

# DISTRICT DISASTER MANAGEMENT PLAN 2021

Division: Sargodha  
District: Sargodha



IDP Camp in 2009



Flood Mock Exercise



Corona virus Pandemic-Training to wear PPE's

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## XX

Estimated number of people at risk of **hill torrent** in 2016



Risk: High

## XX

Estimated number of people at risk of Hill Torrent in 2016



Risk: Medium

## XX

Estimated number of people at risk of earthquake in 2016



Risk: Low

## XX

Estimated number of people at risk of epidemic in 2016



Risk: Medium

# EXECUTIVE SUMMARY

Provide a short executive summary outlining the situation and risk analysis, the response objectives and intended operational delivery.

## AIM AND OBJECTIVES

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

The main objectives of the plan include:

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

# DISTRICT PROFILE

## Socio-Economic Indicators (Average)

S.No.	Particulars	Numbers
1.	Population	3,397,000
2.	No. of Tehsils	7
3.	No. of UCs	161
4.	No. of Revenue Estates	850
5.	Population Density (people per km <sup>2</sup> )	580
6.	Family Size	6
7.	Pop Growth Rate	2.64
8.	PCI	
9.	District GDP/Annual Income	
10.	Poverty Rate	25
11.	Patient/Doctor Ratio	
12.	AMR	
13.	IMR	94/1000
14.	MMR	
15.	Literacy Rate	61
16.	Global Acute Malnutrition (GAM) rate	
17.	Severe Acute Malnutrition (SAM) rate	
18.	Percentage of population having access to clean drinking water	8700%
19.	Annual Crime	11,472

## Population

Total	Male (above 18)	Female (above 18)	Minor (M) (less than 18)	Minor (F) (less than 18)	Vulnerable People (PLWs, disabled, aged)
3,397,000	1,307,288	1,293,096			

Source/Note: Click here to enter text.

Number of Dwelling Units	Kaccha (Mud/clay)	Pakka (Bricks & Mortar)
300,421	74,092	217,560

Source/Note: Multipale indicator cluster Survey 2014

## Area (in acres)

Total Area of District in Km <sup>2</sup>	Area under cultivation	Cultivation in Settled Area	Cultivation in Baid Area
5,854	514	462	72

## Literacy Rate

	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
Source/Note: Multipale indiatop/ccluster Survey 2014	%	%	%	%	72%	49%

## Government Schools

		Schools	Enrollment
<b>Total/Overall</b>		2,005	1
<b>Boys</b>	<b>Primary</b>	1,327	
	<b>Middle</b>	354	
	<b>High</b>	280	
<b>Girls</b>	<b>Primary</b>	596	
	<b>Middle</b>	204	
	<b>High</b>	147	
<b>Co-Education</b>	<b>Primary</b>	731	
	<b>Middle</b>		
	<b>High</b>		
<b>Special Education</b>			

## Private Schools

		Schools	Enrollment
<b>Total/Overall</b>			
<b>Boys</b>	<b>Primary</b>		
	<b>Middle</b>		
	<b>High</b>		
<b>Girls</b>	<b>Primary</b>		
	<b>Middle</b>		
	<b>High</b>		
<b>Co-Education</b>	<b>Primary</b>		
	<b>Middle</b>		
	<b>High</b>		
<b>Special Education</b>			

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

Particulars	Colleges	Universities	Professional	Technical	Commerce	Total
<b>No of Institutions</b>	36	2	0	7	6	51
<b>No of Students</b>						

## Health Facilities

Particulars	Primary	Secondary	Tertiary	Private Hospital	Total
<b>No. of Facilities</b>	89	48	6		
<b>Annual OPDs</b>					
<b>No of beds</b>					
<b>Doctors Available</b>					
<b>Paramedical staff</b>					
<b>Ambulances available</b>					
<b>Mobile Medical Units</b>					

**Livestock:** Small Animals (goats, sheep etc.): 497,190 Big Animals (cows, buffalos, camel etc.) 1,189,619

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

Agriculture	Livestock	Poultry	Fish Farming	Services (Public & Pvt)	Business	Expatriates	Industrial Labor	Skilled Labor	Unskilled Daily Labor	General Labor
75%	56%	12%	248%	14%	66%	2%	1%	20%	50%	%

## 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								
2								
3								
4								

5								
6								
7								
8								
9								
10								
11								
12								

**Disaster History – Other disasters (since 1970)**

S #	Year	Disaster Type	No. of people affected	No. of deaths	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**General Information**

Particulars	Detail
Neighboring districts and their vulnerabilities	Khushab, Chiniot, Jhang, Mandi Bhaudin
Topographical Features	
Weather/Climate pattern	e.g. max. and min. temperature, annual precipitation, storms, heat waves, snow fall etc.
Major Rivers	Name of river, passing through areas along with length in the district Major Barrages and their Flood levels Chenab, Leignth Takh Hazara To Motrway Jhelum Chak Nazam to Hawali Majoka
Major Nullahs / Streams	Name of river, passing through areas along with length in the district Flood levels
Motorway/Highway	Vulnerable points of motorway/highway
Railways	Vulnerable points of Railway

Geological features	e.g. fault line, mountainous areas etc.
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**Dams (including small dams)**

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

**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
Western Feeder	3	Bhera	Bhera		X: Y:	Satisfactory
					X: Y:	

**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		
NIL	NIL	X: Y:					
		X: Y:					
		X: Y:					

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

Name	Capacity	GPS Coordinates	Name	Capacity	GPS Coordinates
City Sargodha	132 KV	X: Y:	126 SB	132	X: Y:
Sargodha 2	132 KV	X: Y:	Kudhlathi	132	X: Y:
Sargodha Hill	132 KV	X: Y:	SHahpur		X: Y:

**Airport / Landing Strips**

Type	Area Name	GPS Coordinates	Type	Area Name	GPS Coordinates
NIL	NIL	X: Y:			X: Y:
		X: Y:			X: Y:

		X: Y:			X: Y:
		X: Y:			X: Y:

**Govt. storage facilities/warehouses in the district**

Facility Type	Capacity	Location with GPS Coordinates	Facility Type	Capacity	Location with GPS Coordinates
NA		X:0.00 Y:			X: Y:
NA		X: Y:			X: Y:

District baseline/reference map

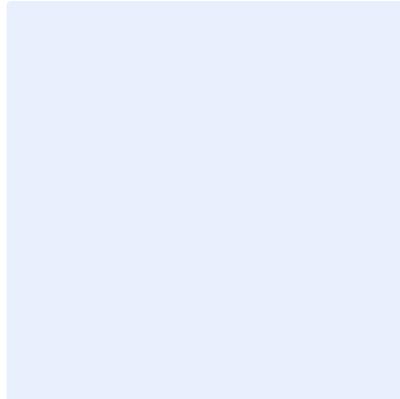
# SARGODHA DISTRICT



Source:

## COORDINATION MECHANISM

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



Volunteers)

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

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

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

- a) prepare a disaster management plan including district response plan for the district;
- b) coordinate and monitor the implementation of the National Policy, Provincial Policy, National plan, Provincial Plan and District Plan;
- c) ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities;
- d) ensure that the guidelines for prevention, mitigation, preparedness and response measures as laid down by the National Authority and the Provincial Authority are followed by all departments of the Government at the district level and the local authorities in the district;
- e) give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
- f) lay down guidelines for preparation of disaster management plans by the departments of the Government at the districts level and local authorities in the district;
- g) monitor the implementation of disaster management plans prepared by the departments of the Government at the district level;
- h) lay down guidelines to be followed by the departments of the Government at the district level;
- i) organize and coordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district;
- j) facilitate community training and awareness programmes 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 centres or camps and make arrangements for water supply and sanitation in such buildings or places;
- p) establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- q) provide information to the Provincial Authority relating to different aspects of disaster management;
- r) encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grass root level in the district for disaster management.
- s) ensure communication systems are in order and disaster management drills are carried out periodically; and
- t) perform such other functions as the Provincial Government or Provincial Authority may assign to it or as it deems necessary for disaster management in the district.

