



**OFFICE OF THE
DEPUTY COMMISSIONER
JHELUM**

No. 1421 / Date. 19 /04/2021
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**The Director General,
Provincial Disaster Management Authority, Punjab
40-A, Lawrence Road Lahore.**

Subject: **DISTRICT DISASTER MANAGEMENT PLAN (FLOOD PLAN-2021)**

With reference to the letter No. 786-2020/183/Tech dated 23-03-2021 from
PDMA, Punjab.

Please find enclosed herewith District Disaster Management Plan-2021 of
Jhelum.


**Deputy Commissioner,
Jhelum**

C.C.

1. The Commissioner, Rawalpindi Division, Rawalpindi
2. The Director Operations, Govt. of Punjab PDMA, Lahore.
3. The Assistant Director, PDMA Lahore.



No. ²⁴⁸/DEO/21/JHE/PES
**PUNJAB EMERGENCY SERVICE
(JHELM)**
Dated, 16/04/2021

The Deputy Commissioner,
Jhelum

Subject: **DISTRICT DISASTER MANAGEMENT PLAN (FLOOD PLAN-2021)**

Kindly refer to the letter No. 786-2020/183/Tech dated 23-03-2021 from Director General, PDMA, Punjab.

Please find enclosed herewith District Disaster Management Plan-2021 of Jhelum, for your kind information and necessary action please.


(ENGR. SAEED AHMAD)
DISTRICT EMERGENCY OFFICER
JHELM

No. & Date Even:

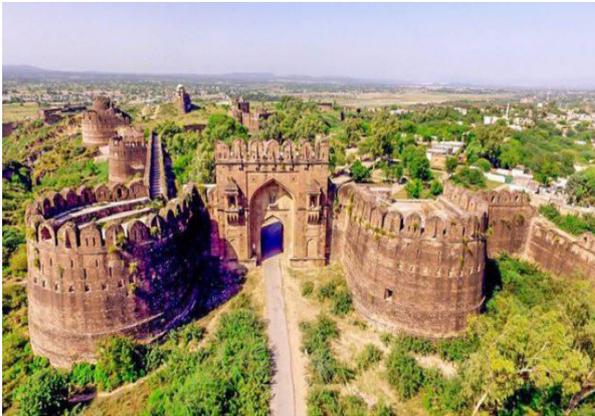
A copy is forwarded for information to:-

- The Regional Emergency Officer, PES, Rawalpindi Division.
- The Additional Deputy Commissioner (Revenue), Jhelum.
- The Deputy Director (Operations), Punjab Emergency Service, Lahore.
- The DDMC, PIU, PDMA, Jhelum.
- All concerned.


(ENGR. SAEED AHMAD)
DISTRICT EMERGENCY OFFICER
JHELM

DISTRICT DISASTER MANAGEMENT PLAN 2021

Division: Rawalpindi
District: Jhelum



Rohtas Fort, Dina, Jhelum



Flood Mock Exercise-2020



Flood Activity-2020



Flood Activity-2020

Prepared by: District Government, Jhelum
Approved by: Deputy Commissioner, Jhelum

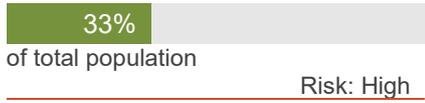


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Estimated number of people at risk of **hill torrent** in 2016



XX

Estimated number of people at risk of **Hill Torrent** in 2016



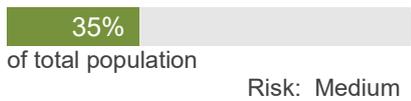
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Estimated number of people at risk of **earthquake** in 2016



XX

Estimated number of people at risk of **epidemic** in 2016



EXECUTIVE SUMMARY

Jhelum is susceptible to a variety of disasters but the geographical location and climatic conditions make it more vulnerable to moon soon floods. Flood in the district have caused heavy loss of life, property, infrastructure and livelihood of people. The availability of resources, preparedness, planning and institutional / organizational capacity has always been an asset of district Jhelum. The purpose of this plan is to ascertain the roles & responsibilities of different stake holders, and to develop coordination mechanisms for immediate response and fast track rehabilitation.

The plan classifies small, medium and large scale disasters to articulate the corresponding response. The plan integrates the role and responsibilities of various district, provincial and federal government departments in coordination with stake holders from private sector with a consistent approach for reporting damages, needs and relief assessment.

The plan has been designed on the risk management standards engaging the philosophy of a multi agencies and multi structure approach to risk minimization. The plan identifies the risk environment for the district Jhelum and outlines the key institutional and programing components relative to effective risk management and emergency response and recovery.

The plan is an organic document which may be extended in the future to incorporate any additional risk treatment options as they are identified through formal risk analysis.

AIM AND OBJECTIVES

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

The main objectives of the plan include:

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

DISTRICT PROFILE

Socio-Economic Indicators (Average)

| S.No. | Particulars | Numbers |
|-------|--|-------------------------|
| 1. | Population | 1,222,650 |
| 2. | No. of Tehsils | 4 |
| 3. | No. of UCs | 44 |
| 4. | No. of Revenue Estates | 12 |
| 5. | Population Density (people per km ²) | 335 |
| 6. | Family Size | 6.2 |
| 7. | Pop Growth Rate | 1.61 |
| 8. | PCI | 1509/ month |
| 9. | District GDP/Annual Income | |
| 10. | Poverty Rate | 16% urban and 44% rural |
| 11. | Patient/Doctor Ratio | 9645/1 |
| 12. | AMR | |
| 13. | IMR | 59/1000 |
| 14. | MMR | |
| 15. | Literacy Rate | 74% |
| 16. | Global Acute Malnutrition (GAM) rate | |
| 17. | Severe Acute Malnutrition (SAM) rate | |
| 18. | Percentage of population having access to clean drinking water | |
| 19. | Annual Crime | 3100 (2015) |

Population

| Total | Male (above 18) | Female (above 18) | Minor (M) (less than 18) | Minor (F) (less than 18) | Vulnerable People (PLWs, disabled, aged) |
|--------|--------------------|----------------------|-----------------------------|-----------------------------|--|
| 1.220M | 601,964 | 620,636 | | | |

Source/Note: Click here to enter text.

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

Source/Note: Click here to enter text.

Area (in acres)

| Total Area of District in Km ² | Area under cultivation | Cultivation in Settled Area | Cultivation in Baid Area |
|--|------------------------|--------------------------------|-----------------------------|
| 858767 acres | 316815 acres | | |

Literacy Rate

| Overall | Rural | | Urban | | Total | |
|---------|-------|--------|-------|--------|-------|--------|
| | Male | Female | Male | Female | Male | Female |
| 74% | 82% | 57% | 91% | 79% | 78% | 59% |

Source/Note: Click here to enter text.

Government Schools

| | | Schools | Enrollment |
|-------------------|---------|---------|------------|
| Total/ Overall | | 840 | 151117 |
| Boys | Primary | 174 | |
| | Middle | 53 | 65606 |
| | High | 81 | |
| Girls | Primary | 368 | |
| | Middle | 76 | |
| | High | 88 | 85511 |
| Co-Education | Primary | 0 | |
| | Middle | 0 | |
| | High | 0 | |
| Special Education | | | |

Private Schools

| | | Schools | Enrollment |
|-------------------|---------|---------|------------|
| Total/ Overall | | 906 | |
| Boys | Primary | 0 | |
| | Middle | 168 | |
| | High | 139 | |
| Girls | Primary | 0 | |
| | Middle | 230 | |
| | High | 209 | |
| Co-Education | Primary | 160 | |
| | Middle | 0 | |
| | High | 0 | |
| Special Education | | | |

Higher/Technical/Professional Education (Public & Private)

| Particulars | College | Universities | Professional | Technical | Commerce | Total |
|-------------------|---------|--------------|--------------|-----------|----------|-------|
| No of Institution | 12 | 01 | | 01 | 03 | 17 |
| No of Students | | | | | | |

Health Facilities

| Particulars | Primary | Secondary | Tertiary | Private Hospital | Total |
|----------------------|-----------|-----------|----------|------------------|-----------|
| No. of Facilities | 83 | 3 | 0 | 43 | 132 |
| Annual OPDs | 1,388,095 | 623,143 | 0 | 511,509 | 2,522,747 |
| No of beds | 178 | 176 | 0 | 456 | 810 |
| Doctors Available | 65 | 130 | 0 | 90 | 285 |
| Paramedical staff | 316 | 83 | 0 | 235 | 634 |
| Ambulances available | 0 | 0 | 0 | 5 | 5 |
| Mobile Medical Units | | | | | |

Livestock: Small Animals (goats, sheep etc.): 179893 Big Animals (cows, buffalos, camel etc.) 217882

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 |
|-------------|-----------|---------|--------------|-------------------------|----------|-------------|------------------|---------------|-----------------------|---------------|
| | | | | | | | | | | |

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) | Remarks |
|----|------|------------------------|---------------|---------------------------------|----------------------------|------------------------|-------------------------|---|--|
| 1 | 1992 | | | | | | | | Almost 70% population of Dist. Jheum effeted |
| 2 | 2014 | 4435 | 13 | 116 | - | 120 | 112855750 | - | All 13 deaths due to rain |

