

DISTRICT DISASTER MANAGEMENT PLAN 2018

Division: Multan
District: Vehari



Flood 2016



Flood situation at Head islam 2016

Prepared by: **Additional Deputy Commissioner, Revenue, Vehari**

Approved by: **Deputy Commissioner, Vehari**

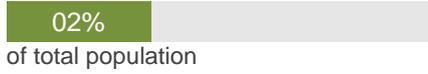


TABLE OF CONTENTS

Executive Summary	1
Aim and Objectives	2
District Profile	3
Coordination Mechanism	8
Risk Analysis	18
Mitigation Strategy	24
Early Warning	27
Rescue Strategy	30
Humanitarian Assistance	31
Annex I: Identified sites for displaced persons	32
Annex II: List of hazard prone villages/ Revenue Estate (NAMES REquired)	33
Annex III: List of Health Facilities and their vulnerability to Hazards	38
Annex IV: List of vulnerable Educational institutions	40
Annex V: List of Industries with their risk level	42
Annex VI: List of NGO working in the District	44
Annex VII: Contact list of main stakeholders / departments	48
Annex VIII: List of volunteers	51
Annex IX: Political Constituencies	53
Annex X: Local Government	54
Annex XI: Data Collection Performas	56
Annex XII: Camp Management SOPs	59
Annex XIII: Flood Bunds	60
Annex XIV: River Discharge Rates	63
Annex XV: List of Basic Terms	64

Flood

Estimated number of people at risk of **hill torrent** in 2017



Risk: Low

Earthquake

Estimated number of people at risk of Hill Torrent in 2017



Risk: Low

Epidemic

Estimated number of people at risk of earthquake in 2016



Risk: Low

EXECUTIVE SUMMARY

Flood discharge takes 5-7 days from Bhakara Dam, India to Head Islam

Close liaison with Notables / Lambardars of likely flood areas

Mandatory evacuation

Rescue & Relief centres shall be established & made operational at a notice of 12 hours

Resources / Equipments shall be conveyed to relief centres & flood areas at the notice of 05 hours as already done in Mock exercise

Duty roster of staff of each allied department

Sufficient funds are available to combat any untoward situation

Sufficient stock of food items, medicines & dry fodder is available

Mobile teams of health / livestock.

Vaccination of 100% livestock in flood area

More than 25 Private boats are available & owners are in contact for the same if needed

Visit of the flood area carried out by all concerned departments / officers

Heavy machinery like bulldozers, tractor trolleys, water tanks, Bouzers etc. are available with agriculture department, TMAs & local private owners

In case of need, Army will be requested for evac.

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	2897446
2.	No. of Tehsils	03
3.	No. of UCs	105
4.	No. of Revenue Estates	24
5.	Population Density (people per km ²)	64
6.	Family Size	6
7.	Pop Growth Rate	3
8.	PCI	
9.	District GDP/Annual Income	
10.	Poverty Rate	15
11.	Patient/Doctor Ratio	67
12.	AMR	0
13.	IMR	0
14.	MMR	0
15.	Literacy Rate	54
16.	Global Acute Malnutrition (GAM) rate	0
17.	Severe Acute Malnutrition (SAM) rate	0
18.	Percentage of population having access to clean drinking water	
19.	Annual Crime	

Population

Total	Male (above 18)	Female (above 18)	Minor (M) (less than 18)	Minor (F) (less than 18)	Vulnerable People (PLWs, disabled, aged)
2897446	924362	424361	524359	958701	65663

Source/Note: Click here to enter text.

Number of Household	Rural	Urban
458068	377144	80924

Source/Note: Click here to enter text.

Area (in acres)

Total Area of District in Km ²	Area under cultivation	Cultivation in Settled Area	Cultivation in Baid Area
1060622	883087		

Literacy Rate

Overall	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
54%	63%	36%	83%	68%	66%	42%

Source/Note: Click here to enter text.

Government Schools

		Schools	Enrollment
Total/ Overall		1508	315389
Boys	Primary	549	109813
	Middle	108	31771
	High	85	21157
Girls	Primary	501	112108
	Middle	173	25330
	High	85	15210
Co-Education	Primary	53	3180
	Middle	0	0
	High	0	0
Special Education		2	235

Private Schools

		Schools	Enrollment
Total/ Overall		929	12000
Boys	Primary	11	1100
	Middle	527	31620
	High	133	7980
Girls	Primary	3	400
	Middle	127	550
	High	128	3840
Co-Education	Primary	8	240
	Middle	0	0
	High	3	240
Special Education		0	0

Higher/Technical/Professional Education (Public & Private)

Particulars	College	Universities	Professional	Technical	Commerce	Total
No of Institution	14	5	2	2	3	18
No of Students	10500	4561	700	426	1300	17487

Health Facilities

Particulars	Primary	Secondary	Tertiary	Private Hospital	Total
No. of Facilities	74	14	3	114	205
Annual OPDs	24840	35640	912820	18000	
No of beds	148	180	290	228	846
Doctors Available	60	28	85	0	173
Paramedical staff	314	350	82	0	746
Ambulances available	0	14	8	0	22
Mobile Medical Units					

Livestock: Small Animals (goats, sheep etc.): 606805 Big Animals (cows, buffalos, camel etc.) 1059250

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
40%	20%	10%	2%	5%	1%	1%	0%	0%	0%	0%

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	1988							
2	1995							
3	1996							
4	1998							

5	2008							
6	2011							
7	2013							
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	Khanewal, lodhran, Pakpattan, Sahiwal, Bahawalnagar
Topographical Features	
Weather/Climate pattern	
Major Rivers	Satluj
Major Nullahs / Streams	Sukh biyas
Motorway/Highway	Nil
Railways	Nil
Geological features	Nil

Dams (including small dams)

Name of Dam	Location	GPS Coordinates	Capacity	High Flood Level	Critical Points, if any	Remarks
Nil		X: 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
Lakhoka kalan	5	Jamlera Burewala	Burewala		X: Y:	
Head Islam	12	Head Islam	Head Islam		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		
Lakha Pala Bund	Lakha Pala Bund	X: Y:					
		X: Y:					
		X: Y:					

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

Name	Capacity	GPS Coordinates	Name	Capacity	GPS Coordinates
Oil Depot PSO		X: Y:	Grid Station Mailsi		X: Y:
Grid Station Vehari City		X: Y:			X: Y:
Grid Station 24WB		X: Y:			X: Y:

Airport / Landing Strips

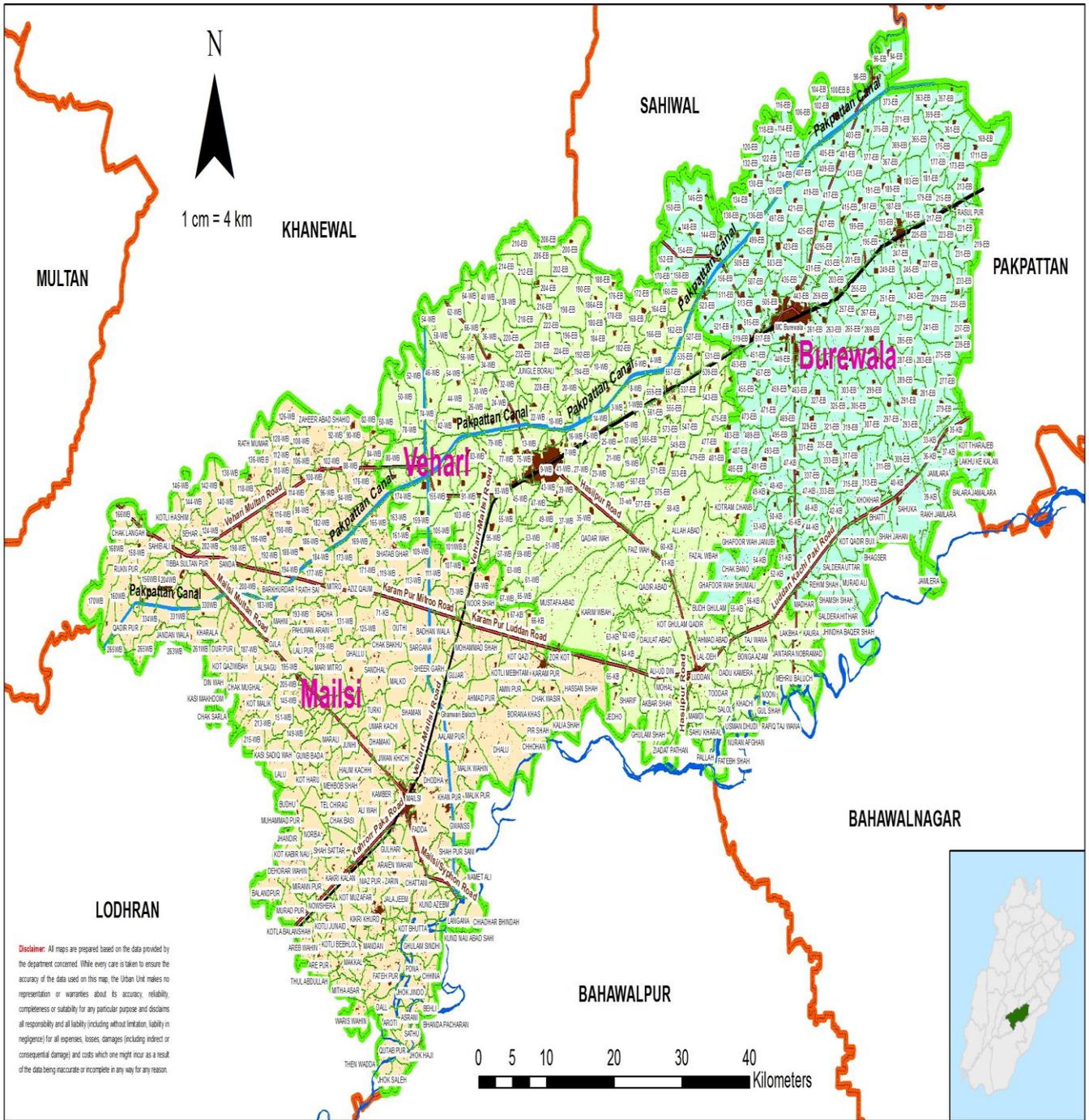
Type	Area Name	GPS Coordinates	Type	Area Name	GPS Coordinates
Air Base	Thingi Air Base	X: Y:			X: Y:
		X: Y:			X: Y:
		X: Y:			X: Y:
		X: Y:			X: Y:

Govt. storage facilities/warehouses in the district

Facility Type	Capacity	Location with GPS Coordinates	Facility Type	Capacity	Location with GPS Coordinates
FFC Garha More	5000	X: Y:	Ware House Kachi Pakki	5000	X: Y:
Ware House Khanewal Road Vehari	5000	X: Y:	Ware House Gaggo Mandi	5000	X: Y:

District baseline/reference map

Base Line Map of District Vehari



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 flood prone areas
- List of Numberdars with their contacts, volunteer from low lying settlements with contact numbers
- Prepare list of vulnerable villages and make an estimate of likely affected population in such villages in the event of flood
- Name and contact numbers of private boat owners and operators Announcement of Flood Warning at settlement level – Patwari responsible Forced evacuation with police
- Rapid assessment for relief goods and ration provision Coordination and reporting
- Carry out survey of entire flood affected areas to assess losses in collaboration with Agriculture, Livestock and Education Department
- Conduct crop damaged/ house damaged surveys

Tehsil / Town Municipal Committees (MCs)

- Tehsil / Town Municipal Committee (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.
- Tehsil / Town Municipal Committee 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, 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.
- 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 MC maintains a list of all the choking points where rainy water accumulates as a result of heavy storms which can cause urban flooding.
- MC 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 MC under the concerned Administrator i.e ADC/AC will assist in the migration of the affected people.
- During the relief effort and subsequent rehabilitation effort the, the local 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 DCO. The office of the DCO fully supported by the DPO and line departments such as Health, Agriculture, Livestock, Civil Defence, 1122, MCs 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 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 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. **District Coordination Officer (Chairperson)**
 - ii. District Police Officer
 - iii. Additional District Collector
 - iv. Two Elected Representatives to be nominated by the Chair
 - v. Representative of Pak Army
 - vi. Two Representatives of NGOs/Civil Society to be nominated by the Chair
 - vii. District Officer (Coordination)
 - viii. Executive District Officer (F&P)
 - ix. Executive District Officer (Works & Services)

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

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

Role of Rescue 1122 in districts during disaster

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

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)

The Control Room will be established at Phone No.067-3361095 . The official will perform their duties round the clock. Any information in situation of any kind of emergency will be communicated to all concerned department. The duty official will be monitored by Superintendent.

Checklist for Control Room:

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

Checklist for Relief Camp Incharge:

- List of staff displayed with name and department teams will work in shifts
- Presence of representatives of all service providers i.e. Health, livestock, Rescue 1122, Civil 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.