**District Plan:**

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

**Additional Powers of District Authority:**

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

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

**Revenue Department (Functions and Responsibilities)**

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

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

- Post damage assessment should be carried out by joint teams constituted of patwaris, teachers, and agriculture field assistants. Technology should be involved and android sets should be used to gather accurate data.
- Round the clock active control rooms should be set up and the numbers be circulated to all concerned. The control rooms should be equipped with wireless, telephones and computers. All info gathered or received should be conveyed to the concerned. The control room should have representatives of concerned departments such as police, health, 1122, and revenue.
- Early warning is critical in saving lives. The local revenue officials along with local police should be deployed to warn the people against the oncoming disaster and to urge them to vacate the disaster prone areas and villages. Loudspeakers, mosque speakers and word of mouth should be used. Banners and posters can also be used.
- Data collection is of prime importance and the senior network administrator should be declared as the focal person for collection of relevant information such as number of casualties, damages to infrastructure, injured, perished livestock etc. for onward submission to PDMA etc.
- Mock exercises should be carried out along with all concerned departments specially 1122, Police, civil defence 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 floodprone areas
- List of Numberdars with their contacts, volunteer from low lying settlements with contact numbers
- Prepare list of vulnerable villages and make an estimate of likely affected population in such villages in the event of flood
- Name and contact numbers of private boat owners and operators Announcement of Flood Warning at settlement level – Patwari responsible Forced evacuation with police
- Rapid assessment for relief goods and ration provision Coordination and reporting
- Carry out survey of entire flood affected areas to assess losses in collaboration with Agriculture, Livestock and Education Department
- Conduct crop damaged/ house damaged surveys

### Tehsil / Town Municipal Cooperation (MC's)

- Tehsil / Town Municipal Corporation (MC) plays an important role of providing municipal services in the district including clean drinking water, sanitation facilities, maintenance of parks and removal of encroachment etc.
- Tehsil / Town Municipal Corporation (MC) 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, tractors, dewatering sets, bulldozers, loaders and dump trucks. All of these equipment are utilized to restore proper sanitary facilities, ensure the delivery of clean water and remove debris or excess water.
- TMAs sanitary workers can be employed for cleaning relief camps, or other such areas which has been affected by any disaster.

- 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 TMA maintains a list of all the choking points where rainy water accumulates as a result of heavy storms which can cause urban flooding.
- TMA should ensure supply of clean drinking in overhead reservoirs and ensure supply to the affected areas or relief camps through water bowsers. Clean drinking water is a major issue and requirement during any disaster.
- In case of any disaster that requires people to be relocated, the TMA under the concerned Administrator ADC/AC will assist in the migration of the affected people.
- During the relief effort and subsequent rehabilitation effort the, the local TMAs manpower can be effectively used for the distribution of food and essential commodities among evacuated people or any other relief activity such as provision of cash compensation.

### District Disaster Management Authority (DDMA)

- DDMA's are created under the NDM Act 2010 under Chapter IV Section 18 and the law defines their composition and also outlines their functions, duties and powers.
- District Disaster Management Authorities are the first line of defense and the implementing arm of the government policy and plans. Within the district there are three to four key players/departments that have to put up a joint and coordinated effort in order to fight with and handle any disaster under the leadership and coordination of the DCO. The office of the DCO fully supported by the DPO and line departments such as Health, Agriculture, Livestock, Civil 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 AC and the TMAs.
- On receipt of a flood warning, immediate warning will be conveyed to all the concerned officers. Immediate action will be taken in each sector / sub sector for evacuation of the population from risk prone areas to safer places or to Relief Camps. An Assistant Commissioner will ensure that announcements are made through loudspeakers of the mosques utilizing the services of the Revenue department. Each Patwari will inform the Numbardar, Headmaster of the School, Imam Masjid and councillors to make announcements etc.
- The tactical operations would be headed by the Additional District Collector (ADC). The ADC would be responsible for coordinating and supervising the disaster control and relief measures in the district.
- Provincial government had notified the following composition of DDMA's for whole of the province:
  - i. **Deputy Commissioner (Chairperson)**
  - ii. District Police Officer
  - iii. Additional Deputy Commissioner Revenue
  - iv. Two Elected Representatives to be nominated by the Chair
  - v. Representative of Pak Army
  - vi. Two Representatives of NGOs/Civil Society to be nominated by the Chair
  - vii. Additional Deputy Commissioner (General)
  - viii. Additional Deputy Commissioner (F&P)

- ix. Executive District Officer (Health)
- x. Executive District Officer (Education)
- xi. Executive District Officer (C&D)
- xii. SP Special Branch
- xiii. XEN Irrigation / Public Health
- xiv. District officer Civil Defense
- xv. Administrators of Tehsil Municipal Administrations
- xvi. All Tehsil Municipal Officers in District
- xvii. District Emergency Officer, Rescue 1122 (Secretary)
- xviii. Representative of Red Crescent
- xix. Such other District level Officers to be appointed by District Government

- District Governments must establish a Disaster / Flood control room at the DC's office, the numbers of which will be circulated to all concerned. The Disaster / Flood Control Room has to maintain updated information regarding the threat of disaster and statistics post disaster. The center will maintain a regular communication with the Flood Forecasting Division or the dam authorities up stream in case of a flood.
- The District Government would immediately mobilize the equipment needed to tackle the challenges created by a disaster. The District Governments will provide a comprehensive list of flood fighting equipment to PDMA as part of their flood contingency plans.
- Executive District Officer (Health) will ensure the availability of adequate medicines for treatment of common issues, particularly for snake and dog bite cases and general vaccines at each relief camp.
- DD (Agriculture) and DO Livestock would arrange fodder and feed supplement for livestock and animals displaced.
- District Regional Transport Authorities (DRTA) in all 36 districts of Punjab are managed by Secretaries who would coordinate with local transporters to arrange for arranging transport required for evacuation of people from affected areas. In case of shortfall in transport in a particular district, the adjoining district would mobilize the transporters in his district to assist with the evacuation of people.

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

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

#### 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)

#### 1 ORGANIZATION OF FLOOD CONTROL

#### 2. Additional Deputy Commissioner (Revenue),

#### 3. Control Room

#### 4. Additional Deputy Commissioner (Revenue)

#### Sargodha (Incharge District Flood Control Room)

#### 5. Sectors

Sector-1	Sector-2	Sector-3	Sector -4	Sec -5	Sector -6
Bhalwal	Kot Momin	Shahpur	Sargodha	Sillanwali	Sahiwal
BHS Miani	BMS Hilalpur	GHS Jhawarian	TMA Office	TMA Office	R.D.Thatti Raju
TMA Office	PM Office Midh Ranja	BHS Ghungwal		TMA Sahiwal	
GBHSS Chak Laksian Mubarak	GHS	BHS Kot Pehlwan		GBHS Sial Sharif	
		GHS Shahpur Sadar		GHSS Nehang	
		TMA Office Shahpur City		GBHS Farooqa	
		Canal Rest House Hussain Shah		GBMS Tarkhana wala	
		BHS Gondal			

- District Flood Control Room in the office of Additional Deputy Commissioner Revenue will be established.
- Comprehensive District Level Stake Holders Meeting conducted. (Irrigation Deptt, Revenue Deptt, rescue 1122, Health, MC, Civil Defence, Agriculture, Livestock & Dairy Development etc)
- Special Teams have been constituted to visit all catchment areas of both Rivers (Jehlum & Chenab) and also to ensure safety of Flood Bunds.
- Mock search & rescue exercises to enable staff of the District and Tehsil administrations have been planned. District Emergency Officer will conduct the training programme.
- A list of Important Telephone Numbers/Available Machinery within District and Allied District has been prepared.

**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 Defence 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.

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- 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.

