

DISTRICT DISASTER MANAGEMENT PLAN 2021



Division: SARGODHA

District: KHUSHAB



LOCUST COMBAT ACTIVITY IN KHUSHAB



MONTHLY DDMA MEETING IN KHUSHAB



MOCK EXERCISE IN KHUSHAB



MUNGBEANS WASHED 2020 FLOOD KHUSHAB

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Approved by: Deputy Commissioner Khushab.

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Flood

Estimated number of people at risk of **floods** in 2021



Drought

Estimated number of people at risk of Drought in 2021



Earthquake

Estimated number of people at risk of earthquake in 2021



Epidemic

Estimated number of people at risk of epidemic in 2021



EXECUTIVE SUMMAR

River Jhelum enters in District Khushab near village Balwal and after covering a distance of about 95 miles it enters District Jhang near village Khai Kalan Tehsil Noorpur Thal.

River Jhelum runs on its East and the Katcha area along the river is mainly hit by the floods. Flood warnings are received from Mangla and Rasul Head Works specifying discharge in the Jhelum River.

The District was affected by heavy rains / floods in the years 1976, 1986, 1992, 1995, 1997, 1999, 2010, 2011 and 2014 and by Hill Torrents in 2015 and 2020 due to heavy Rains in the last week July, 2015 & August 2020.

District Khushab is mainly affected due to flood water in river Jhelum and Hill torrents in the hilly area of Soon valley and Mohar area. Almost 54 villages of District Khushab, 42 of Tehsil Khushab and 12 of Tehsil Noorpur are vulnerable to flood in river Jhelum while 172 villages likely to be affected by hill torrents

There are many natural and human induced hazards that threaten to affect the lives and livelihoods of its citizens. Natural hazards including floods, storms, earthquakes, heat-wave and drought. Human induced hazards include fires, civil unrest, road accidents, smog, locust and health epidemics.

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. Clearly defined roles and responsibilities of district line departments to be performed in pre- and post-disaster phases will also become part of the District Disaster Management Plan.

AIM AND OBJECTIVES

The plan is aimed to manage disasters 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 strategies, roles and responsibilities.
- To strengthen response coordination between government departments and humanitarian organizations (UN agencies, I/NGOs).

DISTRICT PROFILE

Socio-Economic Indicators (Average)

S.No.	Particulars	Numbers
1.	Population	1281299
2.	No. of Tehsils	04
3.	No. of UCs	48
4.	No. of Revenue Estates	318
5.	Area in Acrs	1617481
6.	Family Size	7.1
7.	Pop Growth Rate	1.84
10.	Poverty Rate	39(Multi Poverty Index)
11.	Patient/Doctor Ratio	10,000
13.	IMR	74 /1000
14.	MMR	278 /1000
15.	Literacy Rate	54%
18.	Percentage of population having access to clean drinking water	99.9 %
19.	Annual Crime	3908

Population

Total	Male (above 18)	Female (above 18)	Minor (M) (less than 18)	Minor (F) (less than 18)	Vulnerable People (PLWs, disabled, aged)
1,281,299	638,071	643,181	417663	-	-

Source/Note: District Officer Population, Khushab

Number of Dwelling Units	Kaccha (Mud/clay)	Pakka (Bricks& Morter)

Source/Note: Source/Note: Bureau of Statics Punjab

Area (in acres)

Total Area of District in Km ²	Area Under Cultivation	Cultivation in Settled Area	Cultivation Baid Area
6511 sq. KM	1617481		-

Source/Note: Source/Note: Bureau of Statics Punjab

Literacy Rate

Overall	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
54%	67%	33%	82%	62%	70%	38%

Source/Note: Bureau of Statics Punjab

Government Schools

		Schools	Enrollment
Total/ Overall		952	157695
Boys	Primary	420	57154
	Middle	72	19483
	High/Higher	80	12218
Girls	Primary	267	45964
	Middle	49	13227
	High/Higher	64	9649
Co-Education	Primary	0	0
	Middle	0	0
	High	0	0
Special Education		5	625

Private Schools

		Schools	Enrollment
Total/ Overall		519	76500
Boys	Primary	0	
	Middle	0	
	High/Higher	85	
Girls	Primary	0	
	Middle	0	
	High/Higher	63	
Co-Education	Primary	21	
	Middle	-	-
	High	-	-
Special Education		-	-

Higher/Technical/Professional Education (Public & Private)

Particulars	College	Universities	Professional	Technical	Commerce	Total
No of Institution	18	1	-	9	4	32
No of Students	16142	3200	-	2010	850	22,202

Health Facilities

Particulars	Primary	Secondary	Tertiary	Private Hospital	Total
No. of Facilities					94
Annual OPDs					1860398
No of beds					573
Doctors Available					334
Paramedical staff					601
Ambulances available					12
Mobile Medical Units	Nil				

Livestock: Small Animals (goats, sheep etc.): 815758 Big Animals (cows, buffalos, camel etc.) 596948

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

Agriculture	Livestock	Poultry	Fish Farming	Services (Public & Pvt)	Business	Expatriates	Industrial Labor	Skilled labor	Unskilled Labor	General Labor
56%	11%	1%	1%	7%	5%	2%	4%	2%	5%	6%

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	1992	0	0	56	0	0	0	0
2	1995	0	0	50	0	0	0	0
3	1997	0	0	53	0	0	0	0
4	2007	0	0	0	0	0	0	0

5	2008	0	0	0	0	0	0	0
6	2009	0	0	0	0	0	0	0
7	2010	0	0	39				
8	2011	0	0	0	0	0	0	0
9	2012	0	0	0	0	0	0	0
10	2013	0	0	0	0	0	0	0
11	2014	0	0	54	0	0	0	0
12	2015	0	0	13	0	0	0	0
13	2016	0	0	0	0	0	0	0
14	2017	0	0	0	0	0	0	0
15	2018	0	0	0	0	0	0	0
16	2019	0	0	0	0	0	0	0
17	2020	339706	17	174	4895	6336	0	0

General Information

Particulars	Detail																		
Neighboring districts and their vulnerabilities	Mianwali is vulnerable to Flood & Environment Khushab is vulnerable to Flood , hill torrents and Drought. Layyah is vulnerable to Flood & Drought Jhang is vulnerable to Flood Dera Ismail Khan (KPK) is vulnerable to Flood and law & order situation																		
Topographical Features	Topographically, district Khushab is part of the sandy soils which lies between two high banks of Indus and Jhelum rivers. most of the district area lies in the desolate plain of the Thal desert which is generally the part Punjab plains. District Khushab is covered by thick Alluvium comprising of clay and sand layers.																		
Weather/Climate pattern	e.g. max. and min. temperature, annual precipitation, storms, heat waves, snow fall etc. max 50 c & mini 4 c temperature is observed. There is rainfall about 9 inch/annum																		
Major Rivers	Name of river, passing through areas along with length in the district Major Barrages and their Flood levels Jhelum river from village Balwal and flows through the Khushab and Noorpur Thal Tehsils and after covering a distance of about 150 kilometers it enters Jhang District. <table border="1"> <thead> <tr> <th>Flood Limits.</th> <th>Jhelum at Rasool Bridge.</th> <th>Jhelum D/S at Mangla.</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>0.75 LAC Cs.</td> <td>0.75 LAC Cs.</td> </tr> <tr> <td>Medium.</td> <td>1.10 LAC Cs.</td> <td>1.10 LAC Cs.</td> </tr> <tr> <td>High.</td> <td>1.50 LAC Cs.</td> <td>2.00 LAC Cs.</td> </tr> <tr> <td>Very High.</td> <td>2.25 LAC Cs.</td> <td>2.25 LAC Cs.</td> </tr> <tr> <td>Exceptionally High.</td> <td>3.00 LAC Cs and above.</td> <td>3.00 LAC Cs and above.</td> </tr> </tbody> </table>	Flood Limits.	Jhelum at Rasool Bridge.	Jhelum D/S at Mangla.	Low	0.75 LAC Cs.	0.75 LAC Cs.	Medium.	1.10 LAC Cs.	1.10 LAC Cs.	High.	1.50 LAC Cs.	2.00 LAC Cs.	Very High.	2.25 LAC Cs.	2.25 LAC Cs.	Exceptionally High.	3.00 LAC Cs and above.	3.00 LAC Cs and above.
Flood Limits.	Jhelum at Rasool Bridge.	Jhelum D/S at Mangla.																	
Low	0.75 LAC Cs.	0.75 LAC Cs.																	
Medium.	1.10 LAC Cs.	1.10 LAC Cs.																	
High.	1.50 LAC Cs.	2.00 LAC Cs.																	
Very High.	2.25 LAC Cs.	2.25 LAC Cs.																	
Exceptionally High.	3.00 LAC Cs and above.	3.00 LAC Cs and above.																	
Major Nullahs / Streams	Name of river, passing through areas along with length in the district Flood levels 0																		
Motorway/Highway	Vulnerable points of motorway/highway 0																		
Railways	Vulnerable points of Railway 0																		
Geological features	e.g. fault line, mountainous areas etc. low lying Kacha, agriculture area, sandy dunes Tehsil Naushera & Quaidabad.																		

Dams (including small dams)

Name of Dam	Location	GPS Coordinates	Capacity	High Flood Level	Critical Points, if any	Remarks
0	0	X:0.00 Y: 0.00	0	0	0	0
0	0	X:0.00 Y: 0.00	0	0	0	0

Major Embankments/Bunds

Name of Embankment	Length (km)	Starting Point (Revenue Estate /Tehsil Name)	Ending Point (Revenue Estate /Tehsil Name)	Name of Critical/vulnerable Points	GPS Location of Critical/Vulnerable Points	Remarks

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		
0	0	X:0.00 Y: 0.00	0	0	0	0	0
0	0	X:0 Y:0	0	0	0	0	0
0	0	X:0 Y:0	0	0	0	0	0

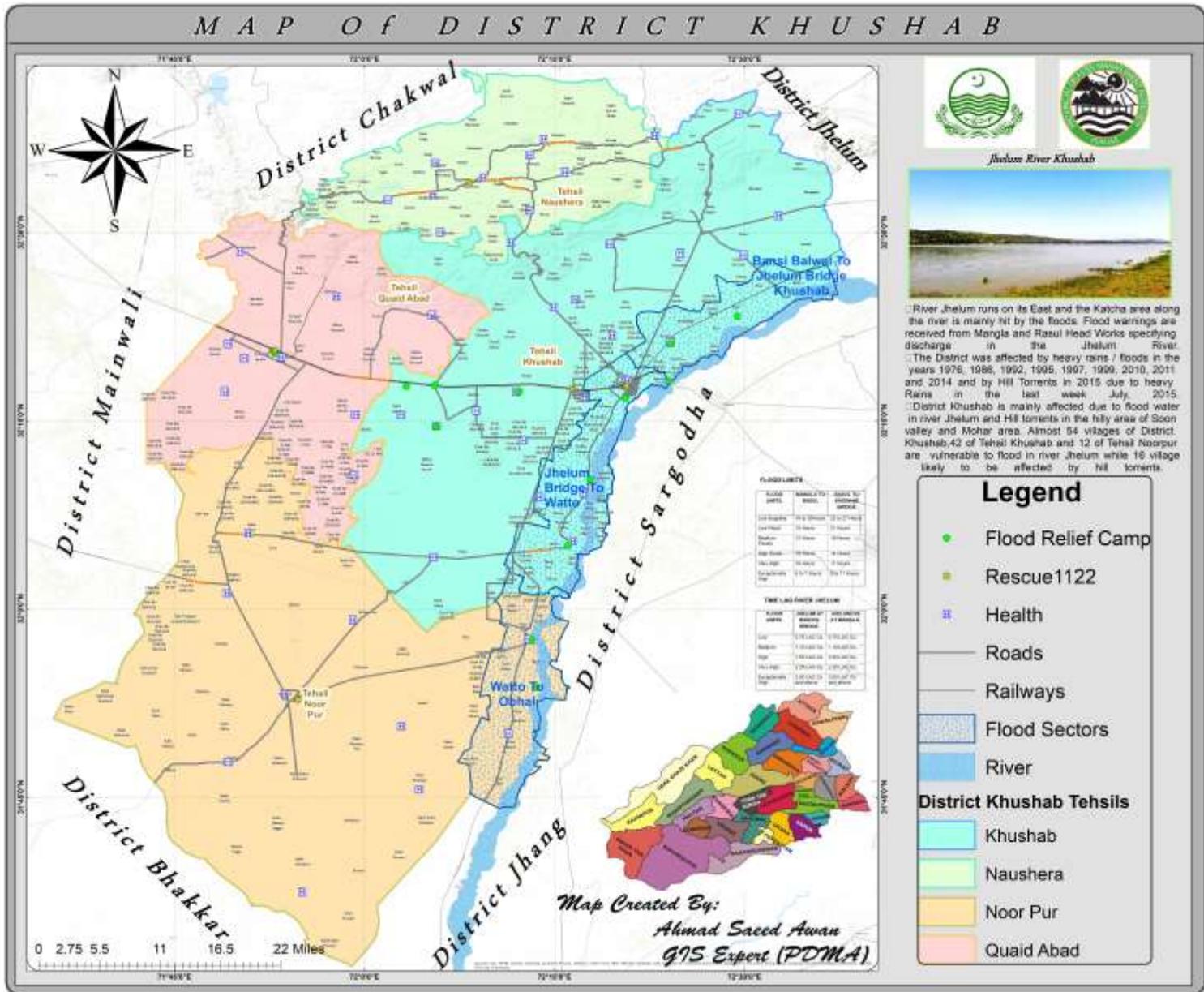
Power Houses/Grid Station/Oil Depot/other sensitive installations