- 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

100 Volunteers have been trained by the Civil Defense and Rescue 1122. These Volunteers will be deployed on need base system during flood. Furthermore, 03 Nos. Volunteers will perform duty along with officials of Civil Defense at Each Flood Relief camp.(12 camps)

RISK ANALYSIS

1. Potential hazards of the district

Hazards	Likelihood (Score 1-5)	Impact (Score 1-5)	Risk
Floods	3	1	3
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	4	1	4
Drought	0	0	0
Epidemic	2	1	2
Fire Incidents	3	1	3
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	4	1	4
Environmental Hazards (industrial accidents, severe pollution etc.)	2	1	2

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*

There is no such disaster rather flood occurred during last 2-3 decades at district Vehari.

Moreover, Fuel Depots (02 Nos.) are lying in the middle of city area. The authorities are being notified for the shifting of Fuel depots outside the city area

3. Response & Operational Capacity

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

- ✓ **Establishment of District & Tehsil Flood Control Room**
- ✓ **Division into 11 sectors**
- ✓ **Stock taking**
- ✓ **Regular meetings**
- ✓ **Mock exercise**

4. Strategic Reserves

Items	Available	Functional	Non-Functional	Extra Demand
Boats	9	9	0	0
OBM	11	11	0	0
De-watering sets	15	14	01	0
Navigators	0	0	0	0
GIS devices	0	0	0	0
Life Jackets	119	119	0	0
Life Ring	43	43	0	0
Life Lines	0	0	0	0
Scuba diving suit with complete accessories	0	0	0	0
First Aid Kits	14	14	0	0
Rescue Bag	3	3	0	0
Safety Harnesses	10	10	0	0
Ambulances	26	26	0	0
Fire Brigade	12	12	0	0
Water Tanks / Bouzers	5	5	0	0
Extendable Ladders	10	10	0	0
Hydraulic Cutter	0	0	0	0
Sonar Rader	0	0	0	0
Jumping Sheet	4	4	0	0
Dumpers	0	0	0	0
Excavators	0	0	0	0
Cranes	0	0	0	0
Bulldozer	0	0	0	0
Boat Carrier/Trolleys	0	0	0	0
Pickups/Jeeps/4x4 vehicles/Mini Trucks	20	20	0	0
Searchlight	5	5	0	0
Tent	503	400	103	0
Mosquito Net	200	200	0	0
Plastic Mat	300	300	0	0
Blanket	0	0	0	0
Any other main relief/rescue equipment	0	0	0	0
Generator Sets	0	0	0	0
Gas-Cutters	0	0	0	0
Sonar Radars	0	0	0	0
Scuba Diving Set	0	0	0	0
Navigator/GPS Tracker	0	0	0	0
Hydraulic Cutter	0	0	0	0
Floating Rope	0	0	0	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

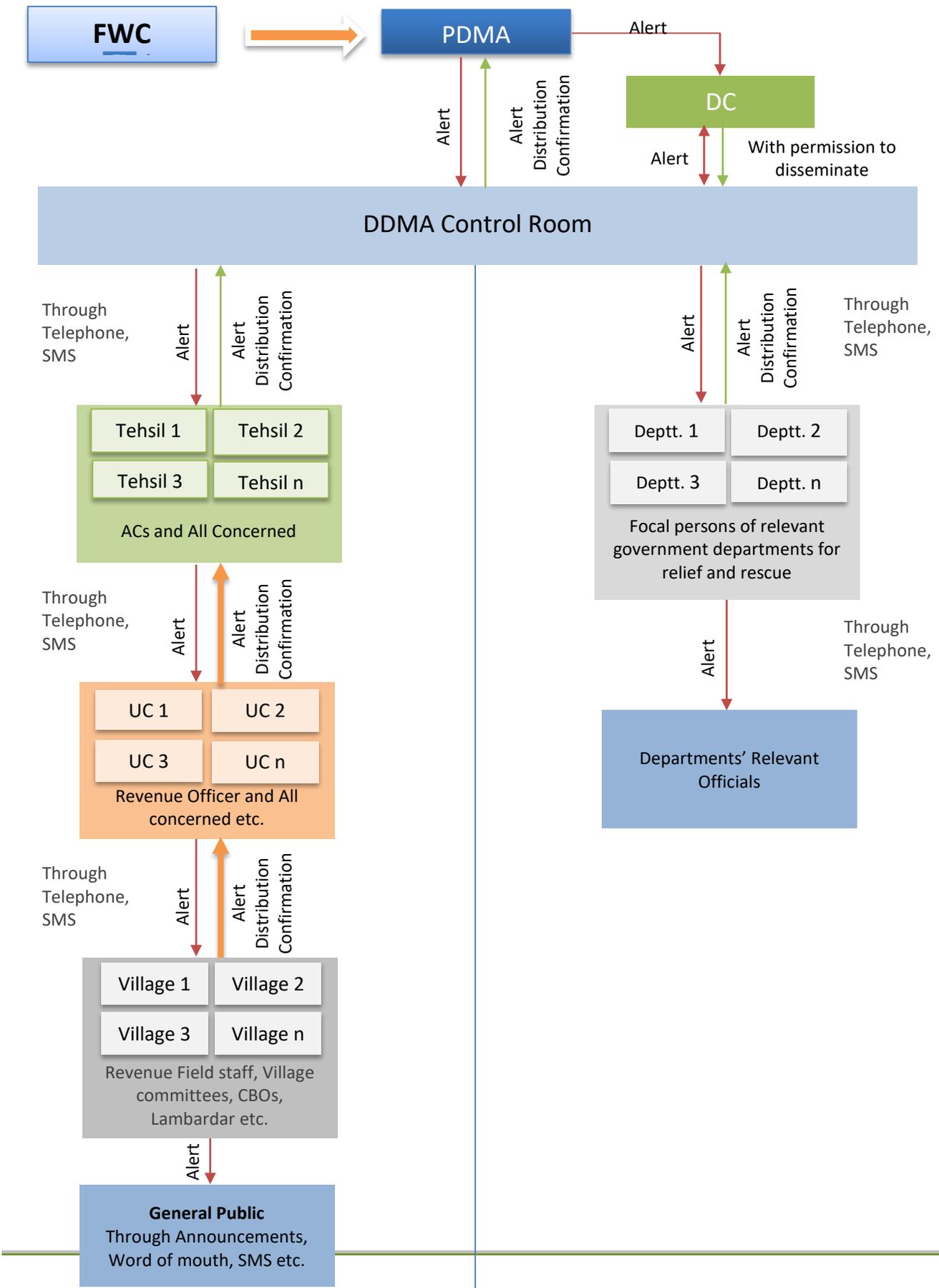
Hazards	Mitigate Actions	Responsible Department
Floods	<ul style="list-style-type: none"> ✓ Flood Mitigation Strategies ✓ 1) Flood Risk Prevention – Proactive spatial planning, Planning, allocation politics ✓ 2) Flood Defense-Dikes, Dams, embankments, sand Suppletion ✓ 3) Flood Mitigation-Urban green infrastructure, Flood retention, urban management. ✓ 4) Flood preparation- Warning systems, disaster planning, evacuation plans. 5) Flood Recovery. Rebuilding areas, insurance system 	escuee 1122 Civil Defence Health Department Police Department Works Department C&D) Irrigation Department Public Health
Urban Flooding	Nil	
Flash Floods	Nil	
Hill Torrent	Nil	
Glacial Lake Outburst Flood (GLOF)	Nil	