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

**Volunteer Network**

*E.g. how many registered volunteers, how to activate them, who will coordinate with them etc.*

Total Entrolled of Volunteers      716

Activate (AtShot Notice)              150

Focal Person

District Officer, Civil Defence, Sargodha Cell No.048-9030215

# RISK ANALYSIS

## 1. Potential hazards of the district

Hazards	Likelihood (Score 1-5)	Impact (Score 1-5)	Risk
Floods	1	1	0
Urban Flooding	0	0	0
Flash Floods	0	0	0
Hill Torrent	0	0	0
Glacial Lake Outburst Flood (GLOF)	0	0	0
Landslide	0	0	0
Tornado	0	0	0
Earthquake	3	3	M
Drought	0	0	0
Epidemic	2	2	0
Fire Incidents	4	3	0
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	4	3	0
Environmental Hazards (industrial accidents, severe pollution etc.)	1	1	0

Risk = Impact x Likelihood

Low : 1-7

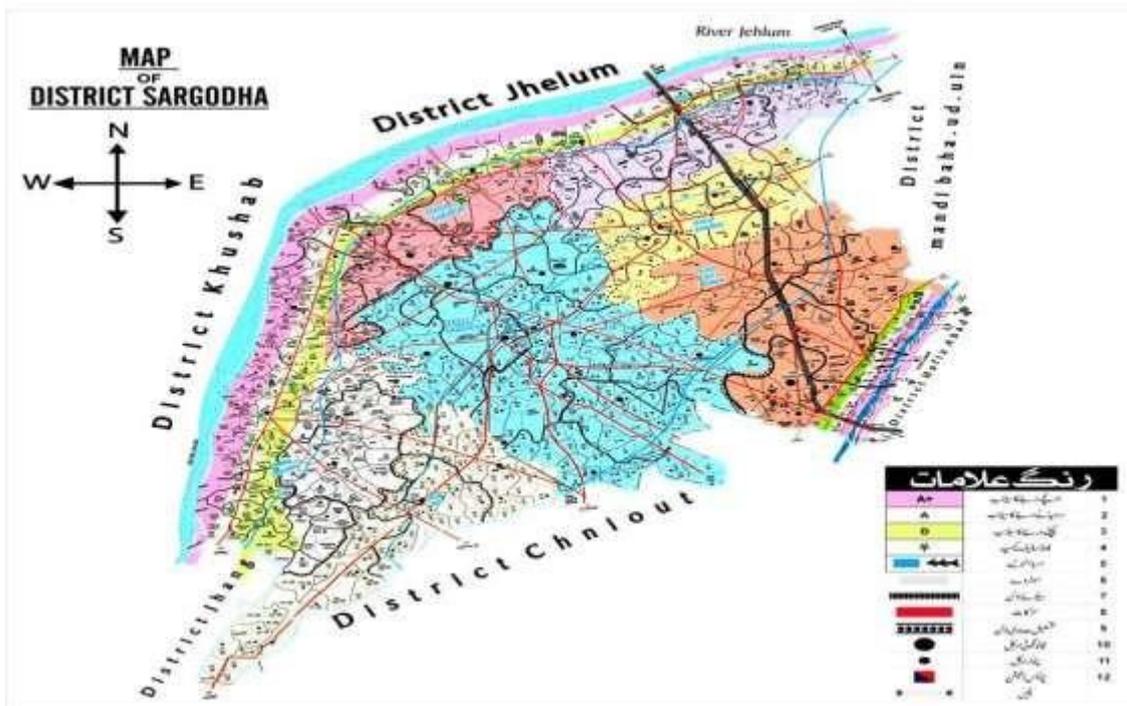
Medium : 8-14

High : 15-25

## 2. Hazards

- *Disasters occurred over the past two to three decades and their impact on communities and development sectors*
- *Provide a brief description of the hazards being planned for (medium and high risks), including potential location that could be affected;*
- *Briefly outline the triggers*
- Sargodha District is situated between two rivers Chenab runs on its East while the Jhelum flows along its Western Border
- Experienced heavy rainfall and high magnitude flood in river Jhelum during 1992, 1997, 2010 and 2014
- As a consequence of which sub divisions Bhera Kotmomin, Shahpur and Sahiwal were adversely affected in

District detail map with vulnerable points, hazards, planned camps, health facilities, warehouses etc.



Source:

### 3. Response & Operational Capacity

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

- Capacity of Government Departments 13
- Capacity of NGO 194

## 4. Strategic Reserves

Items	Available	Functional	Non-Functional	Extra Demand
Boats	19	19	0	
OBM	19	<b>19</b>	0	
De-watering sets	22	22	0	
Navigators	0	0	0	
GIS devices	0	0	0	
Life Jackets	26	26	0	
Life Ring	104	104	0	
Life Lines	0	0	0	
Scuba diving suit with complete accessories	02	02	0	
First Aid Kits	0	0	0	
Rescue Bag	0	0	0	
Safety Harnesses	0	0	0	
Ambulances	20	20	02	
Fire Brigade	04	04	0	
Water Tanks / Bouzers	1	1	0	
Extendable Ladders	0	0	0	
Hydraulic Cutter	1	1	0	
Sonar Rader	0	0	0	
Jumping Sheet	0	0	0	
Dumpers	0	0	0	
Excavators	0	0	0	
Cranes	0	0	0	
Bulldozer	0	0	0	
Boat Carrier/Trolleys	02	02	0	
Pickups/Jeeps/4x4 vehicles/Mini Trucks	0	0	0	
Searchlight	0	0	0	
Tent	0	0	0	
Mosquito Net	0	0	0	
Plastic Mat				
Blanket	0	0	0	
Any other main relief/rescue equipment				
Generator Sets	1	1	0	
Gas-Cutters	1	1	0	
Sonar Radars				
Scuba Diving Set	02	02	0	
Navigator/GPS Tracker	0	0	0	
Hydraulic Cutter	1	1	0	
Floating Rope	2	2	0	

## 5. Gaps and Constraints

- *Briefly outline the capacity gaps in the provision of rescue and response;*
- *Describe major obstacles to providing humanitarian assistance (security, access constraints, administrative obstacles, logistics, etc.)*

## 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	Repairing of all protection bunds Distilling & Execution work Availability of equipment material & human resource Repairing of breached seem drains Availability of Mobile clinic & medicine Duly inoculation of animals	Irrigations .Drains Health Live Stock
Urban Flooding	NA	NA
Flash Floods	NA	NA
Hill Torrent	NA	NA
Glacial Lake Outburst Flood (GLOF)	NA	NA
Landslide	NA	NA