Name	Capacity	GPS Coordinates	Name	Capacity	GPS Coordinates
KCP Atomic Plant		32.071804, 72.188699			
PAF Base Skesar		32.545863, 71.929529			

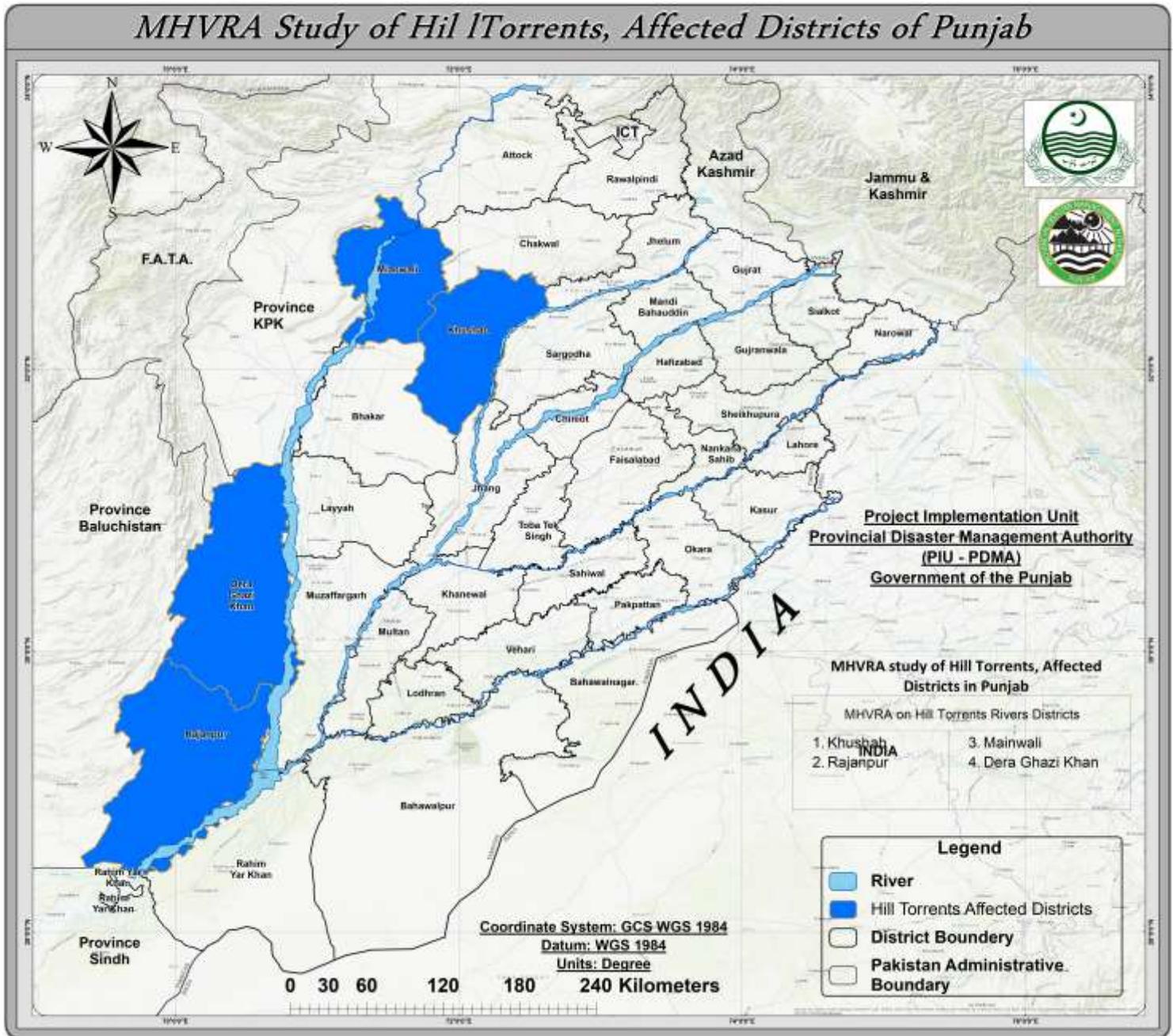
Govt. storage facilities/warehouses in the district

Facility Type	Capacity	Location with GPS Coordinates	Facility Type	Capacity	Location with GPS Coordinates
PDMA-Flosspan	1000	Jahurabad 32.299886, 72.281035			