Landslide	Nil	
Tornado	Nil	
Earthquake	<p>Mitigation Strategic are of two types</p> <p>Structural Mitigation:</p> <ol style="list-style-type: none"> 1) Safe and well designed buildings as per building cods 2) Safe location of the buildings 3) Good workmanship and adequate supervision <p>Non –Structural Mitigation</p> <ol style="list-style-type: none"> 1) Land use planning 2) Public Awareness. 3) Legal framework 4) Incentives and financial framework 5) Training and education 6) Risk transfer (e.g. Loans ,insurance 7) Proper working system 	<p>Rescuee 1122</p> <p>Civil Defence</p> <p>Health Department</p> <p>Police Department</p> <p>Works Department</p> <p>C&D)</p> <p>Irrigation</p> <p>Department</p> <p>Public Health</p>
Drought	Nil	
Epidemic	Nil	
Fire Incidents	<p>Mitigation Strategies for Fire Incidents</p> <ol style="list-style-type: none"> 1) Good housekeeping 2) Refuse and waste disposal control. 3) Safe storage of flammable substances 4) No-Smoking policies 5) Hot work permit 6) Proper Design and Regular Maintenance of machines to avoid hot surface. 	

	<p>7) Safe electrical systems. 8) Do not cover ventilation outlets on equipments e.g. Computers, Heaters etc. 9) Exclusion of ignition Sources 10) Signs and Marking. 11) Provision of Fire Fighting Equipment. 12) Povisionm of emergency arrangements.</p>	
<p>Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)</p>	<p>Nil</p>	
<p>Environmental Hazards (industrial accidents, severe pollution etc.)</p>	<p>Nil</p>	

EARLY WARNING

Information Flow Diagram



Alertness Levels

Following four levels alertness have been established:

<p>Level-D (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>Level-C (Alert) (Warning issued but likelihood of occurrence is less than 100%)</p>	<p>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 DCO and DPO shall grant leave according to the situation.</p>
<p>Level-B (High Alert) (Disaster threat is imminent)</p>	<p>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, MCs etc) facilities shall work 24/7 with full staff strength. DDMA shall monitor the situation on hourly basis.</p>
<p>Level-A (Red Alert) (Disaster is materialized)</p>	<p>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.</p>

Early Warning

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.

The Early Warning System will be established through establishment of District Control Rooms.

The information will be conveyed by the District Control Room to tehsil Control Rooms and the concerned departments.

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.*

Actions – as an immediate response to the situation:

The immediate steps to manage the incident will be the deployment of resources and determine the priorities in an appropriate way to save the lives of the trapped victims and the property of the people following steps will be taken in this regard:

- **Deployment of resources at strategic locations**
- **Activation and mobilization of resources**
- **Securing the scene**
- **Initial Assessment**
- **Compile Information**
- **Incident Command Post**
- **Assign Tasks**
- **Reassess and Adjust**
- **Search and Locate**
- **Gain Access to the Victims**
- **Stabilize the Victims**
- **Extricate the victims**
- **Safe shifting of the victims to the hospital for specialized treatment**
- **Identification and record keeping of the victims**
- **Rise Management**

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	GHSS SAHUKA	500	X: Y:	16			X: Y:
2	GHS FAROOQ ABAD SALDERA	500	X: Y:	17			X: Y:
3	GGHS FATEH PUR	500	X: Y:	18			X: Y:
4	GGCMS DHALOO	500	X: Y:	19			X: Y:
5	GHS MOLVI WAH	500	X: Y:	20			X: Y:
6	GES DOLAT ABAD	500	X: Y:	21			X: Y:
7	GPS BUDH GHULAM	500	X: Y:	22			X: Y:
8	GPS QADIR ABAD	500	X: Y:	23			X: Y:
9	GGHS SAHUKA	500	X: Y:	24			X: Y:
10	GHS WARSI WAHIN	500	X: Y:	25			X: Y:
11	GGPS NAHMAT ALI SIFON	500	X: Y:	26			X: Y:
12	JAMLERA REST HOUSE	500	X: Y:	27			X: Y:
13	AQEELA COMPLES DOLAT ABAD	500	X: Y:	28			X: Y:
14	GHSS KARAM PUR	500	X: Y:	29			X: Y:
15	GHS MAILSI	500	X: Y:	30			X: Y:

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

Hazards	Tehsils	UCs	Names of Revenue Estates	Names of Villages
Floods	VEHARI			Ali-ud Din Burana Sain Ara Mansoor umar Shah Lal Deh, Kot Moha, Kot Mohammad Hussain , Jagan Deh Rafiq Tajwana , Mohal Kot GoluGul Shah ,Noon ,Khichi Saloo Noran Afghan Nawaz Shah Mughal Baqir Shah Korha Bhinda Baqir Shah Luddan Shada Baloch Bhal Todda Dad Kamera Ramzan Hunjan Jinda Joya Mitha Hunjan Sahu Kharal Malai Teht Shah Palla Mouza Lakha Fateh Shah Mangan Deh Ziadat Phatan Mitti Khoran Khan Garh Islam Shah Zikria

				Mehroo Baloch Jatera Azam Ahmad Abad Kot Hakim Ali Akbar Shah Ghulam Shah Bonga Azam Mian Hakim Jhedu Jhedu Sharaf Chaju Deh Shah Qadoos Khaga Ghazi Tajwana Bonga Azam Bysukh Byas 541/EB 543/EB 475/EB 481/WB 479/EB Allah Abad 58/KB 61/KB Qadir Abad Karim Shah 64/KB 65/KB Jhedu Nemat Ali Langana Kund PunaKund Sarkar Kund Bahadur Ghuns Pur Sani Ganwans Ghhon Dhallu Hassan Shah Kalia Shah Burana Khans Mamor Deh Chak Peer Chakar Waseer
	MAILSI			

