRA 19	Ganda singh wala	MASTEKEY	329
Floods	KASUR	SEHJRA 19	Ganda singh wala	BUDHA SINGH WALA	50
Floods	KASUR	SEHJRA 19	Ganda singh wala	KASOKI	15
Floods	KASUR	THAHI USMAN	Usman Wala	DABURJI	394
Floods	KASUR	THAHI USMAN	Usman Wala	JODH SINGH WALA	1554
Floods	KASUR	VERM	Usman Wala	BAQAR KE	2261
Floods	KASUR	THAHI USMAN	Usman Wala	ATTA SINGH	692
Floods	KASUR	THAHI USMAN	Usman Wala	SALEKE	35
Floods	KASUR	THAHI USMAN	Usman Wala	TATRI KE	177
Floods	KASUR	RAJUWAL	Usman Wala	GANDA WALA	135

Floods	KASUR	THAHI USMAN	Usman Wala	DAHAL HITHAR	108
Floods	KASUR	THAHI USMAN	Usman Wala	JAJOKE	729
Floods	KASUR	RAJUWAL	Usman Wala	DHENKE	197
Floods	KASUR	RAJUWAL	Usman Wala	GHATI DHENKE	26
Floods	KASUR	RAJUWAL	Usman Wala	RAJUWAL NAU	944
Floods	KASUR	THAHI USMAN	Usman Wala	MABU WALA	6
Floods	KASUR	THAHI USMAN	Usman Wala	BETU JAGER	73
Floods	KASUR	RAJUWAL	Usman Wala	GANJA KALAN	446
Floods	KASUR	RAJUWAL	Usman Wala	GANJA KHURD	261
Floods	KASUR	RAJUWAL	Usman Wala	MAMONKE MEHMOOD	164
Floods	KASUR	RAJUWAL	Usman Wala	MUBARA	27
Floods	KASUR	RAJUWAL	Usman Wala	MATTAR	70
Floods	KASUR	RAJUWAL	Usman Wala	MAMONKE KHIZRA	174
Floods	KASUR	RAJUWAL	Usman Wala	MAHTMA WALA	25
Floods	KASUR	RAJUWAL	Usman Wala	SIDHU WALA	112
Floods	KASUR	RAJUWAL	Usman Wala	BOHGEY KE	5
Floods	KASUR	RAJUWAL	Usman Wala	DAWALA MADAR	21
Floods	KASUR	RAJUWAL	Usman Wala	SADAR	632
Floods	KASUR	RAJUWAL	Usman Wala	NATHAL KE	11
Floods	KASUR	RAJUWAL	Usman Wala	NAJABAT	3706
Floods	Pattoki	Nathay Jageer	Phool Nagar	Nothe Jagir	7500
Floods	Pattoki	Nathay Khalsa	Phool Nagar	Nothe Khalsa	8000
Floods	Pattoki	Nathay Jageer	Phool Nagar	Lakhankay	3000
Floods	Pattoki	Gagga Sarai	Phool Nagar	Bhangoor	2500
Floods	Pattoki	Gagga Sarai	Phool Nagar	Gagga Sarai	10000
Floods	Pattoki	Gagga Sarai	Phool Nagar	Raiwind	No Population
Floods	Pattoki	Lambay Jageer	Phool Nagar	Gulzar Jagir	7000
Floods	Pattoki	Lambay Jageer	Phool Nagar	Kamongil	6500
Floods	Pattoki	Lambay Jageer	Phool Nagar	Megha	2000
Floods	Pattoki	Olakh Bonga	Phool Nagar	Hargan	No Population
Floods	Pattoki	Gagga Sarai	Phool Nagar	Jhugian Marati	No Population

Floods	Pattoki	Gagga Sarai	Phool Nagar	Jhugian Arain	No Population
Floods	Pattoki	Olakh Bonga	Phool Nagar	Gohar Ghulab Singh	3500
Floods	Pattoki	Olakh Bonga	Phool Nagar	Olakh Bonga	4000
Floods	Pattoki	Balloki	Sarai Mughal	Balloki	8500
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Bonga Malla	1500
Floods	Pattoki	Balloki	Sarai Mughal	Gohar Jatari	No Population
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Jajja	11300
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Towrian	1200
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Bonga Kahan Singh	No Population
Floods	Pattoki	Bath Kalan	Hallah	Dullo Gurokay	3500
Floods	Pattoki	Bath Kalan	Hallah	Tannikay	2500
Floods	Pattoki	Bath Kalan	Hallah	Aray Wala	1200
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Kalu Khokhar	700
Floods	Pattoki	Sarai Noshehra	Sarai Mughal	Atari Bhoop Singh	1200
Floods	Pattoki	Bath Kalan	Hallah	Rathoor	No Population
Floods	Pattoki	Bath Kalan	Hallah	Qila Take Chand	38
Floods	Pattoki	Bath Kalan	Hallah	Bath Kalan	5500
Floods	Pattoki	Alpa Kalan	Hallah	Dullo Multani	2339
Floods	Pattoki	Alpa Kalan	Hallah	Ojla	2212
Floods	Pattoki	Alpa Kalan	Hallah	Qila Noth Singh	No Population
Floods	Pattoki	Alpa Kalan	Hallah	Jhugian Natha Singh	No Population
Floods	Pattoki	Alpa Kalan	Hallah	Wasai Pura	2203
Floods	Pattoki	Alpa Kalan	Hallah	Alpa Kalan	6000
Floods	Pattoki	Alpa Kalan	Hallah	Alpa Sadhari	1900
Floods	Pattoki	Alpa Kalan	Hallah	Mandhali	1000
Floods	Pattoki	Alpa Kalan	Hallah	Bongi Lalu	1700
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	DAYA SINGH WALA	1561
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	MOHAR SINGH WALA	222
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	DHARMA	453

Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	SATTOKI	350
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	MEHMOOD KHANKE	319
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	MARAOKE	299
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	BODAL PERKE	407
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	BODAL KHANKE	459
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	RUPAL	205
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	SHAHBAZ KE	339
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	BURJ SHAHBAZ KE	458
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	KARI SANARI	223
Floods	CHUNIAN	Gandi Roop Singh	Kangan pur	BESUKE	376
Floods	CHUNIAN	MOKAL	Consolidation Chunian	QILI SOKAL	883
Floods	CHUNIAN	MOKAL	Consolidation Chunian	CHANGA SINGH WALA	2675
Floods	CHUNIAN	MOKAL	Consolidation Chunian	MOKAL	8675
Floods	CHUNIAN	MOKAL	Consolidation Chunian	QILI SAHO	429
Floods	CHUNIAN	MOKAL	Consolidation Chunian	LOHY JATTA	780
Floods	CHUNIAN	MOKAL	Consolidation Chunian	DONA MOKAL	0
Floods	CHUNIAN	MOKAL	Consolidation Chunian	GATI GIDAR PANGRAIN	29
Floods	CHUNIAN	MOKAL	Consolidation Chunian	QILI EMAN	518
Floods	CHUNIAN	MOKAL	Consolidation Chunian	KALU MUQEEM	17

Floods	CHUNIAN	MOKAL	Consolidation Chunian	AJAIB SINGH WALA	72
Floods	CHUNIAN	MOKAL	Consolidation Chunian	HIMAT SINGH WALA	233
Floods	CHUNIAN	MOKAL	Consolidation Chunian	PACCA	450
Floods	CHUNIAN	MOKAL	Consolidation Chunian	SEHLUL KE	0
Floods	CHUNIAN	MOKAL	Consolidation Chunian	AYA SINGH WALA	260
Floods	CHUNIAN	MOKAL	Consolidation Chunian	RUKAN PURA	834
Floods	CHUNIAN	MOKAL	Consolidation Chunian	DHIN	188
Floods	CHUNIAN	MOKAL	Consolidation Chunian	MAL SINGH WALA	183
Floods	CHUNIAN	MOKAL	Consolidation Chunian	BAGYANA	0
Floods	CHUNIAN	MOKAL	Consolidation Chunian	SARONKEY	38
Floods	CHUNIAN	MOKAL	Consolidation Chunian	BABLYANA HIGHAR	86
Floods	CHUNIAN	MOKAL	Consolidation Chunian	BHAGOKE DOGRAN	190
Urban Flooding					
Flash Floods					
Hill Torrent					