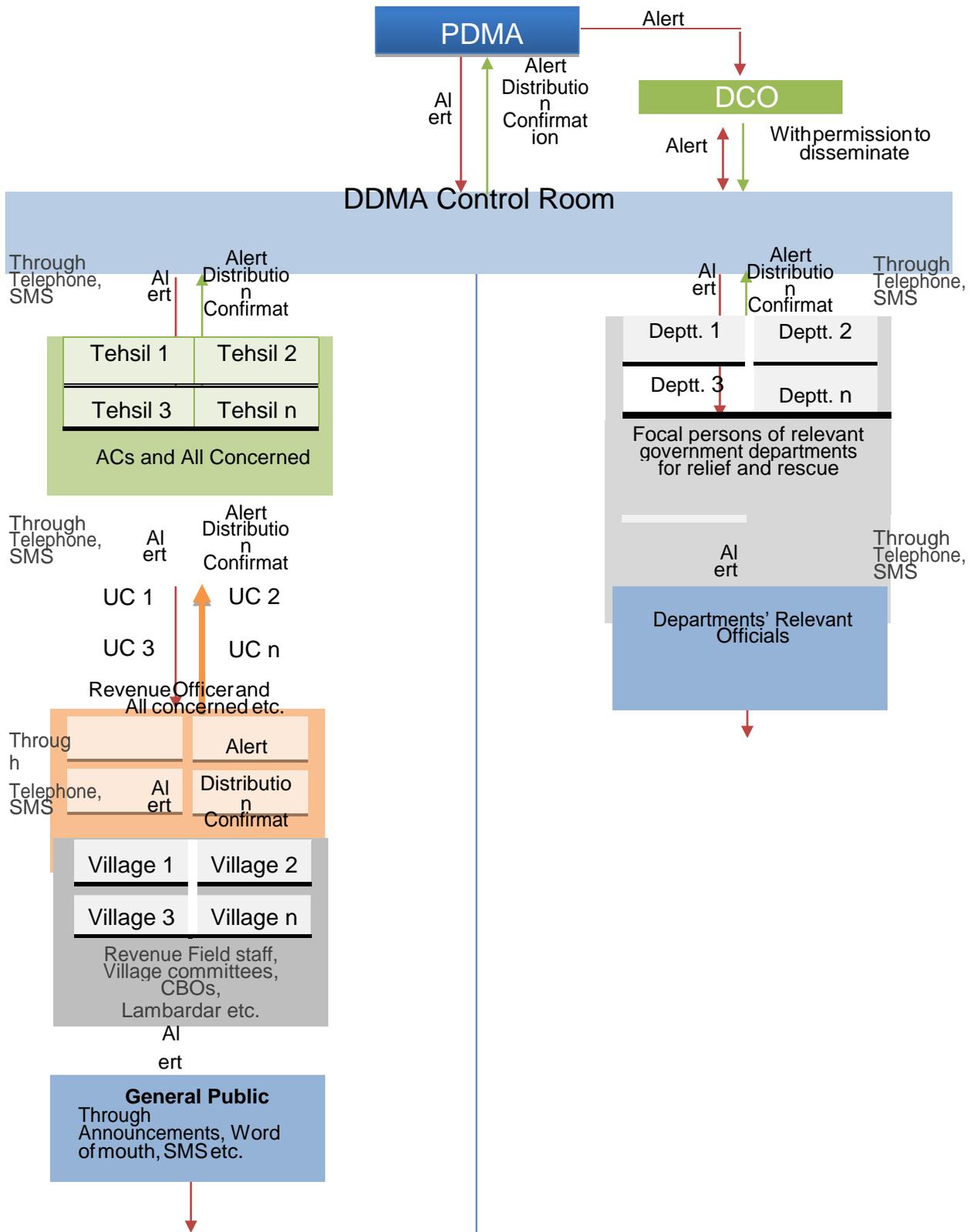
Tornado	NA	NA
Earthquake	Timely and frequently checking of old constructed buildings Proper and secure installatio of sign board Timely response and alert Porper maintenance of elcetic & telephone poles Police contignet for deterrent to criminals	Provincial Buildings MCs, CBO's MCs Rescue 1122 FESCO /PTCL Netowrk complaines Police
Drought	NA	NA
Epidemic	Availability of staff, medicine and mobile clinic Timely response Police contigent for cordon off the site so that it police Would not spread.	Health Rescue 1122
Fire Incidents	Removal of encroachment Timely response of resource Arrangement for the treatment of burn Removal of hazardous material and wires Availability of equipment resource	Rescue 1122 MC Health FESCO SNGPL
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	Timely response and availability of resources	All concerned Line Department

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Environmental Hazards (industrial accidents, severe pollution etc.)		

# EARLY WARNING

## Information Flow Diagram



## Alertness Levels

Following four levels alertness have been established:

<p><b>Level-D</b> (Disaster threat is perceptible)</p>	<p>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.</p>
<p><b>Level-C</b> (Alert) (Warning issued but likelihood of occurrence is less than 100%)</p>	<p><b>Activities to be undertaken in level D</b></p> <p>+</p> <p>DDMA shall issue “<b>alert</b>” 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 DCO and DPO shall grant leave according to the situation.</p>
<p><b>Level-B</b> (High Alert) (Disaster threat is imminent)</p>	<p><b>Activities to be undertaken in level C</b></p> <p>+</p> <p>DDMA shall issue EW to all stakeholders and “<b>High Alert</b>” 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.</p>
<p><b>Level-A</b> (Red Alert) (Disaster is materialized)</p>	<p><b>Activities to be undertaken in level B</b></p> <p>+</p> <p>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.</p>
<p>Early Warning</p>	<p>Briefly describe how the early warning will be received from provincial level? Who is the focal person at district level? Functions of District/Tehsil Emergency Control Rooms in early warning How the early warning will be communicated to relevant departments for different disasters? What actions each relevant department should take after receiving the early warning e.g. evacuation.</p>

*How the early warning will be communicated to the relevant population? E.g. through Patwaris, SMS, Announcements, Media etc.*

## RESCUE STRATEGY

- *What actions will be taken as an immediate response to the situation? E.g. Evacuation, medical assistance*
- *Who does what and when? Responsible departments/agencies*
- *How and when Pakistan Army will be requested to support the rescue activities*
- *Camp sites identified? List at Annex I.*

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## HUMANITARIAN ASSISTANCE

- *How damage and losses data will be collected and communicated to higher level?*
- *How the priority needs (e.g. food, shelter, health etc.) will be determined?*
- *What activities will be carried-out to provide assistance to the affected population and by whom?*
- *What assistance will be provided?*
- *Standardization of different packages/kits e.g. food, tents*
- *Humanitarian Assistance monitoring mechanism – to avoid duplication and identify gaps*
- *Minimum standards for camps, if camps are established*
- *What is the current capacity in the district? Enough for how much caseload?*
- *Explain how protection, gender and age, environment and other relevant cross-cutting issues that will be addressed or mainstreamed into the humanitarian assistance strategy*

## ANNEX I: IDENTIFIED SITES FOR DISPLACED PERSONS

S#	Location	No. of persons which can be accommodated	GPS Coordinates	S #	Location	No. of persons which can be accommodated	GPS Coordinates
1	Nizam H/S Bhalwal	1,150	X: 35.57 Y:73.16	16	MC Office Shahpur	2,000	X: 32.28 Y:72.43
2	Chak saida bhalwal	1,900	X: 32.53 Y:73.16	17	G/Boys H/S Jawarian	4,500	X: 32.32 Y:7301.00
3	GGHS Bhalwal	1,100	X: 32.38 Y:72.23	18	GHS Boys pularwan	3,600	X: 32.53 Y:72.81
4	Cha Ghatti Bhalwal	75	X: 32.15 Y:73.41	19	GHS Shahpur	4,200	X: 32.27 Y:72.48
5	Hazropur Bhalwal	450	X: 32.50 Y:72.98	20	Kanal Rest House	2,600	X: 32.71 Y:74.52
6	Station bhera	4,500	X: 32.48 Y:72.90	21	BHS Gondal	4,500	X: 32.25 Y:72.48
7	Chragah Bhera	200	X: 32.53 Y:72.81	22	Jalapur MC	2,100	X: 32.28 Y:72.43
8	GHS Miani	3,000	X: 32.08 Y:73.19	23	MC Shaiwal	3,000	X: 31.97 Y:72.32
9	GHS Chak Mubarik	3,200	X: 32.40 Y:72.77	24	Tatti Nakan Dispansri	400	X: 31.14 Y:73.88
10	Mid Ranjha Kotmomin	2,500	X: 32.08 Y:73.19	25	GHSS 36 Nehang	3,700	X: 30.94 Y:72.16
11	GHS Hilal pur	350	X: 32.15 Y:73.23	26	GHS Farooka	2,100	X: 31.88 Y:72.41
12	GHS Talibwala	2,400	X: 31.94 Y:73.15	27	GHS Midle Tirkhanwal	1,700	X: 32.15 Y:73.23
13	GHSSialMor	355	X: 31.33 Y:72.44	28	Kaila Jagir Sahiwal	500	X: 32.53 Y:72.81
14	Chak Badar PM Midh	300	X: 32.05 Y:72.70	29	MC Sillanwlai	4,000	X: 31.82 Y:72.54
15	Ghngwal GHS Shahpur	2,800	X: 32.38 Y:72.67	30	Health Centre SGD	20,000	X: 32.11 Y:72.68

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

Hazards	Tehsil s	UC s	Names of Revenue Estates	Names of Villages
Floods	Bhalwal, Bhera, Sahiwal, Shahpur, Kotmomin	09 04 08 04		Mangowal, Kandan, Aqil Shah, Mochi wal Viga, Dhurah, Dera Jadded, Lillani, Miani Mateela Talibwala, Chak mubarik Hazoor Pur Chak saidian
Urban Flooding				
Flash Floods				
Hill Torrent				
Tornado				
Earthquake				
Drought				
Epidemic				
Environmental Hazards (industrial accidents, severe pollution etc.)				

