

DISTRICT DISASTER MANAGEMENT PLAN (DDMP) 2021

Division: Dera Ghazi Khan

District: Layyah



Flood 2015



Flood 2010



Choubara



Flood2010

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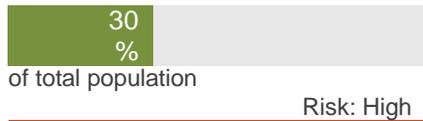


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Estimated number of people at risk of **floods** in 2021



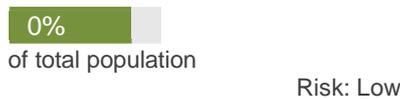
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Estimated number of people at risk of Drought in 2021



XX

Estimated number of people at risk of earthquake in 2021



XX

Estimated number of people at risk of epidemic Covid-19 in 2021



EXECUTIVE SUMMARY

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

AIM AND OBJECTIVES

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

The main objectives of the plan include:

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

DISTRICT PROFILE

Layyah got the status of district in 1982 and comprised of three Tehsils Layyah, Karor Lal Eson and Choubara. Before coming under the administrative jurisdiction of district, Layyah was part of Muzafargarh District. These developments had impacts on the social, political and economic relationship of Layyah. Layyah is now part of Dera Ghazi Khan Division along with the district of Dera Ghazi Khan, Muzafargarh and Rajanpur. All these four districts make the southern zone of Punjab. It is situated between 30-45 North latitude and 70-71 East longitude. The total area covered by the district is 6,291 km² with a width from East to West of 88 km and a length from North to South of 72 km.

This District is surrounded in the north by Bhakkar, in the South by Muzafargarh, in the East by Jhang and D.G Khan Districts lies in the West. River Indus flows on its western side across which lies in district Bhakkar and on the South district Muzaffargarh. District Layyah comprises the three tehsils of namely Layyah, Karor Lal Eson and Choubara. Current population of District Layyah is 1,824,230 having Urban 321,505 (162,924 Male and 158,517 Female) and rural 1,502,725 (762,399 Male and 740,300 Female) of the total population. Total households reside in the district are 268,244.

Layyah is ranked at number 38 nationally with an education score of 66.76. The learning score of Layyah is 70.8. The readiness score of Layyah is 65.13 and the school infrastructure of Layyah score is 94.38 placing it a national rank of 23. The score reflects that most schools in Layyah have all basic facilities e.g. electricity, drinking water and functional toilets.

Geology and Climatology

The District Layyah has an extremely hot climate. The temperature in winter is low due to nearness to Koh-Suleman range of mountains and Thal desert of Tehsil Choubara. The Tehsil Choubara is almost barren and consists of range forest and sand dunes. It is actually a Range Land for animal grazing under the control of Forest and Range Management Department. The tehsil of Layyah and Karor are comparatively better developed agriculturally but they have also large tracks of sand dunes and uncultivated land.

The soils in the district can be divided into two broader categories. The area/strip that lies along river Indus is part of its active flood plain and composed of loamy and some stratified sandy soils that are found in young flood plains. The area lying next to this is part of Thal desert. Here rolling to hilly sandy soils of Aeolian deserts are found. The difference in soils structure and moisture regimes in the district has translated into difference in the natural vegetation.

In the riverine zone, thorny vegetation is found where as in the desert zone, desertic and semi desertic vegetation are found. In terms of natural use of land. Major portion of the district can be termed a rough grazing land. The areas lying along and closer to river Indus are able lands. Small pockets of the district are under the forest cover. Climatically Layyah is part of the hot, arid/dry zone of Pakistan. The average annual rainfall is less than 33 mm. The area receives most of the rainfall during summer. The summers are long and very harsh. Dust storms are quite powerful and common in the desert zone. In this zone, even during the summer, nights are very pleasant.

OBJECTIVES

1. To deal with the flood like situation on emergent basis and to provide immediate complete medical cover for the safety of human livings and livestock.
2. To protect the vital installations
3. To ensure the compliance of the instructions received by the Govt of the Punjab, Disaster Management Department in true letter and spirit.

Socio-Economic Indicators (Average)

Sr. No.	Particulars	Year 2021 Layyah	Numbers
1	Population		1,824,230
2	No. of Tehsils	3	3
3	No. of UCs	48	48
4	No. of Revenue Estates		723
5	Population Density (people per km ²)	290	178
6	Family Size		8
7	Pop Growth Rate	2.59(Census 2017)	4.0%
8	PCI		0
9	District GDP/Annual Income		90
1	Poverty Rate		30
1	Patient/Doctor Ratio		25
1	Average Mortality Rate (AMR)		0
1	Infant Mortality Rate(IMR)		54 /1000 live birth
1	Mother Mortality Rate (MMR)		227
1	Literacy Rate		92%
1	Punjab Malnutrition Rate (PMR)		32%
1	Malnutrition Rate in District Layyah		Stunting 29% & wasting 7%
1	Percentage of population having access to clean		65
1	Annual Crime		2809

Population

Total	Male (above 18)	Female (above 18)	Minor (M) (less than 18)	Minor (F) (less than 18)	Vulnerable People (PLWs, disabled, aged)
1641734	941679	481430	356,501	338,090	198,408

Source/Note: Population Department

Number of Dwelling Units	Kaccha (Mud/clay)	Pakka (Bricks& Morter)
1012050	955515	56535

Source/Note: ADLG Office

Area (in acres)

Total Area of District in Km ²	Area under cultivation	Cultivation in Settled Area	Cultivation in Baid Area
6,291	1,172,291	920,291	252,000

Overall	Rural		Urban		Total	
	Male	Female	Male	Female	Male	Female
74%	29%	32%	58%	29%	87%	61%

Literacy Rate

Source/Note: Education Department Layyah

Government Schools

		Schools	Enrollment
Total/ Overall			
Boys	Primary	105	14,109
	Middle	19	4,774
	High	17	8,190
Girls	Primary	99	11,214
	Middle	17	4,318
	High	07	2,872
Co-Education	Primary	0	0
	Middle	0	0
	High	0	0
Special Education		0	0

Private Schools

		Schools	Enrollment
Total/ Overall			
Boys	Primary		
	Middle		
	High		
Girls	Primary		
	Middle		
	High		
Co-Education	Primary	82	79,938
	Middle	194	68,530
	High	72	35,630
Special Education		4	458

Higher/Technical/Professional Education (Public & Private)

Particulars	College	Universities	Professional	Technical	Commerce	Total
No of Institution	15	5	6	4	6	34
No of Students	7937	5237	238	1537	939	14975

Health Facilities

Particulars	Primary	Secondary	Tertiary	Private Hospital	Total
No. of Facilities	67	7	-	15	74
Annual OPDs	1,069,224	1,880,378	-	115236	2,949,602
No of beds	192	540	-	101	732
Doctors Available	58	248	-	27	306
Paramedical staff	253	356	-	37	609
Ambulances available	20	Handed Over to Rescue 1122	-	2	20
Mobile Medical Units			-		

Livestock: Small Animals (goats, sheep etc.): **145,046** Big Animals (cows, buffalos, camel etc.) **174,313**

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
50%	56%	60%	40%	8%	15%	14%	30%	20%	54%	26%

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	2010	172607	58	102	18475	6459		
2	2015	28242	06	102				
3								
4								

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	Bhakkar is at High Risk to Flood & Drought D.G.Khan is at High risk to River flood & Flash Flood Muzaffargarh is at High Risk to River Flood & Drought Jhang ia at High Risk To River Flood
Topographical Features	
Weather/Climate pattern	E.g. max. And min. temperature, annual precipitation, storms, heat waves, snow fall etc. Weather Mostly Dry & Hot ,Climate change posed its severe impacts on lively hood & likely hood
Major Rivers	Name of river, passing through areas along with length in the district Major Barrages and their Flood levels Indus River & Chanab
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.

Dams (including small dams)

Name of Dam	Location	GPS Coordinates	Capacity	High Flood Level	Critical Points, if any	Remarks
		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
Kotla Haji Shah	16km	Layyah	Kot Sultan	Shahwala Groyne	X:7055148 Y: 305928	
City Protection Bund	7km	Layyah			X:7055565 Y: 3057340	

Breaching Section

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

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

Name	Capacity	GPS Coordinates	Name	Capacity	GPS Coordinates	
		X: Y:			X:	
		X: Y:			X:	
		X: Y:			X:	