Tornado					
Epidemic	Kasur, Chunain, Pattoki,Kot Radha Kishan	Anywhere In District	Any Where In District	Any Where In District	
Environment al Hazards (industrial accidents, severe pollution etc.)	Kasur, Chunain, Pattoki,Kot Radha Kishan	Anywhere In District	Anywhere in the District	anywhere In District	

## ANNEX III:

### LIST OF HEALTH FACILITIES AND THEIR VULNERABILITY TO HAZARDS

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary )	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
1	BHU Sehjra	-----	Primary	Dr. Amina Saeed 033-5830851	Threat of flood but not earthquake
2	Burj Kalan	-----	Primary	Dr. Nayaab Niazi 0300-5621577	No threat of flood and earthquake
3	RHC Ganda Singh Wala	-----	Primary	Dr. Rifat Nosheen 0333-4287301	No threat of flood and earthquake
4	BHU Kharper	-----	Primary	Dr. Aneeqa Ashraf 0321-4356718	No threat of flood and earthquake
5	RHC Joura	-----	Primary	Dr. Abdul Qadir 0300-6592065	No threat of flood and earthquake
6	BHU Rajowal	-----	Primary	Dr. Nadeem 0343-5555044	No threat of flood and earthquake
7	BHU Tara Garh	-----	Primary	Dr. Moza 0307-6253909	No threat of flood and earthquake
8	BHU Mokal	-----	Primary	Dr. Tanveer Razaq 0322-6783347	No threat of flood and earthquake
9	Gandi Roopsingh	-----	Primary	Dr. Zameer ahmad 0301-4141554	Threat of flood but not earthquake
10	BHU Akbar Abad	-----	Primary	Dr. Zainab 0332-4124248	Threat of flood but not earthquake
11	Alpa Kalan	-----	Primary	Dr.Syed Raza 0344-4000414	No threat of flood and earthquake

**ANNEX IV:**  
**LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS**

S#	Name	Institute type (School, College)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
1	GMPS ULAN KAY	School	----	----	Javed Iqbal	3116824993
2	GMPS RANGAY WALA	School	----	----	Saba Sultan	3074263163
3	GGPS MUMBAYKAY	School	----	----	Yasmeen	3048802350
4	GGPS BHOJA	School	----	----	Sadaf Qasim	3078895194
5	GGES FATOOHI WALA	School	----	----	KASHFA RAZA	3054095754
6	GGPS LADHAY KI HITHAR	School	----	----	Naila Huma	3217513352
7	GGPS SHEIKH PURA NAU	School	----	----	NAJAM UN NISA	3034800185
8	GMPS BIKHI WIND	School	----	----	Kalsom Manzoor	3054698659
9	GGPS SHEIKH PURA KOHNA	School	----	----	Ruqia Attah	3006596307
10	GMPS KAMAL PURA	School	----	----	Amina Jameel	3004570806
11	GMPS MAHI WALA	School	----	----	Ayisha Jafar	3237515769
12	GGES SEHJRA	School	----	----	Gulnaz Samina	3040949376
13	GGPS DHOOP SARI	School	----	----	Amina Shareef	3067491606
14	GGPS CHANT SEHJRA	School	----	----	Asia Rasheed	3094410457
15	GMPS MABBOO KAY	School	----	----	Bushra Nazeer	3018307461
16	GMPS HAKOO WALA	School	----	----	Sajida Perveen	3027251931

17	GGPS ROHYWAL	School	----	----	Tasneem Akhtar	3354723311
18	GGPS BALLAN WALA	School	----	----	M. Riaz	3406221474
19	GGPS NOORI WALA	School	----	----	SAMRA BATOOL	3030454431
20	GGPS BHADIAN USMAN	School	----	----	RAMZANA ALLAHDIN	3014619679
21	GGMPS SHAKE UMAD N	School	----	----	IRAM SHAFIQ	3004651511
22	GMPS HERDOBANBODLA	School	----	----	PARVEEN AKHTAR	3073295904
23	GGPS SHEIKHPURIAN	School	----	----	AZRA BANO	03044899822
24	GMPS TATTRA KAMAL	School	----	----	BILQEES BEGUM	03018011308
25	GGES SANDA KHANWA	School	----	----	SAIMA AROOJ	03076098454
26	GGES NAJABAT	School	----	----	MARIA YASEEN	03026808402
27	GGPS KATLOHI KALAN	School	----	----	Zareena Shaheen	3024574140
28	GGES Gaddoki	School	----	----	Farzano Kousar	03066839878
29	GGPS THEH PANWAN	School	----	----	Noor ul Nissa	03016835687
30	GGPS WADRA	School	----	----	FARKHANDA PARVEEN	3004333857
31	GGPS RATNAY WALA	School	----	----	Ghazia Mushtaq	3065450975
32	GGPS KUJIAN WALA	School	----	----	Shabana Kousar	3084049172
33	GGPS BURJ KHURD	School	----	----	Asia Rifat	312680009
34	GGES RAI KALAN	School	----	----	Uzma	3075261466
35	GGES ABRAHIM ABAD	School	----	----	TOQIR AZMAT	3042295207
36	GGPS CHACK BALLYANA	School	----	----	Shahida	3476088792

37	GGCMS BAGGY	School	----	----	AFIFA MUJAHID	3234895800
38	GGPS BAZEED PUR	School	----	----	SAIMA SHAHEEN	3009485374
39	GGPS RASOOL NAGER	School	----	----	SHAZIA PARVEEN	3034413639
40	GGPS KILCHA MADONA	School	----	----	SHAZIA YASEEN	3074118200
41	GGPS BASTI JUMMAY KHAN	School	----	----	NUSRAT SHEHZADI	3214953053
42	GGPS Basti Shamay Wali	School	----	----	Manzoor Bibi	0302-4848202
43	GGPS Kot Sunder Singh	School	----	----	Sughra Bibi	0300-6598443
44	GMPS BHADIAN KHAN PUR	School	----	----	Tahira Tasleem	3066816971
45	GGES QAISER GARH	School	----	----	Zaitoon Fatima	3237976450
46	GGES BURJ KLAN	School	----	----	Shakila Kousar	3237535108
47	GMPS THATI USMAN	School	----	----	Nusrat Khushi	3070114740
48	GGES BADAR PUR	School	----	----	RUKHSANA BANO	3445167473
49	GGPS AMREEK SINGH	School	----	----	ZAHIDA PARVEEN	3008831035
49	GGPS KALIAN	School	----	----	SHUBANA KOSAR	3004978257
50	GGES CARE COLONY	School	----	----	Samina Anjum	3074670249
51	GGPS SAEEDA ABAD	School	----	----	Samina M. Ali	3086800892
52	GGPS RANG PUR	School	----	----	Nomana Shabbir	3034504784
53	GGPS PEERO WALA	School	----	----	Nawal Rasheed	3064702374
54	GGPS LOGHER JUGHIAN	School	----	----	Asifa Khalid	3008817935
55	GGCMS PATTO KOHANA	School	----	----	Safora Anjum	3044851904
56	GMPS PATTO KHURD	School	----	----	Amara Arshad	3348035021