## 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	DHQ Sargodha	X: 32.11 Y:72.68	Primary and Secondary	Dr. Shabbir 03338201653	Earthquake
2	DHQ II MC Sargodha	X: 32.07 Y:72.69	Primary Secondary, tertiary	Dr. Gulfan 03216002606	Earthquake
3	DHQ II ZC Sargodha	X: 32.45 Y:72.45	Primary Secondary, tertiary	Dr. Javed 03216042250	Earthquake
4	DHQ Headqd.	X: 32.56 Y:72.25	Primary Secondary, tertiary	Dr. Muhammad Ali 03006020234	Earthquake
5	MS. TB	X: 32.08 Y:72.66	Primary Secondary, tertiary	Dr. Hussain 0300776046	Earthquake
6	Para Meidcal schl	X: 32.06 Y:72.69	Primary	DR. Irfan 0300903194	Earthquake
7	Mola Bux Hopsital	X: 32.08 Y:72.65	Primary Secondary, tertiary	Dr. Ahmad 03227135665	Earthquake
8	THQ 90 B	X: 32.27 Y:72.47	Primary Secondary,	Dr. M. Afzal 03006743041	Earthquqke
9	Nursing sCHOO L	X: 32.66 Y:72.66	Primary Secondary,	Dr. Nasreen 03066714344	Earthquake
10	DHQ SGD	X: 32.08 Y:72.67	Primary Secondary, tertiary	Dr. M Aslam 03336755870	Earthquake
11	THQ Sahiwal	X: 31.97 Y:72.32	Primary Secondary,	Dr. Shafquat 03455570152	Flood Earthquake
12	BHU Machiwal	X: 31.97 Y:72.32	Primary Secondary,	Dr. Shahid 03065300345	Flood Earthquake
13	CD Sial Shrif	X: 31.92 Y:72.29	Primary Secondary,	Dr. Naseem 03008093497	Flood Earthquake
14	BHS Jahania shah	X: 31.79 Y:72.29	Primary Secondary,	Dr. Mazhar 03087778977	Flood Earthquake
15	BHU Hawali Majoka	X: 31.82 Y:72.25	Primary Secondary,	Dr. Kafait 03006050390	Flood Earthquake
16	Gondal Sahiwal	X: 32.05 Y:72.48	Primary	H. Hafiz 03025852668	Flood Earthquake
17	PHU	X: 31.98	Primary	DR. Javed	Flood Earthquake

S #	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
	Lakiwal	Y:72.30		03477674277	
18	RHC Miani	X: 32.08 Y:73.19	Primary Secondary,	Dr. Mahboob 03006067208	Flood Earthquake
19	BHU kalyanur	X: 32.38 Y:72.23	Primary Secondary,	Dr. Shahid 03006006058	Flood Earthquake
20	BHU Hazoorpur	X: 32.50 Y:72.18	Primary Secondary,	DR. M Abid 03016724635	Flood Earthquake
21	BHU Chak Saida	X: 32.53 Y:73.16	Primary	Saif Ullah D/S 03455794455	Flood Earthquake
22	CD Bhera	X: 32.48 Y:72.90	Primary	Dr. Ehsan 03225501315	Earthquake Flood
23	BHU Ali pur Bhera	X: 31.96 Y:72.51	Primary	Nisar Ahmad 03016725347	Flood Earthquake
24	BHU Chak Mubrik	X: 32.40 Y:72.77	Primary Secondary	M. Arshad 03026565185	Flood Earthquake
25	RHC Midh ranjha	X: 32.08 Y:73.19	P/S	Dr. Tamoor 03006051260	Flood Earthquake
26	BHU Takat Hazar	X: 32.11 Y:73.25	P/S	Dr. Muhammad 0331-7702331	Flood Earthquake
27	Talib Wala Kotmomin	X: 31.94 Y:7375.00	P/S	Dr. M. Abu 03317702331	Flood Earthquake
28	THQ Sillanwali	X: 31.82 Y:72.54	P/S	Dr, Aslim 03016765335	Flood Earthquake
29	Civil Disp Laik Mor	X: 32.26 Y:72.67	P/S	M. Azam 03454434371	Flood Earthquake
30	BHU Khajwa Abad	X: 32.31 Y:72.70	P/S	DR. Muhammad 0300600798	Flood Earthquake
31	BHU Kot bhai Khan	X: 32.56 Y:72.36	P	Dr. Imtiaz 03026747543	Flood Earthquake
32	THQ Shahpur	X: 32.28 Y:72.43	P	Dr. Khilaid 03467950913	Flood Earthquake
33	CD Shahpur	X: 32.27 Y:72.48	P/S	Dr. Sayada Nasira 03227533915	Flood Earthquake
34	BHU Aqil Shahr	X: 32.27 Y:72.40	P/S	Dr. Shahid akhtar 03016546676	Flood Earthquake
35	BHU Bhakar Bar shapur	X: 32.30 Y:72.49	P/S	Tahir M. 03006053233	Flood Earthquake

S #	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
36	BHR Kandan Shahpur	X: 32.24 Y:72.37	P	Qaiser 03434217599	Flood Earthquake
37	BHU Mangowal	X: 32.71 Y:74.52	P	Dr. Nadeem 03006009770	Flood Earthquake
38	BHU Sabarwal	X: 31.05 Y:76371.00	p	Dr. Abdul Raheem 03339804404	Flood Earthquake
39	RD Gondal Shaupur	X: 32.25 Y:72.48	P	Abid Hussian 0302585268	Flood Earthquake
40	BHU Chabba Purana	X: 32.34 Y:72.58	P	Dr. Farkhar 03334873000	Flood Earthquake
41	BHU Havali Majoka	X: 31.82 Y:72.25	p	Nasrullah 03458626992	Flood Earthquake
42	BHU Jahania shah	X: 31.80 Y:72.28	p	Dr. Mazhar 03087778977	Flood Earthquake
43	BHU Laki wala	X: 31.98 Y:72.30	P	Dr. Javed 03477674277	Flood Earthquake
44	Sial Shari sahiwal	X: 31.91 Y:72.30	P	DR. Naseem 03008093497	Flood Earthquake
45	BHU Sikandar Sill	X: 31.65 Y:72.32	p	Dr. aslam 03016765335	Flood Earthquake
46	BHU Kot Bhai Khan	X: 32.00 Y:72.75	P/S	Dr, Khawar 0302674754	Flood Earthquake
47	Khawaja Abad	X: 32.31 Y:72.70	P/S	DR. Zaheer 03366996363	Flood Earthquake
48	RHC Pularwa	X: 32.35 Y:73.01	P	Dr. Khalid 03006020862	Flood Earthquake
49	BHU 2 N.B	X: 32.27 Y:72393.00	P	Dr. Sajida 03086631609	Flood Earthquake
50	BHU Ghulla PUR	X: 30.67 Y:74.30	p	Asim rashool 0300793545	Flood Earthquake
51	BHU. Rural Lilanni	X: 32.41 Y:73.40	p	Umer Usman 03009134211	Flood Earthquake
52	BHU Buchn Kalan	X: 32.18 Y:73.14	P/S	Dr Nadeem 03027154922	Flood Earthquake
53	BHU Thkhat hazra	X: 32.10 Y:73.24	P/S	Irfan Hussain 03066872049	Flood Earthquake
54	BHU Metila	X: 72.10	P	Imtiaz Ahmad	Flood Earthquake