Disaster History – Other disasters (since 1970)

| S# | Year | Disaster Type | No. of people affected | No. of deaths | Remarks |
|----|------|---------------|------------------------|---------------|---|
| 1 | 1992 | Flood | | | Almost 70% population of Dist. Jheum effected |
| 2 | 2010 | Flood | | | |
| 3 | 2014 | Flood | 4435 | 13 | |
| 4 | 2019 | Flood | | Nil | |
| 5 | 2020 | Flood | | 07 | |

Disaster History – Other disasters (since 1970)

| Detail | 1992 | 2010 | 2014 | 2019 | 2020 |
|-------------------------------|---|--------------|------------|-----------|-------------------------------------|
| Level of flood for each flood | Exceptionally High level | Medium level | High Level | Low level | Low level |
| No. of Tehsils affected | 03 | 03 | 03 | 01 | 02 |
| No. of UCs affected | 20 | 18 | 19 | 01 | |
| No. of Mouzaz affected | 130 | 70 | 120 | 04 | 23 |
| Approx population affected | Almost 70% population of Dist. Jhelum effected *Exact figure is not available | - | 4435 | - | 372 Acres crop area affected |

General Information

| Particulars | Detail |
|---|---|
| Neighboring districts and their vulnerabilities | Gujrat, Mandi bahauddin, Sargodha (Flood) Rawalpindi urban flooding (Nullah Lai, terrorist attack) |
| Topographical Features | Coordinates:  32°56'00"N 73°44'00"E District Jhelum has four Tehsils & 54 UC's Union councils 44 Total Area 3587 sq km Salt Range, Two Coal mines |
| Weather/Climate pattern | The climate of the track is extreme in winter. Temp falls to 5°C while the summer is very hot. Temp rises to 45°C. Average annual rainfall 48 to 69 mm per annum. The average rainfall varies from 20 to 40 inches per annum. |
| Major Rivers | River Jhelum 150 km almost in district Jhelum Mangla Dam storage capacity 7.39 maf (73,90000 acr feet) water conservation level 1242 feet Rasool Barrage discharge capacity 24070 cubic meter per second |
| Major Nullahs / Streams | Nullah Kahan Nullah Bunhan |
| Motorway/Highway | Motorway & NHA bridge over river Jhelum Haranpur (Victoria Bridge) National Highway Traki |

| | |
|---------------------|--|
| Railways | Bridge on river Jhelum, Bridge on Traki, Victoria Bridge in haranpur |
| Geological features | Khewra Salt mine |

Dams (including small dams)

| Name of Dam | Location | GPS Coordinates | Capacity | High Flood Level | Critical Points, if any | Remarks |
|-------------------|--|---------------------------------|-------------------|------------------|-------------------------|---------------------------------|
| Garat | 15 Km south of Dina Town Distt Jhelum | 33°4'20"N 73°31'47" E - | 222 7.5 Aft | 955.50 Ft | NIL | |
| Jammergal | Near Jammergal Village about 50 KM South West of Jhelum City Tehsil & Distt Jhelum | 32°44'38" N 73°28'4 2"E - | 300 2 Aft | 897 ft | NIL | |
| Tainpura I | Near Ratwal Railway station about 6 K.M North West of Dina Distt;Jhelum | 33°4'20"N 73°31'47" E - | 730 0 Aft | 1008 Ft | NIL | |
| Tainpura II | 12 K.M North West of Dina town District Jhelum | 33°3'24"N 73°31'16" E - | 174 7 Aft | 1024 Ft | NIL | |
| Lehri | 14 Km North West of Dina town | 33°1'30"N 73°19'20" E - | 570 5 Aft | 1007 Ft | NIL | |
| Salial | Near Salial Village about 40 KM South West of Dina Town Tehsil Sohawa Distt Jhelum | 32°52'39" N 73°24'3 3"E - | 527 Aft | 1153 ft | NIL | |
| Shah Habib | Near Jammergal Village about 50 KM South West of Jhelum City Tehsil & Distt Jhelum | | 929 Aft | 920.43 ft | NIL | Dam is below Dead Storage Level |
| FatehPur | 34 Km South West of Domeli Town and 84 Km from Jhelum City | 32°53'40" N 73°12'2 2"E - | 173 3 Aft | 1548 Ft | NIL | |
| Domeli | 3 Km North West of Domeli town | 33°1'30"N 73°19'20" E - | 869 0 Aft | 1188 Ft | NIL | |
| Gurha Uttam Singh | Near Gurha Utam Singh Village about 20 KM South West of Domeli Town Tehsil Sohawa Distt Jhelum | 32°57'47" N 73°13'5 2"E | 267 9 Aft | 1400 ft | NIL | |

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 |
|------------------------------------|-------------|--|--|------------------------------------|--|---------|
| CD Bund D/S Railway bridge | 2260 FT | | | | X: Y: | |
| G.H Bund U/S Railway bridge | 840 FT | | | | X: Y: | |
| Jhelum Cantt protection bund river | 2500 FT | | | | | |
| Jabbar Bund | 4200 FT | | | | | |

| | | | | | | |
|---|----------|--|--|--|--|--|
| Naugran Flood Bund Near Kahan Nullah | 27500 FT | | | | | |
| Gurra Ahmed Bund | 12750 FT | | | | | |
| City Flood Bund | 6.6 KM | | | | | |
| Saria Alamgir Flood Bund | 1800 FT | | | | | |

DETAIL/SPECIFICATIONS OF CITY FLOOD PROTECTION BUND

- a. Length of city flood protection bund **20,000 feet (6.6KM)**
- b. Width of city flood protection bund **25 Feet**
- c. Height of city flood protection bund **21.20 Feet**
- d. No of Mauzaz been protected **08 Mauzaz & Complete City**
- e. No of estimated population being protected **03 Lac (APX)**

FINDINGS/INSPECTION OF FLOOD PROTECTION BUNDS

- f. Sites/areas visited
 1. Saria Alamgir bund
 2. City bund
 3. Cantonment Flood Bund
 4. Naugran Flood Bund
 5. Gurra Ahmed Bund
- g. Team composition who conducted visit to flood protection Bund by **Army (108 ENGR BN) & irrigation department**
- h. Report of the Inspection **(report attached Annex- 1)**

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 | | |
| Right Closure Bund | Rasul barrage | N. 326925021 E. 73.5111714 | 0 | 0 | 0 | Nil | - |

BREACHING SECTIONS

HISTORY OF BREACHING IN THE GEOGRAPHICAL TERRITORY OF BREACHING

The safety of the barrage is of prime importance and if a condition of exceptionally high flood is reached, some discharge released through Right Closure Bund which provides relief to the barrage structure. To meet with this situation, a breaching section was approved by flood Commission on 02/05/1981 between RD2+500-3+000 of right closure Bund. This will be activated when the critical level of gauge fixed at RD 12 of LMB will attain RL 727.40 and still rising or discharge U/S Rasul barrage approaches 850,000 Cs still increasing whichever happens earlier. The operation of breaching section will provide an immediate additional relief of 50,000 Cusecs. During exceptional high flood of 1992, the breaching section was tried to be operated, but owing to construction of road on right closure bund, the liners were buried/choked as a result of which, same could not be operated.

Therefore, choked liners were replaced during 1997-98 and are still in working condition. However, it has been proposed that a dozer is to be deployed in addition so that breaching section be excavated when the discharge rises above 6.40 Lac cusecs below Jhelum bridge under the collective control of military and civil administration.

- a. If breaching was done, the details of breaching (site and size of the breaching area/s)

(N. 326925021 E. 73.5111714) (length =100 ft, width= 100 ft, capacity = 50,000 cusc.)
- b. which vital installation was protected
(Head Rasool)

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

| Name | Capacity | GPS Coordinates | Name | Capacity | GPS Coordinates |
|-------------|----------|-----------------|-----------------------|----------|-----------------|
| Kala Gujran | 132 KV | | Pinanwal | 132 KV | |
| Dina | 132 KV | | Dandot | 132 KV | |
| Baragawa | 132 KV | | Gharebawal Cement | 68 KV | |
| | | | Dandot Cement factory | 132 KV | |