				Peer Shah Karram Pur Zor Kot Fateh Pur Qutab Pur Theh Wadda JHoke Haji Khok Saleh Jund Mohar Aroti Dal Asrani Punna Makhdum Pur Jhoke Jindo Behli Bhinda Pjaran Cheena Sathu Chattani Kund Azam Kund No Abad Khas Chak Shah Pur Chak Hassan Ali Wala Ghouns Pur Khas Ghulam Sindi Kot Butta Johni Ghanash Pur Ali Wah Hassan Shah Murad Ali Bhaggar HUndia Khan Hundala Sani Mansur Shah Shah Jahan Saldera Hithar Shamas Shah Saldera Utar Gahi Shah
	BUREWALA			

				Mudher Maghrana Dona Ali Khan Kot Qadir Bux Rahim Shah Sahuka Bhatti Mohammad SHah Wains Khokhra Jamlera Blara Jamlera Lakhoke Kalan Kot Tharaj 36/KB 3/KB 39/KB 41/KB 40/KB Koram Kamdana 94/EB 96/EB 98/EB 100/EB 104/EB 106/EB 110/EB 116/EB 118/EB 120/EB 150/EB 170/EB
Urban Flooding	NIL	NIL	NIL	NIL
Flash Floods	NIL	NIL	NIL	NIL
Hill Torrent	NIL	NIL	NIL	NIL
Tornado	NIL	NIL	NIL	NIL

Earthquake	NIL	NIL	NIL	NIL
Drought	NIL	NIL	NIL	NIL
Epidemic	NIL	NI	NIL	NIL
Environmental Hazards (industrial accidents, severe pollution etc.)	NIL	NIL	NIL	NIL

DETAIL OF FLOOD RELIEF CENTRES TO BE ESTABLISHED

- | | | |
|----|-----------------|-----------|
| 1. | Vehari | 05 |
| 2. | Burewala | 03 |
| 3. | Mailsi | 06 |

VEHARI	BUREWALA	MAILSI
1. Govt. Boys/ Girls High School, Dolat Abad. 2. Govt. Boys Primary School, Budh Ghulam. 3. Govt. Boys/ Girls Primary School, Basti Riaz Abad, Mouza Qadir Abad. 4. Govt. Boys High School, Basti Molvi Wah, Mouza Faiz Wah 5. Out Fall PI Link Mouza Mian Hakim	1. Govt. Boys High School, Dad Jamlera. 2. Govt. Higher Secondary School (Boys), Sahuka. 3. Govt. High School, Farooq Abad, Saldera.	1. Govt. Boys High School, Fateh Pur. 2. Govt. Boys High School, Warsi Wahin. 3. Govt. Primary School, Mailsi Siphon. 4. Govt. Primary School, Dhallo. 5. Govt. Boys Higher Secondary School, Karampur. 6. Govt. Boys High School, Mailsi

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	RHC LUDDAN	X: Y:	Primary		
2	RHC SHARAF	X: Y:	Primary		
3	RHC SAHUKA	X: Y:	Primary		
4	RHC JALLA JEEM	X: Y:	Primary		
5	RHC KARAM PUR	X: Y:	Primary		
6	BHU BORANA	X: Y:	Primary		
7	BHU FATEH PUR	X: Y:	Primary		
8	BHU JAMLERA	X: Y:	Primary		
9	BHU KHAN PUR	X: Y:	Primary		
10	BHU SALDERA	X: Y:	Primary		
11	BHU WARSI WAHIN	X: Y:	Primary		
12	BHU BUDH GHULAM	X: Y:	Primary		
13		X: Y:			
14		X: Y:			

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
15		X: Y:			
16		X: Y:			
17		X: Y:			
18		X: Y:			
19		X: Y:			
20		X: Y:			
21		X: Y:			
22		X: Y:			
23		X: Y:			
24		X: Y:			
25		X: Y:			
26		X: Y:			
27		X: Y:			
28		X: Y:			
29		X: Y:			
30		X: Y:			
31		X: Y:			
32		X: Y:			

ANNEX IV: LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS

S#	Name	Institute type (School, College etc.)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
1	GHSS SAHUKA	SCHOOL	X: Y:			
2	GHS DAD JAMLERA	SCHOOL	X: Y:			
3	GGHS 173EB	SCHOOL	X: Y:			
4	GPS RATH JAMLERA	SCHOOL	X: Y:			
5	GPS 173EB	SCHOOL	X: Y:			
6	GPS 36KB	SCHOOL	X: Y:			
7	GPS MURAD ALI	SCHOOL	X: Y:			
8	GPS MUGHRANA	SCHOOL	X: Y:			
9	GPS MOUZA RAHIM SHAH	SCHOOL	X: Y:			
10	GMES 170/EB	SCHOOL	X: Y:			
11	GGPS SALDERA	SCHOOL	X: Y:			
12	GPS MOUZA MANSOOR SHAH	SCHOOL	X: Y:			
13	GPS 102/WB	SCHOOL	X: Y:			
14	GPS MUHAMMAD SHAH	SCHOOL	X: Y:			
15	GGHS 120/EB	SCHOOL	X: Y:			
16	GGHS SAHUKA	SCHOOL	X: Y:			

S#	Name	Institute type (School, College etc.)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
17	GES 120/EB	SCHOOL	X: Y:			
18	GGHS 102/EB	SCHOOL	X: Y:			
19	GGES 104/EB	SCHOOL	X: Y:			
20	GPS 100/EB	SCHOOL	X: Y:			
21	GPS 104/EB	SCHOOL	X: Y:			
22	GPS 118/EB	SCHOOL	X: Y:			
23	GPS 116/EB	SCHOOL	X: Y:			
24	GPS 98/EB	SCHOOL	X: Y:			
25	GPS 96/EB	SCHOOL	X: Y:			
26	GPS LAKHOKA KALAN	SCHOOL	X: Y:			
27	GGPS 40/KB	SCHOOL	X: Y:			
28			X: Y:			

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			X: Y:				
2			X: Y:				
3			X: Y:				
4			X: Y:				
5			X: Y:				
6			X: Y:				
7			X: Y:				
8			X: Y:				
9			X: Y:				
10			X: Y:				
11			X: Y:				
12			X: Y:				
13			X: Y:				
14			X: Y:				
15			X: Y:				
16			X: Y:				

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			X: Y:				
18			X: Y:				
19			X: Y:				
20			X: Y:				