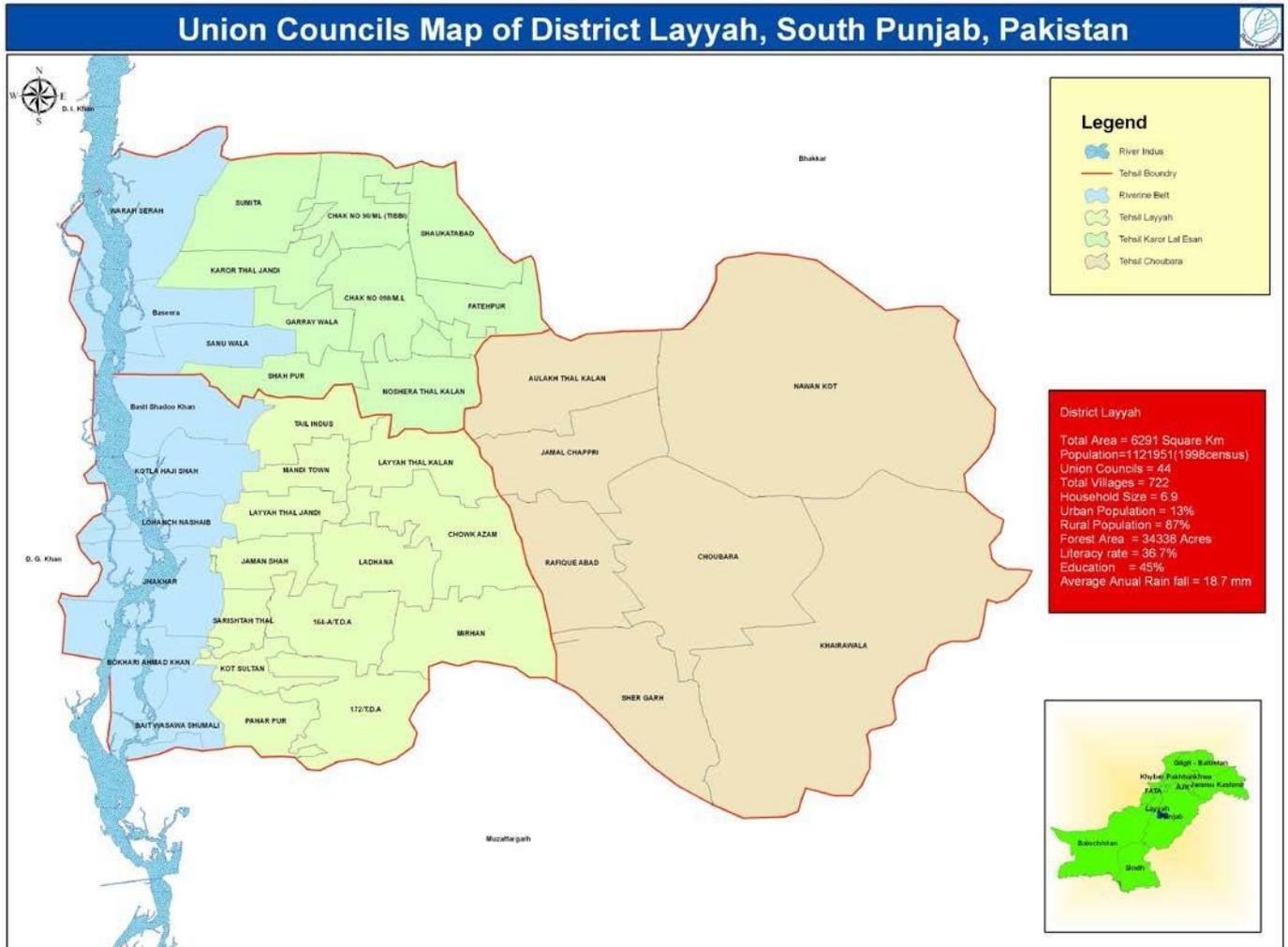
Airport / Landing Strips

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

Govt. storage facilities/warehouses in the district

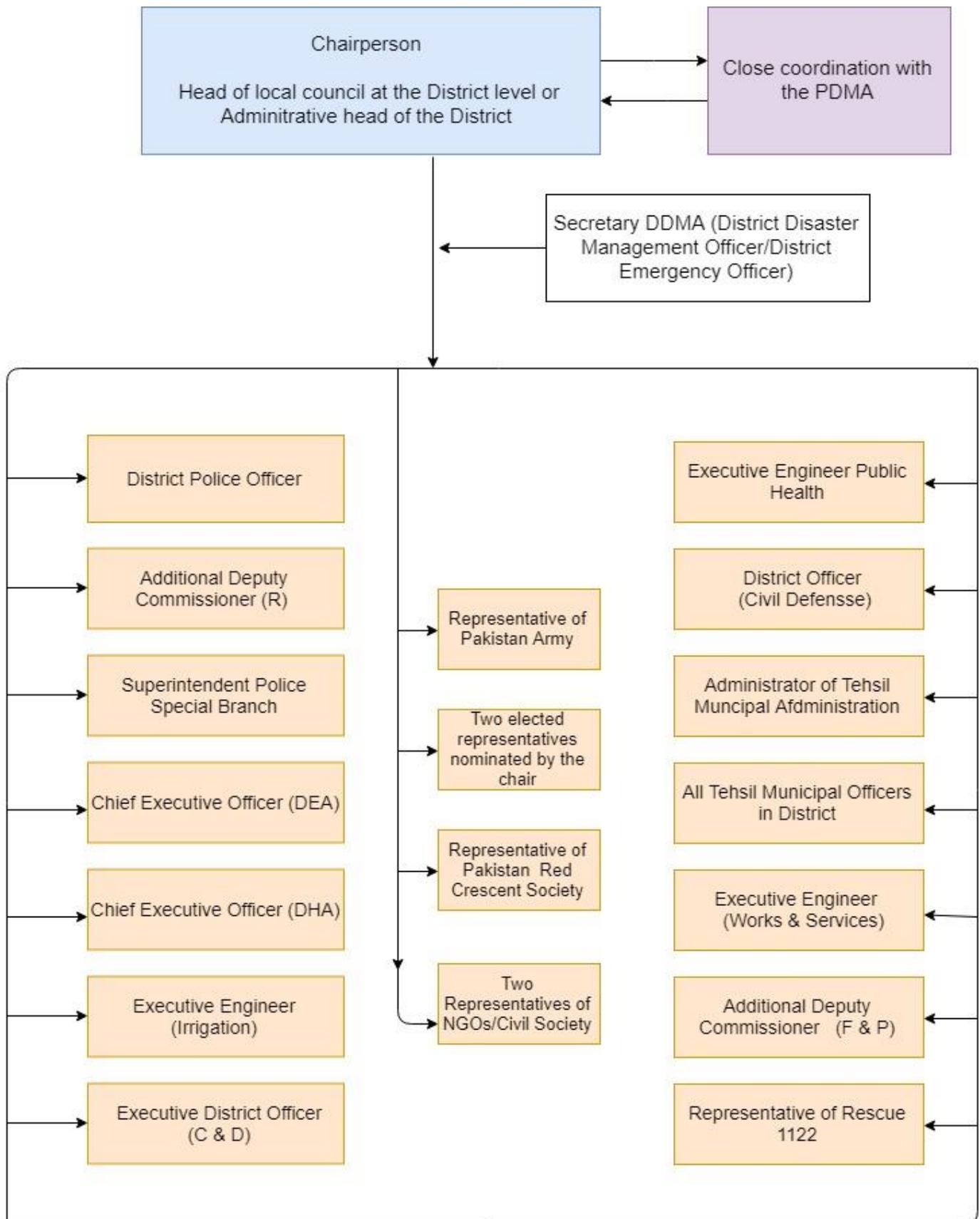
Facility Type	Capacity	Location with GPS Coordinates	Facility Type	Capacity	Location with GPS Coordinates
		X: Y:			X: Y:
		X: Y:			X: Y:

District baseline/reference map



COORDINATION MECHANISM

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



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

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

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

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

District Plan:

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

Additional Powers of District Authority:

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

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

Revenue Department (Functions and Responsibilities)

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

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

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

Checklist for Revenue Department:

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

Tehsil / Town Municipal Committee

- Tehsil / Town Municipal Committee plays an important role of providing municipal services in the district including clean drinking water, sanitation facilities, maintenance of parks and removal of encroachment etc.
- Tehsil / Town Municipal Committee will provide assistance to the District Government for setting up and management of relief camps/ operations.
- TMAs are responsible for provision & restoration of water and sanitation facilities in their municipalities besides disposal of waste or rain water/sewerage.
- TMAs are equipped with trucks, water bowsers, and tractors, dewatering sets, bulldozers, loaders and dump trucks. All of these equipment are utilized to restore proper sanitary facilities, ensure the delivery of clean water and remove debris or excess water.
- TMAs sanitary workers can be employed for cleaning relief camps, or other such areas which has been affected by any disaster.

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

District Disaster Management Authority (DDMA)

- DDMA's are created under the NDM Act 2010 under Chapter IV Section 18 and the law defines their composition and also outlines their functions, duties and powers.
- District Disaster Management Authorities are the first line of defense and the implementing arm of the government policy and plans. Within the district there are three to four key players/departments that have to put up a joint and coordinated effort in order to fight with and handle any disaster under the leadership and coordination of the DCO. The office of the DCO fully supported by the DPO and line departments such as Health, Agriculture, Livestock, Civil Defense, 1122, TMAs and the Revenue Department form the main disaster management team within any given district. This plan is an effort to highlight their sets of responsibilities followed by the role of provincial departments.
- All district administrations had prepared a detailed contingency plan to face any disaster or hazard specially floods which until recently have become an annual affair for some districts.
- The district administration will divide the area as per district division with the Assistant Commissioner as in charge of his her tehsil. All disaster related activities in a said tehsil will be coordinated through the concerned AC and the TMAs.
- On receipt of a flood warning, immediate warning will be conveyed to all the concerned officers. Immediate action will be taken in each sector / sub sector for evacuation of the population from risk prone areas to safer places or to Relief Camps. An Assistant Commissioner will ensure that announcements are made through loudspeakers of the mosques utilizing the services of the Revenue department. Each Patwari will inform the Numbardar, Headmaster of the School, Imam Masjid and councilors to make announcements etc.
- The tactical operations would be headed by the Additional District Collector (ADC). The ADC would be responsible for coordinating and supervising the disaster control and relief measures in the district.
- Provincial government had notified the following composition of DDMA's for whole of the province:
 - i. **Deputy Commissioner (Chairperson)**
 - ii. District Police Officer
 - iii. Additional Deputy Commissioner (R)
 - iv. Two Elected Representatives to be nominated by the Chair
 - v. Representative of Pak Army
 - vi. Two Representatives of NGOs/Civil Society to be nominated by the Chair
 - vii. District Officer (Coordination)
 - viii. ADC (F&P)

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

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

Role of Rescue 1122 in districts during disaster

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

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)

For any emergency Disaster Emergency Control Room is a permanently operative section of District Government. It is located in District Complex Layyah. This office is well connected with functionaries by multiple communication mediums including Telephone, Wireless and Internet service. This office is responsible for reporting the updated situation to the District Government and Provincial Control Room.

The Actions are initiated to pass information to functionaries through the same office.

Checklist for Control Room:

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

Checklist for Relief Camp Incharge:

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

Role of Health Department

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

Outreach and Community Based Activities, which focus on immunization, sanitation, malaria control, maternal and child health, and family planning. Primary care facilities include BHUs, RHCs. THQs and DHQs provide inpatient and outpatient care. Tertiary care hospitals located in the major cities for more specialized care.

In case of any disaster or calamity the health department will ensure that the following measures are in place;

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

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

Civil-Military Coordination Mechanism

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

Volunteer Network

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

DDMA & 1122 along with civil defense Layyah for operating a network in District Layyah. Village Disaster Management Committees (VDMC) comprise upon 15 members belonging to a village and neighboring dwellings. VDMCs have been trained for Emergency response through a series of trainings, and, have been provided with Emergency Response Kits, comprising upon necessary items for early response to a flood disaster. VDMC are member of Union Council Disaster Management Committees (UDMC) in -- Union Councils. Which are also member of District Disaster Forum Layyah. Overall number of volunteers is 1030 Each of the members have access to Early Warning System, have been trained for Emergency response & Rescue, and have participated in Hazard Identification exercises. Each VDMC and UDMC have prepared their own Disaster management Plan and Evacuation Plan in case of a (flood) emergency including a Disaster Risk Reduction Plan. District Disaster Forum Layyah (Network) remains available to DDMA Layyah during emergency.