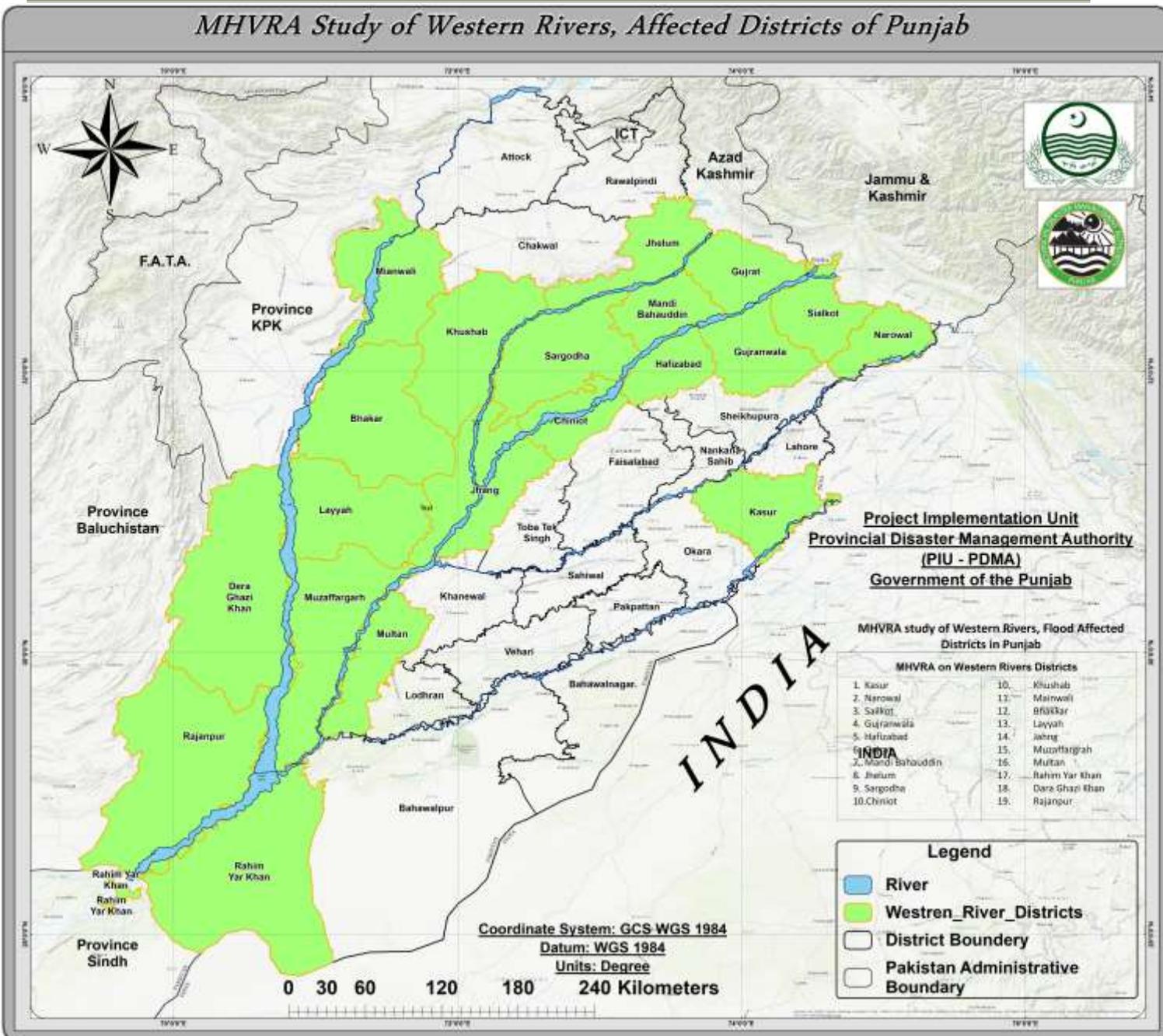
District Map

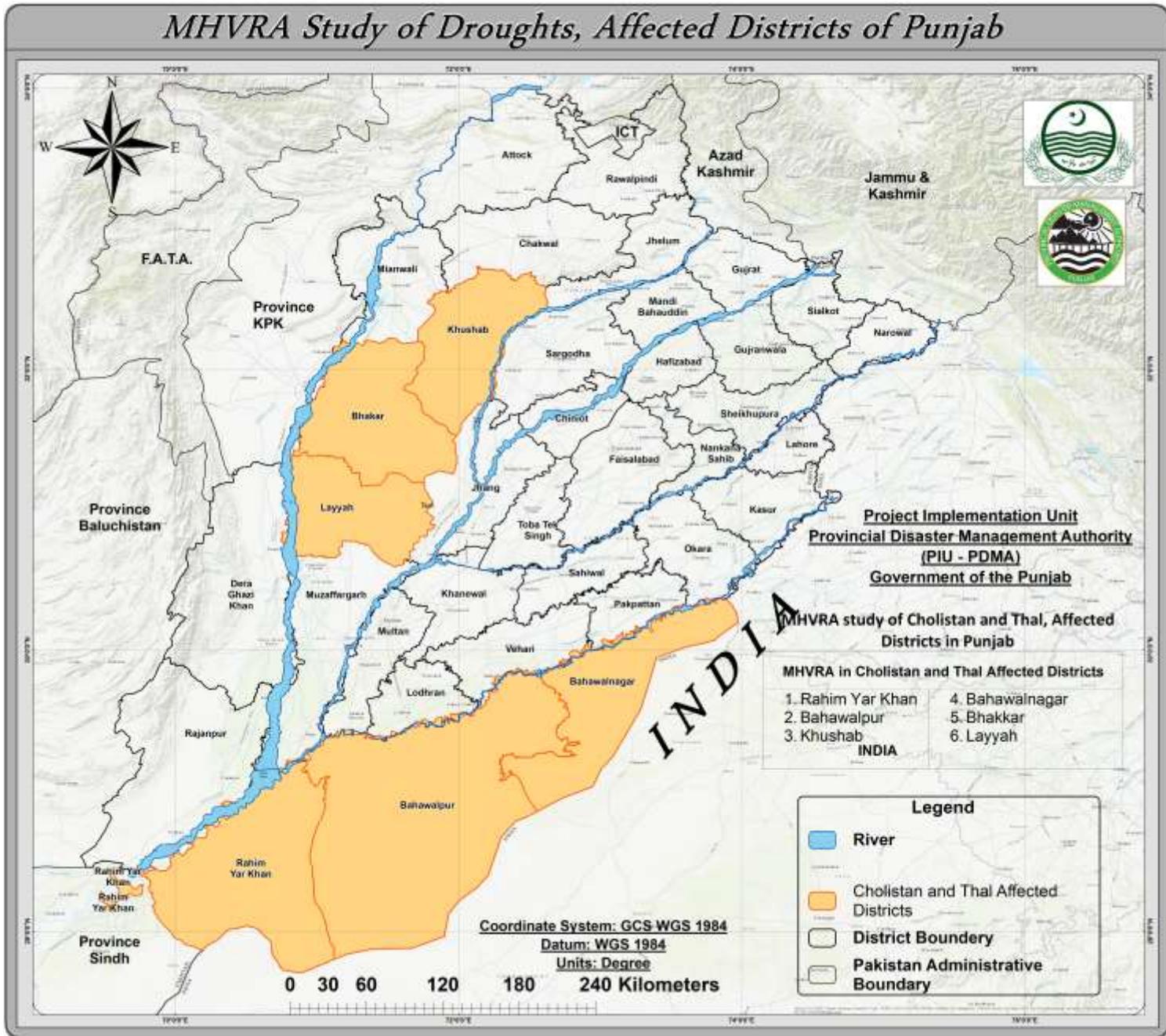


District Administrative Boundaries Map

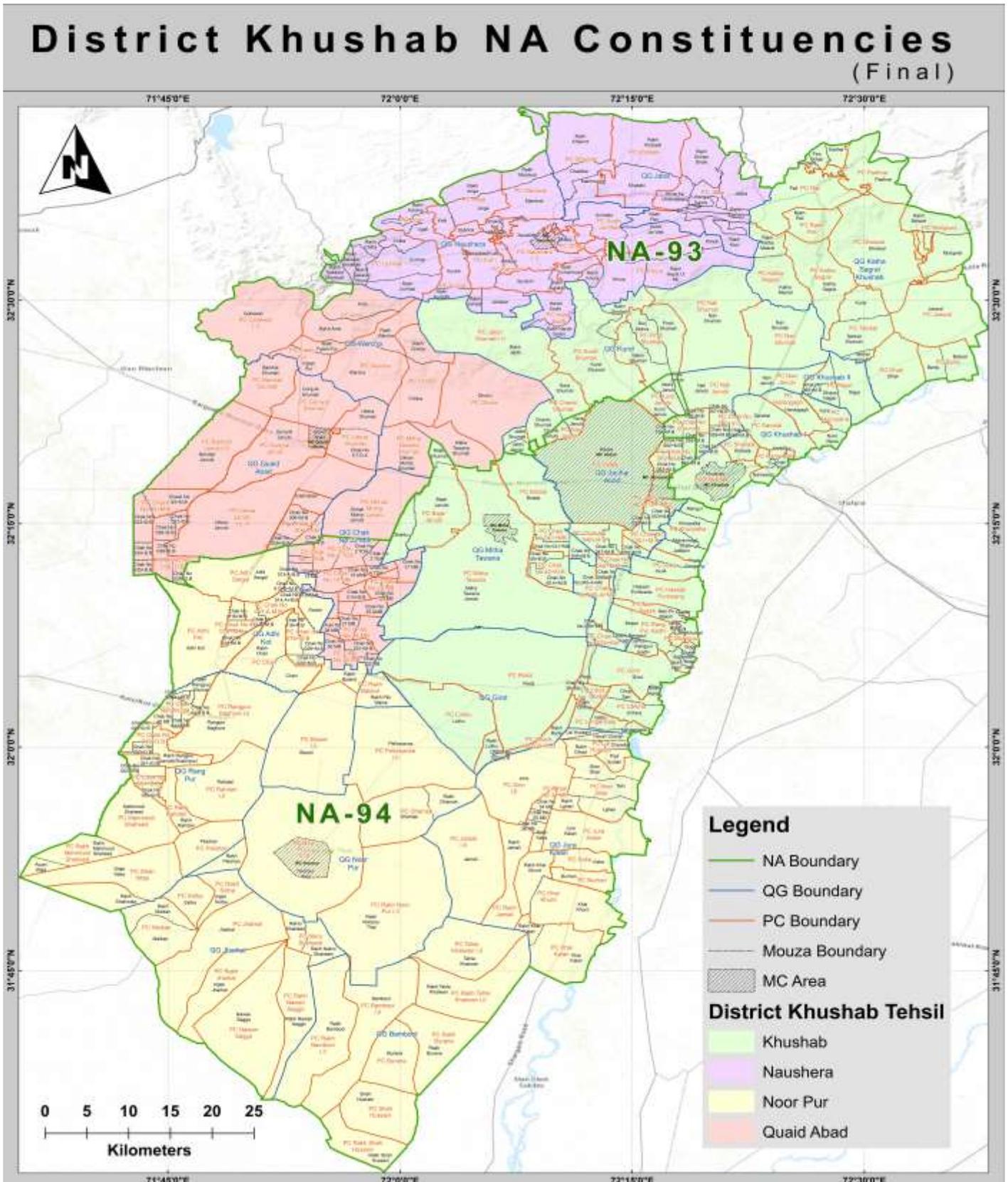


MHVRA Study of Western Rivers, Affected Districts of Punjab

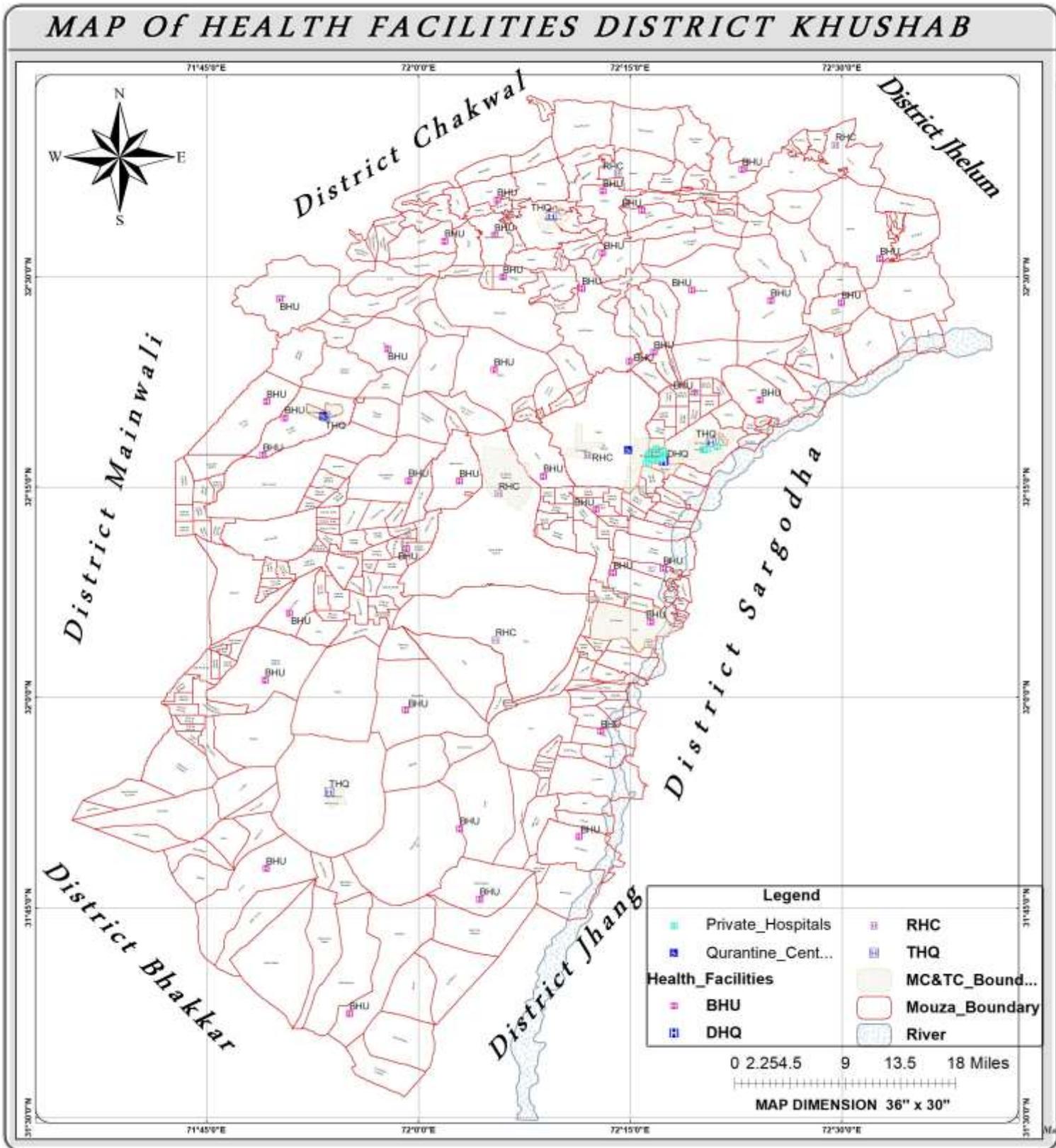




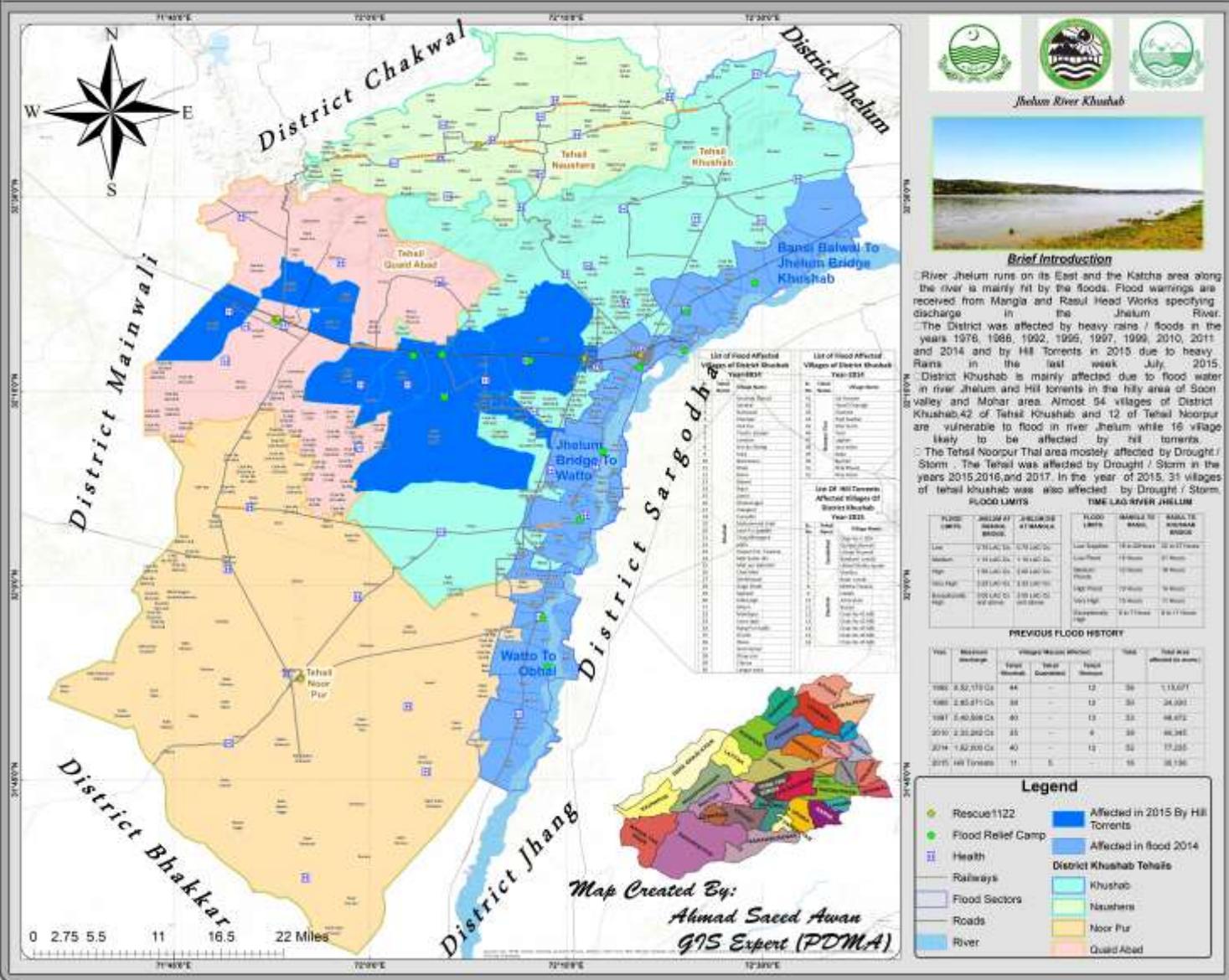
District NA & PP Limitations Map



District Health Units Map



MAP OF DISASTER AFFECTED AREAS OF DISTRICT KHUSHAB YEAR (2014-15)



Brief Introduction

River Jhelum runs on its East and the Katcha area along the river is mainly hit by the floods. Flood warnings are received from Mangla and Rasul Head Works specifying discharge in the Jhelum River.

The District was affected by heavy rains / floods in the years 1978, 1986, 1992, 1995, 1997, 1999, 2010, 2011 and 2014 and by Hill Torrents in 2015 due to heavy rains in the last week July, 2015.

District Khushab is mainly affected due to flood water in river Jhelum and Hill torrents in the hilly area of Soan valley and Mohar area. Almost 54 villages of District Khushab, 42 of Tehsil Khushab and 12 of Tehsil Noorpur are vulnerable to flood in river Jhelum while 16 villages likely to be affected by hill torrents.