57	GGPS KHAREPAR HATHAR	School	----	----	SHAGUFTA	3064318835
57	GMPS GOHAR HITHAR	School	----	----	SAMIA BANO	3065964137
58	GGES CHABBAR	School	----	----	NAGINA AMIN	3226754434
59	GMPS MAHALAM KHURD	School	----	----	Shakeela yasmeen	3067570322
60	GGPS Harcho Ki Hithar	School	----	----	Jabeen Asif Khan	0323-4859923
61	GGPS Chabbar	School	----	----	Sadaf Zahra	0305-4030331
62	GGES Fateh Muhammad Kalan	School	----	----	Farhat Yasmeen	0301-4228434
63	GGPS Fateh Muhammad Khurd	School	----	----	Amtal Shafique	0306-4903155
64	GGPS Basti Hakim Shah	School	----	----	Amtal Mateen	0306-2485221

### ANNEX V: LIST OF INDUSTRIES WITH THEIR RISK LEVEL

S#	Industry Name	Location	GPS Coordinates	Risk Type (Chemical, Biological, Radiological, Nuclear)	Name and Contact of Focal Person	Risk Level (low, medium, high)	Prone to Hazard? Fire/ Floods/Earthquake
1	Swat Chemical Industry	Ferozepur Road Bhalo Khara	X: 74.450532 Y:31.163807	Chemical	Atif	Low	Flood
2	Nasir Cold Storage	Ghanda Singh Road Kasur	X: 74.499283 Y:31.066671	0	Nasir	Low	Flood
3							
4							

## ANNEX VI: LIST OF NGO WORKING IN THE DISTRICT

S#	NGO Name	NGO Type (Local, National, International)	Location where they are working	Sector/Cluster of work (e.g. WASH, Health, Education)	Focal Person Name	Contact No.
1	Birra Welfare Society Bangla Kambhoy Kasur	UC level	Bangla Kambhoy Kasur	General Welfare oblige for woman development	Dr. Yousaf Arain	0323-8440589
2	Itthead Foundation Dhan Pat Road Kasur	UC level	Dhan Pat Road Kasur	General Welfare oblige for woman development	Mrs. Irshad Safdar	0321-6573180
3	Good Thinker Organization Shahbaz Road Tehsial & District Kasur	UC level	Shahbaz Road Tehsial & District Kasur	Health	M. Waqas Abid	0322-6812700
4	Khuram Welfare Society Village Khuram Hithar Kasur	UC level	Village Khuram Hithar Kasur	Health	Hafiz Ghafar	0333-4178699
5	SEHR Foundation Mahlam Kalan Kasur	UC level	Mahlam Kalan Kasur	Health	Zain ul abaideen	0300-4054049
6	Naveed Welfare society Kangan Pur Chunian	Town Kangan Pur	Kangan Pur Chunian	Health	Ashraf Shahid	03004165494
7	Karamat Human welfare society Seray Chheemba	UC/Local	Seray Chheemba Pattoki.	Health	Sayed Amanat Ali Shah.	0333-4293490
8	Bismillah Welfare Society, Mohallah Dawani Marla Gharbi (K.R.K)	Tehsil Level	Mohallah Dawani Marla Gharbi (K.R.K)	Health	Malik M. Irshad	0300-4210235
9						

## ANNEX VII: CONTACT LIST OF MAIN STAKEHOLDERS/ DEPARTMENTS

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
1	Commissioner	Capitan Usman	042-99214333	042-99214322-334	0304-0920050
2	Regional Police Officer	Shahid Javeed	–	–	03004011380
3	DC, Kasur	Faiz Ahmad Mohal	049-9250143 049- 9250067 Fax No. 049-9250162	049-9250140	0304-0920062
4	DPO , Kasur	Sohaib Ashraf	049-9250137 Fax No. 049-9250195	049-9250195	0300-4370000
5	ADC (R)/ Focal Person for Disaster Kasur	Arshid Bhatti	049-9250099 Fax No. 049-9250270	049-9250099	0301-4860514
6	AC,Kasur	Muhammd Aurangzeb	049-9250157	049-2721523	0333-8706007
7	AC, Chunian	Rizwan ul Haq	049-4310055	–	0323-4001986
8	AC,Pattoki	Umer Sarwar	049-4424646	–	0346-5101103
9	AC, Kot Radha Kishan	Maheen Fatima	049-2385091	–	0300-3168044
10	ADC (General) /Focal Person DEOC Kasur	Shabbir Hussain Cheema	049-9250218	–	0300-4492191
11	Tehsildar, Kasur	Hafeez ur Rehman	049-2724853	–	0300-4286344
12	Tehsildar,Pattoki	Mujahid Zia	049-4424946	–	0309-7759623
13	Tehsildar, Chunian	Muhammad Afzal Hiraj	049-4311916	–	0300-6890786
16	Fire Bridge,Kasur/DEO 1122	Eng. Sultan	049-2772501	–	0322-7771122
17	CEO,(Health), Kasur	Doctor Laique	049-9250063	–	0300-6587744
18	DHO,(Health),Kasur	DR.Abdul Qadir	049-9250048	–	0300-6592065
19	MS DHQ Hospital, Kasur	Doctor Laiquat	049-9250096	049-2764481	0300-6587744
20	DEO RESCUE 1122 KASUR	Eng. Sultan	049-2772301	–	0322-7771122
22	XEN Irrigation, Kasur	Javed Rasool	049-9250201-9250141 Fax No.9250059	–	0344-6882004

23	XEN Irrigation, Balloki	Muhd Amir	049-4610300 Fax No.0494-610399	049-4610300	0333-6289951
24	Tehsildar,Kot Radha Kishan	Ghulam Dastagir	0492-385091		0300-4909311 0306-0611115
25	DO Social Welfare, Kasur	Sohail Akhtar Ijaz	049-9250283	–	0333-4146776
26	CEO (Education), Kasur	Naheed Wasif	049-9250191	–	0304-8253696
27	DEO(Secondary),Kasur	Kasuir	049-9250116	–	0302-8461620
28	DEO(Elementary),Kasur	Sheikh Hasnat	049-9250113	–	0300-4240977
29	DEO(Elementary)Female, Kasur	Ayesha	049-9250040	–	0301-7687122
30	Deputy Director (Agriculture), Kasur	Muhammad Akram	049-9250249	–	0300-6545275
31	DLO (Livestock),Kasur	Azhar Nazeer	049-9250126	–	0337-9680006
32	XEN WAPDA Kasur	Muhammad Jamshid	049-9250194 Fax No. 0499250158	049-9250085	0320-0521710
33	XEN Rural WAPDA	Basharat	049-9250256	–	0320-0521720
34	PTCL SE Telephone, Kasur	Haji Zafar	049-2765657	049-2765650	0333-6656670
35	District Food Controller, Kasur	Malik Zaman	049-9250168	–	0302-6921921
36	CO,MC Kasur	Kamran	049-9250206	–	0300-4541125
37	CO, MC Chunian	Afzal Zahid	049-4310092	049-4890056	0300-6969369
38	DO Civil Defence, Kasur	Saif Sahab	049-9250068	–	0301-6839926
39	CO, MC Pattoki	Ghulam Murtza	049-4424447	–	0300-4423818
40	MET (Weather Department)	Mr. Muhammad Ajmal Shad	042-99205367 to 72	–	–
41	Commissioner Indus Waters Lahore	Syed Mehr Ali Shah	042-99212789-90	–	–
41	Director Operation PDMA Lahore	Nisar Ahmad Sani	042-99204405	–	0343-9209201
43	DD Colleges Kasur	Abdul Ghafar Dogar	049-9239091-2771749	–	0300-4105138
44	SNA / Incharge DEOC Kasur	Muhammad Qazafi	049-2724931	–	0321-7148688
45	Incharge Child Protection	Zartab Khan	–	–	03088830066
46	NADRA Station B	Babar Sahab	049-2771020	–	0300-6539716
47	DDLG	M.Iqbal	049-9250139	–	0300-8894411
48	DD Social Welfare Kasur	Sohail Akhtar Ijaz	–	–	0333-4146776