RISK ANALYSIS

1. Potential hazards of the district

Hazards	Likelihood (Score 1-5)	Impact (Score 1-5)	Risk
Floods	4	5	20
Urban Flooding			
Flash Floods			
Hill Torrent			
Glacial Lake Outburst Flood (GLOF)			
Landslide			
Tornado			
Earthquake	2	2	4
Drought	3	3	9
Epidemic	4	4	15
Fire Incidents	3	3	9
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	2	3	6
Environmental Hazards (industrial accidents, severe pollution etc.)	3	3	9

Risk = Impact x Likelihood

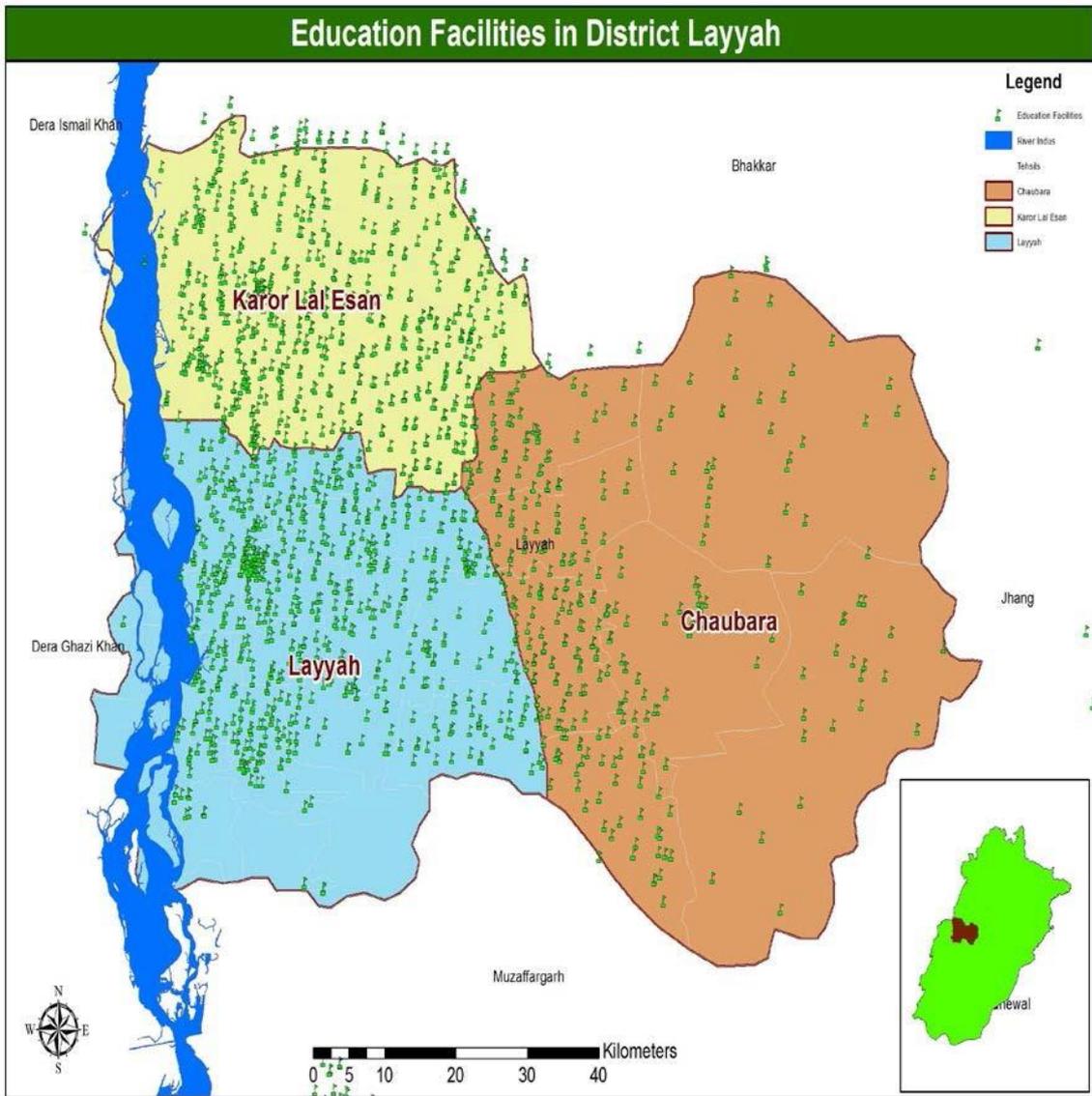
Low : 1-7
 Medium : 8-14
 High : 15-25

2. Hazards

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

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

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



Source: District Govt Layyah

3. Response & Operational Capacity

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

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

4. Strategic Reserves

Items	Available	Functional	Non-Functional	Extra Demand
Boats	30	30	0	5
OBM	30	30	0	5
De-watering sets	12	11	1	13
Navigators	0	0	0	10
GIS devices	0	0	0	5
Lifejackets	644	644	0	100
Life Ring	64	64	0	36
Lifelines	02	02	0	50
Scuba diving suit with complete accessories	2	2	0	2
First Aid Kits	0	0	0	50
Rescue Bag	50	0	0	50
Safety Harnesses	02	0	0	10
Ambulances	20	19	01	2
Fire Brigade	5	5	0	0
Water Tanks/ Boozers	1	1	0	0
Extendable Ladders	3	3	0	3
Hydraulic Cutter	0	0	0	1
Sonar Rader	0	0	0	5
Jumping Sheet	0	0	0	5
Dumpers	0	0	0	1
Excavators	0	0	0	1
Cranes	0	0	0	1
Bulldozer	0	0	0	0
Boat Carrier/Trolleys	3	3	0	3
Pickups/Jeeps/4x4 vehicles/Mini Trucks	1	0	0	1
Searchlight	5	5	0	30
Tent	1050	0	0	0
Mosquito Net	0	0	0	500
Plastic Mat	250	0	0	1000
Blanket	0	0	0	1000
Anyothermain relief/rescue equipment	0	0	0	0
Generator Sets	1	0	0	2
Gas-Cutters	0	0	0	1
Navigator/GPS Tracker	0	0	0	5
Floating Rope	0	0	0	30

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.)*

Logistic obstacles faced by District Govt time to time ,different sort of equipment as mentioned above is missing and request sent to concerned office ,technical man power is another bottle neck especially at the time of disaster.

MITIGATION STRATEGY

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

Hazards	Mitigate Actions	Responsible Department
Floods	<ul style="list-style-type: none"> ✓ • Construction of Protection Suppers ✓ • Awareness Raising for Disaster Risk Reduction ✓ • Emergency Response Kits at Village Level 	<ul style="list-style-type: none"> ✓ Irrigation Dep. ✓ Revenue Department ✓ DDMA/Recue 1122/ ✓ Civil Society ✓ Pakistan Army
Urban Flooding		
Flash Floods		
Hill Torrent		
Glacial Lake Outburst Flood (GLOF)		
Landslide		

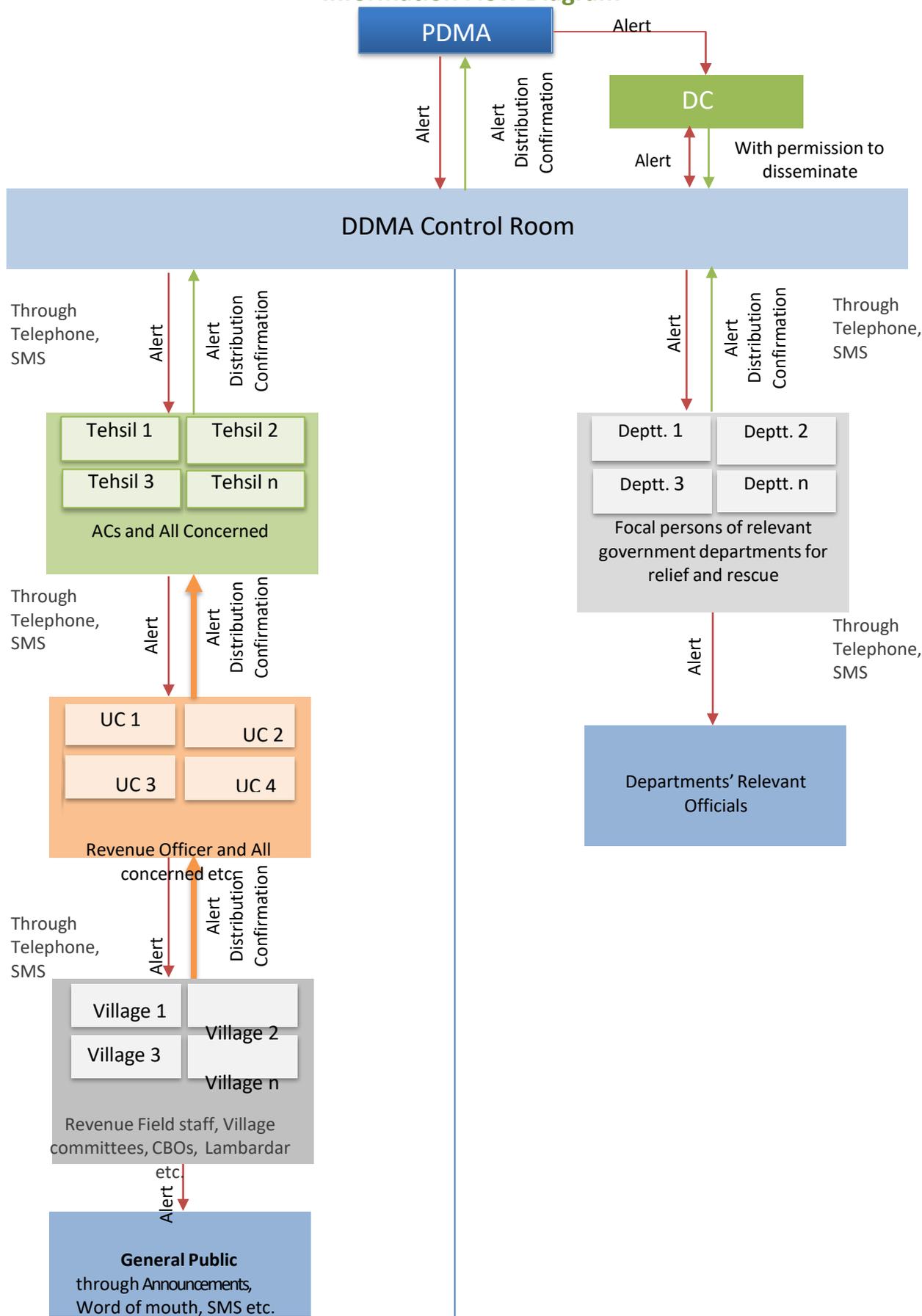
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Hazards	Mitigate Actions	Responsible Department
Tornado		
Earthquake	reprography Use of Building code	Building Department TMA Works Department
Drought	<ul style="list-style-type: none"> • Tree Plantation • Drip & Sprinkler Irrigation system Protection Walls 	Forest Department/civil society organizations Water Management/forest department
Epidemic	<ul style="list-style-type: none"> • Preventive Actions • Medical Treatment of patients • Pre vaccination 	Health/TMA/District Government Health
Fire Incidents	Forestry ,mock exercise, trainings, equipment ,	1122,fire brigade, civil defense
Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash)	<ul style="list-style-type: none"> • First aid and Rescue • Infrastructure maintenance 	Rescue 1122/Highway Police/Traffic Police Highways and District Government
Environmental Hazards (industrial accidents, severe pollution etc.)	<ul style="list-style-type: none"> • Awareness Raising/plantation/nurseries alternate energy • Inspection & Correction 	Environment department

2

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 at least 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, TMA 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.