The Tehsil Noorpur area mostly affected by Drought / Storm. The Tehsil was affected by Drought / Storm in the years 2015, 2016, and 2017. In the year of 2015, 31 villages of Tehsil Khushab was also affected by Drought / Storm.

FLOOD LIMITS

TEHSIL	WATER AT BARRAGE	JHELUM AT BARRAGE	FLOOD LIMITS	WATER AT BARRAGE	WATER AT BARRAGE
Low	135 LAC CFS	135 LAC CFS	Low Flood	12.500000	12.500000
Normal	135 LAC CFS	135 LAC CFS	Normal Flood	12.500000	12.500000
High	135 LAC CFS	135 LAC CFS	High Flood	12.500000	12.500000
Super High	135 LAC CFS	135 LAC CFS	Super High Flood	12.500000	12.500000

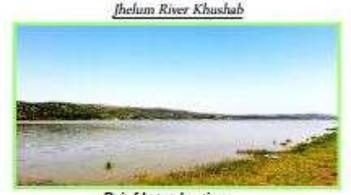
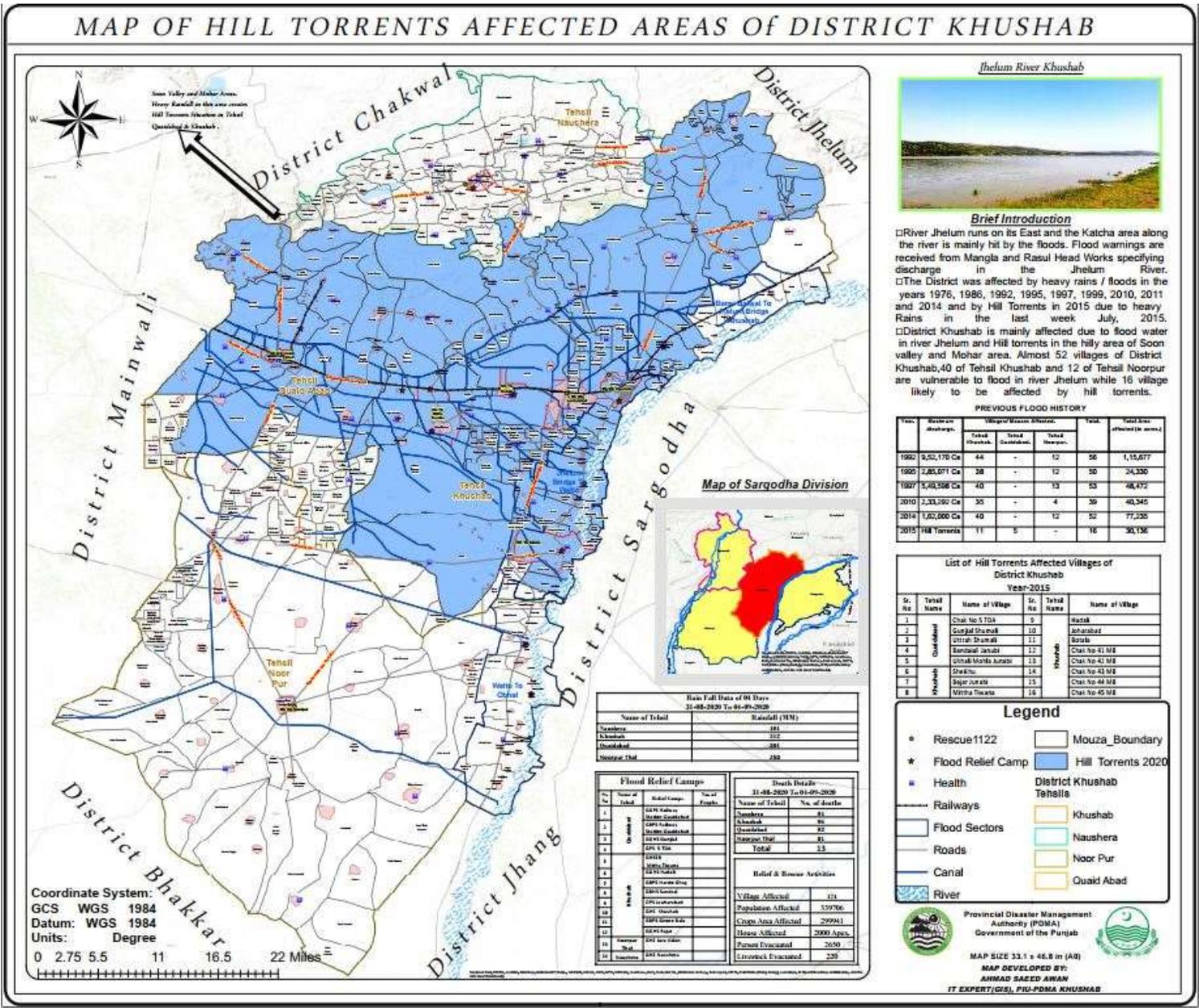
PREVIOUS FLOOD HISTORY

Year	Maximum Discharge	Total Rainfall	Total Damages	Total Deaths	Total Area affected (in acres)
1986	8,32,719 CFS	44	12	36	1,13,071
1987	2,85,871 CFS	38	13	34	24,001
1991	2,40,308 CFS	40	13	33	44,472
2010	2,35,200 CFS	35	9	33	46,342
2014	1,62,000 CFS	40	13	33	75,235
2015	148 Torrents	11	5	15	36,136

- Legend**
- Rescue1122
 - Flood Relief Camp
 - Health
 - Railways
 - Flood Sectors
 - Roads
 - River
 - Affected in 2015 By Hill Torrents
 - Affected in flood 2014
 - District Khushab Tehsile
 - Khushab
 - Naushera
 - Noor Pur
 - Qadir Abad

Map Created By:
 Ahmad Saeed Awan
 GIS Expert (PDMA)

MAP OF HILL TORRENTS AFFECTED AREAS OF DISTRICT KHUSHAB



Jhelum River Khushab

Brief Introduction

□River Jhelum runs on its East and the Katcha area along the river is mainly hit by the floods. Flood warnings are received from Mangla and Rasul Head Works specifying discharge in the Jhelum River.

□The District was affected by heavy rains / floods in the years 1976, 1986, 1992, 1995, 1997, 1999, 2010, 2011 and 2014 and by Hill Torrents in 2015 due to heavy rains in the last week July, 2015.

□District Khushab is mainly affected due to flood water in river Jhelum and Hill torrents in the hilly area of Soan valley and Mohar area. Almost 52 villages of District Khushab, 40 of Tehsil Khushab and 12 of Tehsil Noorpur are vulnerable to flood in river Jhelum while 16 village likely to be affected by hill torrents.

PREVIOUS FLOOD HISTORY

Year	Reservoir Discharge	Village/Water Station			Total	Total Area affected (in acres)
		Tehsil Khushab	Tehsil Noorpur	Tehsil Jhelum		
1992	9,52,170 Cu	44	-	12	56	1,15,677
1995	2,85,071 Cu	38	-	12	50	24,530
1997	5,48,588 Cu	48	-	13	63	48,475
2010	7,33,390 Cu	35	-	4	39	40,345
2014	1,62,000 Cu	40	-	12	52	77,335
2015	Hill Torrents	11	5	-	16	30,136

List of Hill Torrents Affected Villages of District Khushab Year-2015

Sr. No	Tehsil Name	Name of Village	Sr. No	Tehsil Name	Name of Village
1	District Khushab	Chak No 5 TD	5	District Jhelum	Badal
2		Gurajal Sheerak	10		Joharabad
3		Utrah Sheerak	15		Bisal
4	District Jhelum	Bansalal Jambal	12	District Khushab	Chak No 41 M2
5		Utrah Moha Jambal	13		Chak No 42 M2
6		Sheerak	14		Chak No 43 M2
7		Bajar Jambal	15		Chak No 44 M2
8		Mirza Tawak	16		Chak No 45 M2

Legend

- Rescue1122
- Flood Relief Camp
- Health
- Railways
- Flood Sectors
- Roads
- Canal
- River
- Mouza_Boundary
- Hill Torrents 2020
- District Khushab
- Tehsils: Khushab, Naushera, Noor Pur, Quaid Abad

Rain Fall Data of 04 Days 31-08-2020 To 04-09-2020

Name of Tehsil	Rainfall (MM)
Naushera	181
Khushab	222
Quaidabad	281
Mohtar Thal	392

Flood Relief Camps

No	Name of Tehsil	Name of Camp	No. of Family
1	District Khushab	GNP Naushera	10
2		GNP Naushera	10
3		GNP Naushera	10
4		GNP Naushera	10
5	District Jhelum	GNP Jambal	10
6		GNP Jambal	10
7	District Jhelum	GNP Jambal	10
8		GNP Jambal	10
9	District Jhelum	GNP Jambal	10
10		GNP Jambal	10
11	District Jhelum	GNP Jambal	10
12		GNP Jambal	10
13	District Jhelum	GNP Jambal	10
14		GNP Jambal	10

Death Details 31-08-2020 To 04-09-2020

Name of Tehsil	No. of deaths
Naushera	21
Khushab	26
Quaidabad	32
Mohtar Thal	31
Total	110

Relief & Rescue Activities

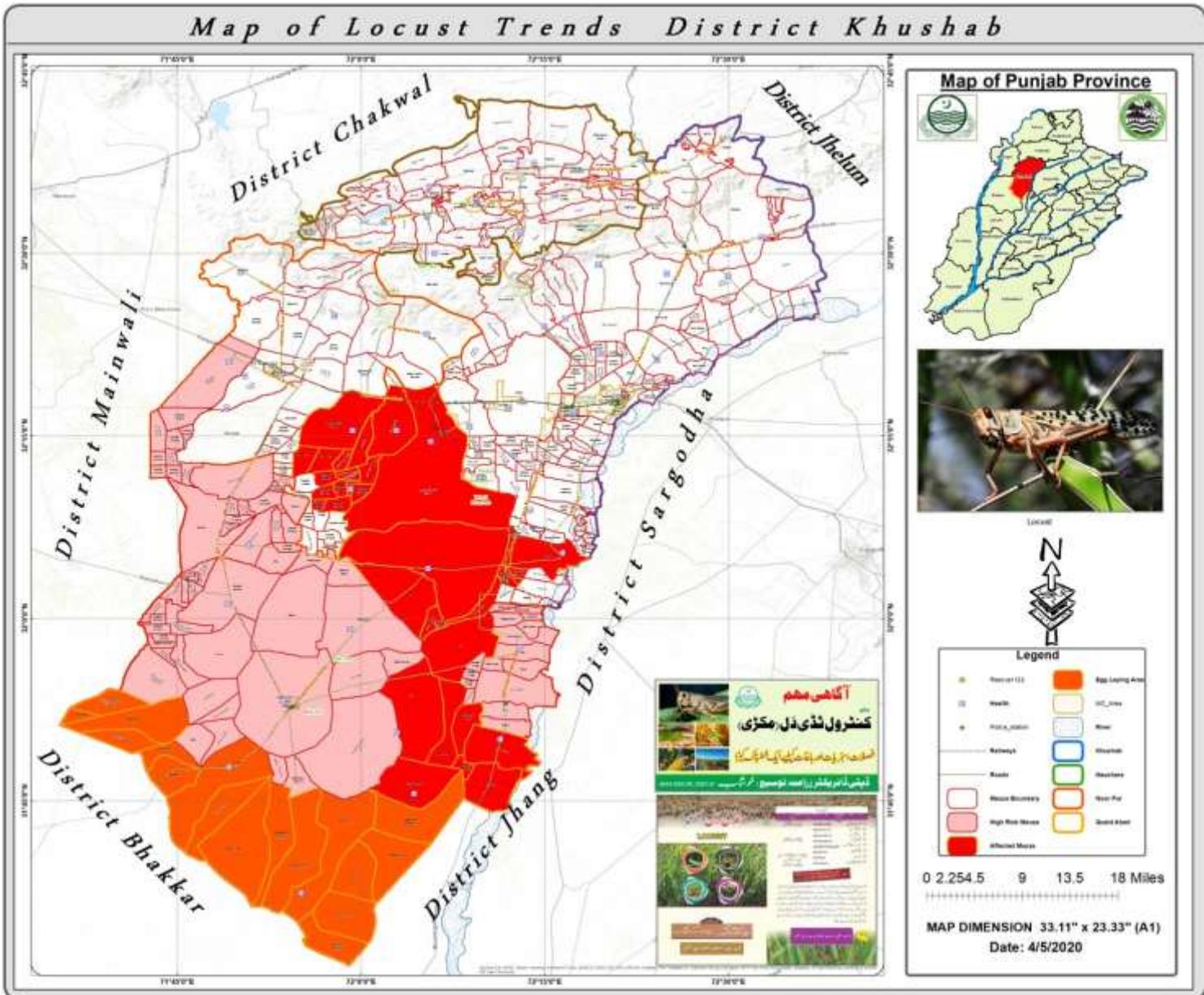
Village Affected	121
Population Affected	339706
Crops Area Affected	299941
House Affected	2000 Approx.
Person Evacuated	2050
Livestock Evacuated	220

Provincial Disaster Management Authority (PDMA) Government of the Punjab

MAP SIZE 33.1 x 46.8 in (A0)

MAP DEVELOPED BY: AHMAD SAJEED AWAN

IT EXPERT/GSI, PU-PDMA KHUSHAB



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.
- 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, CEOs, DEO 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 patwari, 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

Municipal Committees (MCs)

- Municipal Committees Administration (MCs) 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.
- Municipal Committees Administration MCs will provide assistance to the District Government for setting up and management of relief camps/ operations.
- MCs are responsible for provision & restoration of water and sanitation facilities in their municipalities besides disposal of waste or rain water/sewerage.
- MCs are equipped with trucks, water bowsers, and tractors, dewatering sets, bulldozers, loaders and dump trucks. All of these equipment is utilized to restore proper sanitary facilities, ensure the delivery of clean water and remove debris or excess water.
- MCs sanitary workers can be employed for cleaning relief camps, or other such areas which has been affected by any disaster.