49	CO,MC Raja Jang	Jabrar Abass	–	–	0300-5435219
50	AM,AX CAMP	COL. Babar	049-2724754	–	0341-436731
51	DEOC Kasur	Incharge SNA	049-2724954	–	0321-7148688
52	DDMC / IT Assistant (Expert) PIU-PDMA Kasur	Rashid Mahmood	049-2724888	–	0315-4056806

## ANNEX VIII: LIST OF VOLUNTEERS

S#	Civil Defense Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
1	Rafi Boota s/o Boota Masih	-----	-----	0300-6574763	-----	-----
2	Muhammad Sheraz slo Muhammad Sadiq	-----	-----	0302-4322140	-----	-----
3	Muzafar Ali slo Asghar Ali	-----	-----	0307-0493699	-----	-----
4	Muhammad Shaban s/o Muhammad Din	-----	-----	0301-4329100	-----	-----
5	Shrafat Ali slo Muhammad Sharif	-----	-----	0320-4850194	-----	-----
6	Muhammad Shafique slo Muhammad Ashiq	-----	-----	0301-4537432	-----	-----
7	Muhammad Akbar s/o Muhammad Ashraf	-----	-----	0320-6579668	-----	-----
8	Abid Hussain slo Muhammad Rafique	-----	-----	0305-4233489	-----	-----
9	Muhammad Rafique s/o Muhammad Amin	-----	-----	0303-5970834	-----	-----
10	Muhammad Saleem slo Muhammad Saddique	-----	-----	0323-7507283	-----	-----
11	Faqir Hussain slo Muhammad Sharif	-----	-----	0301-4317162	-----	-----
12	Ali Shan slo Muhammad Akbar	-----	-----	0300-6047593	-----	-----
13	Muhammad Ramzan slo Muhammad Latif	-----	-----	0307-6267593	-----	-----
14	Adil Manzoor slo Manzoor Hussain	-----	-----	0300-6047593	-----	-----
15	Saeed Ahmad slo Ahmad Din	-----	-----	0300-4658520	-----	-----
16	Zaheer-U-Din Babar s/o Bashir Ahmad	-----	-----	0301-4154021	-----	-----
17	Muhammad Rizwan slo Hamid Ali	-----	-----	0348-4203277	-----	-----
18	Muhammad Iqbal slo Umer Hayat	-----	-----	0301-6047593	-----	-----

19	Iftikhar Chohan	-----	-----	0300-6591508	-----	-----
20	Nadeem Abbas slo Muhammad Abbas	-----	-----	0324-6451648	-----	-----
21	Ameer Hamza slo Munir Ali	-----	-----	0304-68012232	-----	-----
22	Muhammad Sajid slo Muhammad Ashraf	-----	-----	0323-7517282	-----	-----
23	Muhammad Salman slo Abdul Razzaq	-----	-----	0323-7507283	-----	-----
24	Muhammad Rizwan s.o Abdul Ghafoor	-----	-----	0304-7672376	-----	-----
25	Muhammad Inran slo Muhammad Hanif	-----	-----	0323-0499811	-----	-----
26	Waseem Ali s/o Waris Ali	-----	-----	0307-6802232 0324-6551649	-----	-----
27	Muhammad Ashraf s/o Barkat Ali	-----	-----		-----	-----
28	Muhammad Younas Bombal slo M Yaqub	-----	-----	0324-4216132	-----	-----
29	Ishtiaq Ahmad	-----	-----	0307-8420704	-----	-----
30	Ali Zohaib slo Anwar Dewana	-----	-----	03044807585	-----	-----
31	Javed s/o Muhammad Sharif	-----	-----	0322-7581229	-----	-----
32	Rafaqat Ali s/o Liaqat Ali	-----	-----	0322-7588683	-----	-----
33	Dr Asghar Ali	-----	-----	0306-4316604	-----	-----
34	Khalid Billa slo Maher Arif			0308-8978491		

Sr. No	Sr. #	Name of Rescue Mohafiz	Contact No.	CNIC No.
<b>Bhadian</b>				
1	1	<b>M Adnan</b>	<b>0302-4413566</b>	<b>35102-1120087-5</b>
2	2	Salman Shafiq	0345-6445582	35102-2686208-1
3	3	Asif Ahmad	0301-4383358	35102-9556082-5
4	4	Abu Huraira	0308-0401923	35102-9285560-7
5	5	Raza Ullah	0303-0282355	35102-6421481-3
6	6	Touqeer Asghar	0304-1902939	35102-2373790-3
7	7	Talha Majeed	0301-4915304	35102-6835350-7
8	8	M Waseem	0308-2695046	35102-3599326-7
9	9	Zohaib	0307-5023484	35102-6595219-7
10	10	Ahsan	0333-3424168	35102-5706819-3
11	11	M Abid Latif	0336-6076062	35102-5782380-9
12	12	Shahzad Rafiq	0305-9514881	35102-5219869-9
<b>Sehja</b>				
13	1	<b>M Shahbaz</b>	<b>0303-6303522</b>	<b>35102-3204189-5</b>
14	2	M Ashraf	0307-4291966	35102-1211434-3
15	3	Basharat Ali	0300-8836621	35102-5466523-5
16	4	Abdul Sattar	0303-8874515	35102-7265400-9
17	5	Waris Ali	0305-6265464	35102-7514700-7
18	6	M Tariq	0303-7038966	35102-6809760-7
19	7	Mehmood Ali	0303-6063536	35102-9409434-1
20	8	Arif Ali	0307-0141576	35102-8984606-9
21	9	Irfan Rasheed	0300-0841882	35102-7344897-1
22	10	M Mushtaq	0300-4201084	35102-4029045-3
23	11	Arif Ali	0300-4820395	35102-0622372-7
24	12	Mirza Sharafat Ali	0302-6266159	35102-3938960-1
25	13	Qazi Aneeq Jahangir	0302-4313495	35102-8729597-3
26	14	Miraz Nouman	0301-4550787	35102-3020480-5
27	15	Saghir Ahmad	0302-4313495	35102-4712743-9
28	16	M Faraz	0301-5390744	35102-2316729-7
<b>Fatohi Wala</b>				

29	<b>1</b>	<b>Sadia Maqbool</b>	<b>0305-4137583</b>	<b>35102-9167358-4</b>
30	<b>2</b>	Musarat Shaheen	0308-4032784	35102-7845757-4
31	<b>3</b>	Nagina Saeed	0302-6819703	35102-2121251-4
32	<b>4</b>	Maria Saeed	0302-6819703	35102-3957374-0
33	<b>5</b>	Kiran	0310-4513372	35102-0263648-8
34	<b>6</b>	Gulshan Ashraf	0301-4216487	35102-7061206-0
35	<b>7</b>	Amina	0303-4487996	35103-8164312-8
36	<b>8</b>	Neelam Zubair	0306-1424093	35102-0272293-8
37	<b>9</b>	Waqas Ahmad	0302-4501024	35102-5180412-7
38	<b>10</b>	Arslan Umar	0303-9099355	35102-4820189-3
39	<b>11</b>	Tajamal Hussain	0306-1401416	35102-5005977-5
40	<b>12</b>	M Qasim	0305-4489135	35102-8817418-7
<b>Sanda Chashtana</b>				
41	<b>1</b>	<b>Rashid Latif</b>	<b>0300-6594703</b>	<b>35102-6250866-7</b>
42	<b>2</b>	Touqeer Ahmad	<b>0300-6594703</b>	35102-5694271-1
43	<b>3</b>	Sajjad Ahmad	0303-9095965	35102-6550632-3
44	<b>4</b>	Yasir Ali	0303-9099364	35102-2617073-7
45	<b>5</b>	M Usama	0305-9664898	35103-8684703-3
46	<b>6</b>	M Naveed	0303-9099364	35102-6835180-7
47	<b>7</b>	Zaki Ur Rehman	0302-4420112	35102-5644290-3
48	<b>8</b>	Munir Ahmad	0300-4021233	35102-0886665-3
49	<b>9</b>	M Nadeem	0304-5566987	35102-3681942-3
50	<b>10</b>	Kashif Ali	0303-7895533	35102-4352398-1
51	<b>11</b>	M Imran	0301-6834515	35102-1882676-8
52	<b>12</b>	M Imran	0301-7047842	35102-3371333-3
<b>Hussain Khan Wala</b>				
53	<b>1</b>	<b>M Ali Shah</b>	<b>0301-4467149</b>	<b>35102-8273944-9</b>
54	<b>2</b>	M Rizwan Tabassum	0300-3896450	35102-9494504-5
55	<b>3</b>	M Naveed	0307-4370043	35102-3230629-5
56	<b>4</b>	Waseem Sajjad	0301-8946321	35102-6185021-5
57	<b>5</b>	M Asif	0307-4089210	35102-6122135-7
58	<b>6</b>	Amjad Hussain	0301-4499829	35102-7707273-5
59	<b>7</b>	Allah Ditta	0308-4148943	35102-2578302-7