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	Al Khidmat Society Madina Colony, Vehari.		Vehari	Patients Welfare	Abdul Waheed Tahir Mahmood	
2	Al –Shifa Medical Welfare Organization 27-H, Vehari.		Vehari	Family Welfare & Free Dispensary	Dr.Muhammad .Aslam Dr.Somera	
3	Al Zahrah Welfare Society 64-A1, Mohala Rasool Pura Mailsi.		Mailsi	Women Welfare Education	Zubaida MalikHaji Zahoor Ahmed	067-3410953 - 3411165
4	Al-Flah Welfare Society “G” Block, Vehari.		Vehari	Khawateen Children	Mian Muhammad Janzab Mian Muhammad Iqbal	067-3365596 03007722579
5	Anjuman Behbood-e - Marizan THQ Hospital, Burewala.		Burewala.	Helath	Muhammad Jameel Bhatti Amir Bukhsh	067-3771499
6	Anjuman Behbod-e- Marizan THQ Hospital, Mailsi.		Mailsi	Patients Welfare	Junaid Ali Khan Gulam Mustafa.	067-37517280 – 3750126
7	Anjuman Falah- e-Niswan Junaid Vila Multan Road, Mailsi.		Mailsi	Women Welfare	Ferhana Arshid Jabain Junaid	067-3410731 0300-7729449
8	Anjuman Samaji Behbood Karam Pur, Mailsi.		Mailsi	Health	Firdoos Shah M.Yaquab	067-3696214
9	Bismillah Welfare Society.505-E.B,		505-E.B	Ind Home	Abdul Hafiz	067-3352313

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.
	Burewala.			Industrial Home.	Remat Ali	
10	Burewala Welfare Society Fatima Jinnah Girls High School Burewala.		Burewala	Education, Ind.Home.	Rana Nisar Ahmed Hatim Hussain.	067-3351766 067-9200266
11	Children Welfare Society Children Comple DHQ Hospital Vehari.		Vehari	Child Welfare Helath	Muhammad Sarwar Shahid Perwaz	0333-6271664
12	Dar-ul- Flah House No. 30- P, Burwala.		Burewala.	Health Services	Malik Nasir Ahmad Ziarat Ali	067-3773509
13	Disabled Welfare Society 3/Jahangir Plaza Burewala.		Burewala.	Education	Masood Ahamed Abdul Rauf Ch.	067-3771199
14	Fizan-e-Mustafa Welfare Society Chak 9-WB Mian Channu Road Vehari.		Vehari	Health	Zafar-ullah Khan M Amin	067-3364674
15	Global Youth Organization House No.22-H, Burewala.		Burewala.	Child Welfare.	Dr Sayad Bukhari Rashid Zagam.	067-3355680
16	Hawks Social Welfare Organization Near Thana Saddar , Mailsi.		Mailsi	Education Women Welfare Youth Welfare	Syed Asghar Abbas Ali Waqas	067-3411143
17	Idara Rfaeh Ama Chak No. 98-E.B Burewala.		98-E.B	Ind. Home	Bashir Ahmed Muhammad Hussain	0334-7793201
18	Laback Welfare Society MailsiManzal, Mailsi.		Mailsi	Education Vocation Ceten	Muhammad Ali Shah Zameer Hussian	067-3410323

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.
19	Welfare Service Near Railway		Mailsi	Health.	Ch Allah dittah Abdul Khaliq	067-3411895 -3411896
20	Mishal Development Organization Chak No. 37/W.B, Vehari.		Vehari	Women Welfare, Health	Musarat Khan Farhat Baber	
21	Public Anty Drug Society Old Bus Stand Near Itfaq Mottors, Vehari.		Vehari	Health	Asia Naseem Muhammad Waseem	
22	Quaid-e- Azam Welfare Society Chak No 11-W.B, Vehari.		Vehari	Education Girls High School.Non formal School	Muhammad Saddique Tariq Saddique.	
23	Sahara & Sukh Orgnazation Quaid Azam Road, Mailsi.		Mailsi	Education, Health, Vocation Centre, Student Welfare	Ghulam Mustfa Ghulam Murtza	067-3750126
24	Services for Health Education & Development, Chak No. 62/WB Vehari.		Vehari	Health, Education	khtar Hussain Ejaz ul Hussan	
25	Shaheen Welfare Society Chak No.134/E.B Burewala.		Burewala	Women Welfare	Liaqat Ali Muhammad Attique	0333-6299134
26	Shehri ijtamie Tarqiyati Council Junad Vila Multan Road, Mailsi.		Mailsi	Women Welfare.	Junad Ali Khan Malik Amir Bukhsh	067- 34107310300- 7729449
27	Social Welfare and Community Development Basti Mahmood Khan 50-K.B		Burewala	Anticortics.	Samia Batool Muhammad Sher Khan Khichi	0334-7784229 0300-7591129

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.
	Burewala.					

ANNEX VII: CONTACT LIST OF MAIN STAKEHOLDERS / DEPARTMENTS

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
1	Focal Person for Disasters	Rizwan Mahmood	067-3364063 Fax-3363514	0673360347	0345-8211111
2	Commissioner	Bilal Ahmad But	061-9200044 061-9200048 Fax-9200971	061-9200068 Fax-9201476	0304-0920055
3	RPO				
4	DC	Ali Akbar Bhatti	067-3362122 067-3363488 Fax-3363688	067-3363477 Fax-3363478	0304-0920094
5	DPO	Umar Saeed Malik	067-9201076 067-3363244 Fax-9201080	067-3362953	0345-4901111
6	ADC (Rev)	Rizwan Mahmood	067-3364063 Fax-3363514	0673360347	0345-8211111
7	DEO Rescue 1122	Danish Khalil	067-9201303 067-9201122		0334-7189321
8	DO Civil Defence	Ch Akram Shahzad	067-3363287		0300-2137790
9	SNA	Muhammad Khurram Saleem	067-3360709		0333-6929933
10	AC - Vehari	Syed Asif Hussain	067-3361250	067-3363304	0333-7843031
11	AC - Burewala	Rao Muhammad Tasleem Akhtar	067-9200108 Fax-9200109	067-9200110	0333-5211329
12	AC - Mailsi	Abdul Ghaffar	067-3410888	067-3410777	0300-7383025
13	AC -				
14	AC -				
15	AC -				
16	Tehsildar - Vehari	Ajmal Saif Chatha Tehsildar Vehari			
17	Tehsildar -Burewala	Muhammad Sajjad Lodhi Tr Burewala	067-9200106		0300-7839823
18	Tehsildar -Mailsi	Malik Aftab Dogar Tehsildar Mailsi			0300-6342620
19	Tehsildar -	Hafiz Iqbal			0300-7720600