Airport / Landing Strips

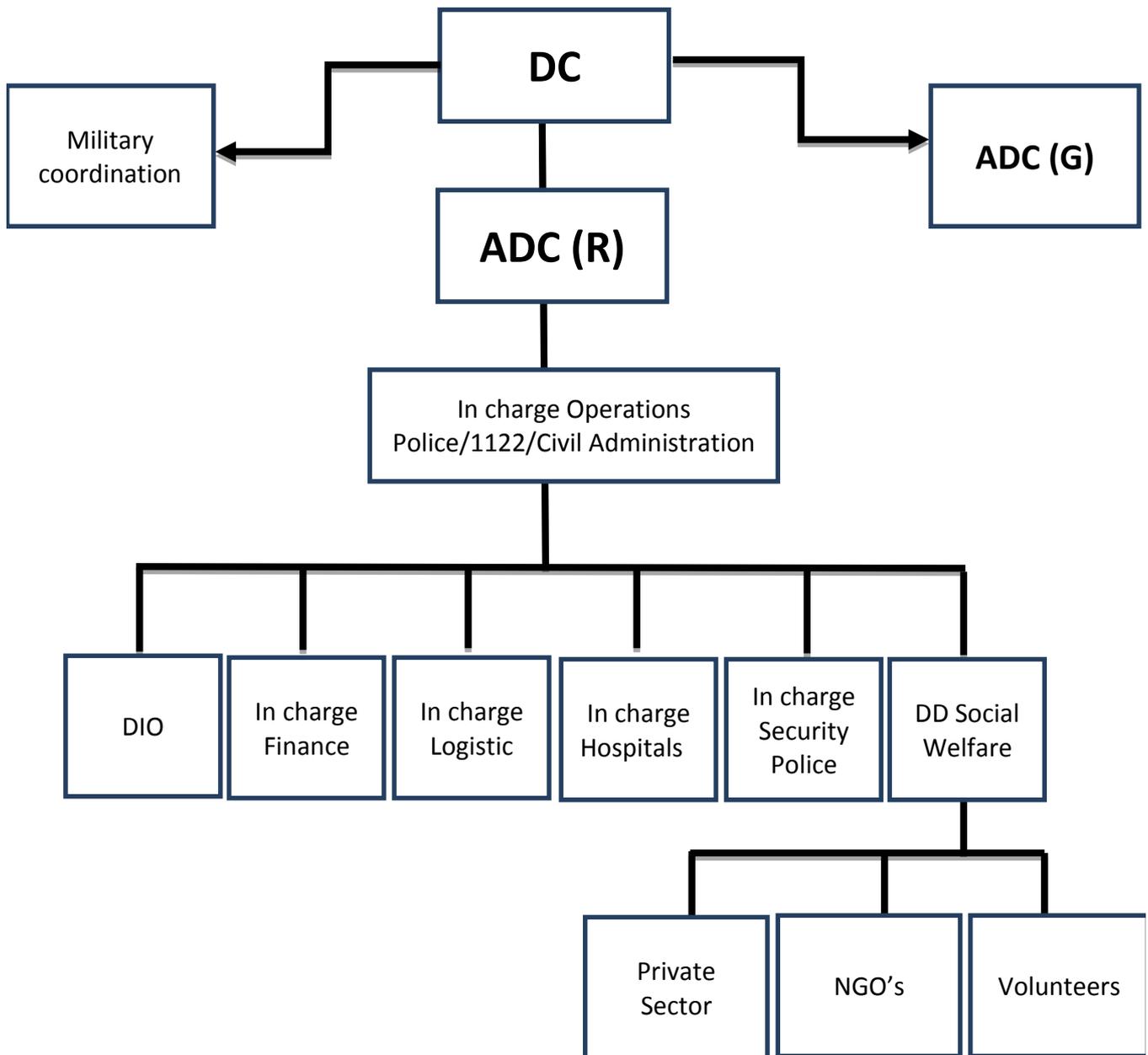
| Type | Area Name | GPS Coordinates | Type | Area Name | GPS Coordinates |
|------|-----------|-----------------|------|-----------|-----------------|
| Nil | Nil | Nil | Nil | Nil | Nil |

Govt. storage facilities/warehouses in the district

| Facility Type | Capacity | Location with GPS Coordinates | Facility Type | Capacity | Location with GPS Coordinates |
|---------------|----------|-------------------------------|---|----------|-------------------------------|
| Jhelum CVH | | | PDMA warehouse District Council building Jhelum | | 32.943363, 73.740108 |
| PD Khan CVH | | | | | |
| Jalalpur CVH | | | | | |

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

- Post damage assessment should be carried out by joint teams constituted of patwaris, teachers, and agriculture field assistants. Technology should be involved and android sets should be used to gather accurate data.
- Round the clock active control rooms should be set up and the numbers are 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 / Municipal Administration (M.C)

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

- MCs employ de-watering sets to remove excess water. All MCs are required to ensure the maintenance of all dewatering sets prior to the monsoon season. The M.C maintains a list of all the choking points where rainy water accumulates as a result of heavy storms which can cause urban flooding.
- M.C 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 M.C 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 local MCs manpower can be effectively used for the distribution of food and essential commodities among evacuated people or any other relief activity such as provision of cash compensation.

District Disaster Management Authority (DDMA)

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

- xii. XEN, Public Health Department
- xiii. XEN, Highways (M&R) Department
- xiv. XEN, Buildings Department
- xv. District Emergency Officer, Rescue 1122 (Secretary)**
- xvi. Disaster Management Officer, Pakistan
- xvii. All Chief Officers Municipal Corporation of District
- xviii. DMO, Red Crescent Society.

- District Governments must establish a Disaster / Flood control room at the DC's office, the numbers of which will be circulated to all concerned. The Disaster / Flood Control Room have to maintain updated information regarding the threat of disaster and statistics post disaster. The centre 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.
- CEO (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.
- CEO (Agriculture) and AD 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)

A Disaster Emergency Control Room working around the clock will be established at district level for effective coordination and mutual support among the different departments and agencies.

Functions of Control Room:

RECEIPT OF WARNINGS:

Warnings of natural disaster (e.g, floods, earthquakes etc) will be issued in the first instance by the bureau of meteorology and the officer in charge is responsible to ensure that the information is immediately forwarded to the chairperson of the district emergency board. In the event of a manmade disaster warning would be issued by the designated control authority (Police, Rescue 1122 etc) to the chairperson.

WARNING DISTRIBUTION:

Upon the implementation of this plan, all public warnings will be distributed through the Disaster Co-ordination centre upon recommendation of the relevant control authority and on the authorization of the Chairperson.

PUBLIC INFORMATION:

The distribution of the contact or telephone numbers to the public for disaster information will be the responsibility of and at the discretion of the Chairperson.

COORDINATION AMONG DIFFERENT DEPARTMENTS AND AGENCIES:

It will be responsible for the coordination among different departments and agencies. The required resources will be mobilized and provided at the operational site.

REPORTING:

Any request for assistance from outside the district are to be made by the Chairperson.

Checklist for Control Room:

- Dedicated Staff as per magnitude of the disaster
- Duty roster of the staff
- 2 Dedicated telephone lines
- Dedicated Fax
- Wireless

- Internet and Email or any other source of communication
- Power backup

Checklist for Relief Camp Incharge:

- List of staff displayed with name and department teams will work in shifts
- Presence of representatives of all service providers i.e. Health, livestock, Rescue 1122, Civil Defense etc.
- No movement without the permission of Centre Incharge
- Each shift in-charge to contact District Control Room on arrival and then on departure
- In-charge will keep close liaison with SHO of the respective area
- No of affectees in camp (sick, aged and children) shall be communicated daily
- Availability of at least one emergency vehicle at centre 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 centres with ambulances and special facilities for women and children.
- An emergency control room will be established in the office of Directorate General Health Services and a representative of this emergency control room would be designated to PDMA's control room.
- A list of essential medicines would be prepared by the Health department and it would ensure that medicines and other resources are present in sufficient stocks in hospitals in disaster hit areas.
- Medical colleges may be involved to create Emergency Response teams
- Health department would also coordinate with international organizations such as WHO and UNICEF.
- Extensive disease surveillances in the disaster hit areas should be carried out warnings if needed be issued through the Disease Early Warning System.
- Medical teams and paramedic staff should be mobilized and deployed for rapid assessment and quick response in the affected areas.

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

Civil-Military Coordination Mechanism

The Pakistan army's resources are employed for immediate search, rescue and evacuation. The Army is called in the 'Aid of Civil Power' only when a disaster overwhelms the resources at the disposal of the Government of Punjab. Search, rescue and evacuation are the primary responsibilities of the 'Disaster Response Force' so if the resources of this force fall short, the Army is immediately called in. The Army's setup in Punjab is administratively divided into six Corps with a Corps Commander leading each Corps. The District Coordination Officer of the affected district would request the relevant Army Authorities for aid of Army upon the approval of the Home Department. The Standard Operating Procedure of requesting the support of the Army is to route the DC's request through Home Department, and the Ministry of Defense. The Ministry would inform the General Headquarters (GHQ) and officers at GHQ would request the relevant Corps Commander to activate the Garrison Officer Incharge and the Brigadier responsible for leading the on ground operations. PDMA has equipped the Army with 850 boats for rescue and evacuation. In addition to the on ground movement, the Army can also provide the necessary air support for reconnaissance, relief and rescue missions. PDMA pays for the maintenance expenditures of the 850 boats mentioned earlier. In the same manner, all of Army's expenditures on disaster response are debited to the requisitioning civil authority.

The Army plays a substantial role in the opening of breaching sections. The Irrigation department is responsible for the maintenance of manageable discharge rates in the major rivers of Punjab. If the water flow exceeds a set discharge rate, the breaching section is opened with the help of explosives and excessive water is diverted into a designated area. The Breaching Section Committee responsible for the opening of the section, contains a military representative, which is usually a representative of the respective formation Headquarters not below the rank of Lieutenant Colonel. In case a disaster disrupts the existing telecommunication channels in a certain area, the Army would spearhead or assist the installation of wireless stations. In case of high floods, the respective Corps Commander would setup a Flood Relief Committee, consisting of but not limited to Commander Corps Engineer, Commander Corps Signals, Chief of Staff, Colonel General Staff, Colonel Administration etc

Volunteer Network

The office of Civil Defence assists in the evacuation of people and their household properties from the disaster affected areas. The office engages a large number of volunteers for search, rescue, evacuation and disbursement of relief goods. These volunteers generally known as "Razakars" are usually trained in swimming, basic rescue techniques, first aid etc. Razakars build their skills in simulation and mock exercises. The Civil Defence collaborates with Punjab Emergency Services (Rescue 1122) in sophisticated search, rescue and evacuation operations.