- MCs employ de-watering sets to remove excess water. All MCs are required to ensure the maintenance of all dewatering sets prior to the monsoon season. The MCs maintains a list of all the choking points where rainy water accumulates as a result of heavy storms which can cause urban flooding.
- MCs 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 MCs under the concerned Administrator ADCR/ACs will assist in the migration of the affected people.
- During the relief effort and subsequent rehabilitation effort the, the local MCs 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 DC. The office of the DC fully supported by the DPO and line departments such as Health, Agriculture, Livestock, Civil Defence, 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 ACs and the MCs.
- 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 Numberdars, Headmaster of the School, Imam Masjid and councilors to make announcements etc.
- The tactical operations would be headed by the Additional District Collector (ADCR). The ADCR 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's for whole of the province:

Deputy Commissioner (Chairperson)

- i. Deputy Commissioner Khushab.
- ii. Additional Deputy Commissioner (R) Khushab.
- iii. Additional Deputy Commissioner (G) Khushab.
- iv. District Police Officer Khushab.
- v. Additional Deputy Commissioner (F&P) Khushab.
- vi. Chief Executive Officer (Authority Health) Khushab.
- vii. Chief Executive Officer (Authority Education) Khushab.
- viii. Executive Engineer Irrigation Khushab.
- ix. Executive Engineer High way Khushab.
- x. Executive Engineer Building Khushab.

- xi. Executive Engineer Public Health Khushab.
- xii. Deputy Superintendent Police (Special Branch) Khushab.
- xiii. District Emergency Officer 1122 Khushab.
- xiv. Assistant Commissioner Khushab.
- xv. Assistant Commissioner Darya Khan.
- xvi. Assistant Commissioner Kallurkot.
- xvii. Assistant Commissioner Mankera.
- xviii. Additional Director (Livestock) Khushab.
- xix. District Food Controller Khushab.
- xx. Chief Officer Zila Council, Khushab.
- xxi. Sub Engineer (Sui Gas) Khushab.
- xxii. DSP (Traffic), Khushab.
- xxiii. DSP (Petrolling) Khushab.
- xxiv. All Chief Officers of Municipal Committees Khushab.
- xxv. Deputy Director Social Welfare / Baitul - Mall Khushab.
- xxvi. Representative of Pakistan red crescent society Khushab.
- xxvii. Additional District Collector
- xxviii. Two Elected Representatives to be nominated by the Chair
- xxix. Representative of Pak Army
- xxx. Two Representatives of NGOs/Civil Society to be nominated by the Chair
- xxxi. District Officer Civil Defense
- xxxii. Such other District Level Officers to be appointed by district government.
- xxxiii. District Officer (Coordination).

- District Governments must establish a Disaster / Flood control room at the DC offices, 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.
- Chief Executive 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.
- Deputy Director. Ext (Agriculture) and Additional Director 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.

Pre-disaster Check list for DDMA

- Meeting of DDMA held
- Identification of vulnerable areas
- Identification of Safe places
- 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)

It was decided in the DDMA meeting that Control Room of Rescue 1122 will be declaring as District Emergency Control Room/ District Emergency Operation Center (DEOC) for District Khushab. It is located in the Office of Rescue 1122, Khushab. This office is connected by multiple communication mediums including Telephone, Wireless and Internet & Fax service. District Control is responsible for information, coordinating among the departments and reporting the updated situation to the District Government and Provincial Control Rooms.

Checklist for Control Room:

- Dedicated Staff as per magnitude of the disaster
- Duty roster 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 programme 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.

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 Kallurkot & Darya Khan the services of the Rakh Ghulaman Dairy & Livestock Farm and for such Livestock in Tehsil Khushab the services of Sarai Muhajir 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.

FESCO

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

Information Department

- Coordination and close liason with printy 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 conferene on daily flood situation.
- After decleration 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, Rehibition and reconstruction efforts.
- Close liason and coordination with all Govt. Departments/ offices
- Establish of media desk during disasters and emergencies.

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 formers
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- 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.

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.
- 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 / Razakars 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

- 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 centres 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.
- 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)

Before Disaster

- 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

- 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.

Civil-Military Coordination Mechanism

The DC is responsible for all the coordination with Military. As the situation demands, the District Coordination Officer, Khushab 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 disaster.

Volunteer Network

80 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	5	3	16
Earthquake	3	2	6
Drought	3	3	9
Epidemic	2	3	6
Fire Incidents	3	3	9
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	4	3	12
Environmental Hazards (industrial accidents, severe pollution etc.)	3	3	9

Risk = Impact x Likelihood

Low : 1-7
 Medium : 8-14
 High : 15-25

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

Impact of disaster on communities

The 2010 flood is the most devastating flood in district Khushab. Thirteen union councils of the district were severely damaged due to 2010 devastating flood. A total of 2287 household were destroyed.

Floods:

Major flooding nearly associated with the monsoon low depression that develops in the Bay of Bengal and move across in dial in the west / north westerly direction to enter Pakistan. Khushab can be divided it into two large natural divisions i.e. the Thal and the Indus valley or Nasheb. The latter portion is affected by flood regularly. The Indus flows along tehsil Kallurkot darya khan and Khushab. All the Nasheb area of these Tehsils are under threats of flooding. The length of Indus River within district Khushab is 110 km long. Total length of the Khushab flood protection band is 21 miles.

Drought:

In district Khushab a large number of areas in the Thal region is potentially affected by drought causing shortage of food grains and livestock. The annual rain fall in district Khushab varies 5 to 11 inches exhibiting and climatic characteristics with rain fall being low in the rabbi season especially in the south and south eastern portions of the district. Irrigation induced seepage of Chashma – Jhelum Link Canal (Non-lined Kacha Canal in the sandy area of desert Thal) leading to irrigation induced seepage salinity & water logging in the area, creating / converting fertile & productive land to the barren & nonproductive and nonresident / non living land (which is another hazard / disaster of the area).

Locust:

Attack of locust swarm has posed serious threats to province of Punjab this year. District Khushab faced locust swarm attack on 19/01/2020 in Tehsil Mankera. Locust menace needs a coordinated effort by all the DDMA stakeholders. District Khushab is still under threat of locust swarm attack. Agriculture department is leading the anti locust combat activities under the supervision of the revenue department Khushab.

Fire and environmental hazards:

The rapid urbanization in the Khushab city is increasing the risk of urban fire. The urban fire is mainly caused by the electric short circuiting, LPG decanting, sale of petroleum products within residential areas, old wooden houses & carelessness. These practices pose major fire risk in urban area. According to statistics provided by the Rescue 1122 Khushab, during the period of 2018 to 2019, fire cases were reported in which four people got injured and one died while huge property losses occurred in the urban areas of district Khushab.

Fecto sugar mills darya khan and more than 100 bricks production units may cause environmental hazards.

Other environmental hazards which need persistent monitoring are smog, extreme cold and heat shocks during summer season in district Khushab.

Road Traffic accidents:

Transport accidents are becoming worst in District Khushab. Hundreds of people affected every year in transport accidents. According to statistics provided by the Rescue 1122 Khushab, during the period of 2018 to 2019, total of people died 93 and 5021 injured in the road accidents in various urban and rural areas of the District Khushab. The main causes reported are over speeding, wrong turns, one wheeling and lack of awareness about the traffic rules.

2.Response & Operational Capacity

District control room will inform to the concerned departments and they will response with all available resources in emergency / disaster areas immediately. At Government level DDMA, Rescue 1122 and Civil Defence have their plans ready accordingly, needs and shortfalls have been identified in their plans, duly communicated to competent authorities.

Strategic Reserves

Items	Available	Functional	Non-Functional	Extra Demand
Boats	16	16		
OBM	25	23	2	
De-watering sets				
Navigators				
GIS devices				
Life Jackets	260	260		
Life Ring	52	52		
Life Lines				
Scuba diving suit with complete accessories	2	2		
First Aid Kits				
Rescue Bag	90	90		
Safety Harnesses	07	07		
Ambulances	11	11		
Fire Brigade	2	2		
Water Tanks / Bouzers	1	1		
Extendable Ladders	3	3		
Hydraulic Cutter				
Sonar Rader				
Jumping Sheet	3	3		
Dumpers				
Excavators				
Cranes				
Bulldozer				
Boat Carrier/Trolleys	4	2	2	
Pickups/Jeeps/4x4 vehicles/Mini Trucks	1	1		
Searchlight	2	2		
Tent	550	550		
Mosquito Net	500	500		
Plastic Mat	400	400		
Blanket				
Any other main relief/rescue equipment				
Generator Sets	3	3		
Gas-Cutters				
Sonar Radars				
Scuba Diving Set	2	2		
Navigator/GPS Tracker				
Hydraulic Cutter				
Floating Rope				

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 n timely decisions and coordination among the department.
- Transportation of staff at the location of disaster.
- Non availability of proper heavy and latest equipments 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 disasters.
- ✓ Strategic pre-positioning of available relief stocks
- ✓ Public education and community awareness

Hazards	Mitigate Actions	Responsible Department
Floods	i. Maintenance of flood Protection Bunds 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 updation of list of private boats and volunteers by ACs, Rescue, Civil Defense, Social Welfare etc xv. Pre flood/moonson 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 Livestockk department xviii. Updation of list of relief camp incharges and sector incharges 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 response measures as lay down by national authority and provincial authority are followed in latter at spirit.	Irrigation Revenue DDMA Recue 1122 Civil Defense Social welfare Health Education Livestock & Dairy Development Department Agriculture Department Buildings department Highway Department FESCO Police Department MCs DFC Information Department

	xxix. All Departments will ensure the implementation of national ,provincial and district plan and will play their role as mention in this plan.	
Earthquake	<ul style="list-style-type: none"> i. Compliance of seismic provisions of Building Codes of Pakistan as a minimum standard for existing and new construction ii. Conduction of Evacuation Mock Drills at public and private institutions. iii. Deceleration of dangerous buildings iv. Multi Hazard Vulnerability and Risk Assessment (MHVRA) study v. Earthquake emergency related Rescu equipment and machinery are available and are in functional condition vi. Periodic mock exercises have been conducted to test equipment and machinery. vii. Also ensure that human resources equipped with desired skills required to deal with earthquake emergencies are available in the district. viii. Various drills and exercises along with awareness campaigns in community, schools and colleges 	<p>MCs C &W Education & Higher Education Rescue 1122 Civil Defense Education Department Health Department DDMA Information Department</p>
Drought	<ul style="list-style-type: none"> i. Encourage high efficiency irrigation practices by use of drip Bubbler, sprinkler irrigation etc. ii. Desertification trends be dealt with practices like sand dune fixation and shelterbelts plantations. iii. Protection Walls iv. Stoppage & reduction of irrigation induced seepage salinity & 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) v. Awareness of drought mitigation technologies, actions and interventions for farmers 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. vii. Measures to save livestock. viii. Multi Hazard Vulnerability and Risk Assessment (MHVRA) study ix. Drought Contingency Plans at Tehsil and District level x. Clear roles and responsibilities for drought mitigation and response xi. Encouraging cultivation of drought resistant crops 	<p>Agriculture Department Forest Department/civil Society Organizations Water Management Forest Department irrigation live stock DDMA Information Department</p>
Locust	<ul style="list-style-type: none"> i. Ensuring implementation of national and provincial action plans. ii. Regular preparation and updating of yearly Locust Control Contingency Plan and submission to the quarters concerned. iii. Effective coordination mechanism. iv. Nomination of Focal Persons. v. Formation of surveillance committees at District, Tehsil and UC levels. vi. Feedback and Monitoring Mechanism vii. Regular survey and awareness activities in the farming community. viii. Mega seminars at District and Tehsil levels. ix. Maintaining proper stock of pesticides during the year 	<p>Agriculture Extension Department Pest Warning and Quality Control of Pesticides (PW&QCP) Department Revenue Department. DDMA LG&CDD MCs Information Department</p>