60	8	Shoiab Ahmad	0303-4860737	35102-9523911-3
61	9	Riaz Ahmad	0308-4592088	35102-5562688-3
62	10	Asif Ali	Nil	35102-9563502-1
63	11	M Azam	0306-4030188	35102-3461523-5
64	12	Maqsood Ahmad	0302-4792202	35102-7489633-1
65	13	<b>M Mustafa</b>	<b>0307-4190938</b>	<b>35102-8623941-3</b>
66	14	Talib Hussain	0303-9097196	35102-8851759-9
67	15	Allah Wasaya	0306-6822410	35102-1381438-1
68	16	M Rizwan	0306-4550636	35102-8122647-5
69	17	Sami Ullah	0301-4835421	35102-6215638-7
70	18	Ikraam Ali	0302-4687130	35102-7759249-9
71	19	M Tahir	0301-6407244	35102-3640143-7
72	20	Ghulam Haider	0303-5568301	35102-3404893-7
73	21	M Boota	0301-5124913	35102-6788789-5
74	22	M Asif	0302-4856932	35102-9615680-1
75	23	Tanveer Ahmad	0307-4371329	35102-6792584-9
76	24	Shahbaz Ahmad	0300-7957013	35102-9485064-7
77	25	M Nadeem	0302-3372070	35102-5526975-1
78	26	Bilal Aslam	0301-3915885	35101-3185643-7
79	27	M Khalid	0303-4617327	35102-1771042-9
80	28	M Kashif	0302-7954189	35102-4979694-5
81	29	Qurban Ali	0304-4961443	35102-8347990-1
82	30	Muneer Ahmad	0300-6589106	35102-4424405-9
83	31	M Yasir	0300-4586640	35102-8529691-1
84	32	M Riaz	0306-5963365	35102-7006398-3
85	33	Sajid Ali	0305-4396883	35102-6868493-9
86	34	Asif Ali	0302-4855164	35102-3733083-9
87	35	Walait Ali	0300-4314501	35102-8722179-5
88	36	M Aqib Shahzad	0301-8934729	35103-5271277-1
<b>Bazeed Pur</b>				
89	1	<b>Usman Zahoor</b>	<b>0300-4330860</b>	<b>35102-1324327-7</b>
90	2	Nasir Mehmood	0304-4561286	35102-9330780-9
91	3	M Ehtsham	0308-9094992	35102-7993210-3

92	4	Qurban Ali	0303-4458684	35102-1026302-1
93	5	Saleem Ahmad	0307-2916041	35102-1026460-1
94	6	Mohsin	0306-8911476	35102-6471047-1
95	7	Hafiz Aqash Akram	0300-4280803	35102-8330671-1
96	8	Tanveer Ahmad	0301-6805238	35102-0260223-7
97	9	M Nasir	0307-7724120	35102-6044807-1
98	10	Abdul Hafeez Qudsi	0304-4095817	35102-0623858-7
99	11	Aftab Alam	0303-4069925	35102-6897012-0
100	12	Shoaib Majeed	0301-6800120	35102-0709312-3
<b>Gohar Hithar</b>				
101	1	<b>M Usman</b>	<b>0308-4547045</b>	<b>35102-1153508-7</b>
102	2	M Mohsin	0300-8032136	35102-4802190-5
103	3	M Azam	0304-7805272	35102-6360381-5
104	4	M Atif	0301-6814182	35102-9993146-7
105	5	Shafqat Yaqoob	0303-7788760	35102-1668315-3
106	6	Ali Haider	0309-7210043	35102-5384984-3
107	7	Arslan Zafar	0308-4923257	35102-5570250-9
108	8	Usman Zaffar	0308-1173457	35102-3791329-1
109	9	M Arshad	0304-4201109	35102-3783208-9
110	10	M Ashiq	0300-4047296	35102-7771089-3
111	11	M Kamran	0306-9545168	35102-9700458-3
112	12	M Junaid	0305-4303257	35102-8529423-1
<b>Thati Usman</b>				
113	1	<b>M Shabbir</b>	<b>0304-4747068</b>	<b>35102-9624269-1</b>
114	2	M Tariq	0307-4345860	35102-8647762-1
115	3	M Afzal	0305-9657018	35102-1770578-1
116	4	Arshad Ali Shah	0300-6587652	35102-0636729-1
117	5	Khalid Mehmood	0302-4525720	35102-0779253-3
118	6	Ghulam Mustafa	0308-6801216	35102-6575944-1
119	7	Bilal Ahmad	0301-6811079	35102-6197071-5
120	8	Adnan Ali	0304-4458347	35102-6263862-9
121	9	M Sufiyan	0312-4130932	35102-8199395-7
122	10	M Irfan	0331-4561382	35102-7855320-1

123	11	Saba Akbar	0306-6811303	35102-8848156-0
124	12	Tayyaba Ashiq	0306-4355899	35102-5155172-8
<b>Rajawal</b>				
125	1	<b>Abdul Jabbar</b>	<b>0307-7089656</b>	<b>35102-9244126-7</b>
126	2	Abdul Majeed	0307-8834041	35102-9284931-3
127	3	Ijaz Ahmad	0300-4453661	35102-4114194-7
128	4	M Riaz	0301-6805461	35102-7046684-3
129	5	M Usman	0302-9663317	35102-2788537-1
130	6	Faiz Ullah	0301-4446435	35101-6033158-3
131	7	Shakeel Ahmad	0346-6421242	35102-9612308-9
132	8	Yousaf Masih	0324-4530451	35102-5037845-1
133	9	Sajid Maqsood	0302-6801983	35101-6164030-7
134	10	Allah Wasaya	0303-4309135	35102-5652719-3
135	11	Dilawar Niaz	0324-6636051	35102-2486571-9
136	12	M Shahid	0304-6349617	35102-4886253-5
<b>Mokal</b>				
137	1	<b>Nasir</b>	<b>0301-7377287</b>	<b>35101-6944287-5</b>
139	2	Zahid	0305-8527238	35101-9472372-7
141	3	M zubair	0303-4036595	35101-0984971-3
143	4	M amjad	0301-4153174	35101-9272283-5
145	5	Sajid ali	0300-6590536	35101-8810438-3
147	6	M aslam	0301-4095230	35101-6582707-1
149	7	Asif	0301-4515564	35101-2968489-3
151	8	Adnan	0306-5601502	35101-4306772-1
153	9	M amin	0301-8088926	35101-4155334-1
155	10	Naeem	0305-6285056	35101-0194556-5
157	11	Mubashar	0302-4854614	35101-6492301-1
159	12	Aqib	0314-7551296	35101-0380188-1
<b>Kangan Pur</b>				
160	1	<b>Aysha</b>	<b>0301-7984564</b>	<b>35101-9141394-2</b>
161	2	Ume hibha	0301-4034823	35101-7227683-2
162	3	Uzma	0306-2840952	35103-9047221-8
163	4	Farha sabar	0303-4775380	35101-9819412-4