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

Through SMS, Announcement, Patwaris and policemen etc... the information desalinated from District Govt to Concerned authorities of revenue department and the information desalinated to local Govt representatives. Then information pass on to UDMC (union council disaster management committee in which five members are especially trained on EW from each UC of the district and then Doaba Foundation Layyah a national NGO 's GIS computerized Early Warning & Planning model along with SMS system further desalinate the information.

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.*

The action to be taken for immediate response depends upon the information received. In case of a disaster emerging slowly, followed by Early Warning the arrangement are made accordingly. In case of abrupt Disaster, Rescue 1122 and other line department are taken on board by DDMA. DCO will ask the Pakistan army when the situation is sever in regard with disaster.

Flood Forecasting and Early Warning System

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

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

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

DISASTER PREVENTION CONTROL CENTRE (DPCC)

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

RESCUE STRATEGY

The flood control measures described in this plan shall be put into effect on receipt of Pre-Alert Warning Phase. The entire administrative set up i.e. Machinery, Equipment, and staff of the District Administration shall be immediately mobilized along banks of River Sindh

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*

Humanitarian Assistance is extremely helpful in coping up disasters. Trained Volunteers of Rescue 1122 and other networks such as District Disaster Forum are in contact for deployment. However untrained mobs are avoided to access the disaster scene.

The data is collected by committee formed by District Coordination officer, committee consist of revenue representatives, numberdars, local representatives

On the collected data the need will be priorities.

DDMA, DDMC and sub committees, civil society, Pak army and local volunteers provide the assistance to affectees from early warning, search and rescue, cooked and uncooked food.

Sphere standards are used as per previous practice for camping and managing

There is enough capacity as for as District Govt is concerned at least 150000 person will provide assistance.

The District Govt is very keen for the protection especially Govt gender based protection is on the first in agenda, especially keen for children and person with disabilities.

ANNEX I: IDENTIFIED SITES FOR DISPLACED PERSONS

S#	Location	No. of persons which can be accommodate	GPS Coordinates	S#	Location	No. of persons which can be accommodated	GPS Coordinates
1	Govt. Girls Islamia High School, Layyah	1236	X: 709366838 Y:309551935	11	Govt. Girls High School, Kotla Haji Shah	1290	X: 709158466 Y:310079284
2	Govt. Boys Model High School, Layyah	1345	X: 709389997 Y:309561978	12	Govt. Boys High School,	1270	X: 708952968 Y:311476343
3	Govt. Girls High School, TDA Colony, Layyah	1265	X: 709575559 Y:309648035	13	Govt. Girls High School ,Paharpur	1340	X: 709455027 Y:306980125
4	Govt. Girls Model High School Sadar Bazar, Layyah	1323	X: 709393099 Y:309648081	14	Govt. Boys High School ,Paharpur	1300	X: 709449551 Y:306976388
5	Govt. Boys M.C. High School, Layyah	1355	X: 709418582 Y:309650314	15	Govt. Boys High School Bagh Wala	1260	X: 709747130 Y:311664827
6	Govt. Girls Degree College Kot Sultan	2700	X: 709571972 Y:309744160	16	Govt Boys Degree College, Karor	2800	X: 709611546 Y:312084445
7	Govt. Boys College, Kot Sultan	1300	X: 709312765 Y:307721955	17	Govt. Boys High School No.1, Karor	1270	X: 709500393 Y:312273280
8	Govt. Boys High School, Kot Sultan	1380	X: 709314732 Y:307710559	18	Govt. Girls Degree College, Karor	2900	X: 709642630 Y:312196963
9	Govt. Girls High School Canal Colony, Layyah	1300	X: 709313284 Y:307706070	19	Govt. High School, Railway Road, Karor	1350	X: 709552485 Y:312208930

10	Govt. Boys Degree College, Layyah	2850	X: 709571972 Y:309744160	20	Govt. Girls High School, Karor	1280	X: 709490839 Y:312270710
Note: More camps will be established according to intensity of flood and population affected.							

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

Hazards	Tehsils	UCs	Names of Revenue Estates	Names of Villages
Floods	Layyah, Karor	Wara Sehran, baseera,sahu wala, basti shadoo khan,kotla Haji Shah,Lohanch Nashiab,Jakhar, Sumra Nashiab,Bakhari Ahmad Khan,bait wasawa shumali	Nangi Lohanch Katcha Nangi Lohanch Pacca. Dullo Nashaib Lohanch Nashaib Saidu Nashaib Saidu Thal Samitia Nashaib Kotla Qazi Nashaib. Kotla Qazi Thal Sehmal Nashaib Mirani Katcha . Mirani Pacca . Samtia Thal Kotla Haji Shah Thal Thind Kalan Nasheb .Thind Khurd Nasheb Kotla Haji Shah Nasheb Thoori, Sumra Nasheb Katcha Sumra Nasheb Pucca, Sumra Nasheb Shumali Pucca Sumra Nasheb Shumali Katcha .Basti Shadu Khan .Noshera Nasheb .Bhund, Wara Gashkori Nasheb .Jhock Hassan Khan .Nooray Wala Pucca .Nooray Wala Katcha .Noshera Thal Jandi .Ilyani	

			.Aulakh Nasheb .Do-Charkha Nasheb .Shah Pur Nasheb .Shah Pur Thal .Khokhar Isra Nasheb Khokhar Isra Thal .Sahu Wala Katcha Sahu Wala Pucca Sanjh Isra Shahani .Baseera .Laskani wala .Sergani Nasheb .Mouchi Wala Pucca .Mouchi Wala Katcha .Katchi Bahar Shah .Shenh Wala .Bait Bakhshinda .Bait Moosan Shah .Dhappi Makori .Rakhwan .Din- Pur .Mangoori .Wadhay Wali .Wara Seharan .Dad Shah Faqir Wala .Dad Shah Jandan Wala .Khai .Wairer Thal .Wanjhera Nasheb .Bhai Sadhu Ram Nasheb .Soya Nasheb .Jhorer Nasheb .Jhorer Thal Jandi .Khuni Kalru Nasheb .Khuni Kalru Thal .Vehni Wall Nasheb .Pahar Pur Nasheb .Bait Wasawa Khan	
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			Wala .Bait Wasawa Shumali .Nourasi .Khokhar Wala Katcha .Bakhra .Shah Wala .Baluch Khan .Bait Gadi .Bait Balu .Bait Gujji .Zour .Bait Dabli .Bait Kalru .Ghallu Arwal .Sekhani Wala .Bait Wasawa Kalru .Wairer Nasheb .Bait Diwan .Jhakar Katcha .Jahkar Pucca .Ghajra .Khokhar Wala pucca .Rakh Khohkar Wala .Sarishtha Nasheb .Jaisel Nasheb .Kharal Azim Nasheb .Khwass Khalil Nasheb .Gut Nasheb .Kunnel Nasheb	
Urban Flooding				
Flash Floods				
Hill Torrent				

Tornado				
Earthquake	Layyah, Karor,Choubara	Any where	Any Where	Any Where
Drought	Choubara , Layyah	nawankot,kharye wala,jamal chapri,rafiq abad,172/TDA,Sher garh,Aulakh Thal kalan	1.Chak No.170/TDA 2.Chak No.170- A/TDA 3.Chak No.171/TDA 4.Chak No.172/TDA 5.Chak No.173/TDA 6.Chak No.173- A/TDA 7.Chak No.174/TDA 8.Amir Kalasra Sherqi 9.Amir Kalasra Gherbi 10.Jorer Thal Kalan 11..Pannah Kharal Sherqi 12.Pannah Kharal Gherbi 13.Sharif Arain 14.Peer Jaggi Gherbi 15.Bahadar Gamoon Sohal Gherbi 16.Bahadar Gamoon Sohal Sherqi 17.Peer Jaggi Sherqi 1.Chak No.246-A/TDA 2.Chak No.298/TDA 3.Chak No.299/TDA 4.Chak No.300/TDA 5.Chak No.301/TDA 6.Chak No.302/TDA 7.Chak No.303/TDA 8.Chak No.309/TDA 9.Chak No.310/TDA 10.Chak No.311/TDA 11.Chak No.312/TDA 12.Chak No.313/TDA 13.Chak No.314/TDA	

			14.Chak No.315/TDA	
			15.Chak No.316/TDA	
			16.Chak No.320/TDA	
			17.Chak No.321/TDA	
			18.Chak No.322/TDA	
			19.Thind Kalan Chulistan	
			20.Aulakh Thal Kalan	
			21.Noshera Thal Kalan(N)	
			22.Noshera Thal Kalan(S)	
			Total	
			1.Chak No.323/TDA	
			2.Chak No.324/TDA	
			3.Chak No.325/TDA	
			4.Chak No.326/TDA	
			5.Chak No.327/TDA	
			6.Chak No.328/TDA	
			7.Chak No.328-A/TDA	
			8.Chak No.329/TDA	
			9.Chak No.330/TDA	
			10.Chak No.331/TDA	
			11.Chak No.318/TDA	
			12.Chak No.319/TDA	
			13.Chak No.342/TDA	
			14.Chak No.343/TDA	
			15.Chak No.344/TDA	
			16.Chak No.345/TDA	
			17.Chak No.346/TDA	
			18.Chak No.347/TDA	
			19.Chak No.350/TDA	
			20.Chak No.369/TDA	
			21.Chak No.370/TDA	
			22.Chak No.370- A/TDA	
			23.Chak No.370- B/TDA	
			24.Sumra Thal Kalan Shumaali	
			25.Sumra Thal Kalan Janubi	