S #	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
		Y:72.95		03006021586	
55	BHU Kot Raja	X: 31.14 Y:73.88	P	Ansar Khan 03216084052	Flood Earthquake
56	BHU Dodha	X: 31.33 Y:72.46	P/S	M. Imran 03225472775	Flood Earthquake
57	BHU Talib Wala	X: 31.95 Y:73.15	P	Dr Safdar 03366962214	Flood Earthquake
58	BHU Kot Miana	X: 32.52 Y:73.07	P/S	Dr. Ali Raza 03224681084	Flood Earthquake
59	BHU Kot Bhi Khan	X: 32.45 Y:73.21	P	Dr. Khawar 03347551026	Flood Earthquake
60	BHU Jahan Abad	X: 32.75 Y:71.25	P/S	Dr Zubia 03334087772	Flood Earthquake
61	BHU Kandan	X: 32.25 Y:72.37	P	M. Yaqoob 03008704816	Flood Earthquake
62	BHU Jalalpur	X: 32.92 Y:71.41	P/S	Najam ul Hasan 03016546457	Flood Earthquake
63	BHU Vigh Sahiwal	X: 32.09 Y:72.43	P	Dr. Javed 03477674277	Flood Earthquake
64	BHU Lakhi wal	X: 31.98 Y:72.30	P/S	Sidra Yasin 03349701816	Flood Earthquake
65	BHU Mubry Khan	X: 31.96 Y:72.41	P	Dr. Matiullah 03006008661	Flood Earthquake
66	BHU Jahina Shah	X: 31.82 Y:72.28	P/S	Dr. Ali Farman 03016768697	Flood Earthquake
67	BHU Dharah Swl	X: 32.35 Y:74.56	P/S	Sarwar Hussain 03335342873	Flood Earthquake
68	BHU Thatha M Panah	X: 32.25 Y:74.35	P	Fozia Zulfiqar 03457581144	Flood Earthquake
69	BHU Dera Jadeed	X: 31.94 Y:72.51	P	M. Ali 03412644108	Flood Earthquake
70	BHU 152 NB	X: 30.48 Y:72.98	p/s	M. Ishafaq 03419673852	Flood Earthquake
71	BHU 126 SB	X: 30.53 Y:73.03	P	DR. Rabita 03336133794	Flood Earthquake
72	BHU 115 NB	X: 31.83 Y:72.54	p/s	Dr. Shar Altaf 03035681720	Flood Earthquake

S #	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
73	BHU 40 SB	X: 31.90 Y:72.63	p	DR. Amara 03347562126	Flood Earthquake
74	BHU 147/48 SB	X: 31.84 Y:72.63	P/S	Dr. Shama 03066728169	Flood Earthquake
75	BHU 120 SB	X: 31.81 Y:7253.00	P/S	Dr. moona 03345350195	Flood Earthquake
76	BHU130S.BS	X: 31.80 Y:7253.00	p	dr. Zaheer 03009817947	Flood Earthquake
77	BHU Shahnidar	X: 31.65 Y:72.32	P	M. Hassain 03457582147	Flood Earthquake
78	BHU Ghanowal	X: 32.71 Y:74.52	P/S	Dr Azahr 03137294610	Flood Earthquake
79	BHU Kot bhai Khan	X: 30.26 Y:74.69	P/S	Dr. Khwar 0302674754	Flood Earthquake
80	Khawaja abad	X: 32.31 Y:72.70	P/S	DR.abdul raheem 03465950913	Flood Earthquake
81	THQ Shahpur	X: 32.26 Y:72.47	P/S	Dr. Seeda Nasira 0322 7533915	Flood Earthquake
82	CD Shahpur	X: 32.26 Y:72.46	P/S	Dr. Farhan 03216010064	Flood Earthquake
83	BHU Sabarwal	X: 31.05 Y:76.71	p/s	Dr. ansar 03317713278	Flood Earthquake
84	BHW Bhakkar bar	X: 32.30 Y:72.49	P	Khalid MT 03026759018	Flood Earthquake
85	BHU 10ML	X: 32.37 Y:72.93	P	Faiza Batool 030060552	Flood Earthquake
86	BHU 10 NB	X: 32.38 Y:72.93	P	Dr. Hannan 03046947331	Flood Earthquake
87	BHU Rakh chargah	X: 32.59 Y:72.88	S	Mudasar 03006046089	Flood Earthquake
88	BHU 8 ML	X: 32.86 Y:72.86	P/S	Aamir abbas 030458649972	Flood Earthquake
89	BHU Dewal	X: 32.26 Y:7296.00	P/S	Mudassar 03443040040	Flood Earthquake

## ANNEX IV: LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS

S#	Name	Institute type (School, College etc.)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
1	GPS Gazi abad Sahiwal	School	X: 32.01 Y:72.29	79	M. Majid Khan	03023789407
2	GPS Ahli Kamboh swl	School	X: 31.85 Y:72.26	92	Ghulam Murtiza	03354718094
3	GPS Kacha Chishtian Swl		X: 31.84 Y:72.24	78	Aamir Abbas	03016548044
4	GPS Chaveka SWL		X: 31.79 Y:72.26	82	Naila Sagher	03006069711
5	GPS Rakhiwal swl		X: 31.98 Y:72.30	76	Zafar Hussain	03028145640
6	GPS Kela jagir swl		X: 31.93 Y:72.28	87	Ahmad Saeed	03048001801
7	GPS Khishkin swl		X: 32.01 Y:72.29	98	M. Afzal	03468672003
8	GPS Dadan swl		X: 32.01 Y:72.29	71	Ghulam Husnain	03028133983
9	GPS Aheer-Surkhru swl		X: 32.01 Y:72.29	87	Matlub Hassan	03468608288
10	GPS Jalla Zaireen		X: 32.01 Y:72.29	90	Asghar Ali	03216046249
11	GPS Bora Ladhyal		X: 32.02 Y:72.28	75	Mazhar Hussain	03462409203
12	GPS Jhugian Sayedan Shapr		X: 32.24 Y:72.48	56	Tariq Mehmood	03076692520
13	GBPS Sada Kambo Shpr		X: 32.24 Y:72.49	124	M Abubakar	03237213878
14	GBPS Tinki wala shahpur		X: 32.22 Y:72.24	68	Aziz Fatima	03477968586
15	GBPS Mega Kaddi Shpr		X: 32.50 Y:72.41	133	Arif Mehmood	03005447389
16	GGPS Noor-e-wala shpr		X: 32.45 Y:72.41	104	Saima Afzal	03087121385
17	GGPS Pachani		X: 32.44	60	Safia Sultana	03216010269

S#	Name	Institute type (School, College etc.)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
	Shahpur		Y:72.39			
18	GGPS Ichral Bhalwal		X: 32.27 Y:72.97	40	Irshad Fatima	03477194183
19	GGPS Kalus Sharif Bhwl		X: 32.26 Y:72.96	90	Sadia Arshad	03347549161
20	GGPS Kotli Ali Ahmad Bhwl		X: 32.25 Y:72.94	56	Ghulam Yasin	03006058378
21	GGPS Saidpur Utman Bhwl		X: 32.24 Y:72.93	37	Akhtar Ali	03317703735
22	GGPS Wizidi Bhalwal		X: 32.31 Y:72.55	75	Naila Kanwal	03234517734
23	GBPS Pachani Shahpur		X: 32.43 Y:72.40	64	Rab Nawaz	03458640426
24	GBPS chak nizam No 1 Blw		X: 32.31 Y:72.92	51		
25	GBPS Chak Saida Bhalwal		X: 32.30 Y:72.88	52	M. Toufeeq	03458604589
26	GBPS Kalus Sharif Bhalwal		X: 32.31 Y:72.85	99	Ab Qadoos	03005130750
27	GBPS Kottli Ali Ahmad Bhalwal		X: 32.29 Y:72.28	57	Ghulam Yasin	03006058370
28	GBPS Burkhan KM		X: Y:		Ahmad Hassan	

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

S#	Industry Name	Location	GPS Coordinates	Risk Type (Chemical, Biological, Radiological, Nuclear)	Name and Contact of Focal Person	Risk Level (low, medium, high)	Prone to Hazard? Fire/ Floods/Earthquake
1	Popular Sugar	Sial moor	X: 31.97 Y:73.10	Chem..	Aftab 0486886281	LOW	Fire
2	Citro Pak	Lhr Road	X: 32.04 Y:72.73	BIO	Naveed 03216654464	Low	Fire
3	Naeem Rubber Inds	Lhr Road	X: 32.04 Y:72.90	Chem	Naeem 03008606886	Low	Fire
4	Ali Koh Chem	Small Inds State	X: 32.05 Y:72.72	Chem	Khalid 03030679070	Low	Fire
5	Noon Sugar Mills	Bhalwal	X: 32.27 Y:72.91	Chem	Naveed 0486424112	Low	Fire
6	Nood Pak Limited	Bhalwal	X: 32.27 Y:72.91	Chem	0486645013	Low	Fire
7	Al Furat Seed Mills	Ksb Road	X: 32.10 Y:72.65	BIO	Iqbal 03454826761	Low	Fire
8	Abdullah Sugar Mills	Shahpur	X: 32.24 Y:72.48	Chem	Ali Hamza 03004003703	Low	Fire
9	Chishtiyani Sugar Mill	Sillanwali	X: 31.86 Y:72.44	Chem	Shafiqat 0486788393	Low	Fire
10	Crystal Line Chem	Lhr Road	X: 32.00 Y:73.01	Chem	M. Ali 03008479742	Low	Fire
11	Nice Foods	KSB Road	X: 32.10 Y:72.32	BIO	Naveed 03486918221	Low	Fire
12	Sultan Feeds	Shahpur	X: 32.22 Y:72.50	BIO	Dr. Naeem 0483022998	Low	Fire
13	Dimand Paper	Fsd road	X: 32.02 Y:72.70	Chem	03006664043	Low	Fire
14	Kashif Paint Industry	Factory Area	X: 32.07 Y:72.65	Chem	0483721840	Low	Fire
15	AMGIL pvt Limited	FSD road	X: 32.00 Y:72.71	Chem	0483453333	Low	Fire
16	Hamdard Rice Mill	Bhagtwala	X: 32.10 Y:72.72	Chem/ BIO	0483212780	Low	Fire