The District officer organizes mobile squads of Razakars and scouts in collaboration with local wardens and scout organizations to assist local administration/army, Rescue 1122 in evacuation and other disaster response activities. Razakars manage and utilize generators, search lights, and other lifesaving equipment. Razakars that know how to swim and dive are utilized for specialized water rescue. Razakars provide first aid to injured victims

before transporting them to hospitals. These volunteers also assist the fire brigade in rescue, and Health department's representatives in the treatment of injured victims. The Civil Defense also assists the District Administration and Police in setting up information system for members of public, whose relatives, friends and family members are missing.

RISK ANALYSIS

1. Potential hazards of the district

| Hazards | Likelihood (Score 1-5) | Impact (Score 1-5) | Risk |
|--|---------------------------|-----------------------|------|
| Floods | 3 | 3 | 9 |
| Urban Flooding | 3 | 1 | 3 |
| Flash Floods | 4 | 3 | 12 |
| Hill Torrent | 2 | 2 | 4 |
| Glacial Lake Outburst Flood (GLOF) | 1 | 1 | 1 |
| Landslide | 1 | 1 | 1 |
| Tornado | 1 | 1 | 1 |
| Earthquake | 4 | 1 | 4 |
| Drought | 1 | 1 | 1 |
| Epidemic | 1 | 1 | 1 |
| Fire Incidents | 3 | 2 | 6 |
| Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash) | 4 | 3 | 12 |
| Environmental Hazards (industrial accidents, severe pollution etc.) | 1 | 1 | 1 |

Risk = Impact x Likelihood

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

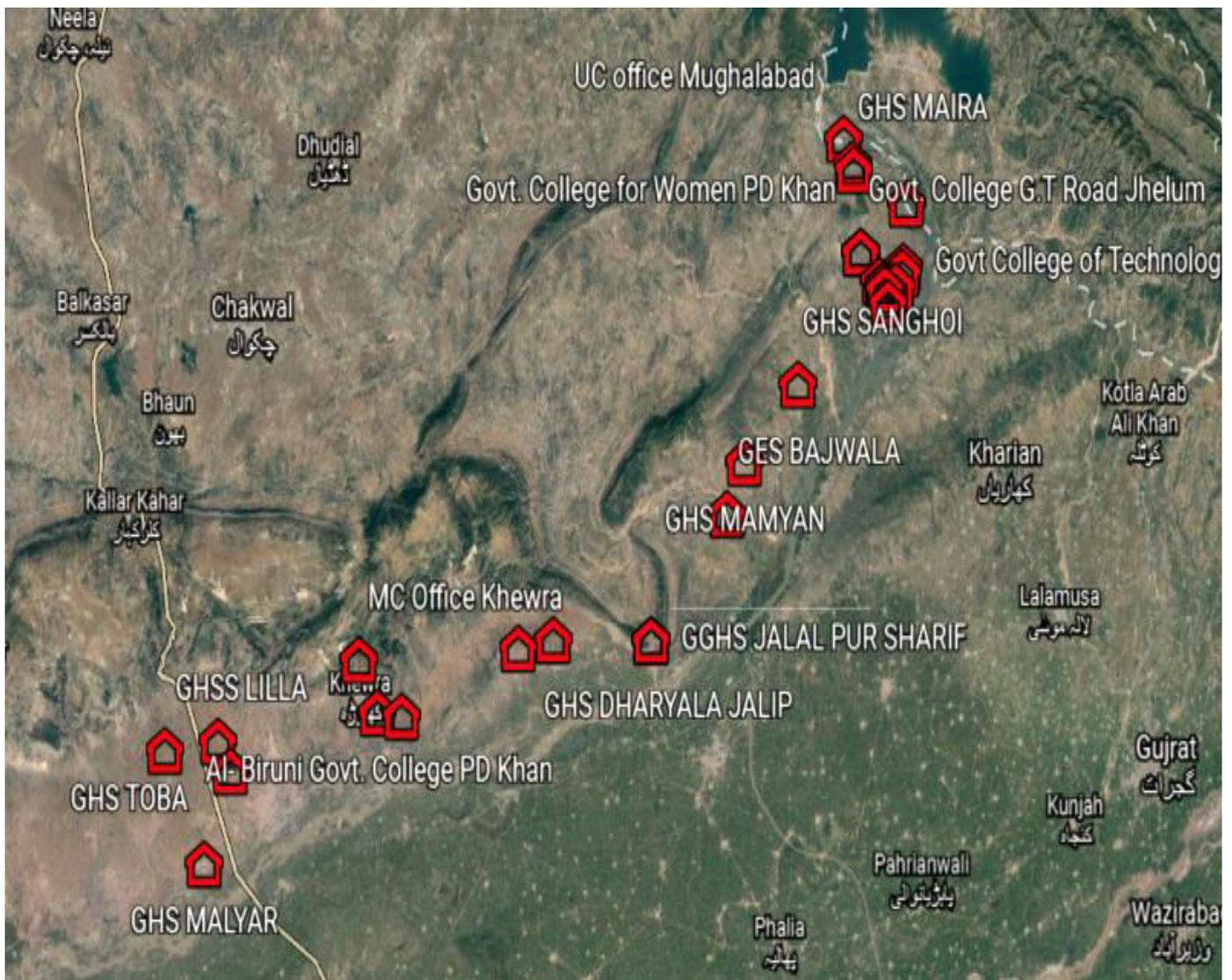
2. Hazards

The district administration of Jhelum has adopted a multi hazard approach to plan and strategize disaster response system. Based on consultations with different government stakeholders, most common form of hazard in the area are flash, seasonal and urban floods. Besides this area has been prone to fire incidents and road/building accidents. Following table summarizes risk assessment of different hazards in the area 1.

¹ Derived from information provided by Rescue 1122

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

| | |
|-------------------------------------|-----------|
| TOTAL NUMBER OF RELIEF CAMPS | 32 |
| Jhelum | 17 |
| Dina | 03 |
| Pind Dadan Khan | 12 |



Response & Operational Capacity

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

4. Strategic Reserves

| Items | Available | Functional | Non-Functional | Extra Demand |
|---|-----------|------------|----------------|----------------|
| Boats | 24 | 24 | Nil | Nil |
| OBM | 24 | 24 | Nil | Nil |
| De-watering sets | 20 | 20 | Nil | 05 (04 Cusecs) |
| Navigators | 0 | 0 | Nil | Nil |
| GIS devices | 0 | 0 | Nil | Nil |
| Life Jackets | 220 | 220 | Nil | 100 child |
| Life Ring | 27 | 27 | Nil | Nil |
| Scuba diving suit with complete accessories | 02 | 02 | Nil | 01 |
| First Aid Kits | 13 | 13 | Nil | 10 |
| Rescue Bag | 0 | 0 | Nil | Nil |
| Safety Harnesses | 10 | 10 | Nil | Nil |
| Ambulances | 11 | 11 | Nil | Nil |
| Fire Brigade | 06 | 06 | Nil | Nil |
| Water Tanks / Bouzers | 08 | 08 | Nil | Nil |
| Extendable Ladders | 03 | 03 | Nil | Nil |
| Hydraulic Cutter | 01 | 01 | Nil | Nil |
| Sonar Rader | 0 | 0 | Nil | Nil |
| Jumping Sheet | 03 | 03 | Nil | Nil |
| Dumpers | 0 | 0 | Nil | Nil |
| Excavators | 0 | 0 | Nil | Nil |
| Cranes | 0 | 0 | Nil | Nil |
| Bulldozer | 0 | 0 | Nil | Nil |
| Boat Carrier/Trolleys | 03 | 03 | Nil | Nil |
| Pickups/Jeeps/4x4 vehicles/Mini Trucks | 08 | 08 | Nil | Nil |
| Tent | 402 | 0 | 402 | Nil |
| Mosquito Net | 552 | 0 | 552 | Nil |
| Plastic Mat | 542 | 0 | 542 | Nil |
| Blanket | 0 | 0 | Nil | Nil |
| Any other main relief/rescue equipment | 0 | 0 | Nil | Nil |
| Generator Sets | 04 | 04 | Nil | Nil |

| | | | | |
|---------------------------------|---|---|-----|-----|
| Gas-Cutters | 0 | 0 | Nil | Nil |
| Sonar Radars | 0 | 0 | Nil | Nil |
| Navigator/GPS Tracker | 0 | 0 | Nil | Nil |
| Generator Mounted Lights 05 KVA | 0 | 0 | Nil | 05 |
| Battery Operated Hand Torches | 0 | 0 | Nil | 25 |
| Life lines (Ropes) Floatable | 0 | 0 | Nil | 20 |