			Total	
			1.Nawan Kot	
			Total	
			1.Rakh Khairay wala	
			2.Khairay Wala	
			3.Rakh Nawan Kot Jadid	
			4.Patti Budh	
			5.Patti Shah Wali	
			6.Rakh Sher- Garh Shumali	
			7.Rakh Sher-Garh Janubi	
			8.Rakh Drangi 9.Rakh Khan Wali	
			10.Rakh Jatial	
			11.Rakh Kilachi	
			12.Sher-Garh Baroon	
			13.Patti Kanwaira	
			Total	
			1.Chak No.371/TDA	
			2.Chak No.372/TDA	
			3.Chak No.372-A/TDA	
			4.Chak No.406/TDA	
			5.Chak No.407/TDA	
			6.Chak No.408/TDA	
			7.Chak No.444/TDA	
			8.Chak No.445/TDA	
			9.Chak No.446/TDA	
			10.Chak No.447/TDA	
			11.Chak No.448/TDA	
			12.Chak No.481/TDA	
			13.Patti Bukhari	
			14.Patti Kheiran	
			15.Patti Sami	
			16.Patti Derghai	
			17.Patti Jakhar	
			18.Patti Choubara	
			19.Patti Arain	
			20.Patti Lail	
			21.Rakh Choubara	

			Shumali 22.Rakh Choubara Janubi 23..Patti Farooq Total 1.Chak No.117/ML 2.Chak No.118/ML 3.Chak No.119/ML 4.Chak No.120/ML 5.Chak No.121/ML 6.Chak No.122/ML 7.Chak No.123/ML 8.Chak No.124/ML 9.Chak No.125/ML 10.Chak No.126/ML 11.Chak No.127/ML 12.Chak No.442/TDA 13.Chak No.450/TDA 14.Chak No.451/TDA 15.Chak No.452/TDA 16.Chak No.453/TDA 17.Chak No.454/TDA 18.Chak No.474/TDA 19.Chak No.473/TDA 20.Chak No.475/TDA 21.Chak No.477/TDA 22.Chak No.476/TDA 23.Chak No.478/TDA 24.Chak No.480/TDA 25.Chak No.428/TDA 26.Chak No.483/TDA 27.Chak No.485/TDA 28.Chak No.484/TDA 29.Chak No.486/TDA 30.Chak No.487/TDA 31.Chak No.488/TDA 32.Chak No.489/TDA 33.Chak No.490/TDA 34.Chak No.491/TDA 35.Chak No.492/TDA 36.Chak No.493/TDA	
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			37. Chak No.494/TDA	
			38. Chak No.495/TDA	
			39. Chak No.496/TDA	
			40. Chak No.497/TDA	
			41. Chak No.498/TDA	
			42. Chak No.499/TDA	
			43. Chak No.500/TDA	
			44. Chak No.501/TDA	
			45. Chak No.469/TDA	
			46. Chak No.449/TDA	
			47. Chak No.479/TDA	
			Total	
			1. Chak No.347-A/TDA	
			2. Chak No.348/TDA	
			3. Chak No.349/TDA	
			4. Chak No.351/TDA	
			5. Chak No.363/TDA	
			6. Chak No.364/TDA	
			7. Chak No.365/TDA	
			8. Chak No.366/TDA	
			9. Chak No.367/TDA	
			10. Chak No.368/TDA	
			11. Chak No.369/TDA	
			12. Chak No.374/TDA	
			13. Chak No.375/TDA	
			14. Chak No.376/TDA	
			15. Chak No.373/TDA	
			16. Chak No.377/TDA	
			17. Chak No.378/TDA	
			18. Chak No.379/TDA	
			19. Chak No.380/TDA	
			20. Chak No.402/TDA	
			21. Chak No.403/TDA	
			22. Chak No.404/TDA	
			23. Chak No.405/TDA	
			24. Chak No.409/TDA	
			25. Chak No.410/TDA	
			26. Chak No.411/TDA	
			27. Chak No.412/TDA	
			28. Chak No.413/TDA	
			29. Chak No.439/TDA	

			30.Chak No.440/TDA 31.Chak No.441/TDA 32.Chak No.443/TDA	
Epidemic	Layyah,Karor, Choubara	anywhere In District	Any Where In District	Any Where In District
Environmental Hazards (industrial accidents, severe pollution etc.)	Layyah,Karor, Choubara	Especially Layyah City,Karor City	Especially Layyah City,Karor City	Especially Layyah City,Karor City

ANNEX III:

LIST OF HEALTH FACILITIES AND THEIR VULNERABILITY TO HAZARDS

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
1	BHU 120/TDA	X: 314531 Y:712332	PHC	Dr Anam Maqbool 0304-7657308	No Threat Hazard Vulnerability Floods, Earthquake
2	BHU 136/TDA	X: 305815 Y:710346	PHC	Nasir Mahmood 0306-8663566	No Threat Hazard Vulnerability Floods, Earthquake
3	RHC 161-A/TDA	X: 305319 Y:111178	PHC	Dr Youns Kalya 0300-7313204	No Threat Hazard Vulnerability Floods, Earthquake
4	BHU Bakhary Ahmad Khan	X: 312037 Y:705720	PHC	Dr Qurat Ul Ain 0333-8933058	Flooded Area , water enter into the Building
5	BHU Jakhar Pacca	X: 313229 Y:705838	PHC	Dr M Khalid Iqbal 0333-6005500	No Threat Hazard Vulnerability Floods, Earthquake
6	BHU 151/TDA	X: 305348 Y:710063	PHC	Dr Samina Jabeen 0301-6967609	No Threat Hazard Vulnerability Floods, Earthquake
7	BHU Bait Wasawa Shumali	X: 316588 Y:705211	PHC	Dr. Sammar Kaenat0316-6004781	Flooded Area , water enter into the Building
8	BHU 157/TDA	X: 305312 Y:711141	PHC	Dr. Muhammad Safdar Nazir 0303-8664692	No Threat Hazard Vulnerability Floods, Earthquake
9	BHU 339/TDA	X: 305938 Y:711279	PHC	Sajida Perveen HT034571775857	No Threat Hazard Vulnerability Floods, Earthquake
10	BHU Sumra Nasheb	X: 310779 Y:705657	PHC	Dr. Muhammad Ahmad 0336-7200762	Flooded Area , water enter into the Building
11	BHU Sami Pur Bhagal	X: 305755 Y:714560	PHC	Dr Sumara Bibi 0302-6970182	No Threat Hazard Vulnerability Floods, Earthquake
12	BHU 124/TDA	X: 311423 Y:710743	PHC	Dr Mubashir Naqvi 0333-6201445	No Threat Hazard Vulnerability Floods, Earthquake
13	RHC Ladhana	X: 305130 Y:714473	PHC	Dr Wasim Qadir 0304-7311212	No Threat Hazard Vulnerability Floods, Earthquake
14	BHU Lohanch	X: 305928	PHC	Dr Faryal Zafar	Flooded Area , water enter into the

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
	Nasheb	Y:705453		0334-6167024	Building
15	BHU Shado Khan	X: 312216 Y:705244	PHC	Dr. Wijahat Ali0332-7070668	Flooded Area , water enter into the Building
16	BHU 172/TDA	X: 305033 Y:713177	PHC	Azhar Karim HT0300-8762988	No Threat Hazard Vulnerability Floods, Earthquake
17	BHU 218/TDA	X: 311711 Y:711156	PHC	Dr M Abbas 0333-4436836	No Threat Hazard Vulnerability Floods, Earthquake
18	BHU 242-B/TDA	X: 319460 Y:701690	PHC	Dr. Sarfaraz Ahmad 0332-6467707	No Threat Hazard Vulnerability Floods, Earthquake
19	BHU 306/TDA	X: 310995 Y:712115	PHC	Dr. Ali Raza 0315-6016331	No Threat Hazard Vulnerability Floods, Earthquake
20	BHU 75-A/TDA	X: 311857 Y:711030	PHC	Dr Muhammad Ashraf 0302-7428871	No Threat Hazard Vulnerability Floods, Earthquake
21	BHU 90-A/TDA	X: 311832 Y:715337	PHC	Mohammad Arshad HT 0342-7223098	No Threat Hazard Vulnerability Floods, Earthquake
22	BHU 90/ML	X: 311844 Y:714560	PHC	Muhammad Asim Iqbal 0303-3611536	No Threat Hazard Vulnerability Floods, Earthquake
23	RHC 110/TDA	X: 314466 Y:713202	PHC	Dr Amma Jamal 0333-7861301	No Threat Hazard Vulnerability Floods, Earthquake
24	BHU Din Pur	X: 305550 Y:705250	PHC	Dr GHULAM ABBAS 0345-731438	Flooded Area , water enter into the Building
25	BHU Garay Wala	X: 319545 Y:705816	PHC	Dr. Qaiser Abbas 0304-5301682	poor Building
26	BHU Jharkil	X: 311957 Y:710133	PHC	Dr. Muhammad Raof 0342-6396569	Flooded Area , water enter into the Building
27	BHU Jhoke Jaskani	X: 311323 Y:705406	PHC	Dr. Asif Shehzad 0304-6318580	Flooded Area , water enter into the Building
28	BHU Kutani	X: 318446	PHC	Dr. Syed Safiullah	Flooded Area , water enter into the