S #	Industry Name	Location	GPS Coordinates	Risk Type (Chemical, Biological, Radiological, Nuclear)	Name and Contact of Focal Person	Risk Level (low, medium, high)	Prone to Hazard? Fire/Floods/Earthquake
17	Hafeez Chem	Sillanwali road	X: 31.86 Y:72.44	Chem	0483722644	Low	Fire
18	Khiaban Ghee Mills	fsd road	X: 32.02 Y:72.71	BIO/Chem		Low	Fire
19	Pracha Coton	fsd road	X: 32.01 Y:72.71	Chem	0483750345	Low	Fire
20	National Ghee Mills	Bhalwal road	X: 32.30 Y:72.98	Chem		Low	Fire

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

S #	NGO Name	NGO Type (Local, National, Internationa l)	Location where they are working	Sector/Clust er of work (e.g. WASH, Health, Educatio n)	Focal Person Name	Contact No.
1	Human Resources	Local	Shahpur	Women welfare	M. Bux	0308729240
2	Madni Welfare	Local	Sahiwal	Women Walfare	Arsahd	03028145467
3	Public Develop	Local	Sahiwal	Women Walfare	Ehsan Ullah	03006007711
4	Al Khair Welfare	Local	Shahpur	Paitent Welfr	Kousar	03339807719
5	Al Asad Welfare	Local	Kalra	Women Walfr	Abbas	0300609298
6	Social Welfare	Local	Jalpana	Women Walfr	M. Riaz	03016751428
7	Uljala Walfare	Local	Bhakkar Bar	Women Walfr	M. Ijaz	03065858460
8	Youth Welfare	IOCAL	Shahpur	Youth walfare	Faisal	03336819488
9	Zaib Education	Local	Kot Phularwan	Women Welfr	Alla Rasool	03005605227
10	Iqra Education	Local	Kot Bikhan	Youth Welfr	Nazar	03137208514
11	Awami welfae	Local	Shahpur	Women Welfr	Mustafa	03016188436
12	Shaheen Welfar	Local	Chak 15 S.B	Health Education	Ghazala	03417723832
13	Anjumane Mufad	Local	Bhalwal	Health Educ	Ch. Moshin	03215051010
14	People welfar	Local	Rawana	Health Edu	Nassar rawan	03006066248
15	Jinnah Welfare	Local	Pindi Koot	Education	Haji M. Shah	03007718730
16	Deaf & Dum welfr	Local	Sargodha	Disabaled welfr	Ishfaq Ghujjr	03006049433
17	Zial UI Islam	Local	s.t Sargodha	Education	Inam Ilahi	03009602487
18	Youn BLOOD W/F	Local	Dhreema	Health	Abdul Ruaf	048-9230373
19	Public Welfare S	Local	Chak 92 N.B	General Welfar	Azhar H	03458809292
20	SSO Children vill	Local	49 Tail	Education	Incharg SOS	03014509668
21	Social Welfare	Local	Aaziz Bhatti to	General Wefr	Abdullah	03009601335
22	Public Relief org	IOCAL	old civil line SGD	General Welfre	Waseem	03009606345
23	Safe Life Org	Local	S/Town Gill wala	Health	Tanveer	03006022996
24	Star Welfare Org	Local	Iqbal Colony	General Welfr	Shafiq Dogor	03216001323
25	Insar walfare soci	Local	Islam pura SGD	Health	M. Shahazad	03003604414
26	Shaheen Welfre	Local	49 Tail	General Wefr	Aslam	03016703830
27	Jannat welfre	Local	Sillanwali	Education	Tariq	03362207488

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

S #	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
1	FocalPersonforDisasters	ShahRukh Niaz	0489230255		03009440106
2	Commissioner	Dr. Farah Masood	9230721-2		03040920053
3	RPO	Zulfaqar Hameed	9230111-2		03333700001
4	DC	NAILA BAQAR	9230025-26	9230046	03040920074
5	DPO	Faisal Gulzar	9230333-36		0337900002
6	ADC	ShahRukh Niazi	9230255		03009440106
7	DEO Rescue 1122	Mazhar Shah	9230426-27		03337861122
8	DO Civil Defence		9230215		03006058878
9	SNA	M. Amin	9230838		03216600769
10	AC – Sargodha	Umer Draz	9230261		0300-8054714
11	AC – Bhalwal	Muhammad Usman	9233024		0332-5032303
12	AC – Sillanwali	Mudasir	6532017		0300-3308267
13	AC – Sahiwal	Waqas	6786578		0333-5472076
14	AC – Shahpur	Zarmina	6310410		0336-8381614
15	AC -Bhera	Wasiq			0300-8741413
16	AC- Kotmomin	Jaffar			0301-4106126
17	Tehsildar -	M. Ashraf	9230261		03006001294
18	Tehsildar -	Sana Ullah	6642600		03451701241
19	Tehsildar -	Saqib Butt	6682510		03008433939
20	Tehsildar -	Rai Hussain Nawaz	9239028		03056457800
21	Tehsildar -	Asif Javed wirk	6690800		03006493193
22	Tehsildar -	M. Waris			03016766305
23	CO MC Sargodh	Rizwan	9230178		0300-9418009
24	CO MC Shahpur	Tariq	0486-310518		0305-7165625
25	CO MC Kotmomin	Tanveer	048-6683000		0301-6279207
26	CO MC Bhalwal	Asad	048-9233036		0300-9605077
27	CO MC Sillanwali	Zafar Laali	048-6532022		0300-6050383
28	CO MC Bhera	Imran			0300-4177126
29	CO MC Sahiwal	Shehryar	0486-786028		0321-6161161
30	CO Education	Riaz Qadeer Bhatti	9230092		03007695423

30	SE Irrigation	Ijaz Ahmad			03367252953
30	Chief Engr. Irrigation	Saleem Malik	9230445		03334360596
33	DD Agriculture	Hashim Raza	9230526		03466482181
34	CEO Health	Dr. Rai Samiullah	9230030		03009638292
35	Secretary DRTA	Farooq Haider Aziz	9230280		03227816770