DEPARTMENTAL INVENTORY DETAILS

| Sr. No. | Flood Fighting Equipment | MC Jhelum | MC Dina | MC Sohawa | MC PindDadan Khan | MC Khewra | Rescue 1122 | Health | Total |
|---------|---|-----------|---------|-----------|-------------------|-----------|--------------|--------|-------|
| 1 | Boats | 0 | 0 | 0 | 0 | 0 | $16+7+1=24$ | 0 | 24 |
| 2 | OBM | 0 | 0 | 0 | 0 | 0 | $16+7+1=24$ | 0 | 24 |
| 3 | De-watering sets | 9 | 4 | 2 | 4 | 1 | 0 | 0 | 20 |
| 4 | Life Jackets | 0 | 0 | 0 | 0 | 0 | $170+50=220$ | 0 | 220 |
| 5 | Life Ring | 0 | 0 | 0 | 0 | 0 | $21+6=27$ | 0 | 27 |
| 6 | Life Lines | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Scuba diving suit with complete accessories | 0 | 0 | 0 | 0 | 0 | 02 | 0 | 02 |
| 8 | First Aid Kits | 0 | 0 | 0 | 0 | 0 | $10+3=13$ | 0 | 13 |
| 9 | Safety Harnesses | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 10 |
| 10 | Ambulances | 0 | 0 | 0 | 0 | 0 | $8+4=12$ | 11 | 23 |
| 11 | Fire Brigade | 02 | 0 | 0 | 0 | 0 | $3+1=4$ | 0 | 06 |
| 12 | Water Tanks / Bouzers | 03 | 02 | 01 | 01 | 01 | 0 | 0 | 08 |
| 13 | Extendable Ladders | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 02 |
| 14 | Hydraulic Cutter | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 01 |
| 15 | Jetting machine | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 01 |
| 16 | Mech. Ladder | 0 | 01 | 0 | 0 | 0 | 0 | 0 | 01 |
| 17 | Sucker Machine | 1 | 0 | 0 | 01 | 0 | 0 | 0 | 02 |

| | | | | | | | | | |
|----|--|--|---------|---------|---|--------------------------------------|-----|-----|-----|
| 18 | Tractor/Trolleys/loader | Tractor Trolleys 05 Tractor lod. 02 | 10 | 01 | Tractor-2 Trolley-1 Loader Rickshaw-03 | Tractor -2 Loader-1 Trolley -1 | 0 | 0 | 28 |
| 19 | Pickups/Jeeps/4x4 vehicles/Mini Trucks | 0 | 02 Jeep | 01 Jeep | 01 Mini dumper | 1 Mini Dumper | 0 | 0 | 05 |
| 20 | Tent | 0 | 0 | 0 | 100 | 0 | 302 | 0 | 402 |
| 21 | Mosquito Net | 0 | 0 | 0 | 0 | 0 | 552 | 200 | 752 |
| 22 | Plastic Mat | 0 | 0 | 0 | 0 | 0 | 542 | 0 | 542 |
| 23 | Blanket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | Fogging machine | 08 | 01 | 01 | 01 | 01 | 0 | 06 | 18 |
| 25 | Mega phones | 0 | 01 | 0 | 01 | 01 | 01 | 0 | 04 |
| 26 | Rescue tripod | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27 | Electrical Power Generators | 0 | 02 | 01 | 01 | 0 | 0 | 0 | 04 |
| 28 | Torch / Lights | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

RATIONALIZED OF DEMAND OF FLOOD EQUIPMENT

| Sr.No | Name of Equipment | Demand QTY |
|-------|-------------------------------|------------|
| 01 | Life Jackets (Child) | 100 Nos |
| 02 | De-watering Sets 04 Cusec | 05 Nos |
| 03 | Generator with lights 5 KVA | 05 Nos |
| 04 | First Aid Kits | 10 Nos |
| 05 | SCUBA Set | 01 No |
| 06 | Battery Operated hand Torches | 25 Nos |
| 07 | Life Lines (Ropes) Floatable | 20 Nos |

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.)

CAPACITY GAPS:

- Lack of trained volunteers
- Deficiency of OBM's and Boats
- Non availability of relevant heads of budget for rescue operation and procurement in emergency funds provided to district government.

MAJOR OBSTACLES TO PROVIDING HUMANITARIAN ASSISTANCE:

- Insecurity of workers working during disaster.

- Lack of knowledge of other agencies roles & responsibilities
- Lack of inter-agency coordination.
- Recognition of different obstacles associated with different locations.
- Increase work load
- Water rescue operation is allowed in day light only.
- Lack of information sharing.
- Far flung areas.
- Low lying areas.
- Poor road conditions.
- More reaction time required.
- Reluctance of residents of vulnerable area to evacuate.

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 | Liaison with IRSA and WAPDA authorities through FMC Repair of embankments/ bunds Community awareness | District government Irrigation Civil Defense |
| Urban Flooding | Cleaning of sewerage Community awareness | District government Civil Defense |
| Flash Floods | Construct surrounding bunds around vulnerable areas Restrict people to construct their houses at vulnerable areas. The de-silting of nallah, canals and rivers. Diverting water of nallah and canals. | Irrigation District government |
| Hill Torrent | construction/ Repair of bunds | Irrigation |

| | | |
|------------------------------------|--|----------------------------|
| | | |
| Glacial Lake Outburst Flood (GLOF) | | |
| Landslide | Planting trees | Forest department |
| Tornado | | |
| Earthquake | Constructing earth quake resistance buildings | District government M.C |
| Drought | | |
| Epidemic | Vaccination Health Education Collection of proper data | Health |
| Fire Incidents | Survey of vulnerable buildings | Civil defense & |

| | | |
|--|---|---|
| | <p>Survey of vulnerable factories</p> <p>Implementation of building codes. Training of employed staff. Community awareness Handling of Proper disposable material</p> | <p>Building department</p> <p>Civil defense & Labor department</p> <p>M.C Rescue1122</p> <p>Environment M.C</p> |
| Other Major Accidents (Building Collapse, road traffic accidents, train accident, Stampede, plane crash) | <p>Identification & removal of black spots</p> <p>Community awareness</p> <p>Implementation of traffic rules</p> <p>Permanent Resettlement of vulnerable buildings</p> | <p>Rescue 1122 District government</p> <p>Rescue1122</p> <p>Traffic police</p> <p>District government</p> |
| Environmental Hazards (industrial accidents, severe pollution etc.) | <p>Training of employed staff.</p> <p>Community awareness</p> <p>Survey of vulnerable buildings</p> <p>Survey of vulnerable factories</p> <p>Handling of Proper disposal material</p> | <p>Rescue1122</p> <p>Civil Defense</p> <p>Civil defense & building department</p> <p>Civil defense & labor department Environment , M.C</p> |