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
	Wala	Y:705146		0346-4986120	Building
29	BHU Laskani Wala	X: 311100 Y:705241	PHC	Dr. Muhammad Ali 0307-3806236	Flooded Area , water enter into the Building
30	BHU Marhan Wali	X: 311853 Y:705657	PHC	Dr. Nadeem Ahmad 0332-6042036	Flooded Area , water enter into the Building
31	BHU Saho Wala	X: 316557 Y:705359	PHC	Dr. Nayyar Ud Din 0345-8115879	Flooded Area , water enter into the Building
32	BHU Shah Pur	X: 316176 Y:705751	PHC	Muhammad Shoaib 0301-2514342	Flooded Area , water enter into the Building
33	BHU Wara Sehran	X: 311551 Y:705046	PHC	Dr Amir Hassan 0307- 6769977	Flooded Area , water enter into the Building
34	BHU Khairy Wala	X: 316702 Y:713593	PHC	Dr. Sadam Rasheed 0303-8998656	No Threat Hazard
35	BHU Nawan Kot	X: 316601 Y:713392	PHC	Dr. Noman Ikram 0334- 6705424	No Threat Hazard
36	BHU 300/TDA	X: 316402 Y:713299	PHC	Dr. Muhammad Sibtain 0335-3132570	No Threat Hazard Vulnerability Floods, Earthquake
37	BHU 325/TDA	X: 326803 Y:723595	PHC	Dr. Muhammad Irfan 0333-6463604	No Threat Hazard Vulnerability Floods, Earthquake
38	BHU 366/TDA	X: 303065 Y:705032	PHC	DR MUHAMMAD TALHA 0313-2688684	No Threat Hazard Vulnerability Floods, Earthquake
39	BHU Sher Garh	X: 303256 Y:78925	PHC	Dr Junaid Ur Rehman 0331- 7045787	No Threat Hazard Vulnerability Floods, Earthquake
40	GRD 170/TDA Peer Jagi	X: 304131 Y:710111	PHC	Ghulam Asghar 0342- 8819209	No Threat Hazard Vulnerability Floods, Earthquake
41	GRD 126/TDA	X: 311435 Y:710279	PHC	Muhammad Ramzan 0306-6766964	No Threat Hazard Vulnerability Floods, Earthquake
42	GRD 150-A/TDA	X: 305426 Y:705953	PHC	Dr. Sahrish Jafir 0334-6938385	No Threat Hazard Vulnerability Floods, Earthquake
43	GRD 170-A/TDA	X: 304233 Y:710215	PHC	Mujahid Hussain Dispenser 0306-8763216	Poor Building

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
44	GRD 86/ML	X: 312036 Y:719409	PHC	Shafqat Ali , Dispensor 0345-7634862	Poor Building
45	GRD 224/TDA	X: 312026 Y:711638	PHC	Khalid Mehmood Dispenser 0302-6762123	Poor Building
46	GRD 84/TDA	X: 311457 Y:705851	PHC	Muhammad Adnan Dispenser0304- 0759711	Poor Building
47	GRD 98/ML	X: 311513 Y:715176	PHC	Muhammad Ramzan Dispensor 0306- 6766964	Poor Building
48	GRD 240/TDA	X: 311041 Y:711630	PHC	Dr.Muhammad Adnan Akbar 0300-6763803	Poor Building
49	GRD 239- A/TDA	X: 311252 Y:711437	PHC	Dr. Shaheen 0300- 6764018	No Threat Hazard Vulnerability Floods, Earthquake
50	GRD 113/ML	X: 311237 Y:713437	PHC	Dr Muhammad Arshad 0301-7840128	Poor Building
51	GRD 95/ML	X: 311741 Y:715312	PHC	Dr. Muhammad Nadeem 0301-8914173	No Threat Hazard Vulnerability Floods, Earthquake
52	GRD Tiba Dastian Wali	X: 311218 Y:705627	PHC	Dr Syeda Mehak Zahra 0309-9895614	No Threat Hazard Vulnerability Floods, Earthquake
53	GRD Buchi Wala	X: 311223 Y:705752	PHC	Dr. Nasarullah 0333-4424584	No Threat Hazard Vulnerability Floods, Earthquake
54	GRD Tibi Khurd	X: 311848 Y:705850	PHC	Dr. M Zubair Qamar 0333-6202385	No Threat Hazard Vulnerability Floods, Earthquake
55	GRD 84/ML	X: 311542 Y:705729	PHC	Dr. Ubaid Ur Rehman 0302-7390307	Poor Building
56	GRD Chah Yasin Wala	X: 316925 Y:715698	PHC	Salman Ahmad 0304- 2556662	Poor Building
57	GRD 377/TDA	X: 315645 Y:715899	PHC	Arshad Hussain 0345- 7208637	Poor Building

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary, Secondary, Tertiary)	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
58	GRD 370/TDA	X: 316196 Y:713187	PHC	Riaz Munawar Dispensor 0345-7621433	Poor Building
59	GRD Sumra Thal Kalan	X: 316474 Y:713085	PHC	Asghar Ali Dispensor 0343-6406449	Poor Building
60	GRD 329/TDA	X: 316249 Y:712954	PHC	Abdul Razaq Dispenser 0300-6766136	Poor Building
61	GRD 410/TDA	X: 315360 Y:713115	PHC	Asghar Ali Shahzad Dispenser 0343-6406449	No Threat Hazard Vulnerability Floods, Earthquake
62	GRD Bait Wasawa Kalru	X: 305740 Y:705660	PHC	Dr. Shahzad Alim Gir 0331-6859426	No Threat Hazard Vulnerability Floods, Earthquake
63	RHC Jaman Shah	X: 305142 Y:705616	PHC	Dr. Iffat Ullah 0333-3784243	No Threat Hazard Vulnerability Floods, Earthquake
64	RHC Pahar Pur	X: 304122 Y:705751	PHC	Dr Muhammad Nasir Rohani 0301-685766	No Threat Hazard Vulnerability Floods, Earthquake
65	RHC Merhan	X: 305704 Y:711351	PHC	Dr Latief	No Threat Hazard Vulnerability Floods, Earthquake
66	THQ Hospital	X: 305357 Y:713110	SHC	MS Dr Yousaf 0302-8767339	No Threat Hazard Vulnerability Floods, Earthquake
67	THQ Hospital Chowk Azam	X: 305737 Y:711253	SHC	MS Dr. Khadim Qureshi 0304-0925272	No Threat Hazard Vulnerability Floods, Earthquake
68	THQ Hospital Kot Sultan	X: 304635 Y:705654	SHC	MS Dr. Shahid Riaz 0333-6113376	No Threat Hazard Vulnerability Floods, Earthquake
69	THQ Hospital Karor	X: 311310 Y:705745	SHC	MS Dr. Aslam 0304-0925273	No Threat Hazard Vulnerability Floods, Earthquake
70	THQ Fateh Pur	X: 311053 Y:711322	SHC	MS Dr. Muhammad Khalid 0345-8884400	No Threat Hazard Vulnerability Floods, Earthquake
71	THQ Thal Hospital (Mian Nawaz	X: 305749 Y:705552	SHC	MS Dr. Ghulam Moheyudin 0300-3512223	No Threat Hazard Vulnerability Floods, Earthquake

S#	Name and Location	GPS Coordinates	Health Facility Type (Primary,	Name and Contact No of Focal Person	Hazard Vulnerability (Floods, Earthquake etc.)
	Shareef Hospital Layyah)				
72	DHQ Hospital Layyah	X: 305737 Y:705654	SHC	Dr. Niaz Ahmed 0333-2694669	No Threat Hazard Vulnerability Floods, Earthquake
73	RHC 161-A/TDA	X: 305319 Y:111178	PHC	Dr Youns Kalya 0300-7313204	No Threat Hazard Vulnerability Floods, Earthquake
74	GRD 426/TDA	X: 305825 Y:705789	PHC	Dr M Jawad Saeed 0300-6764378	No Threat Hazard Vulnerability Floods, Earthquake
75	GRD 105/ML	X: 305265 Y:703691	PHC	Javed Asif 0305-6828137	No Threat Hazard Vulnerability Floods, Earthquake
76	GRD Panah Kharel	X: 301456 Y:701263	PHC	Dr. Muhammad Tariq 3336092868	No Threat Hazard Vulnerability Floods, Earthquake
77					
78					
79					
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81					
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86					

ANNEX IV:

LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS

S#	Name	Institute type (School, College)	GPS Coordinates	Enrolment	Incharge Name	Contact Number
1	GHS Anar Wala	School	X: Y:	553	Faiz Bakhsh (Head Master)	0303-7842870
2	GMS Merani Qadeem	School	X: Y:	296	Javaid Ahmad SST	0300-8636258
3	GHS Wara Gishkori	School	X: Y:	320	Ghulam Qasim SST	0307-6761947
4	GMS Nehrey Walla	School	X: Y:	308	Zafar Iqbal SST	0306-5151559
5	GMS Ijaz Wala	School	X: Y:	131	Zafar Iqbal SST	0300-8765518
6	GMS Bait Gujji	School	X: Y:	144	Ghulam Yasin SST	0306-7726564
7	GMS Dera Manzoor Shah	School	X: Y:	174	Waseem Akram SST	0301-6557527
8	GMS Jakhar	School	X: Y:	145	Shiekh Iqbal	0308-7724208
9	GMS Khirani	School	X: Y:	208	Muhammad Waqas SST	0307-6507955
10	GMS Khan Wala	School	X: Y:	165	Shahid Mehmood	0307-8664143
11	GGMS SERAI	School	X: Y:	74	Sumaira Bashir	0302-6218802
12	GGMS Paki Mirani	School	X: Y:	255	Aqeela Sharif SST	0300-6897901

13	GGMS Thind Klan	School		275	Tallat Jabeen SST	0334-7605794
14	GGCMS Basti Joiya	School	X: Y:	151	Rashida Naureen	0302-6639317
15	GGMS Koro Magsi Wala	School	X: Y:	323	Kaloom Akhtar SST	0300-8901830
16	GGMS SHADOO KHAN	School	X: Y:	414	Zahida Nasreen SST	0331-6881676
17	GPS Zafar Wala		X: Y:	154	SHAMLA KHAN	0324-7446728
18	GPS Basti Tooka			79	Nadeem Akram	0347-6113045
19	GPS Kuhawar Wala			70	Sajad Hussain	0305-6762036
20	GPS Kalhoray Wala			240	GHAZANFAR ABBAS	0333-9946105
21	GPS Jhoke Hassan Khan			50	Mazhar Abbas SST	0334-6973579
22	GPS Sikhani Wala (121/TDA)			107	Muhammad Amjad	0300-2249698
23	GPS Mustafa Khan wala			148	Niaz Ahmad Khan, Asia Gull	0307-7218849 0313-6762022
24	GPS Nizam Wala			84	Naveed Ali	0307-6539885
25	GPS Kouro Magasi Wala			235	Ishaq SST	0306-1946959
26	GPS Kunal Nashib			101	Mojeeb Alam	0305-2276075
27	GPS Sheinh Mar			158	Farhan Abbas	0307-7785035
28	GPS Rangeelay Wala			91	Faqeer Muhammad	0303-2032313