## ANNEX VIII: LIST OF VOLUNTEERS

S #	Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
1	Saqib Islam	3840390270403	Sargodha	3000-6013528		
2	Irshad Quireshi	3840313484033	Sargodha			
3	Ghulam Ahmed	3840353523279	Sargodha	302-8140774		
4	M.d Hasnian	3840354481895	Sargodha	0347-7450674		
5	Waseem Akram	3840311708575	Sargodha	0345-2981369		
6	Waqis Ali	3840337035467	Sargodha			
7	Shafqat Hussain	3840394867567	Sargodha			
8	M.Shahid waqar	3840333468405	Sargodha	0302-8159538		
9	M.Mahboob S	3840345927989	Sargodha	0333-2012332		
10	Waqis Ali	3840380314969	Sargodha	0300-2483904		
11	Mudasar		Sargodha	0321-6003489		
12	Shahbaz Masih	3840370253075	Sargodha	0301-424807		
13	Abdul Qahib	3840357737185	Sargodha	0345-8608130		
14	Hafiz Khalil Ullah	3840335498747	Sargodha	03055007376		
15	Amjad Hussain	3840363725527	Sargodha			
16	Khizar Hayat		Sargodha	03137699398		
17	Zameer Abbas	3840384928121	Sargodha	03057105073		
18	M. Asif	384036159769	Sargodha	03437508108		
19	Muhamma d Shoaib		Sargodha	03214857874		
20	Maavia Shahfiq	3840379262501	Sargodha	03227542643		
21	M. Ashraf	3840322778493	Sargodha	03046598088		
22	M.Saeed	-	Sargodha	03237747544		
23	M. Zulqarnain	-	Sargodha	03116033218		
24	M. Hamza	-	Sargodha	03216003489		
25	Khalifq Dad	3840302382917	Sargodha	03055550577		
26	M. Nazir	3840372028121	Sargodha	03478324106		
27	Qaiser Mehmood	3840321371615	Sargodha	03016706625		
28	M. Afzal	3840377061591	Sargodha	-		
29	M. Ramzan	3840357490587	Sargpdja	-		
30	Imran Shauqat	3840322043709	Sargodha			

## ANNEX IX: POLITICAL CONSTITUENCIES

National Constituencies				Provincial Constituencies			
Name of constituency	Name of Sitting Parliamentarian	Portfolio	Contact Number	Name of constituency	Name of Sitting Parliamentarian	Portfolio	Contact Number
<b>NA-91</b>	Ch. Aamir Sultan Cheema		0300-8415850				
<b>NA-90</b>	Ch. Hamid Hameed	PML	03004000440 03224000440	PP-78	Ansar Majeed	PTI	

# ANNEX X: LOCAL GOVERNMENT

## District and Tehsil Level

S#	Designation	District/Tehsil Name	Name	Contact Number	Mobile Number
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

## UC Level

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
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**ANNEX XI: 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)

**P2: Deceased Person Reporting Performa**

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

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

**P3: Injurd Person Repostinging Performa**

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

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

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

**P4: Cattle Head Perished**

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

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

S #	Name of Farmer	Father Name	CNIC	Mauza	Tehsil	Type of Animals	Number of Animals (Cow, sheep)	Vaccinated/Unvaccinated	Witness 1 name and	Witness 2 Name and
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**P5: Crop Damages**

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

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

S#	Tehsil	Ganoongoi	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: \_\_\_\_\_

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	Number of Machinery
----	--------------------	-------------	----------------	-----	------	----------------------------	----------------------------	-------------	---------------	-----------	---------------------

**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 XII: 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.

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

## ANNEX XIII: FLOOD BUNDS

### INFORMATION REGARDING FLOOD BUND CATEGORY A

SR:#	NAME OF DIVISION	NAME OF EMBANKMENT / BUND	LENGTH (ft)
<b><u>SARGODHA ZONE</u></b>			
1	Rasul Head works Division	Right Guide Bund	2,121
2	- do-	Left Guide Bund	3,360
3	- do-	Right Guide Spur	2,762
4	- do-	Left Marginal Bund	17,170
<b>Total in feet.</b>			<b>25,413</b>
<b>Total in Miles.</b>			<b>4.81</b>
<b><u>PMO BARRAGES</u></b>			
1	Kalabagh H/Works Division	Jinnah Barrage	25,080
<b>Total in feet.</b>			<b>25,080</b>
<b>Total in Miles.</b>			<b>4.75</b>
<b><u>FAISALABAD DIVISION</u></b>			
1	Khanki Division	Left Marginal Bund	21,000
2	- do-	Right Marginal Bund	29,000
3	Jhang Division	Jhang Flood Protection Bund	43,875
4	Qadirabad Barrage Division	Left Marginal Bund	20,000
5	- do-	Right Marginal Bund	20,000
<b>Total in feet.</b>			<b>133,875</b>
<b>Total in Miles.</b>			<b>25.36</b>
<b><u>BAHAWALPUR ZONE</u></b>			
1	Punjnad Headworks Division	Right Marginal Bund	15,000
2	- do-	Left Marginal Bund	15,000
3	- do-	Colony Protection Bund	15,000
4	Khanpur Canal Division	Minchin Flood Bund	10,000
<b>Total in feet.</b>			<b>55,000</b>
<b>Total in Miles.</b>			<b>10.42</b>
<b><u>MULTAN ZONE.</u></b>			
1	Trimmu Division	Right Marginal Bund	20,000
2	- do-	Left Marginal Bund	20,000
3	Sulemanki Division	Left Marginal Bund	10,000
4	- do-	Right Marginal Bund	10,000
5	Shuja Canal Division	Right Bank of Shujabad Branch	10,000
6	- do-	Akbar Flood Bund	10,000
<b>Total in feet.</b>			<b>80,000</b>
<b>Total in Miles.</b>			<b>15.15</b>
<b><u>D.G.KHAN ZONE</u></b>			
1	Taunsa Barrage	Right Guide Bund Upstream	15,000
2	- do-	Left Guide Bund	20,000

3	- do-	Shahwala Groyne	10,000
4	Muzaffargarh Canal Division	Muzaffargarh Flood Bund	50,000
5	- do-	Doaba Flood Bund.	5,000
6	- do-	Khangarh Flood Bund	5,000
7	- do-	Khanwah Flood Bund	5,000
8	Jampur Construction Division	Jampur Flood Bund	5,000
9	- do-	Rojhan Flood Bund	20,000
<b>Total in feet.</b>			<b>1,35,000</b>
<b>Total in miles</b>			<b>25.57</b>

**LBDC(IP)**

1	Balloki Headworks Division	Left Marginal	15,000
2	do	Right Marginal	15,000
<b>Total in</b>			<b>30,00</b>
<b>Total in</b>			<b>6</b>

**LAHORE ZONE**

1	FLOOD Bund Division	Jassar Highway	10,000
2	Do	Nayya Flood Bund	5,000
3	Pasrur Link Division Sialkot	City Flood Protection Bund along Aik Nullah	7,340
4	Do	Hajoipur Flood Protection Bund along Aik Nullah	86,00
5	Do	Left Flood Protection Bund over deg Nullah from defence embankment to Zafarwala Kingra road	10,000
6	Marala Division UCC	Left Marginal Bund	50,000
7	Do	Right Marginal Bund	10,000
8	Lahore Drainage Div.	Shahdara Flood Protection Bund	15,000
<b>Total in Feet</b>			<b>115,940</b>
<b>Total in miles</b>			<b>22</b>
<b>Grand total in miles</b>			<b>114</b>

**INFORMATION REGARDING FLOOD BUND CATEGORY B**

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

2	Khanpur CanalDivision	-	100,000
		do-	
3	Bahawalpur Canal Division	-	50,000
		do-	
4	Rahimyar CanalDivision	-	50,000
		do-	
	<b>Total in feet.</b>		<b>290,000</b>
	<b>Total in miles</b>		<b>54.92</b>
<b><u>MULTAN ZONE</u></b>			

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

## ANNEX XIV: RIVER DISCHARGE RATES

River	Gauge Site	Designed Capacity (lac Cs)	Flood Limits			Lac Cs.	
			Low	Med:	High	Very High	Exp. 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
CHENAB	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	Punjad	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
SUTLEJ	Shahdara	2.5	0.4	0.65	0.9	1.35	1.8
	Balloki	2.25	0.4	0.65	0.9	1.35	1.8
	Sidhnai	1.5	0.3	0.45	0.6	0.9	1.3
SUTLEJ	G.S.Wala	10 ft.	19.5	21.5	23.3	25.3	
	Suleimanki	3.25	0.5	0.8	1.2	1.75	2.25
SUTLEJ	Islam	3	0.5	0.8	1.2	1.75	2.25
	Mailsi Syphon	4	0.75	1.1	1.5	2.25	3

## ANNEX XV: LIST OF BASIC TERMS

### Acceptable risk

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

### Biological hazard

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

### Capacity

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

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

### Capacity building

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

### Climate change

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

### Coping capacity

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

### Disaster

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

### Disaster risk management (DRM)

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

### Disaster risk reduction/disaster reduction

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

### Early warning

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

### Emergency management

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

### Forecast

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

### Geological hazard

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