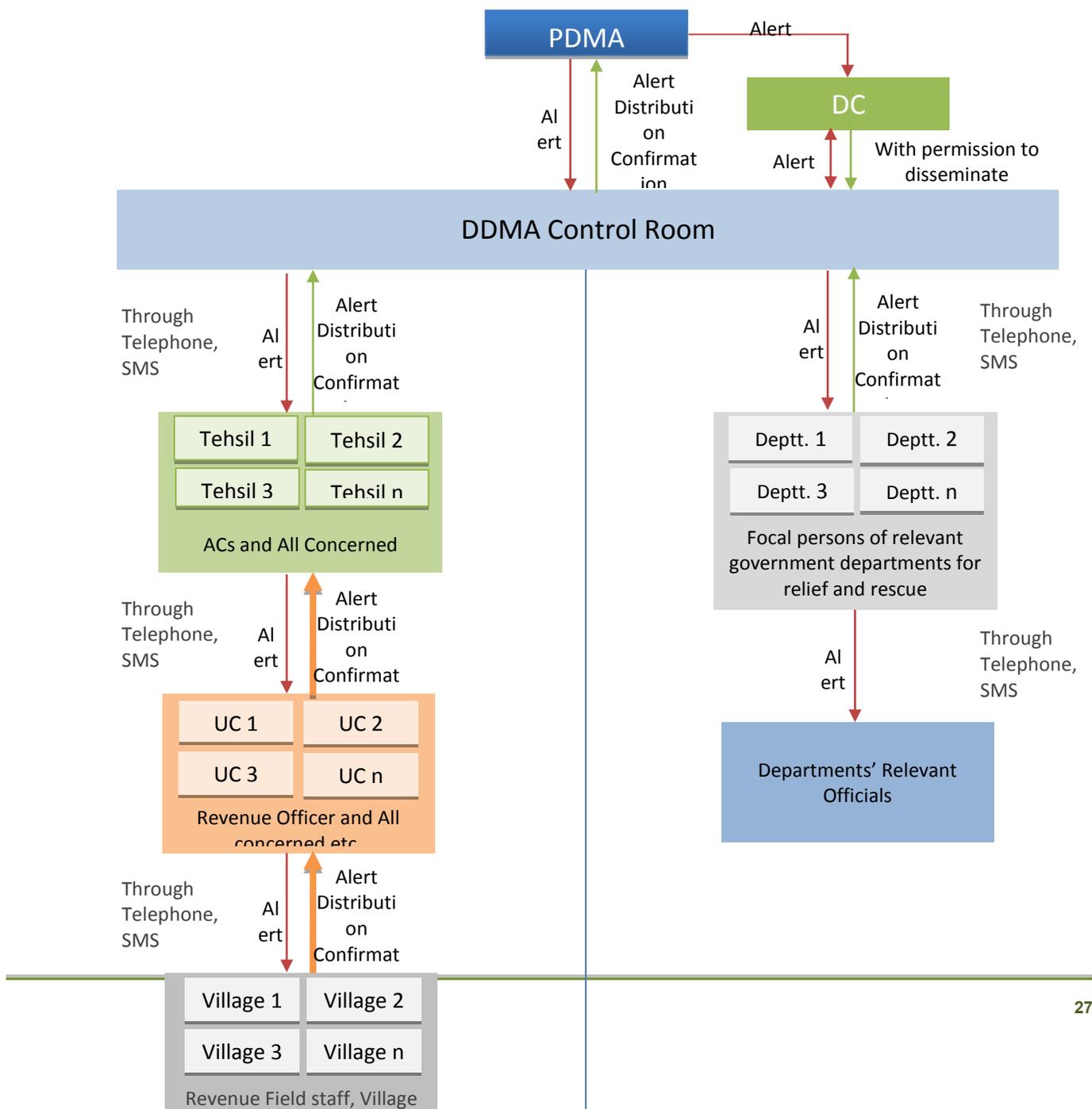
URBAN FLOODING

- Name and No. of Nullahs in geographical territory of Jhelum
1. Bunahan Nullah 2. Kahan Nullah 3. Bhimber Nullah
- De-silting of Nullahs (**under process**)
- History of urban flooding due to choking of these Nullahs (**Nil**)
- No. of De-watering sets available with the MCs Jhelum are (**17**)
- List of initiatives taken for urban flooding

1. **Cleanliness of Nullahs**
2. **Removal of Encroachments**
3. **Repair & maintenance of bridges over Nullahs**
4. **Repair & Maintenance of Electrical installation**
5. **Alertness of district administration and Line departments**
6. **Identification/ establishment of relief camps**

EARLY WARNING

INFORMATION FLOW DIAGRAM



Alertness Levels

Following four levels alertness have been established:

| | |
|---|---|
| <p>Level-D (Disaster threat is perceptible)</p> | <p>DDMA shall conduct monthly meetings besides atleast 2 mock exercises as per DDMP, well in time, to make the concerned officers/officials understand their role and responsibility for better coordination and testing of rescue and relief equipment. DDMA shall also ensure the physical presence of concerned staff deputed and availability of equipment/resources for all designated vulnerable sites within given time frame during disaster. Vulnerable site’s inspections and necessary works/action shall be carried out as mitigation measures.</p> |
| <p>Level-C (Alert) (Warning issued but likelihood of occurrence is less than 100%)</p> | <p>Activities to be undertaken in level D + DDMA shall issue “alert” to all concerned for the vulnerable area. DDMA and LDMA (tehsil level) control rooms be made operational 24/7 and ensure availability of all required (available and additional) resources for on call mobilization and monitor the situation 6 hourly. Only DCO and DPO shall grant leave according to the situation.</p> |
| <p>Level-B (High Alert) (Disaster threat is imminent)</p> | <p>Activities to be undertaken in level C + DDMA shall issue EW to all stakeholders and “High Alert” for the district to ensure that all additional HR and material resources including volunteers has reported to their assigned duties, and all resources for evacuation and disaster management have been mobilized as per DDMP. All emergency (health, fire, rescue 1122, 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

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.

RECEIPT OF WARNING

The early warning is received from resources like PDMA, Pakistan metrological department (heavy rains / wind or storms), Hydrological department Wapda Mangla dam,(flood / dam out flow), Rescue 1122 (Road accidents, Fires, Building Collapse, Drowning), Civil defense & police (riots, violence, terrorist activities), Health (epidemics) through emails, phone calls & sms depending upon the nature & gravity of the warning.

HYDROLOGY DEPARTMENT

The main source of early warning for flood is hydrology department mangla dam which is generating information collected from flood warning stations situated in (mangla catchment areas) Muzafarabad, Talhata, Domel, Chattar Kalas, Azad Patten, Kotli.

The district control room is established in office of the civil defense and district officer civil defense is the focal person of district control room.

FUNCTIONS OF CONTROL ROOM

- Information collection & dissemination
- To establish Coordination among departments.
- Communicate with concerned department (depending upon the nature & gravity of the warning)
- Resource dispatching and tracking.
- Warning distribution among govt department, public & media.

The information received at district control room is dispatched to the concerned department (focal person / district head) through email, sms or phone call depending upon the severity of the warning after getting clearance from chairman DDMA.

MODE OF COMMUNICATION OF EARLY WARNING TO RELEVANT POPULATION

The relevant warnings to concerned population is passed in three phases

PHASE 1

Notices are served through patwari and gardawar to the concerned residents of vulnerable area regarding alternate arrangements for expensive items/goods in case of emergency evacuation.

PHASE 2

Mock exercises and drills are conducted through relevant departments regarding evacuation.

PHASE 3

In this phase the warnings are issued through sirens, announcements through loud speaker/mega phone and electronic media when DDMA issues high alert of level B.

RESCUE STRATEGY

EVACUATION:

Emergency evacuation is the rapid removal of people from a threatened environment to a safer place Punjab Emergency Services and Civil Defense, along with the implementing arms of the Home department are primarily responsible for evacuation of the affected people. Their key personnel should be trained in various evacuation techniques for the different types of disasters. The transportation plan for evacuation would be formulated in close consultation with Punjab Emergency Services, Punjab Police, the Communication & Works department and the Transport department. The department of Civil Defense along with the Education department would mobilize groups of Razakars and Scouts to assist the evacuation process. Evacuation is prioritized on a need basis. The first to be evacuated are seriously injured or bedridden patients followed by handicapped or disabled persons, pregnant women, elderly persons, children and women. The rapid evacuation of injured persons by the concerned agencies has to follow a simple color tagging process that prioritizes the patients that are in most urgent need of medical assistance. Evacuation would be coordinated by the PDMA & would be ordered by DC considering the on-ground scenario. Forced evacuation can also be ordered by the DC in the face of clear and present danger.

GUIDELINES FOR EFFICIENT EVACUATION

Search & Rescue are the foremost activities of the evacuation process. Most of the resources would be dedicated to these activities during the initial 12 hours after the disaster. Alongside, relief camps would be set up in safe areas that are easily accessible from all sides. The locations of relief camps in districts have been duly indicated in the flood contingency plans issued by the District Governments. These camp sites would be equipped with proper medical, water and sanitation facilities by the District Governments. Evacuation routes to the identified camps would be rapidly planned and informed to the personnel undertaking the search and rescue operations. All efforts would also be made to engage Government and private transport vehicles for the evacuation of victims along these identified routes. The staff of Punjab Emergency Services is well trained in carrying out timely and effectively coordinated operations to locate and rescue persons in distress and deliver them to a place of safety. Any harm to a rescuer should be averted as he/she is the most important person in a rescue attempt. Families would preferably be evacuated together as one unit, minimizing chances of separation in a family. Evacuation of children without families would only be undertaken as a last resort and with the ultimate goal of earliest reunification. The best interest of the child would be considered while making the decision to evacuate.

MEDICAL ASSISTANCE:

The victims of a disaster would most probably require immediate medical assistance due to injury, psychological trauma or general health problems such as diarrhea, cholera, high fever, flu, cough, eyes infection etc. Mobile clinics would immediately be setup in the affected areas. These clinics would be equipped with both clinical and human resource to enable them to cater to medical needs of a large number of victims. The Health Department would be the lead agencies in this regard. However, the assistance of NGOs would also be solicited. The clinics and hospitals in the vicinity of the affected area would maintain a record of all patients to be able to identify any epidemic outbreaks that would further increase the spread of disease. The Social Welfare department would take all measures to rehabilitate orphans, destitute women and other vulnerable elements of the affected population.

PAKISTAN ARMY:

The Pakistan army's resources are employed for immediate search, rescue and evacuation. The Army is called in the 'Aid of Civil Power' only when a disaster overwhelms the resources at the disposal of the district Government. Search, rescue and evacuation are the primary responsibilities of the 'Disaster Response Force' so if the resources of this force fall short, the Army is immediately called in. List of relief camps **Annex-1**

HUMANITARIAN ASSISTANCE

Immediate evacuation is followed by an assessment of all that is needed to overcome the effects of disaster. Available resources have to be deployed to the neediest people and so this strategizing must be based on reasonable assessment of the disaster, and the subsequent needs of the effected communities. The initial rapid assessment is the exercise of collecting information in order to identify the basic needs such as food, shelter, water, sanitation, medicines etc. The rapid assessment would be completed in first 48 to 72 hours to get an immediate picture of extent of disaster. The rapid assessment would evaluate whether the local capacity is adequate or external resources are required to provide immediate assistance. The PDMA has provided the data collection forms for collection and communication of data to higher authorities.

RELIEF MANAGEMENT - FOOD AND NON FOOD ITEMS:

An ideal distribution system is safe, accessible and transparent to the intended beneficiaries. Distribution must take into account the recipient's physical capabilities. Food is the foremost relief item that the worst affected communities require on an immediate basis. In the first few days after the disaster, the Government would provide ready to eat food items. Subsequently, food disbursement would shift to provision of dry ration.

Special attention and priority should be given to the persons with disability, elderly persons heading household, women and adolescent heading household. Presence of child protection/social protection actors at distribution points would be ensured as this can serve multiple purposes including identifying of separated unaccompanied children.