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	Layyah Sugar Mills Layyah	Karor Road Layyah	X: 70947459 Y:30989171	Nil	Maqsood Bhatti, GM, 0606411981	Medium, (Boiler installed)	Fire
2	Khan Cotton Industries	Chowk Azam Road Layyah	X: 71021508 Y:30967399	Nil	Khalid Pervez Khan 0606450426	Low	Fire
3	Al Noor Cotton Ginning Factory	Chack No.117-A /Tda Karor Road Layyah	X: 70960645 Y:31023221	Nil	Sh. Dawood Hussain 03006764813	low	Fire
4	Anwar Cotton Industries	Pul Indus, Fatehpur Road Karor	X: 31204475 Y:71064684	Nil	Mian Shahid 03336529909	low	Fire
5	Faiz Industries Cotton Ginning Factory	Multan Road Layyah	X: 30928293 Y:70934337	Nil	Faiaz Ahmad Sh. 03006769055	low	Fire
6	Fayyaz Cotton Ginning Pressing & Oil Mills	Chowk Azam Road Layyah	X: 30967607 Y:71052950	nil	Faiaz Ahmad Sh. 0606450201	low	Fire
7	Layyah Cotton Ginning & Pressing Factory	Chaubara Road Layyah	X: 30967386 Y:71011056	nil	Ch. Ishfaq Ahmnad 03006769666	low	Fire
8	Al Noor II Cotton Gining Pressing & Oil Mills	Chack No.138/Tda Chowk Azam Road Layyah.	X: 71026097 Y:30967234	nil	Dawood Sheikh 03006764813	low	Fire
9	Samtia Cotton Factory	Hayyat Abad Samtia Tehsil Karor	X: 71021519 Y:30967204	nil	Seth Muhammad	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
	Ginning Pressing & Oil Mills	District Layyah.			Aslam 0300-6762015		
10	Pak Cotton Ginning & Oil Mills	Chak No. 134 Tda Heera Adda Chowk Azam Road Tehsil & District Layyah	X: 71064356 Y:30965960	nil	Faisal Qureshi 03457620586	low	Fire
11	Bhatti Cotton Ginning Pressing & Oil Mills	Chak No. 134 Tda Heera Adda Chowk Azam Road Tehsil & District Layyah	X: 71064356 Y:30965960	nil	Hussain 03006765620	nil	Fire
12	Al- Khawaja Cotton & Oil Mills,	Chak No. 119 /Tda Tehsil & District Layyah	X: 71026425 Y:31047939	nil	Kashif Manzoor 03006760339	nil	Fire
13	Malik Ameer Cotton Industries Ginning Pressing & Oil Mills,	3 Km Peer Jaggi Sharif Road Kot Sultan Tehsil & District Layyah	X: 70935678 Y:30766528	nil	Din Muhammad Samtia 03006762560	nil	Fire
14	Hayyat Cotton Factory Ginning Pressin & Oil Mills	Karor Bhakar Road Tehsil Karor District Layyah	X: 70984827 Y:31303554	nil	Muhammad Iqbal Samita 03006762015	nil	Fire
15	Zam Zam Cotton Factory	Swag Shreef Road Karor Layyah	X: 70982842 Y:31153408	nil	Ial Muhammad 03006675637	nil	Fire
16	Athar Maqbool cotton Factory	Bhakar Road Karor Layyah	X: 70973036 Y:31258653	nil	Athar Maqbool 03008480761	nil	Fire
17	Tofail Cotton Factory	M.M Road Chak No. 332/TDA	X: 71206251 Y:31258653	nil	Athar Maqbool 03008480761	nil	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
		Fateh Pur Layyah			/ 0606-381334		
18	Ishaq Cottoon Factory	M.M Road Chowk Azam Layyah	X: 31015496 Y:71209212	nil	Muhammad Ishaq Khan 03006769066	Low	Fire
19	Al- Haq Cotton Factory	Chowk Azam Road Layyah	X: 71010283 Y:30966976	nil	Qaiser Waraich 03006763045	Low	Fire
20	Irfan Gandas Cotton Factory	M.M Road Dhori Adda Layyah	X: 71223610 Y:30795300	nil	Elahi Bux 03017856498	Low	Fire

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	Awami Development Organization	Local	Layyah	Livelihood Development, 2. Health & Nutrition. 3. Education, 4. Disaster Management	Shahzad Gul (P)	0300-6762839
2	Aas Welfare Society	Local	Layyah	Health	Qamer Zaman (P)	0333-6763473
3	Amina Educational Welfare Society	Local	Layyah	Education,	M. Saqlain (P)	0300-8760796
4	Baloch Falah-E-Marizan	Local	Layyah	Education, Health	Aziz Ahmad (P)	0300-8765041
5	Bilal Welfare Organization	Local	Layyah	Women Education	Ashiq Hussain (P)	0344-8550745
6	Community Development Organization	Local	Layyah	Women welfare	Abdul Rahim (P)	0300-6760195
7	Human Rights Development Organization	Local	Layyah	Free Legal Aid, Advocacy,	Inayat Kashif (P)	0301-7848013
8	Millat Welfare Society	Local	Layyah	Women Welfare	Ghulam Muhammad (P)	0303-7463994
9	Participatory Welfare Services	Local	Layyah	Education Water and Sanitation Economic Empowerment Climate Change Gender equality	Hayat Siyal (P)	0300-6764890
10	Public Welfare Society	Local	Layyah	Health, women Education	Abdul Latif (P)	0306-8662523
11	Rabata Welfare Society	Local	Layyah	Education	Jamshaid Iqbal (P)	0333-6201464
12	Savail Welfare Society	Local	Layyah	Education, Health	M.Amjad (P)	0300-8767870
13	Bismillah Welfare Society	Local	Layyah	Education Women Welfare	Hamida Bagum (P)	0300-6764522
14	Layyah Welfare Society	Local	Layyah	Women Welfare	Mohsin Raza (P)	0300-6760170
15	Al-Sana welfare organization	Local	Layyah	women welfare	M. Shoaib (P)	0305-5441304
16	Society for Awareness Dev.	Local	Layyah	Health, women welfare	M. Amin (P)	0333-6202688

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.
17	Roshani Welfare Society	Local	Layyah	Women Welfare, free legal Aid	Nuzhat Yasmin (P)	0300-6762466
18	Anjuman Falah-e-Behbood-e-Marizan	Local	Layyah	Health	Mahr Iqbal Sumra (P)	0305-6761070
19	Jinnah Social Walfare Society	Local	Layyah	Women Welfare	Javed Raheem Mehmood (P)	
20	Anjman Ishate Taleem	Local	Karor	Education Vocational Training	Shahid Mehmod	0301-7954079
21	Al-Nawaz Development Organization	Local	Choubara	Awareness Legal Aid	Muhammad Younis(P)	0346-7141253
22	Friend Welfare Society	Local	Karor	Women Welfare	Muhammad Nadeem Sadiq (P)	0300-8634111
23	Human Care Organization	Local	Karor	Women Welfare / Education	Muhammad Hassan Aslam (P)	0300-4133100
24	Islami Welfare Society	Local	Karor	Education	Farkhanda Khushnood (P)	0345-7259760
25	Zindgi Welfare Society	Local	Karor	Women Welfare	Muhammad Iqbal (P)	0300-6762134
26	Galobal Development Organization	Local	Karor	Women Welfare, Microfinance , Vocational Center, Education	Anila Asif	0300-5015852
27	Jag Development Organization	Local	Choubara	Computer Center, Education Health	Muhammad Ashraf (P)	0344-4670915
28	Al-Taqwa Welfare Society	Local	Karor	Women Welfare, Financial Assistance Vocational Center, Education	Muhammad Ismail (P)	0307-6763345
29	Awami Welfare Society	Local	Karor	Literary Center Education	Syed Abid Hussain Shah (P)	0306-6760011
30	Anjman Behbod-e-Marizan	Local	Karor	Health	Dr. Razia Bano (P)	0331-6830787
31	Jinnah Welfare Society	Local	Choubara	Women Welfare	Dr. Haq Nawaz (P)	0343-0609164

ANNEX VII:

CONTACT LIST OF MAIN STAKEHOLDERS/ DEPARTMENTS

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
1	Commissioner	Dr Irshad Ahmad	064-9260467 064-2466377	064-9260016	0341-0922058
2	Regional Police Officer	Muhammad Faisal Rana	06492604771-72	064-9260473	
3	Deputy Commissioner	Azfar Ziya	0606920103-4	0606413705	0304-0920092
4	District Police Officer	Syed Ali Raza	0606920152-53	0606-920151	0309-7771969 0304-9361254
5	ADC(R)/ Focal Person for Disasters	Fiyaz Nadeem	0606920107		0315-7666770
6	ADC (G)	Ishfaq Hussain	0606-920109		0300-4896192
7	DEO Rescue 1122	Dr. Muhammad Sajjad	0606920088		03004512364
8	DO Civil Defence	M Tauqeer	0606413712		0300-8766748
9	Sytem Network Administrator	M Nasir	0606413785		0304-7112288
10	AC - Layyah	Niaz Ahmad Mughal	0606920118	0606440117	0334-7203292
11	AC - Choubara	Suleman Ahmad	0606-440118		0301-6447638
12	AC – (Cord)		0606440118		
13	AC - Karor	Amir Iftikhar	0606-810547		0334-5057232
14	CO District Council	Sabtain Bukhari	0606420528		0333-6445393
15	CO MC-Choubara	Sabtain Bukhari	0606440077		0333-6445393
16	CO MC- Karor	Malik Asif			0300-7501786
17	CO MC-Layyah	Sabtain Bukhari			0333-6445393
18	CO MC-Fateh Pur	Sabtain Bukhari	0606840129		0333-6445393
19	CO MC Chowk Azam				
20	Tehsildar – Karor	Abbas Raza Shah	0606810547		0305-7429425
21	Tehsildar – Layyah	Amir Dasti	0606920118		0306-8661661
22	Tehsildar - Choubara				