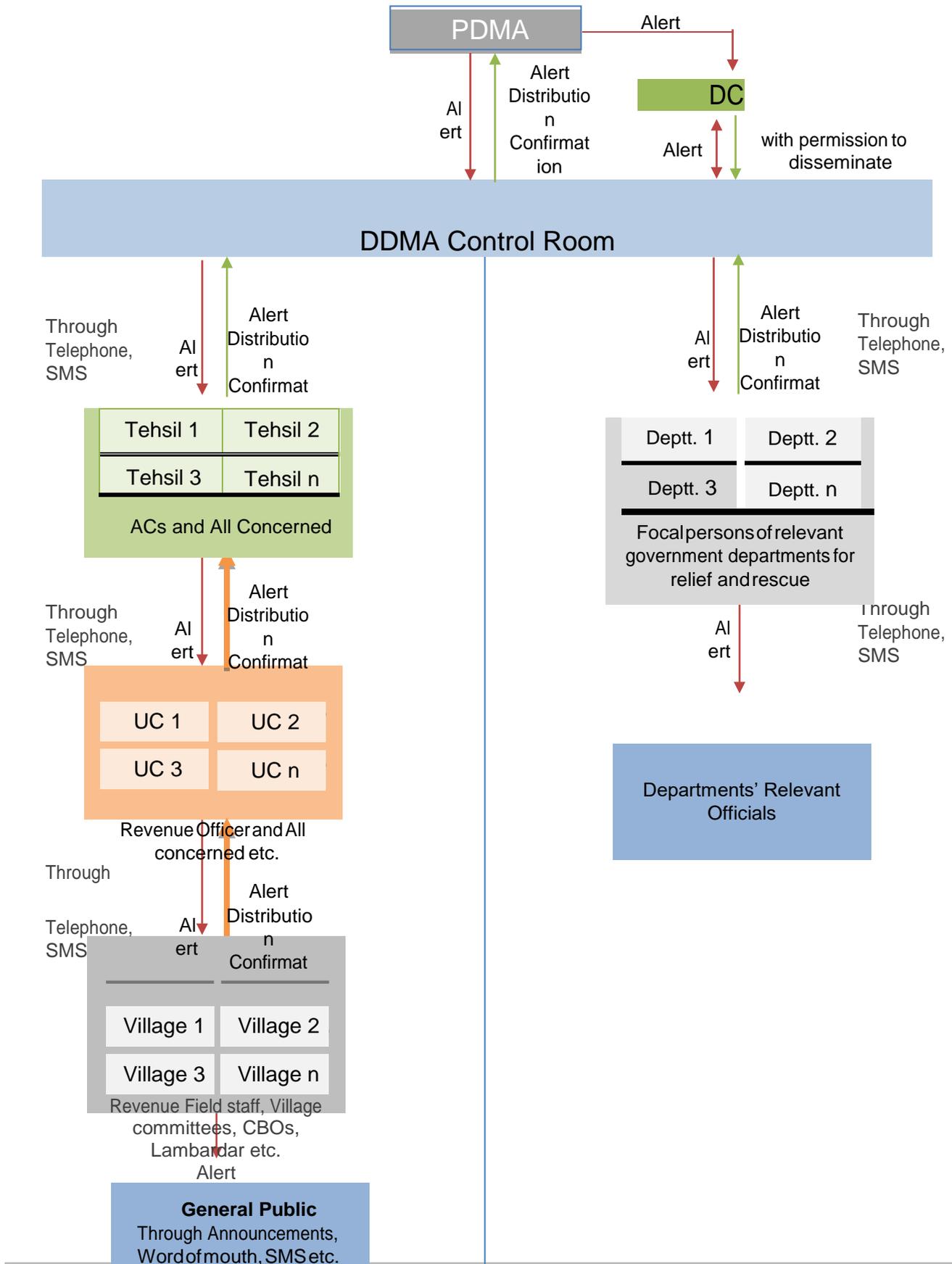
	<ul style="list-style-type: none"> x. Capacity Building and trainings for the concerned HR xi. Mock Exercises. xii. Training of farmers on locust control and corner meetings in villages 	
Epidemics	<ul style="list-style-type: none"> i. Preventive Actions ii. Awareness campaigns on regular basis iii. Medical Treatment of patients iv. Ensure 100 percent vaccination of the target group v. Convene regular meetings of all concerned departments to remain current and updated and plan for future course of action 	Health Department MCs District Government DDMA Information Department
Fire Incidents	<ul style="list-style-type: none"> i. Mock exercise, trainings, equipment ii. Installation of fire hydrants at narrow streets iii. Ensure installation of fire extinguisher at shops, offices and markets. iv. MCs should ensure that there is no encroachment v. on the way to potential fire prone buildings which can hinder firefighting operations. vi. Ensure that all building / potential vulnerable points have escape route for residents / workers in case of fire emergency vii. Ensure that fire extinguishing equipment is available and in functional condition and all security / firefighting teams know their location viii. Ensure that security staff / firefighting staff is well trained and physical and medically fit to combat fire in case of emergency. ix. Ensure that residents / workers of building and flashpoints are aware of emergency SOPs (to be followed in emergency situation) and know escape route 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 xi. combat fire. xii. Ensure that that health department has made all necessary arrangements (inclusive of human resources, equipment and medicines etc.) to deal with burn cases resulting from fire break out. 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 etc.) xiv. DDMA should convene periodic meeting with all owners of such building periodically and inspection teams should visit a I I 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. xv. should also include forest department in all meetings and operations 	1122 Civil defense MCs DDMA Health Department Forest Department Information Department
Other major accident building, collapse, road traffic accidents train accident	<ul style="list-style-type: none"> i. First aid and rescue trainings Infrastructure maintenance basic life supports trainings, installation of cautionary & informative sign boards and reflecting poles at roads/highways ii. Installation of reflectors at slow moving vehicles checking of vehicles certification / clearance certificate. 	Rescue 1122 Health Department Highway Police Traffic Police DRTA

stampede, plane crash.		DDMA Information Department
Smog	<ul style="list-style-type: none"> i. Close monitoring by Environment Protection Department. Shutting down of industries which are working without emission control equipments or are using substandard fuel. 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. iii. Agriculture department to prepare, share and implement plan of disposal of crop residues. iv. Municipal corporations to ensure efficient collection and disposal of solid waste. v. Issuance of Health Advisories and maintenance of data of smog related patients by Primary and Secondary Health Care Department vi. Devising of fugitive dust control mechanism and its implementation vii. Checking of petrol pumps for safe storage of petroleum products viii. Ensuring Municipal Laws compliance reporting ix. Clean and green activities in the district x. Establishment of nurseries and tree plantation including awareness regarding this in the general public 	Environment Protection Department Agriculture Department Industries Department Primary and Secondary Health Care Department. District Police LG&CDD Forest Department Punjab Housing and Town Planning Agency Building Department PHED Information Department MCs Traffic Police DDMA Information Department
Other Environmental Hazards (industrial accidents, severe pollution etc.)	<ul style="list-style-type: none"> i. Awareness raising/plantation/nurseries ii. alternate energy iii. Inspection & Correction 	Environment Protection Department Education Social welfare Health Department DDMA Information Department
Climate Change (Heat & and Extreme Cold)	<ul style="list-style-type: none"> i. Implementation of National Climate Change Policy (2013) followed by Climate Change Act (2017) 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). 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. iv. Revision of infrastructure designs (such as bridge piers, buildings plinth levels, buildings HVAC, roads) based on climate change assessment. v. Provision of shelter during extreme cold and establishment of shades for extreme heat and other measures to control heat shocks including awareness campaigns vi. Adequate health facilities provision; vii. Adequate control and measures against viral disease viii. Encouraging urban forestation; 	Forest Department Agriculture Department Water Management Department DDMA Social Welfare department Health Department Environment Protection Department Information Department

- | | | |
|--|---|--|
| | <ul style="list-style-type: none">ix. Adequate control and measures against viral diseases;x. Adaptation of best agriculture practices and use of climate resilient crops;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,xii. Adaptation of best water management practice, such as lining of watercourses and land leveling together with demand-based supplies using soil moisture sensors;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;xiv. Growing of more trees to control temperature and to reduce water losses together with adverse climate change impacts;xv. Changes in cropping patterns to increase food production and to cope up with the rise in food demand and water losses;xvi. Parthenium and other such types of weeds should be treated through biological treatment and Integrated Pest Management (IPM),xvii. Public awareness schemes, and capacity building of line departments' staff to educate people about climate change risks and adaptation measures;xviii. Well managed operation and maintenance to avoid water loss | |
|--|---|--|

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, TMA 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.

What action will be taken

All 07 rescue sectors will be functional with all rescue resources staff, Boats, OBM's, Life jackets and rescue operation will be performed with the collaboration of District Administration.

Who does, what, when

Initially warnings will be issued with the collaboration of line departments Police, revenue Department irrigation Department, Civil Defence, etc.

How and when

Rescue Control Room will be in touch with district flood control room Round the clock and will make the rescue strategy as per requirements.

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

Hazards	Tehsils	UCs	Names of Revenue Estates
Floods	Khushab, Noorpur Thal		khushab (Rural)
			Sandral
			Namiwali
			Khairpur
			Arik Pur
			Thathi Kalrani
			Jandran
			Har du Ghahg
			Kora
			Noorwana
			Dhak
			Bansi
			Balwal
			Rajar
			jiswal
			Ghousnagar
			mangoor
			Kurpalka
			Muhammad shah
			Jalal Pur Saydan
			Thati Ghangera
			Joyia
			Hassan Pur Tawana
			Meli Sadar din
Meli pur Bakshah			
Chak Meli			
Sheikhowal			
Gogo Chaki			
Sighwal			
Kotla jagir			

		Bheen
		Mohibpur
		Jaura Jagir
		Rang Pur Kadhi
		Girote
		Wasu
		Shah Ajmal
		Dhop sari
		Chhina
		Langar wala
		Lal Hussain
		Havali Charagh
		Chandia
		Pipli Saydan
		Sher Garh
		Tetri
		Laghari
		Jura kalan
		Kaka
		Burhan
		Khai Khurd
		Khai Kalan
Hill torrents	Khuhab, Quaidabad	Chak No 5 TDA
		Gunjal Shumali
		Uttrah Shumali
		Bandaial Janubi
		Ukhali Mohla Junabi
		Sheikhu
		Bajar Junabi
		Mittha Tiwana
		Hadali
		Joharabad
		Botala
		Chak No 41 MB
		Chak No 42 MB
		Chak No 43 MB
		Chak No 44 MB
		Chak No 45 MB

Locust	Noorpur Thal, Khushab, Quaidabad		<ul style="list-style-type: none"> • Shah Hussain, • Rakh Shah Hussain, • Rakh Borana Wala, • Rakh Tahla • Khatwan, • Nawan Saggu, • Jharkil, • Rakh Jamali, • Aino, • Rakh Noorpur • Dhamak • Buranawala • Jamali • Shahwala • Kaka. Share Ghrah • Burhan, Jura Kalan • Khai Khurd, Khai Kalan • Bilo Farm • Joiya, • Panja, • Lukko. • Hassanpur Tiwana • Girete • Bijar • Sheikhu • Roda • Chak No 41 MB • Okhali Mohla • Chak No. 21 MB • Chak No. 22 MB • Chak No. 5 TDA • Chak No. 1 TDA • Chak No. 3 TDA • Chak No. 14 MB • Chak No. 15 MB • Islamabad • Chak No24 MB
Earthquake	Anywhere in the district	Anywhere in the district	Anywhere in the district
Drought	Noorpur Thal,		Whole Tehsil
Epidemic	Anywhere in the district	Anywhere in the district	Anywhere in the district
Environmental Hazards (industrial accidents, severe pollution etc.)	Anywhere in the district	Anywhere in the district	Anywhere in the 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					
2					
3					

ANNEX IV: LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS

S#	Name	Institute type (School, College etc.)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
1						
2						
3						

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	RiskLevel (low, medium, high)	Prone to Hazard? Fire/ Floods/Earthquake
1							
2							
3							