164	5	Nadia	0300-0759900	35101-7256702-2
165	6	Nosheen	0301-2888484	35101-9904912-4
166	7	Rabia	0300-4518114	35101-7853174-6
167	8	mehmona	0300-8012130	35101-1297350-4
168	9	Saima	0306-7114953	35101-4976365-4
169	10	Nazia	0300-8892107	35101-6564380-4
170	11	Samiya	0303-4117157	35101-1787751-0
171	12	Mudassar	0300-8074107	35101-0716584-7
<b>Kotha</b>				
172	<b>1</b>	<b>Tanveer</b>	<b>0307-6822401</b>	<b>35101-0892263-1</b>
173	<b>2</b>	Rashid ali	0300-4422461	35101-8195449-3
174	<b>3</b>	Sohail ahmad	0302-4101643	35101-7962567-1
175	<b>4</b>	Irfan	0300-3787327	35101-9284514-1
176	<b>5</b>	Naeem	0300-4422461	35101-0249040-3
177	<b>6</b>	Seyd ghor ali shah	0304-5700576	35101-4982416-9
178	<b>7</b>	Shafiq	0300-4058628	35101-3748917-7
179	<b>8</b>	Ashiq	0300-4751614	351019927965-3
180	<b>9</b>	m.rashid	0307-6822708	35101-9438339-1
181	<b>10</b>	Kashif	0306-9501737	35101-8273341-7
182	<b>11</b>	Ghulam Mustafa	0307-4524105	35101-4970067-1
183	<b>12</b>	Naveed	0306-5510351	35101-6212441-5
<b>Kull</b>				
184	<b>1</b>	<b>M Irfan</b>	<b>0317-4116170</b>	<b>35101-8247847-1</b>
185	<b>2</b>	M mushtaq	0300-4193793	35101-3086299-9
186	<b>3</b>	Irfan	0308-9053537	35101-9121448-7
187	<b>4</b>	Kamran	0303-5018912	35101-6857778-7
188	<b>5</b>	Abdul razzaq	0312-4415989	35101-9995056-7
189	<b>6</b>	Kasif	0304-4282063	35101-8888578-7
190	<b>7</b>	M usman	0303-8801094	35101-6833901-9
191	<b>8</b>	Ghulam Mustafa	0304-4993124	35101-8143252-3
192	<b>9</b>	Zaffar iqbal	0302-3371399	35101-1970059-9
193	<b>10</b>	Umer farooq	0305-4841709	35101-0464155-9
194	<b>11</b>	Aamir	0307-6956616	35101-7495933-5

195	12	Mazhar	0305-5403534	35101-4351076-9
<b>Dhotty</b>				
196	1	<b>Abdul Rasheed</b>	<b>0307-8475486</b>	<b>35101-7502662-9</b>
197	2	Abdul star	3078475440	35101-9543079-9
198	3	Fasil	0340-5628130	35101-5368024-9
199	4	Irfan	0343-4430270	35101-0555285-7
200	5	Abdur raheem	3073081384	35101-5055245-1
201	6	m.asad	0301-7276631	35101-8895660-9
202	7	Fahim	0324-7703613	33102-7052475-7
203	8	Abdul rasheed	0302-6812261	35101-2072352-3
204	9	Tahir	0307-4797747	35101-4600830-3
205	10	Saleem	0301-4179886	35101-8759072-3
206	11	Abid	0302-6072609	35101-4557775-7
207	12	Sajid	0332-4832033	35101-6598683-3
<b>Rasool Pura</b>				
208	1	<b>M.Rizwan</b>	<b>0303-5027699</b>	<b>35101-0348278-5</b>
209	2	Adnan	0304-4900493	35101-2182553-1
210	3	Ijaz	0304-8644542	35101-6856829-7
211	4	Waqas	0300-4503438	35101-3315865-7
212	5	Zia ul hasan	0304-4998281	35101-4786565-9
213	6	Iqbal	0304-4900493	35101-1478306-7
214	7	Farooq	0304-4900493	35101-1405774-5
215	8	Shahzad ahmad	0300-4446098	35101-2648442-9
216	9	Umar	0300-9409140	35101-8595686-5
217	10	Saleem	0304-4900493	35101-6682279-5
218	11	Tallish	0304-4900493	nil
219	12	Farman ali	0345-4561890	35101-4555343-3

## **ANNEX IX: POLITICAL CONSTITUENCIES**

<b>NATIONAL CONTITUENCIES</b>				
<b>CONSTITUENCY NO.</b>	<b>NAME OF MNAs</b>	<b>PARTY</b>	<b>ADDRESS</b>	<b>CONTACT</b>
NA-137	Saad Waseem Shaikh	PML(N)	Circular Road, Outside Mori Gate, Kasur C-407, Parliament Lodges, Islamabad	0323-2227999 0306-4158000
NA-138	Rasheed Ahmad Khan	PML(N)	Feteah Pur P/O Dost Pura , Teh & Distt. Kasur 106-E Block, Parliament Lodges, Islamabad.	0300-6599700
NA-139	Rana Muhammad Ishaq Khan	PML(N)	Gulzar Jageer, P/O Khas, Tehsil Pattoki District Kasur 312-G, Parliament Lodges, Islamabad.	0333-4511666
NA-140	Sardar Talib Naki	PTI	NA	03444442323 03008465577

<b>PROVINCIAL CONSTITUENCIES</b>				
<b>CONSTITUENCY NO.</b>	<b>NAME OF MPAs</b>	<b>PARTY</b>	<b>ADDRESS</b>	<b>CONTACT</b>
PP-177	Hashim Dogar	PTI	-----	0300-8389180 0321-3544260
PP-179	Peer Mukhtar Ahmad	PML (N)	-----	0300-9437936
PP-174	Muhammad Naeem Safdar Ansari	PML (N)	(a) Mohalla Wali Street, Syed All Ahmad Shah Colony, District Kasur (b) Madni Chowk, Munir Shaheed Colony, Shahbaz Khan Road, Kasur	0321-4451313
PP-175	Malik Ahmad Saeed Khan	PML (N)	Village Fateh Pur, Tehsil & District Kasur	0300-4004228
PP-176	Malik Muhammad Ahmad Khan	PML (N)	Khai Hithar P.O. Same Tehsil & District Kasur <sup>63</sup>	0301-4404545

<b>PP-182</b>	CH M. Ilyas Khan	PML(N)	-----	0300-8493838 0300-0732323
<b>PP-178</b>	Sheikh Allauddin	PML (N)	(a) 19-N, Gulberg-II, Lahore. (b) Toyota Ravi, 37 Main Jail Road, Lahore. (c) Kot Sandras Gilanwala, Tehsil Chunian, District Kasur	042-37422945 0333-4197718
<b>PP-180</b>	Sardar Muhammad Asif Nakai	PML(N)	(a) 470-E, Iqbal Park, Walton Road, Lahore Cantt (b) Wan Adhan Kalan, Pattoki, District Kasur	042-99214759 0344-5500000
PP-181	Rana Muhammad Iqbal Khan	PML (N)	(a) Rana Phool House, Lamby Jagir, Tehsil Pattoki District Kasur (b) 3-Upper Mall, Lahore.	042-99212761 0333-4511777