Child headed households and separated/unaccompanied children would be given food distribution cards in their own name in a manner that does not cause further separations.

Relief management ensures the sustenance of large numbers of evacuees that are not able to carry the items of everyday use with them. The Government can provide respite by providing certain food and non-food items such as cloths, blankets, cooking utensils, hygiene kits, buckets, plastic sheeting, sleeping mats, water jerry cans, washing powder etc. The main purpose of the relief management is to provide life sustaining commodities to the affected communities in a fair and organized system.

FOOD ITEMS

An initial assessment would be undertaken to identify the number and demographics of the affected population to estimate the quantity and type of food required. This assessment would also factor the food available in local markets in the vicinity of the affected regions.

The nutritional needs of pregnant women, lactating mothers and malnourished children would be catered to on the highest priority. The food package would be enough to provide 2100 K calories/person/day. Food provided to the communities would be of good quality.

Beneficiaries would be informed in advance about the distribution points, date, time and procedure. All measures would be adopted to counter the unethical Collection of relief packages by outsiders that portray themselves as victims of a disaster. Special attention would be paid to persons with disabilities, elderly, women and stranded children.

Food distribution would be coordinated among all organizations to avoid any duplication or under serving the distribution points would be decided in consultation with local communities keeping in mind the convenience of

recipients and the ease with which supplies can be transported to the point. The distribution points would be accessible to women, elderly persons, person with disabilities and children.

A complaint cell would be established for every ten distribution points allowing the beneficiaries to redress their grievances about the quality, quantity, and distribution and targeting procedures. The selection and registration of affecters, distribution methodology, selection of distribution points, and monitoring of the distribution would be transparent, equitable and mindful of local traditions.

NON-FOOD ITEMS

Non-Food Items are provided to the displaced personnel to help them establish themselves in a new environment that they are forced into. Plates, buckets, jerry cans, and water storage vessels can allow the affectees to store and prepare their food for gradual consumption. The immediate provision of clothing and bedding gives a feeling of comfort, dignity and safety. In the same manner as other relief goods, preference must be given to women, children, elderly and the disabled.

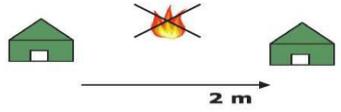
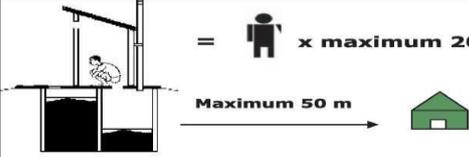
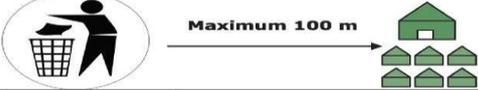
SHELTER:

Natural or man-made disasters often displace large numbers of people, forcing them to inhabit temporary shelters and camps. Temporary shelter is provided by the Government and humanitarian organizations as part of the emergency response. The Government utilizes public buildings such as schools or portable tents to provide immediate cover to the affected communities. Public facilities such as schools, barracks, warehouses, playgrounds, parks, have historically been utilized to provide shelter to the displaced affectees. Tents are usually provided in case the number of displace person exceeds the number that can be temporarily accommodated in public facilities. Only a set number of people would be allowed to inhabit a public building. This set number would be decided keeping in mind the available space, availability of facilities such as electricity, water, and sanitation, and the time it takes to evacuate all the inhabitants. Temporary shelters would have separate toilets and bathing facilities for men and women and it would maintain healthy standards by conducting anti mosquito sprays etc. The elderly and disabled must be provided with the most comfortable and accessible areas of the public facilities designated as temporary shelters. The temporary shelters should never be overcrowded as it can create un hygienic conditions.

CAMPS:

Camps would be established in areas accessible by metalled roads so that provision of essential facilities is not difficult. The scale of these settlements may vary from a few tents to larger groups of 50 tents.

Camp sites selected should be safe, accessible and far from other hazards and risks areas. The following specifications are the minimum standards of the services that are to be provided to the inhabitants of tent villages:

| Type of Facility | | SPHERE indicator | |
|------------------|--|---|---|
| Camp area | Total open space | 30-45 m ² per person |  30 - 45 m ² |
| | Fire breaks | 2 m = minimum distance between tents |  |
| Living area | Covered floor area | 3.5 m ² per person |  |
| | Water points | 1 water tap per 250 people 500 m from tent |  |
| | Latrines | 1 per 20 people 50 m away from tent |  |
| | Refuse Disposal | 100 m from tent |  |
| Water Use | Total Basic Water Needs 7.5 - 15 liters per person per day Survival water intake need; basic hygiene; basic cooking. |  | |

Safety of affectees would be a part of the security management. Police and other Law enforcing agencies would maintain law and order during and after the emergency, and provide security to the people affected by the disaster. Appropriate measures would immediately be taken to prevent the children from child labor or sexual exploitation. Disasters can cause the separation of Children from their parents or guardians making them vulnerable to abductions, involuntary involvement in unlawful activities, molestation and exploitation. Children's safety and security would be the responsibility of the Social Welfare Department, the Child Protection Bureau, the Police and similar law enforcing organizations.

ANNEX I: IDENTIFIED SITES FOR DISPLACED PERSONS

| | |
|-------------------------------------|-----------|
| TOTAL NUMBER OF RELIEF CAMPS | 32 |
| Jhelum | 17 |
| Dina | 03 |
| Pind Dadan Khan | 12 |

| S# | Location | No. of persons which can be accommodated | GPS Coordinates | S# | Location | No. of persons which can be accommodated | GPS Coordinates |
|----|--------------------------|--|----------------------------|----|--|--|---------------------------|
| 1 | GHS MAIRA | 200 | 33.037795, 73.6797247 | 16 | GHS PINANWAL NO.2 PDKHAN | 200 | 32.6577824, 73.2717291 |
| 2 | GHS DHANYALA | 150 | 33.042546, 73.6782071 | 17 | GHS ATHAR | 150 | 32.5507462, 72.8356483 |
| 3 | GHS SANGHOI | 300 | 32.8642357, 73.6029763 | 18 | GHS MALYAR | 200 | 32.475276, 72.8005753 |
| 4 | GHS MAMYAN | 200 | 32.8011074, 73.5304438 | 19 | GGHS JR. MODEL JHELUM | 200 | 32.9544474, 73.7448093 |
| 5 | GES BAJWALA | 100 | 32.7595206, 73.5067396 | 20 | GGHSS NO.2 JHELUM | 180 | 32.9409026, 73.7213898 |
| 6 | GHS TOBA | 200 | 32.5745874, 72.8189404, | 21 | GES JADA JHELUM | 150 | 32.9480042, 73.7139815 |
| 7 | GHSS LILLA | 225 | 32.5669455, 72.7471467, | 22 | Govt. Graduate College G.T Road Jhelum | 1500 | 32.9711616, 73.6886784 |
| 8 | GGHS JALAL PUR SHARIF | 200 | 32.6572492, 73.4038914 | 23 | Govt. Graduate College Tahlianwala Jhelum | 100 | 32.9594268, 73.7463176 |
| 9 | GHSS JALAL PUR SHRIF | 250 | 32.6572492, 73.4038914 | 24 | Govt. Associate College for Women Jhelum | 200 | 32.9431634, 73.7368629 |
| 10 | GHS DARAPUR | 150 | 32.7327785, 73.5407479 | 25 | Govt. Associate College for Women Sanghoi | 55 | 32891411, 73652429, |
| 11 | GHS JHELUM | 150 | 32.9442501, 73.7187169 | 26 | Govt. Associate College for Women PD Khan | 60 | 32.9711616, 73.6886784 |
| 12 | GHS COMP. JHELUM | 200 | 32.9440878, 73.720019 | 27 | Govt. Al- Biruni Associate College PD Khan | 500 | 32.5986984, 73.0339777 |

| S# | Location | No. of persons which can be accommodated | GPS Coordinates | S# | Location | No. of persons which can be accommodated | GPS Coordinates |
|----|------------------------|--|------------------------|----|--|--|-------------------------|
| 13 | GHSS MC ISLAMIA JLM | 100 | 32.9432081, 73.7314204 | 28 | Govt College of Technology, Chak Dolat | 40 | 33.0103841, 73.7509828 |
| 14 | GHS CH M ALTAF HUSSAIN | 150 | 32.934997, 73.735717 | 29 | Govt College of Technology, PD Khan | 20 Apx. | 32.5963213, 73.0655458, |
| 15 | GHS DHARYALA JALIP | 200 | 32.6509357, 73.224436 | 30 | UC office Mughalabad | 200 | Nil |
| | | | | 31 | MC Office Khewra | 200 | Nil |
| | | | | 32 | Railway Station Jhelum | 500 | 32.929757, 73.725917 |