S#	Designation	Person Name	Telephone (Office)	Telephone (Residential)	Mobile
23	Chief Engr Irrigation	M Nawaz Bhatti			0300-6763112
24	CEO education	Sharafat Ali Basra	0606-920032		0303-6762498
25	XEN Building	M Saleem	0606413730		0341-2404858
26	XEN WAPDA	Bilal Ahmad	0606920296		0335-8881048
27	XEN Irrigation Kot Adu	Ameer Taimoor	066-2242926		0332-6206393
28	XEN Taunsa Barrage	Malik sarfraz Khalid	066-2242796		0300-5459697
29	XEN Irrigation Layyah	M Nawaz Bhatti	0606412435		0300-6763112
30	Deputy Director Agriculture	Mian Yaseen	0606920301		0300-6768823
31	DMO	Ishfaq Hussain	0606-920120		0300-4896192
32	District Health Authority (CEO)	Dr Ameer Abdullah	0606920055-56		0300-6767880
33	Additional Director Live Stock	Dr. Tariq Godara	0606920280		0301-4027550
34	SE Minanwali		04892030413		
35	Deputy Director Local Govt.	Malik Waseem	0606-920260		0345-0333769
36	District Forest Officer	Asad Abbas Shah			0333-9155998
37	Assistant Agriculture F&W	Ashraf Bhatti			0308-4855468
38	DO Social Welfare	Mushtaq Hussain	0606920263		0332-6454975
39	SDO Irrigation	Haseb Zafar	0606412435		0306-0108696
40	XEN Bhakkar				
41	SDO WAPDA I	Masood Khan	0606920297		0330-8081286
42	SDO WAPDA II	Umer Farooq	0606414027		0330-8081287
43	SDO Tansa Barrage		066-2242796		
44	SDO Bhakkar				
45	DSP HQ	Shahid Nadeem			0305-7700851
46	DSP Saddar	Rameez Shah Bukhari	0606413047		0300-6784804
47	DSP Karor	Rameez Shah Bukhari	0606810568		0300-6784804
48	SHO Layyah City	Rameez Shah Bukhari	0606413068		0300-6784804
49	SHO Saddar	Rameez Shah Bukhari	0606413069		0300-6784804
50	SHO Karor	Tahir Bashir	0606810504		0302-6083588
51	SHO Kot Sultan	Noor Muhammad SI	0606470006		0300-6860114

ANNEX VIII: LIST OF VOLUNTEERS

S#	Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
1	Zeeshan Ali		Layyah City 2	03006767218		24/7
2	Mohammad Ismail Thori		Kotla Haji Shah	3055274578		24/7
3	Muhammad Zaman Joni		Kotla Haji Shah	3068663965		24/7
4	Muhammad Hussain		Kotla haji Shah	3076539916		24/7
5	Kaleem Ullah		Lohanch	3028769393		24/7
6	Habib Ullah		Lohanch	3085393580		24/7
7	Ghulam Qadir		Wara Seerah	3049595756		24/7
8	Nazeer Ahmad Sehar		Sahu Wala	3076547798		24/7
9	Muntazir Mehdi		Sahu Wala	3006761679		24/7
10	Shuaib ul Hassan		Bakhari Ahmad Khan	03346953095		24/7
11	M.Hussain		Khaire Wala	03216358257		24/7
12	Syed Iftikhar Hussain		Jaman Shah	03086764075		24/7
13	Abdul waqar		Bait Wasava Shumali	03009761315		24/7
14	Iram Nazeer		Kot Sultan	03054913199		24/7
15	Mubashir Hassan	3220225023457	Baseera	3077992617		24/7
16	Rana Usman		Karor City	03047007751		24/7
17	M Rizwan	3220204086467	Karor city	03049091993		24/7
18	Ijaz Hussain	322035885253	Shahpur	03057314512		24/7
19	Ansar Abbas	3220288671235	Shahpur	03403345534		24/7
20	Atta Muhammad	3220104728533	Jamal Chapri	03457210974		24/7
21	M Shafeeq	3220104052019	Jamal Chapari	03447545602		24/7
22	Fayaz Hussain	3220374688303	Tail Indus	03349819481		24/7
23	Arif Mahmood	3220345040581	Tail Indus	03412687646		24/7
24	Taswar Abbas	3220206923401	Sahu Wala	03078481034		24/7
25	M Javed Aslam	3220211630401	98ML	03444004041		24/7
26	Arslan Ahmad	3220276999453	98ML	03038428498		24/7
27	Malik Sultan Awan	3220221054771	Noshera Thal Kalan	03078761099		24/7

S#	Volunteer Name	CNIC	Address	Contact Number and Email	Blood Group	Time Required to be on-board
28	Ghulam Mustafa	3220225023457	Baseera	03017857978		24/7
29	M Jameel	3220266476755	Fathe pur City	03077707141		24/7
30	Yasir Majeed	3220244024105	fathe pur city	030877313252		24/7

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
NA 187	Abdul Majeed Khan Niazi	MNA	0333-3433333	PP 280	Ahmad Ali Aulak	MPA	0333-8915599
				PP 281	Shahab ud din Khan	MPA	0335-5801412
NA 188	Malik Naiz Ahmad Jakkhar	MNA	0300-5234200	PP 282	M. Tahir Randhawa	MPA	0306-6763136
				PP 283	Ijaz Ahmad	MPA	0302-3553415
				PP 284	Syed Razaqat Ali Gillani	MPA (Advisor to CM)	0345-8250787

ANNEX X: LOCAL GOVERNMENT

District and Tehsil Level

S#	Designation	District/Tehsil Name	Name	Mobile Number
1	District Chairman	Layyah		
2	District Vice Chairman			
3	Tehsil Chairman	Layyah		
4	Tehsil Vice Chairman			
5	Tehsil Chairman	Karor		
6	Tehsil Vice Chairman			
7	Tehsil Chairman	Fatehpur		
8	Tehsil Vice Chairman			
9	Tehsil Chairman	Chowk Azam		
10	Tehsil Vice Chairman			
11	Tehsil Chairman	Choubara		
12	Tehsil Vice Chairman			

UC Level

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
1	Chobara	172/TDA				
2	Layyah	Pahar Pur				
3	Layyah	Bait Wasava Shumali				
4	Layyah	Bakhari Ahmad				
5	Layyah	Sonahra Wasava				
6	Layyah	Kot Sultan City 6				

7	Layyah	Kot Sultan (Rural) 7				
8	Layyah	Peer Jagi Shareef				

9	Layyah	Mirhan				
10	Chobara	393TDA				
11	Layyah	164-A/TDA				
12	Layyah	Ladhana				
13	Layyah	Jaman Shah				
14	Layyah	Shirshta Thal				
15	Layyah	Jakhar				
16	Layyah	Lohanch Nasheeb				
17	Layyah	Mandi Town				
18	Layyah	Layyah Thal Jandi				
19	Layyah	Chowk Azam (Rural)				
20	Layyah	Layyah Tahl Kalan				
21	Layyah	Tail Indus				
22	Layyah	Kotla Hajji Shah				
23	Layyah	Sumra Nashib				

24	Layyah	Basti Shadu Khan				
25	Chobara	306/TDA				
26	Layyah	110/TDA				
27	Karor	Shah Pur				

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
28	Karor	Sahoo Wala				
29	Karor	Baseera				
30	Karor	Karor Thal Jandi				
31	Karor	Rajan Shah				
32	Karor	Garay Wala				
33	Chobara	Chak No.98-ML				
34	Chobara	Chak No.112-ML				
35	Chobara	Fateh Pur (Rural)				
36	Karor	Warah Sehran				
37	Layyah	Roshan Shah				
38	Karor	Samtia				
39	Chobara	Chak No.90-ML				
40	Chobara	Chak No.93-ML				

41	Chobara	Shoukat Abad				
42	Chobara	Sher Grah				
43	Chobara	452/TDA				
44	Chobara	Rafiq Abad				

S#	Tehsil	UC	Chairman	Chairman Contact	Vice Chairman	VC Contact
45	Chobara	Jamal Chappri				
46	Chobara	Olakh Thal Kala				
47	Chobara	Nawan Kot 47				
48	Chobara	Khairy wala 48				

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: Injured Person Reporting 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.
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P5: Crop Damages

District: _____

Date: _____

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

District: _____

Date: _____

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

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

District: _____

Date: _____

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

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
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ANNEX XII:

CAMP MANAGEMENT SOPS

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

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
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	Punjnad 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
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
1	Taunsa Barrage	Right Guide Bund Upstream	15,000
2	-do-	Left Guide Bund	20,000
3	-do-	Shahwala Groyne	10,000
4	Muzaffargarh Canal Division	Muzaffargarh Flood Bund	50,000
5	-do-	Doaba Flood Bund.	5,000
6	-do-	Khangarh Flood Bund	5,000
7	-do-	Khanwah Flood Bund	5,000
8	Jampur Construction Division	Jampur Flood Bund	5,000
9	-do-	Rojhan Flood Bund	20,000
Total in feet.			1,35,000
Total in miles			25.57

LBDC(IP)			
1	Balloki Head works Division	Left Marginal Bund	15,000
2	do	Right Marginal Bund	15,000
	Total in Feet		30,000
	Total in miles		6
LAHORE ZONE			
1	FLOOD Bund Division 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	Low	Flood Limits in Lac Cs.			Exp. High
		(lac Cs)		Med:	High	Very High	
INDUS	Kalabagh	9.5	2.5	3.75	5	6.5	8
	Chashma	10	2.5	3.75	5	6.5	8
	Taunsa	10	2.5	3.75	5	6.5	8
JHELUM	Kohala	12	1	1.5	2	3	4
	Mangla	10.6	0.75	1.1	1.5	2.25	3
	Rasul	8.5	0.75	1.1	1.5	2.25	3
CHENAB	Marala	11	1	1.5	2	4	6
	Khanki	8	1	1.5	2	4	6
	Qadirabad	9	1	1.5	2	4	6
	Trimmu	6.45	1.5	2	3	4.5	6
	Punjad	7	1.5	2	3	4.5	6
RAVI	Jassar	2.75	0.5	0.75	1	1.5	2
	Ravi Syphon	4	0.4	0.65	0.9	1.35	1.8
	Shahdara	2.5	0.4	0.65	0.9	1.35	1.8
	Balloki	2.25	0.4	0.65	0.9	1.35	1.8
	Sidhnai	1.5	0.3	0.45	0.6	0.9	1.3
SUTLEJ	G.S.Wala	10 ft.	19.5	21.5	23.3	25.3	2
	Suleimanki	3.25	0.5	0.8	1.2	1.75	2.25
	Islam	3	0.5	0.8	1.2	1.75	2.25
	Mailsi Syphon	4	0.75	1.1	1.5	2.25	3

ANNEX XV: LIST OF BASIC TERMS

Acceptable risk

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

Biological hazard

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

Capacity

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

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

Capacity building

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

Climate change

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

Coping capacity

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

Disaster

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

Disaster risk management (DRM)

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

Disaster risk reduction/disaster reduction

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

Early warning

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

Emergency management

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

Forecast

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

Geological hazard

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