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
		Mahmood Kathia Naib Tehsildar Vehari			
20	Tehsildar -	Mushtaq Ahnmad Naib Tehsildar Mailsi			03006378632
21	Tehsildar -	Muhammad Imran Fani Naib Tehsildar Burewala			0300-7890006
22	Chief Officer Zila Council	Mian Muhammad Azhar	067-3362650		0300-8686997 0300-9680406
23	Chief Officer, MC, Burewala	Muhammad Ali CO (MC), Burewala	067-9200136 067-9200134 Fax-9200137		0302-7466294
24	Chief Officer, MC, Mailsi	Muhammad Nadeem CO (MC), Mailsi	067-3411829 Fax-3411120		0300-4571065
28	CEO (DEA)	Shoukat Ali Tahir	067-3362816	067-3360618	0334-7051938 0345-7051938
29	XEN Irrigation	M. Nawz Bajwa W/B Thangi	067-3788115		0308-7928143
30	Chief Engr. Irrigation		061-9200144 Fax-9200133		
31	EDO C & W				
32	EDO Community Development				
33	Director Agriculture	Obaid –Ur-Rehman	067-9201188		
34	CEO (DHA)	Dr. Shoaib ur Rehman Gurmani	067-9201111		0300 7302270
35	DMO	Khizar Hayat Bhatti			0333-2078321
36	Incharge DHQ Hospital	Dr. Farooq	067-9201118		0332-6785555
37	Veterinary Officer	Dr. Mohsin Ali Bhatti A.D. Livestock	067-9201212		0333-4422667
38	Jamshid Qadir Bhatti	D.O (Wildlife)	067-3362729		0333-6155445
39	Zulfiqar Ali,	Bomb Disposal Civil Defence			0333-2080661
40	Ikram Hashmi	XEN Public Health Vehari	067-3366501		
41	Brig. Chanzeb Awan	Mailsi Garrison, Mailsi	067-3410508		

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
42	Manager, Shell Pakistan	Javed Iqbal	067-3361703		0300-7729457
43	Incharge, PSO Company	Raheel Akram	067-3361733		0334-4432892
44	B.M. Telephone	Muhammad Irshad	067-3364786		0333-7725222
45	Asst. B.M. Telephone, Vehari	Farooq Ahmad Bandesha	067-3363100		0300-7726772
46	S.E MEPCO, Vehari	Raees Abdul Ahad	067-9201092		0330-6177778
47	XEN Operation, Vehari	Sajjad Hussain Tariq	067-3361396 067-3364696		0335-8881143
48	XEN Mailsi Siphon	Mehar Manzoor Hussain	067-3788121		0300-7723687
49	XEN Head Islam	Zeeshan Ashraf	067-3024990		0322-4153448
50	XEN Pakpattan Sharif	Munir Ahmad Abbasi	0457-373878		0300-6920400
51					
52					
53					
54					
55					
56					
57					
58					
59					

ANNEX VIII: LIST OF VOLUNTEERS

S#	Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
1	M. RAZAAQ AALAM	3660351360499	D BLOCK VEhari	03017942117	B+	
2	ALI RAZA	3660312266459	BHAGWAN PURA	03136290514	AB+	
3	MUQEEM AHMAD	3660312456383	TARIQ BIN ZIAD COLONY	03360600248	B+	
4	FAHEEM AHMAD	3660317456213	TARIQ BIN ZIAD COLONY	03360600248	B+	
5	USMAN KAREEM	3660312233451	G BLOCK VEhari	03039008907	B+	
6	ZULAFQAR ALI	366035226837	LIAQAT PURA KACHI MANDI	03064986137	B+	
7	MUSTANSAR HUSAIN	3660352232763	D BLOCK VEhari	03004455786	B+	
8	M.AMIR	3660321221451	D BLOCK VEhari	03087946916	B+	
9	RASHID NADEEM	3660336251492	DANEWAL TOWN VEhari	03064983050	AB+	
10	ABDUL SAMAD	3660396857433	D BLOCK VEhari	03056655112	O+	
11	MAQSOOD AHMAD	3660386775407	B BLOCK VEhari		B+	
12	NOOR AHMAD	3660360222718	B BLOCK VEhari		B+	
13	RIZWAN ASLAM	3660308335642	B BLOCK VEhari	03087530554	B+	
14	RASHID KARIM	3660360200719	ZAFAR COLONY VEhari	03029395602		
15	M. ABBAS	3660380313037	USMAN ABAD VEARI	03065939239	AB+	
16	WAQAS HUSAIN	3660308465631	ZAFAR COLONY VEhari	03057187150	B-	
17	SHEHZAD HUSAIN	3660335743919	ZAFAR COLONY VEhari	03087935375	B+	
18	M. AZAM	3660334543122	LIAQAT PURA	03037826126	B+	
19	M. USMAN	3660335342711	KACHI MANDI VEhari	03026339516	O+	
20	LIAQAT ALI	3660385387429	LIAQAT PURA	03068895503	O+	
21	ZAHID	3660341395973	LIAQAT PURA	03053596327	O+	
22	SHAHID RAZA	3660396358219	LIAQAT PURA	03348074686	B+	
23	M. ISHFAQ	3660336298543	LIAQAT PURA	03047451346	AB+	
24	SHEHZAD HUSAIN	3660368149253	LIAQAT PURA	03136323418	A+	
25	AHMAD RAZA	3660368149341	ZAFAR COLONY VEhari	03008130445	B+	
26	M. AKRAM	3660360876627	ZAFAR COLONY VEhari	03037980217	B+	

S#	Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
27	MAZAJ ALI	3660368140551	USMAN ABAD VEHARI	03017183870	O+	
28	SADAQAT ALI	3660360870709	ZAFAR COLONY VEHARI	03056855891	O+	
29	M. TARIQ	3660372149353	BHATTI COLONY VEHARI	03049132445	B+	
30	M. BILAL	3660368149142	KACHI MANDI VEHARI	03049888910	O+	

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
MNA NA-170	Saeed Ahmad Khan Manais	PML-N)	067-3692601 067-3692100 042-36667553	MPA PP-233	Ch. Irshad Ahmad Arain	(PML-N)	0333-6885051 0300-6992251

ANNEX X: LOCAL GOVERNMENT

District and Tehsil Level

S#	Designation	District/Tehsil Name	Name	Contact Number	Mobile Number
1	District Chairman	Zila Council	Peer G. Muhayyudin Chishti	067-3364852	0333-4275577
2	District Vice Chairman	Zila Council	Rana Shahid Sarwar		0300-6998913
3	Tehsil Chairman	Mailsi	Touseef Ahmad Khan		0300-6362122
4	Tehsil Vice Chairman	Mailsi	Mehar Abdul Khaliq		0300-7025852
5	Tehsil Chairman	Burewala	Ch. M. Aashiq Arain		0300-6999055
6	Tehsil Vice Chairman	Burewala	M. Iftikhar Bhatti		0333-6288081
7	Tehsil Chairman	Vehari	Sheikh M. Hussain		03008674412
8	Tehsil Vice Chairman	Vehari	Sardar G. Murtaza		0300-8008307
9	Tehsil Chairman				
10	Tehsil Vice Chairman				
11	Tehsil Chairman				
12	Tehsil Vice Chairman				
13	Tehsil Chairman				
14	Tehsil Vice Chairman				