## **ANNEX X:** **LOCAL GOVERNMENT**

## ANNEX XI: DATA COLLECTION PROFORMAS

### P1: House Damage Assessment

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name	Father Name	CNIC	Address	Revenue Estate	Union Council	Tehsil	Partially/Completely	Katcha/Pakka	%age of Damage	Contact No.	GPS Coordinates	Picture Taken (Y/N)

### P2: Deceased Person Reporting Proforma

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name of deceased	Fathers name	Address	Domicile	Gender	Age	CNIC	Cause of death	Date of death	Place of death	Marital status	Next of kins (Name and Contact and CNIC etc.)	Verifying Officer (Name, Designation and Contact)	Compensation Paid or not

### P3: Injured Person Reporting Proforma

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name of injured	Father's name	Address	Domicile	Gender	Age	CNIC	Cause of injury	Date of injury	Injury Type (Permanent or Temporary)	Compensation Paid or not

**P4: Cattle Head Perished**

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name of Farmer	Father Name	CNIC	Mauza	Tehsil	Type of Animals	Number of Animals (Cow, sheep etc.)	Vaccinated/ Unvaccinated	Witness 1 name and contact No.	Witness 2 Name and Contact No.
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**P5: Crop Damages**

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Tehsil	Qanoongoi	Union Council	Mauza	Farmer Name	Land owner/Tenant	CNIC of farmer	Contact number	Type of Crops	Total land affected (acres)	% of mauza affected
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**P6: Relief Distribution Tracking Proforma**

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Location/ Destination	Arrival Date and time	Items	Quantity	Items short (if any)	Items sent by	Driver name	Received by	Bilty no
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**P7: Private Machinery (Boats, Bulldozers, Cranes etc.)**

In case of mega disaster that overwhelms the resources of the Government in certain area, the equipment of private owners are engaged to continue with evacuation, rescue or relief services. The following template is filled to maintain a record of boat owners that might be engaged at the time of a disaster.

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name of boat owner	Father name	Contact Number	Age	CNIC	Location of boat/Machinery	Type of Machinery (Boat, Bulldozers, Cranes etc.)	Engine type	Boat capacity	Equipment Condition	Number of Machinery
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**P8: Relief camp registration Proforma**

New entrants in the relief camps should be documented on a weekly basis by utilizing the following template:

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Nationality	Domicile	Male	Female	Age	Children Under 12	Infants under 3	Sick	Injured	Pregnant
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**P9: NGOs registration proforma**

All the Non-Governmental Organizations operating in the disaster affected areas should register themselves at PDMA's website. The following template has been developed for NGOs assisting the Government in disaster response.

District: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Name of NGO	Local /INGO	Relief activity	Relief camp if any	Focal person in the district	Registered with PDMA	Foreigners to be visiting or not.
----	-------------	-------------	-----------------	--------------------	------------------------------	----------------------	-----------------------------------

**P10: Control Room**

PDMA requires all districts to setup a control room at the incidence of a disaster. This control room would plan and execute a well-knit Governmental disaster response by bringing together all representatives of the various Governmental departments. This control room would be operational around the clock and PDMA must be informed about its operation and in-charge by filling the following template:

District: \_\_\_\_\_

Focal Person: \_\_\_\_\_

Date: \_\_\_\_\_

S#	Location of control room	Shift I Incharge Name and Contact	Shift II Incharge Name and Contact	Shift III Incharge Name and Contact	Phone Numbers	Fax Numbers	E- Mail Address
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## ANNEX XII:

### CAMP MANAGEMENT SOPS

- Camps would be established in areas accessible by metaled roads so that provision of essential facilities is not difficult
- Basic facilities such as food, clean drinking water, health, hygiene and sanitation should be available at these shelters.
- Proper registration mechanism should be in place to differentiate between those actually affected and cunning opportunists
- Proper security system should be in place in coordination with the local police as the presence of police always acts as deterrence for criminals who may be attracted to such places.
- Emergency medical care should be available as well as a proper firefighting system as fire out breaks are common in such tents
- Proper camp management should be announced and notified and there should be a complaint cell as well
  - A proper distribution mechanism should be in place to ensure that the needy get what they deserve.
- Scattered camps should be catered for and encouraged to join the main camp.
- At times shallow hand pumps are not safe for drinking as the water underground has been affected. In such cases clean medicated water should be provided through water bowsers.
- Vector control is an essential part of the camp management and steps should be taken to remove rats, snakes and mosquitoes etc.
- Un-accompanied and missing children shall be placed separately with proper care and fulfilment of their physical and psycho-social needs.
- Needs of women as per local and cultural environment shall be considered for establishing separate relief camps for ladies with provision of proper security and light arrangements.

<b>Land</b>	<b>3.0-4.5 square meter per person</b>
<b>Shelter</b>	3.5 square meter per person
<b>Water</b>	15-20 liters per person per day
<b>Food</b>	2100 kcal per person per day
<b>Toilet</b>	One per family of 6-10 persons
<b>Health Centre</b>	One per 20,000 persons
<b>Child Friendly Spaces</b>	2-4 year olds- 15 children:2 facilitators
	5-9 year olds-20 children : 2 facilitators
	10-18 year olds- 30 children :2 facilitators
<b>Hospital</b>	One for as many as 200,000 persons

## ANNEX XIII: FLOOD BUNDS

### INFORMATION REGARDING FLOOD BUND CATEGORY A

SR:#	NAME OF DIVISION	NAME OF EMBANKMENT / BUND	LENGTH (ft)
<b>SARGODHA ZONE</b>			
1	Rasul Head works Division	Right Guide Bund	2,121
2	-do-	Left Guide Bund	3,360
3	-do-	Right Guide Spur	2,762
4	-do-	Left Marginal Bund	17,170
<b>Total in feet.</b>			<b>25,413</b>
<b>Total in Miles.</b>			<b>4.81</b>
1	Kalabagh H/Works Division	Jinnah Barrage	25,080
<b>Total in feet.</b>			<b>25,080</b>
<b>Total in Miles.</b>			<b>4.75</b>
<b>FAISALABAD DIVISION</b>			
1	Khanki Division	Left Marginal Bund	21,000
2	-do-	Right Marginal Bund	29,000
3	Jhang Division	Jhang Flood Protection Bund	43,875
4	Qadirabad Barrage Division	Left Marginal Bund	20,000
5	-do-	Right Marginal Bund	20,000
<b>Total in feet.</b>			<b>133,875</b>
<b>Total in Miles.</b>			<b>25.36</b>
<b>BAHAWALPUR ZONE</b>			
1	Punjad Head works Division	Right Marginal Bund	15,000
2	-do-	Left Marginal Bund	15,000
3	-do-	Colony Protection Bund	15,000
4	Khanpur Canal Division	Minchin Flood Bund	10,000
<b>Total in feet.</b>			<b>55,000</b>
1	Trimmu Division -	Right Marginal Bund	20,000
2	do-	Left Marginal Bund	20,000
3	Sulemanki Division	Left Marginal Bund	10,000
4	-do-	Right Marginal Bund	10,000
5	Shuja Canal Division	Right Bank of Shujabad Branch	10,000
6	-do-	Akbar Flood Bund	10,000
<b>Total in feet.</b>			<b>80,000</b>
<b>Total in Miles.</b>			<b>15.15</b>
1	Taunsa Barrage	Right Guide Bund Upstream	15,000
2	-do-	Left Guide Bund	20,000
3	-do-	Shahwala Groyne	10,000
4	Muzaffargarh Canal Division	Muzaffargarh Flood Bund	50,000
5	-do-	Doaba Flood Bund.	5,000
6	-do-	Khangarh Flood Bund	5,000
7	-do-	Khanwah Flood Bund	5,000
8	Jampur Construction Division	Jampur Flood Bund	5,000
9	-do-	Rojhan Flood Bund	20,000