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.	Jaman Social Welfare Society, Civil line House No.01 Jauharabad	Local	Khushab	Youth Welfare	Malik Jamshid Muneer Rajar	0346-7948148 0302-6234513
2.	Ideal Welfare Society (Al Hayat Model School) Chak No.47/MB	Local	Khushab	Education	Shail Irfan	3004206847 3015695801
3.	Al-Falah Society Block No.3 Jauharabad	Local	Khushab	Women Welfare	Allah Ditta	0301-6778433 0301-6771642
4.	Sustainable Development Association (SDA) Block No.06 H. No.80 Jauharabad	Local	Khushab	Youth Welfare	Raja Wajid	0300-6030386 0300-5195245
5.	Falcon Social Welfare Society Naseem Colony Jauharabad	Local	Khushab	Education	Perveez Iqbal	0301-6771642
6.	Anjuman Bahbood-e-Mareezan THQ Hospital Khushab	Local	Khushab	Patient Welfare	Aftab Ahmad Khan	0333-6817100 3347504183
7.	The Society for Human Empowerment & Rural Devel. (Sher) Mohallah Ajtanwala Mitha Tiwana	Local	Khushab	Women Welfare Youth Welfare Child Welfare Education	Col Muhammad Sadiq	0341-2014040 0454-203497
8.	Tanzeem Al-Falah Chak No.40/MB	Local	Khushab	Youth Welfare Child Welfare Education	Professor Ghulam Murtaza	0300-6072983 0300-8910263
9.	Women Development & Environment Association Al-Bohran Twon(Hi-Aims Oxford Science School) Jauharabad.	Local	Khushab	Education Women Welfare	Nazia Shaheen Malik	0300-6073298
10	Khushab Rehabilitation Council THQ Hospital Khushab	Local	Khushab	Dialysis Centre	Dr. Abid Ali Mukhdoom	0300-6078100
11	Society Against Violence in Education, Gulshan Town Jauharabad	Local	Khushab	Education IT Centre	Muhammad Iqbal Lila	0333-6813347
12	Bahadar welfare society Daiwal	Local	Khushab	Education	Malik M. Aslam Khan	0333-6776294 0302-6754828
13	Darul Islam Social Welfare Society Muzafargar Road Jauharabad	Local	Khushab	Special Education Women Welfare	Dr. Mahmood Ahmad Zubairi	0454-723729 0300-6075490
14	District Public Welfare Society (DPS School) Jauharabad	Local	Khushab	Education	DCO Khushab	0454-920226 0454-722277
15	Deyan Welfare Society, District Khushab	Local	Khushab	Awareness	Zafar Iqbal	0300-9600699
16	Pasban Welfare Society, H.19 Block No.4 Jauharabad	Local	Khushab	Youth Welfare Human Rights Child Welfare Women Welfare	Shakeel Ahmad	0301-6778433 0454- 7233110300- 6076658
17	Shaheer Welfare Society, Mohallah Ratialanwala Punja	Local	Khushab	Women Welfare Youth Welfare	Fakhar iqbal	0300-8329690 0300-2829826

18	Kayanat Development Organization Chak No.51-MB Tehsil Khushab	Local	Khushab	Education Women Welfare Child Welfare	Ghulam Murtaza	0305-7005896 0300-6078100
19	T.B. Association Chest Clenic Khushab	Local	Khushab	Patient Welfare	Dr. Ghous Muhammad	0454-712520
20	Hope Development Associatoin, Hayat ul Meer Printing Press Lari Adar Khushab	Local	Khushab	Human Rights Environment & protection Rehabilitation of Destitute Persons	Ghulam Abbas Khokhar	0300-6075635 0300-6074135
21	Social Welfare Society Botala	Local	Khushab	Women Welfare Education	Munawar Sultana	0303-7906182 0308-4300729
22	Rabbani Social Welfare Society, Khushab	Local	Khushab	Women Welfare Youth Welfare	Atta UI Rahman	0302-6394440
23	Ujala Welfare Society Mohallah Sardar Bahadar Khan Khushab	Local	Khushab	Health Youth Welfare	Malik Sadaqat Ali	0334-7504183
24	Adara Falah-o-Behbood Mohallah Rahmania Mitha Tiwana District Khushab	Local	Khushab	NFB Eduction Rural Dev Community Dev Women Welfare Youth Welfare	M Ramzan Jaura	0300-8702856
25	A-one Welfare Society Mohallah Balochanwala Khushab	Local	Khushab	Education	Muhammad Basheer Khan	0345-5844362 710331
26	United Development Association Bali Town Hadali	Local	Khushab	Education	Muhammad Asif Nazeer	0321-6070690
27	Social Welfare Society Sandral	Local	Khushab	Women Welfare	Malik Mansib Dar	0305-4860024
28	National Welfare Society Nasim Colony Jauharabad	Local	Khushab	Education	Muhammad Abdul Aziz	0302-67750350454-721194
29	Al-Khidmat Social Welfare Society 54-MB	Local	Khushab	Health Women Welfare Youth Welfare	Ch. Muhammad Arif	0300-6026985 0333-9827664
30	Anjuman Bahbood-e-Mareezan DHQ Hospital Jauharabad	Local	Khushab	Health	Medical Social Officer	0454-920055
31	Noor Foundation THQ Hospital Khushab	Local	Khushab	Health	Shiekh Javaid Elahi	0333-6812125 0454-712424
32	Haidar Memorial Welfare Society Chak No.41-MB	Local	Khushab	PWP Center Child Welfare Patient Welfare	Ch. Muhammad Ramzan	0300-6075323
33	Local Support Welfar Organization (SMJH) Hassan Pur Tiwana (Khushab)	Local	Khushab	Education	Muhammad Hayat Talah	0302-5853923 0306-6784673
34	Friends Welfare Society, Abdullah Hospital Jauharabad	Local	Khushab	Health	Dr. Ghani Masood Alam	0300-6071532 0314-5304195
35	Rural Area Dev. Organization (RADO) Chak No.47/MB	Local	Khushab	Youth Welfare	Prof.Ghulam Murtaza	0300-6072983 0308-4238192
36	Social Welfare Society Jabbi	Local	Khushab	Education	Mudasar Atteeque	3013929344
37	Police Welfae Organizaion DPO Office Khushab at Jauharabad	Local	Khushab	Recreational Programme, Social Education, Patient Welfare, Rehabilitaiton of Destitute Person	DPO	03004775694 03008193454 03009606201
38	Anjuman Farog-e-Taleem 9S Settelite Town Quaidabad	Local	Khushab	Education	Qazi Qamer-ud-Din	0305-6565623 0301-4582006
39	Peoples Welfare Society (Gunjial)	Local	Khushab	Women Welfare, Youth Welfare, Child Welfare,	Ch. Saleem	0300-6073076 0304-2727199 0304-5214414

	Quaidabad District Khushab			Patient Welfare, Social Education, Welfare of Disable Person		
40	Bandial Welfare Society, Bandial Tehsil Quaidabad District Khushab	Local	Khushab	Youth Welfare Child Welfare Women Welfare Patient Welfare	Malik Akram Bandial	0300-9601090 0300-9723024
41	High Aims Desert Welfare Society Tehsil Noorpur Thal	Local	Khushab	Women Welfare Youth Welfare	Ghulam Hur	0454-791199
42	Tafheem-ul-Quran Society Adhi Kot	Local	Khushab	Women Welfare Education	Hakim Khan	0454-7861105
43	Al-Hamad Social Welfare Society, Ahmad-Abad (Khai Khurd) Tehsil Noor Pur Thal District Khushab	Local	Khushab	Youth Welfare Child Welfare Patient Welfare Education	Haji Mohammad Ismaeel	0301-2514427 0301-6773706
44	Growing Laager Aspiring Development (GLAD) Welfare Society, Noor Pur Thal 134/3 Gulshan Iqbal Colony Jauharabad	Local	Khushab	Youth Welfare Child Welfare Patient Welfare Education	Shoaib Akbar	0302-6770688
45	Welfare and Development Association Uchali	Local	Khushab	Youth Welfare Child Welfare Women Welfare	Malik Saif Ullah Khan	3028905273
46	Anjuman Bahbood-e- Mareezan THQ Hospital Naushera	Local	Khushab	Youth Welfare Child Welfare Women Welfare	Medical Social Officer	3005097378
47	Gross Root Development Programme Naushera	Local	Khushab	Youth Welfare Child Welfare Women Welfare	Abdul Hameed	0300- 50977278
48	Qutab Welfare Society District Khushab Soon Valley	Local	Khushab	Youth Welfare Child Welfare Women Welfare	Malik Sher Afzal	03005265640 03004396362
49	Kohsar Rural Development Foundation, Naushera	Local	Khushab	Youth Welfare Child Welfare Patient Welfare Coordination with other NGOs	Khalil Ahmad	0305-4680311 0301-5381967

ANNEX VII: LIST OF VOLUNTEERS

Sr. No.	Name of Volunteer	Cnic #	Address	Cell No.	Blood Group	Time Required to be on board.
1.	Shoaib Aftab	38201-0747498-5	Shwala, Khushab	03028000005		2 Hours
2.	Muhammad Sarfraz	38201-11104133-5	-do-	03004159637	B+ive	-do-
3.	Muhammad Irfan	38201-1111835-7	-do-	03006039560	O+ive	-do-
4.	Muhammad Ashraf	38201-5213472-9	-do-	03041657283	B+ive	-do-
5.	Muhammad Imtaiz	38201-9943025-3	-do-	03026029812	-do-	-do-
6.	Muhammad Sohaib	38201-0193156-3	-do-	03027026116	O+ive	-do-
7.	Muhammad Tanveer	38201-3015383-9	-do-	030227543816	A+ive	-do-
8.	Kamran Raza	38201-9195143-5	Jauharabad City	03018186833	B+ive	1 Hours
9.	Muhammad Nasir	38201-7378993-9	Khushab City	03046681264	B+ive	-do-
10.	Muhammad Irfan	38201-7093860-5	-do-	03066789183	A+ive	-do-
11.	Muhammad Sohail	38201-4723256-5	Shwala, Khushab	03056449739	O+ive	2 Hours
12.	Muhammad Eshan	38201-1326063-7	-do-	03403434476	O+ive	-do-
13.	Muhammad Ilyas	38201-1216081-7	-do-	03078720319	B+ive	-do-
14.	Raja Bilawal	38201-0328215-3	-do-	03087095071	A+ive	-do-
15.	Tahir Abbas	38201-0848707-3	Khushab City	03067152082	B+ive	1 Hours
16.	Muqsood Ur Rehman	38201-1206352-9	Shwal, Khushab	03057418520	B+ive	2 Hours
17.	Mujeed Ur Rehman	38201-9991724-7	-do-	03447931975	O+ive	-do-
18.	Muhammad Matloob	38201-0778061-3	-do-	0303-8484562	A+ive	-do-
19.	Muhammad Shoaib	38201-2582112-5	Khushab City	03016544957	O+ive	1 Hours
20.	Muhammad Zulqarnain	38201-1157289-7	-do-	03067097724	B+ive	-do-

21.	Muhammad Asgher	38201-1991718-9	-do-	03046681264	A+tive	-do-
22.	Samar Abbas	38201-510985-5	Mangoor, Khushab	03056836751	O+tive	2 Hours
23.	Mubashar Yaqoob	38201-3838643-7	-do-	03059737567	O+tive	-do-
24.	Imran Hasan	38201-1324312-3	Hadali, Jauharabad	03057443426	B+tive	2 Hours
25.	Toqeer Haider	38201-7819089-1	Kurpalka, Khushab	03004551607	O+tive	-do-
26.	Fasil Nawaz	38201-2427238-3	Bola, Jauharabad	0307-6774984	B+tive	-do-
27.	Muhammad Ramzan	38201-1871305-9	Kurpalka, Khushab	03035657647	-do-	-do-
28.	Muhammad Saleem	38201-1061776-3	Hadali, Khushab	03227527293	-do-	-do-
29.	Muhammad Naveed	38201-8995508-5	-do-	03015524390	-do-	-do-
30.	Taseer Hasan Raza	38201-9344896-9	Bola, Khushab	03035844742	-do-	-do-

ANNEX VIII: POLITICAL CONSTITUENCIES

National Constituencies					Provincial Constituencies				
Sr #	Name of constituency	Name of Sitting Parliamentarian	Profession	Contact Number	Sr #	Name of constituency	Name of Sitting Parliamentarian	Profession	Contact Number
1	Khushab , Noorpur Thal	Ehsan Ullah Tiwan	landlord	030055 0094	1	Khushab	Gulam Rasool Sagha	Landlord	03006041 865
					2	Quaidabad	Fathe Khaliq Bandial	Landlord	03006079 300
2	Quaidabad , Naushera	Umer Aslam	landlord	030087 09870	3	Noorpur Thal	Waris Kalu	Landlord	03009445 875

ANNEX IX: DATA COLLECTION PERFORMAS

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)
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P2: Deceased Person Reporting Performa

District: _____

Date: _____

S#	Name of deceased	Father Name	Address	Domicile	Gender	Age	CNIC	Cause of death y	Date of death	Place of death	Marital status	Next of kins (Name and Contact and CNIC etc.)	Verifying Officer (Name, Designation and Contact)
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P3: Injurd Person Reposrting Performa

District: _____

Date: _____

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

: Cattle Head Perished

District: _____

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 Performa

District: _____

Date: _____

85	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 (Boat, Bulldozers,	Engine type	Boat capacity	Equipment Condition	Number of Machinery
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P8: Relief camp registration Performa

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 performa

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.
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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 X: CAMP MANAGEMENT SOPS

- Camps would be established in areas accessible by metalled 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.