UC Level

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
1	VEHARI	1	RAO SHABIR BILO KHAN	0344-7098786	Kashif Raza	03007224725
2	VEHARI	2	Rao Nadeem Akhtar	03002772172	Umar Daraz	
3	VEHARI	3	Shoukat ali	03007737798	M. Khalid	03006217003
4	VEHARI	4	Raja Fida Hussain	03016271095	Malik Abdul Karim	03007736804
5	VEHARI	5	Akhtar Nawaz Bhatti	03007725093	Habib Ullah	03057990906
6	VEHARI	6	Ch M. Athar	03002020439	M. Arshad Shah	
7	VEHARI	7	M. Saleem	03007734990	Shahid Iqbal	
8	VEHARI	8	Shafiq Ur Rehman	03017945285	Rai M. Iqbal	03013667120
9	VEHARI	9	Ch Habib Ahmad	03007727215	Rana Aslam Javed	03008747228

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
10	VEHARI	10	Ch M. Safdar	03457072490	Mehar Zulfiqar	03042691336
11	VEHARI	11	Salman Khan	03007735555	Zahid Ch	03046544097
12	VEHARI	12	Ch Jawad Masood	03007725020	Malik M Yar	03009412214
13	VEHARI	13	aftab Ahmad	03007730441	Abdul Tawwab	03012818639
14	VEHARI	14	Ch m Afzal	03007111333	M. Iftikhar	03037041001
15	VEHARI	15	Ch Abdul Waheed	03337793166	Ch Ihsan ul Haq	03336264715
16	VEHARI	16	Haji Ameer Ali	03336287104	Mihsin Awan	0333628257
17	VEHARI	17	Ch aftab Hussain	03216999104	Mian Rameez Ahmad	03007598475
18	VEHARI	18	Shabbir Hussain	03006381034	Aish Muhammad	03037843871
19	VEHARI	19	M Nazir	03014419917	Malik M Zafar	03076844922
20	VEHARI	20	Rana Khalid Hussain	0300771689	Sardar Aish	03338888683
21	VEHARI	21	M Touqeer	03447714444	M Tariq Mahmood	03467822719
22	VEHARI	22	Amir Khan	03016570657	Ch G. Shabbir	03006270986
23	VEHARI	23	Mian Zahid Daultana	03074120073	Dr. Syed Ghulam Jelani	03336270599
24	VEHARI	24	M Jahanzeb	03039555594	Malik M Iqbal	03016589984
25	VEHARI	25	Mian M Altaf	03008064528	M Javed Khan	03007724916
26	VEHARI	26	Mian Shahid Nadeem	03007736657	M abid Kareem	03336276656
27	VEHARI	27	Mian Mukhtar Ahmad	03007723707	M Awais	03007739561
28	VEHARI	28	Malik Amjad Ali	03023450005	Syed Ayaz	03004241502
29	VEHARI	29	M Irfan Manzoor	0333-2335786	M. Mumtaz	03335464193
30	VEHARI	30	M Atiq Khan	0300-7322102	Mumtaz Hussain	03007722364
31	VEHARI	31	Hameed ul Hassan	0300-7725663	Zulfiqar Ali	03007385022
32	VEHARI	32	Babar Manzoor	03007720770	Sajid Naveed	03003527270
33	VEHARI	33	Zahid Iqbal	03007725715	M Saeed	

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

District: _____

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 Reposrting 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 etc.)	Vaccinated/ Unvaccinated	Witness 1 name and contact No.	Witness 2 Name and Contact No.
----	----------------	-------------	------	-------	--------	-----------------	-------------------------------------	--------------------------	--------------------------------	--------------------------------

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
----	--------	-----------	---------------	-------	-------------	-------------------	----------------	----------------	---------------	-----------------------------	---------------------

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
----	-----------------------	-----------------------	-------	----------	----------------------	---------------	-------------	-------------	----------

P7: Private Machinery (Boats, Bulldozers, cranes etc.)

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

District: _____

Date: _____

S#	Name of boat owner	Father name	Contact Number	Age	CNIC	Location of boat/Machinery	Type of Machinery (Boat, Bulldozers, Cranes etc.)	Engine type	Boat capacity	Equipment Condition	Number of Machinery
----	--------------------	-------------	----------------	-----	------	----------------------------	---	-------------	---------------	---------------------	---------------------

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
----	-------------	----------	------	--------	-----	-------------------	-----------------	------	---------	----------

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.
----	-------------	-------------	-----------------	--------------------	------------------------------	----------------------	-----------------------------------

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
----	--------------------------	-----------------------------------	------------------------------------	-------------------------------------	---------------	-------------	-----------------

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.

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 XIII: FLOOD BUNDS

INFORMATION REGARDING FLOOD BUND CATEGORY A

SR:#	NAME OF DIVISION	NAME OF EMBANKMENT / BUND	LENGTH (ft)
SARGODHA ZONE			
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
PMO BARRAGES			
1	Kalabagh H/Works Division	Jinnah Barrage	25,080
Total in feet.			25,080
Total in Miles.			4.75
FAISALABAD DIVISION			
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
BAHAWALPUR ZONE			
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
MULTAN ZONE.			
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
D.G.KHAN ZONE			
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-	Khargarh 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 Narowal	Jassar Highway Bund	10,000
2	do	Rayya flood Bund	5,000
3	Pasrur Link Division Sialkot	City Flood Protection Bund along Aik Nullah	7,340
4	do	Hajoipur Flood Protection Bund along Aik Nullah	86,00
5	do	Left Flood Protection Bund over deg Nullah from defence embankment to Zafarwala Kingra road	10,000
6	Marala Division UCC	Left Marginal Bund	50,000
7	do	Right Marginal Bund	10,000
8	Lahore Drainage Div.	Shahdara Flood Protection Bund	15,000
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	Bhakkar 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	Punjad 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
D.G.KHAN ZONE			
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
LBDC (IP)			
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
LAHORE ZONE			
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
	Total in feet.		422,000
	Total in miles		79.92
PMO BARRAGES			
1	Jinnah Barrage	-do-	20,000
	Total in feet.		20,000
	Total in miles		3.79
	Grand Total (in miles)		350.76

ANNEX XIV: 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: 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.