		<b>Total in feet.</b>	<b>1,35,000</b>
		<b>Total in miles</b>	<b>25.57</b>
<b>LBDC(IP)</b>			
1	Balloki Head works Division	Left Marginal Bund	15,000
2	do	Right Marginal Bund	15,000
		<b>Total in Feet</b>	<b>30,000</b>
		<b>Total in miles</b>	<b>6</b>
<b>LAHORE ZONE</b>			
1	FLOOD Bund Division Narowal	Jassar Highway Bund	10,000
2	do	Rayya flood Bund	5,000
3	Pasrur Link Division Sialkot	City Flood Protection Bund along Aik Nullah	7,340
4	do	Hajoipur Flood Protection Bund along Aik Nullah	86,00
5	do	Left Flood Protection Bund over deg Nullah from defence embankment to Zafarwala Kingra road	10,000
6	Marala Division UCC	Left Marginal Bund	50,000
7	do	Right Marginal Bund	10,000
8	Lahore Drainage Div.	Shahdara Flood Protection Bund	15,000
		<b>Total in Feet</b>	<b>115,940</b>
		<b>Total in miles</b>	<b>22</b>
		<b>Grand total in miles</b>	<b>114</b>

**INFORMATION REGARDING FLOOD BUND CATEGORY B**

S#	Name of Division	Name of Embankment / Bund	Length (ft.)
<b>SARGODHA ZONE</b>			
1	Rasul Headworks Division	Important / Vulnerable Reaches	10,000
2	Bhakkar Division	-do-	10,000
3	Layyah Division	-do-	10,000
4	Jhelum Division	-do-	5,000
		<b>Total in feet.</b>	<b>35,000</b>
		<b>Total in miles</b>	<b>6.63</b>
<b>FAISALABAD ZONE</b>			
1	Khani Division	-do-	20,000
2	Jhang Division	-do-	50,000
3	Qadirabad Barrage Division	-do-	60,000
4	Burala Division	-do-	35,000
		<b>Total in feet.</b>	<b>165,000</b>
		<b>Total in miles</b>	<b>31.25</b>
<b>BAHAWALPUR ZONE</b>			
1	Punjnad Headworks Division	-do-	90,000
2	Khanpur Canal Division	-do-	100,000
3	Bahawalpur Canal Division	-do-	50,000
4	Rahimyar Canal Division	-do-	50,000
		<b>Total in feet.</b>	<b>290,000</b>

		<b>Total in miles</b>	<b>54.92</b>
<b>MULTAN ZONE</b>			
1	Trimmu Division	-do-	80,000
2	Suleimanki Division	-do-	50,000
3	Shujabad Canal Division	-do-	72 60,000
	<b>Total in feet.</b>		<b>190,000</b>
	<b>Total in miles</b>		<b>35.98</b>
<b>D.G.KHAN ZONE</b>			
1	Taunsa Barrage	-do-	80,000
2	Kot Adu Canal Division	-do-	90,000
3	Muzaffargarh Canal Division	-do-	180,000
4	River Diversion Division	-do-	80,000
5	Jampur Construction Division	-do-	140,000
6	D.G.Khan Construction Division	-do-	60,000
	<b>Total in feet.</b>		<b>630,000</b>
	<b>Total in miles</b>		<b>119.32</b>
<b>LBDC (IP)</b>			
1	Balloki Headworks Division	-do-	40,000
2	Okara Division	-do-	40,000
3	Sahiwal Division	-do-	20,000
	<b>Total in feet.</b>		<b>100,000</b>
	<b>Total in miles</b>		<b>18.94</b>
<b>LAHORE ZONE</b>			
1	Flood Bund Division Narowal	-do-	40,000
2	Pasrur Link Division Sialkot	-do-	10,000
3	Chakbandi Division	-do-	20,000
4	Marala Division UCC	-do-	50,000
5	Lahore Drainage Division	-do-	80,000
6	Kasur Division	-do-	80,000
7	Gujranwala UCC	-do-	100,000
8	Rachna Drainage	-do-	42,000
	<b>Total in feet.</b>		<b>422,000</b>
	<b>Total in miles</b>		<b>79.92</b>
<b>PMO BARRAGES</b>			
1	Jinnah Barrage	-do-	20,000
	<b>Total in feet.</b>		<b>20,000</b>
	<b>Total in miles</b>		<b>3.79</b>
	<b>Grand Total (in miles)</b>		<b>350.76</b>

## ANNEX XIV: RIVER DISCHARGE RATES

River	Gauge Site	Designed Capacity	Low	Flood Limits in Lac Cs.			Exp. High
		(lac Cs)		Med:	High	Very High	
INDUS	Kalabagh	9.5	2.5	3.75	5	6.5	8
	Chashma	10	2.5	3.75	5	6.5	8
	Taunsa	10	2.5	3.75	5	6.5	8
JHELUM	Kohala	12	1	1.5	2	3	4
	Mangla	10.6	0.75	1.1	1.5	2.25	3
	Rasul	8.5	0.75	1.1	1.5	2.25	3
CHENAB	Marala	11	1	1.5	2	4	6
	Khanki	8	1	1.5	2	4	6
	Qadirabad	9	1	1.5	2	4	6
	Trimmu	6.45	1.5	2	3	4.5	6
	Punjnad	7	1.5	2	3	4.5	6
RAVI	Jassar	2.75	0.5	0.75	1	1.5	2
	Ravi Syphon	4	0.4	0.65	0.9	1.35	1.8
	Shahdara	2.5	0.4	0.65	0.9	1.35	1.8
	Balloki	2.25	0.4	0.65	0.9	1.35	1.8
	Sidhnai	1.5	0.3	0.45	0.6	0.9	1.3
SUTLEJ	G.S.Wala	10 ft.	19.5	21.5	23.3	25.3	2
	Suleimanki	3.25	0.5	0.8	1.2	1.75	2.25
	Islam	3	0.5	0.8	1.2	1.75	2.25
	Mailsi Syphon	4	0.75	1.1	1.5	2.25	3

## **ANNEX XV:**

# **LIST OF BASIC TERMS**

### **Acceptable risk**

The level of loss a society or community considers it can live with and for which it does not need to invest in mitigation

### **Biological hazard**

Biological vectors, micro-organisms, toxins and bioactive substances, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

### **Capacity**

A combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster.

Capacity may include physical, institutional, social or economic means as well as skilled personnel or collective attributes such as leadership and management. Capacity may also be described as capability.

### **Capacity building**

Efforts aimed to develop human skills or societal infrastructure within a community or organization needed to reduce the level of risk. In extended understanding, capacity building also includes development of institutional, financial, political and other resources, at different levels of the society.

### **Climate change**

The climate of a place or region is changed if over an extended period (typically decades or longer) there is a statistically significant change in measurements of either the mean temperature or variability of the climate for that region.

### **Coping capacity**

The means by which people or organizations use available resources and abilities to face a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions.

### **Disaster**

A serious disruption of the functioning of a community or society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. It results from the combination of hazards, conditions of vulnerability and insufficient capacity to reduce the potential negative consequences of risk.

### **Disaster risk management (DRM)**

The comprehensive approach to reduce the adverse impacts of a disaster. DRM encompasses all actions taken before, during, and after the disasters. It includes activities on mitigation, preparedness, emergency response, recovery, rehabilitation, and reconstruction.

### **Disaster risk reduction/disaster reduction**

The measures aimed to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.

### **Early warning**

The provision of timely and effective information, through identified institutions, to communities and individuals so that they could take action to reduce their risks and prepare for effective response.

### **Emergency management**

The management and deployment of resources for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation

**Forecast**

Estimate of the occurrence of a future event (UNESCO, WMO). This term is used with different meanings in different disciplines.

**Geological hazard**

Natural earth processes that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. For example earthquakes, tsunamis, volcanic activity and emissions, landslides, rockslides, rock fall or avalanches, surface collapses, expansive soils and debris or mud flow.