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

ANNEX XI: FLOOD BUNDS

INFORMATION REGARDING FLOOD BUND CATEGORY A

SR:#	NAME OF DIVISION	NAME OF EMBANKMENT/BUND	LENGTH (ft)
<u>SARGODHA ZONE</u>			
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
Total in feet.			25,413
Total in Miles.			4.81
<u>PMO BARRAGES</u>			
1	Kalabagh H/Works Division	Jinnah Barrage	25,080
Total in feet.			25,080
Total in Miles.			4.75
<u>FAISALABAD DIVISION</u>			
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
Total in feet.			133,875
Total in Miles.			25.36
<u>BAHAWALPUR ZONE</u>			
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
Total in feet.			55,000
Total in Miles.			10.42
<u>MULTAN ZONE.</u>			
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
Total in feet.			80,000
Total in Miles.			15.15
<u>D.G.KHAN ZONE</u>			
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
Total in feet.			1,35,000
Total in miles			25.57

LBDC(IP)			
1	Balloki Head works Division	Left Marginal Bund	15,000
2	do	Right Marginal Bund	15,000
Total in Feet			30,000
Total in miles			6
LAHORE ZONE			
1	FLOOD Bund Division Narawal	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
Total in Feet			115,940
Total in miles			22
Grand total in miles			114

INFORMATION REGARDING FLOOD BUND CATEGORY B

S#	Name of Division	Name of Embankment / Bund	Length (ft.)
SARGODHA ZONE			
1	Rasul Headworks Division	Important / Vulnerable Reaches	10,000
2	Khushab Division	-do-	10,000
3	Layyah Division	-do-	10,000
4	Jhelum Division	-do-	5,000
Total in feet.			35,000
Total in miles			6.63
FAISALABAD ZONE			
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
Total in feet.			165,000
Total in miles			31.25
BAHAWALPUR ZONE			
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
Total in feet.			290,000
Total in miles			54.92
MULTAN ZONE			

1	Trimmu Division	-do-	80,000
2	Suleimanki Division	-do-	50,000
3	Shujabad Canal Division	-do-	60,000
	Total in feet.		190,000
	Total in miles		35.98
<u>D.G.KHAN ZONE</u>			
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
	Total in feet.		630,000
	Total in miles		119.32
<u>LBDC (IP)</u>			
1	Balloki Headworks Division	-do-	40,000
2	Okara Division	-do-	40,000
3	Sahiwal Division	-do-	20,000
	Total in feet.		100,000
	Total in miles		18.94
<u>LAHORE ZONE</u>			
1	FloodBundDivisionNarowal	-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
	Total in feet.		422,000
	Total in miles		79.92
<u>PMO BARRAGES</u>			
1	Jinnah Barrage	-do-	20,000
	Total in feet.		20,000
	Total in miles		3.79
	Grand Total (in miles)		350.76

ANNEX XII: RIVER DISCHARGE RATES

River	Gauge Site	Designed Capacity (lac Cs)	Flood Limits in Lac Cs.				Exp. High
			Low	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
CHENAB	Mangla	10.6	0.75	1.1	1.5	2.25	3
	Rasul	8.5	0.75	1.1	1.5	2.25	3
	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
RAVI	Punjnad	7	1.5	2	3	4.5	6
	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
SUTLEJ	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
	G.S.Wala	10 ft.	19.5	21.5	23.3	25.3	
	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: LOCUST CONTINGENCY PLAN

A precautionary action plan is prepared to help farmers to meet the challenge of Locust attack.

DEPARTMENT RESOURCES

Human Resources	Deputy Director Agri (Ext.)	1
	Assistant Director Agri (Ext)	3
	Agriculture Officers (Ext)	10
	Superintendent	1
	Assistant	4
	Agri. Inspector	5
	Field Assistant	57
	Senior Clerk	2
	Junior Clerk	10
	Beldar/Fieldman /Sprayman/Cleaner	68
	Vehicle Driver	6
	Chowkidar	4
	Vehicle & Machinery	Toyota Hilux
Suzuki Jeep		2
Bolan Pickup		7
Honda 125cc Motorcycle		58

SURVILLANCE ACTIVITIES

The surveillance committees at District, Tehsil and Union Council level will be responsible for surveillance/monitoring and awareness among the farming community. The following committees are hereby constituted for above said purpose.

- a) District Level Surveillance Committee
 1. Deputy Commissioner Khushab (Convener)
 2. Deputy Director Agriculture (Ext.) Khushab (Member/Secretary)
 3. Assistant Director (PW&QCP) Khushab (Member)
- b) Tehsil Level Surveillance Committee
 1. Assistant Commissioner of Concerned Tehsil (Convener)
 2. Assistant Director Agriculture (Ext.) of Concerned Tehsil (Member/Secretary)
 3. Agriculture Officer (Ext) H/Q (Member)
 4. Agriculture Officer (PW&QCP) of Concerned Tehsil (Member)
- c) Union Council Level Surveillance Committee
 1. Field Assistant of Concerned Union Council (Convener)
 2. Concerned Patwari (Member)

PRE-ACTIVE STRATGIES

- a) Tehsil &U/C level committees will keep a close eye on locust movement and will immediately inform District Committee in case of any invasion for timely action
- b) The Field staff of the Agriculture, Pest Warning & Revenue will conduct regular Survey about locust population and will also create awareness among the farming community.
- c) Mega Seminars at District & Tehsil level will be arranged to create awareness among the farming community by Agriculture and Pest Warning Department.
- d) Agriculture Officers & Veterinary Officers will conduct meetings at village level to create maximum awareness among farming community.

ARRANGEMENTS OF PESTICIDES, EQUIPMENT AND MANPOWER

- All the arrangements will be made for emergency acquisition of Anti- locust pesticides
- and spray machines from PDMA/Any other concerned authority in consultation with Assistant Director Agriculture (PW & QCP) Khushab.
- Assistant Director Agriculture (PW& QCP) will ensure the availability of maximum locust control pesticides in Khushab district.
- Pesticides spray machinery and equipment will be acquired from the Federal Department of Plant Protection (DPP) immediately.
- Manpower and logistic for spray will be arranged by the Deputy Commissioner Khushab from the resources of Agriculture, Livestock, Pest Warning and Revenue Departments.

OPERATIONAL ACTIVITES

- The SOS calls for operational activities will be given by the Deputy Commissioner Khushab District in consultation with the District Surveillance Committee.
- The Assistant Director Agriculture (PW & QCP) Khushab will launch the locust Control operation.
- The Agriculture, Pest Warning and Revenue Departments will provide field staff to assist in operations of locust control

ANNEX XVI: CONTACT LIST OF MAIN STAKEHOLDERS/ DEPARTMENTS

Sr No	Designation	Telephone Office	Focal Person	Mobile	Telephone Residential
1.	Commissioner, Sargodha Division Sargodha	048-9230721-22	Dr. FARAH MASOOD	0304-0920053	048-9230699
2.	At Deputy Commissioner complex Jauharabad	0454-920215	FLOOD EMERGENCY CONTROL ROOM	0304-0920075	0454-720470
3.	Deputy Commissioner , Khushab	0454-920202 0454-720626	MUSARAT JABEEN	0304-0920075	0454-720470
4.	Addl: Deputy Commissioner(Rev), Khushab	0454-920120	ADEEL HAIDER	0333-4204280	-
5.	District Police Officer, Khushab	0454-920026-28	MUHAMMAD NAVEED	0300-4010777	0454-720726
6.	The Assistant Commissioner, Khushab	0454-9202216	NOMAN MAHMOOD RANA	0306-451003	-
7.	The Assistant Commissioner, Noorpur	0454-850265	MUBARIK ALI RAZA	0304-0902000	-
8.	The Assistant Commissioner, Quaidabad	0454-880087	KHIZRAN ALI	03332005088	
9.	The Assistant Commissioner, Naushera	0454610080	LABHA MASEHE ZESHAN	0345-7505603	
10.	The Chief Executive Officer District Health Authority, Khushab	0454-920089	Dr. AURANG ZAIB	0300-6072789	
11.	The chief Executive Officer District Education Authority, Khushab.	0454-920125	ALLAH DITTA BALOCH	0300-7500031	
12.	The Deputy Director Agriculture (Extension)	0454-920158	MURAD BASHIR	0309-6573790	

	Khushab.				
13.	The Deputy Director Social Welfare Khushab.	0454-920051	MALIK IMTIAZ MANGAT	0307-5304665	
14.	The Executive Engineer Building District Khushab.	0454-920236	AZAN GHAFFOR	0307-5304665	-
15.	The Executive Engineer Irrigation Khushab Canal Division Khushab.	0454-711422	HASSAN MURTZA KHAN	0332-7952615	-
16.	The Executive Engineer (P.H.E.D), Khushab.	0454-710380	CH. HUSSNAIN SA	0333-5410961	-
17.	The Xen (Operation) FESCO, Jauharabad.	0454-920057	BABAR RIAZ REHMAN	0345-1502511	0454-720818
18.	The District Monitoring Officer, PESRP Khushab.	0454-920221	Seat Vacant	-	0454-721355
19.	The District Health Officer (Preventive) District Health Authority, Khushab.	0454-920091	DR. RAO GULZAR YOUSAF	03008702089	-
20.	The District Emergency Officer, Rescue 1122, Khushab	1122	HAFIZ ABDUL RASHEED	0300-5698489	0454-933071
21.	Focal Person for Per-Flood-2019/ The system Network Administrator, Khushab.	0454-920222	ASRAR AHMAD	0300-4753595	-
22.	The Divisional Forest Officer, Khushab.	0454-920082	AZEEM ZAFAR	0334-0008326	-
23.	The Food Controller, Khushab.	0454-920146	Mdm. SIDRA MIRAJ	0305-6193798	-
24.	The District Officer, Khushab	0454-920008	RANA ABDUL JABBAR	0307600442	-
25.	The Additional Director Livestock, Khushab.	0454-920080	TANVEER ASHRAF	0300-6034104	-
26.	The Secretary DRTA, Khushab.	0454-920041	KAMRAN AKBAR	0332-5786959	-
27.	The District Officer (Population), Khushab.	0454-920135	MUHAMMAD SHAHID	0301-6347296	-
28.	The DSP Traffic, Khushab.	-	AFZAL KHAN	03005074249	-
29.	The District Officer,(Excise &Taxation), Khushab	0454-920189	ESHAN QADIR MOJAKA	0300-6071563	
30.	The Civil Defence Officer, Khushab.	0454-920052	MUZZAM SULTHAN	0345-8636584	
31.	The Chief Officer Municipal Committee, Khushab.	0454712461	MALIK MUHAMMAD AZAM	03016748122	
32.	The Chief Officer Municipal Committee, Jauharabad.	03064821034	Mdm. HURRA JAVAID	03456116016	
33.	The Chief Officer Municipal Committee, Qaidabad.	03016766186	AZHAR KHAN	03016766186	
34.	The Chief Officer Municipal Committee Naushera	0301-5695818	AKHTAR NAWAZ	0301-5695818	
35.	The Assistant Agriculture Engineer (Field Operation), Jauharabad.	03006070527	TARIQ MAHMOOD	03006070527	

36.	TEHSILDAR KHUSHAB		ASLAM ZIA	03234054700	
37.	TEHSILDAR NOORPUR THAL		MR. AMJAD ALI	03007788789	
38.	TEHSILDAR QUADABAD		MR. SALEEM MUSHRAF	03004708436	
39.	TEHSILDAR NAUSHEHRA		HAFIZ IMRAN HAMEED	03314242519	
40.	PDMA/DDMA, Khushab	0308-7240646	AHMAD SAEED	0308-7240646	
41.	HC DDMA,S Khushab	0454-920215	AMEER GUNJIAL	0301-4292231	

ANNEX XVII: 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 falls or avalanches, surface collapses, expansive soils and debris or mud flows.