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

| Hazards | Tehsils | UCs | Names of Revenue Estates | Names of Villages |
|---------|---------|------------------------------|--------------------------|---|
| Floods | Jhelum | Boken, Chak Khasa, City Area | | BhoondnanJattnan BhoondnanGakhran Matial Paswal PindiKhaira Sheikha Labe Darya AimaAfghana Gatiali ChakDaulat Fazilpur KiriAfghanan GurhaNasrullah. LangarpurBaili MonoharpurBaili Makhdumpur. Mehrajpur NoorpurBaili BailiDuliala |
| | | | | ChakKhasa Rajipur Chauntra Kolepur Kharala Khokhar Kala Dev Kalar |

| | | | | |
|--------|------|----------------------------------|--|---|
| | | | | PindRatwal TawaklpurPakhwal PakhwalKhas Sahapur Khawaspur |
| | | Kotla Faqeer, Sanghoi | | ChakEisa Saeela Bagga BailiBahrwal KotlaFaqir Naugran Chittan Monan Baigpur Balola KhokharMalwana Baddo Bhatia Gharmala ChakBuddo |
| | | | | SangoiKhas SanghoiMallu Toor RaryalaBeeram RaryalaJango RaryalaJagdev KotBaseera GurhaSaleem Gurha Ahmed |
| | | Chotala, Darapur | | Chotala Khurd NawanLok Mamian Bhambhar |
| Floods | | | | Darapur Shahpur ChakMoju Dilawar Shah Kameer Malikpur |
| | Dina | Mughal Abad | | Bhora pindi Khataa Manga Joian Hasnot Dulyal Mughl Abad Beli Budhar Ara Budar Lohar |
| | | Dhanyala | | Bharala Chhan |

| | | | | |
|--------|--------------------|--|--|---|
| | | | | Khurad Pind Rajwal Kotla Dittan Pandori Mughaln |
| | Pind Dadan Khan | Jalalpur, Pindi Saidpur, Dharyala Jalib, Chak Shadi, Dolat Pur & Haranpur | | Shakirpur Piranwala Bhabhanwala Syedanwala Khewanwala Sagherpur Abdullahpur Nawan Loke Kanianwala Burj Ahmad Khan Dewanpur Qamar Karimpur Mirzapur Azampur Jaitipur Burj Sattar Fatehabad Khotian Chak Ali Shah Dhingwal Adowal Haranpur Kot Phaphra |
| Floods | | Gujjar, P.D. Khan & Gol Pur | | Daffar Mahal Barani Khilchi Kalas Mahal Amirpur Naich Kuliwal Sehotra Channanpur Pithar Nadi Kot Katcha P.D.KhanTown (Mahal Chahi, Jhuggian, Mahal Salab, Mahal Wand) |
| | | Ahmedabad & Lillah | | Hattar Rangpur Pithar Kalan Ahmadabad Pawanr Saluwana Qadirpur Isawal Bhana Malyar Kotla Syedan Bugga Dhok Noora Sial |

ANNEX III: LIST OF HEALTH FACILITIES AND THEIR VULNERABILITY TO HAZARDS

| S# | Name | Location | GPS Coordinates | Health Facility Type (Primary, Secondary, Tertiary) | Name and Contact No of Focal Person | Hazard Vulnerability (Floods, Earthquake etc.) |
|----|--------------|----------------|------------------------|--|-------------------------------------|--|
| 1 | GRD Khurd | Tehsil Jhelum | 32°48'60N 73°34'60E | GRD | | Yes |
| 2 | Pind Swika | Tehsil Jhelum | 32°46'6N 73°21'25E | BHU | | Yes |
| 3 | Haranpur | Tehsil PD Khan | 32°36'11N 73°8'53E | BHU | | Yes |
| 4 | Sauwal | Tehsil PD Khan | 32.6500°N 73.2220°E | BHU | | Yes |
| 5 | Kotla Syedan | Tehsil PD Khan | 32°40'0N 73°20'0E | BHU | | Yes |
| 6 | BHU Panchore | Tehsil Sohawa | 33.1536°N 73.5609°E | BHU | | Yes |

ANNEX IV: LIST OF VULNERABLE EDUCATIONAL INSTITUTIONS

| S# | Name | Institute type (School, College etc.) | GPS Coordinates | Enrolment | Incharge Name | Contact Number |
|----|----------------------------------|--|-----------------|-----------|---------------|----------------|
| 1 | GGPS Bhoundna Jattan | Primary | Functional | | | |
| 2 | GGES Jagta | Middle | Functional | | | |
| 3 | GBES Pandori | Middle | Functional | | | |
| 4 | GBPS Janwal | Primary | Functional | | | |
| 5 | GBPS Munwar Pur Beli | Primary | Functional | | | |
| 6 | GBPS Makhdoom Pur Beli | Primary | Functional | | | |
| 7 | GGHS Haran Pur (Primary Portion) | High | Functional | | | |
| 8 | GMPS Kukar Pindi | Primary | Functional | | | |
| 9 | GMES Doulat Pur | Middle | Functional | | | |
| 10 | GGPS Dera Yar Muhammad | Primary | Functional | | | |
| 11 | GGPS Chitti | Primary | Functional | | | |
| 12 | GGPS Kot Peero Wala | Primary | Functional | | | |
| 13 | GMPS Adhowal | Primary | Functional | | | |
| 14 | GBPS Malyar | Primary | Functional | | | |
| 15 | GBPS Jati Pur | Primary | Functional | | | |
| 16 | GGPS Chak Esa | Primary | Functional | | | |
| 17 | GHS Dina | High | Functional | | | |
| 18 | GMPS Doyian | Primary | Functional | | | |
| 19 | GES Thekrian | Middle | Functional | | | |
| 20 | GGPS Teen Pur Bala | Primary | Functional | | | |
| 21 | GPS Chah Faqeer Ullah | Primary | Functional | | | |
| 22 | GGES Muftian | Middle | Functional | | | |
| 23 | GES Thill Hamlet | Middle | Functional | | | |
| 24 | GMPS Ara Khariot | Primary | Functional | | | |

| S# | Name | Institute type (School, College etc.) | GPS Coordinates | Enrolment | Incharge Name | Contact Number |
|----|------------------------------|--|-----------------|-----------|---------------|----------------|
| 25 | GPS Bogi Chak | Primary | Functional | | | |
| 26 | GPS Ghaziot | Primary | Functional | | | |
| 27 | GPS Sari Ghanial | Primary | Functional | | | |
| 28 | GES Shah Safeer | Middle | Functional | | | |
| 29 | GBPS Khurd | Primary | Functional | | | |
| 30 | GGPS Ghowra | Primary | Functional | | | |
| 31 | GBPS Kot Kalan | Primary | Functional | | | |
| 32 | GGPS Chak Hameed | Primary | Functional | | | |
| 33 | GBPS Mandi Muhammad Saddique | Primary | Functional | | | |
| 34 | GBPS Chajja | Primary | Functional | | | |
| 35 | GGPS Gagar Khurd | Primary | Functional | | | |
| 36 | GGPS Ali Pur | Primary | Functional | | | |
| 37 | GGPS Kandiri | Primary | Functional | | | |
| 38 | GGPS Purana Kot | Primary | Functional | | | |
| 39 | GMPS Ladwa | Primary | Functional | | | |
| 40 | GGPS Pindi Baikh | Primary | Functional | | | |

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 | Contact Person | Contact Number |
|----|-------------------------------|-------------|------------------------------|---|----------------------------------|--------------------------------|---|------------------------|----------------|
| 1 | M/s Mashallah Cotton Waste. | 98,99,100-B | 32 59' 17" N 73 40' 41" E | - | | Low | Fire | Sh: Salman Amjad | 0301-5838200 |
| 2 | M/s Mughal Traders. | 78,79,80-B | " | - | | Low | Fire | Mirza Anayat Ullah. | 0345-5311882 |
| 3 | M/s Supreme Elastic Ind: | 21,22-B | " | - | | Low | Fire | Haji Abdul Ghafoor | 0314-5420000 |
| 4 | M/s Luqman Industries. | 46-A | " | - | | Low | Fire | Naeem Iqbal Chishti | 0300-9513099 |
| 5 | M/s Sh: Talib Cotton Waste. | 82,83-B | " | - | | Low | Fire | Sh: Talib Cotton Waste | 0334-8641480 |
| 6 | M/s Mughal Brothers. | 205-A | " | - | | Low | Fire | Kafayat Ullah | 03009583684 |
| 7 | M/s Ali Lal Flour Mills. | 65-A | " | - | | Low | Earthquake | Mushtaq Ahmed | 03055093083 |
| 8 | M/s Crescent Industries. | 170,171-B | " | - | | Low | Fire | Kafayat Ullah | 03009583684 |
| 9 | M/s Al-Saleem Flour Mills. | 58,59-A | " | - | | Low | Earthquake | Anjum Saleem Meer | 03215454999 |
| 10 | M/s M.A.S. International. | 27-B | " | - | | Low | Fire | Ch: Shabir Hussain | Not available |
| 11 | M/s Sherbaz Flour Mills. | 42-A | " | - | | Low | Earthquake | Raja Raees Iqbal | 0300-9511343 |
| 12 | M/s S.S. Melamine Industries. | 164,165-C | " | - | | Low | Fire | Sh: Sohail Jaan. | 0300-9518543 |
| 13 | M/s Raheel Soap. | 47-B | " | - | | Low | Earthquake | Raheel Kayani | 0300-6296618 |
| 14 | M/s New Mughal Traders. | 81-B | " | - | | Low | Fire | Mirza Anayat Ullah | 0345-5311882 |
| 15 | M/s Jhelum Wood Works. | 175-B | " | - | | Low | Chemical. | Khalique-ur-Rehman. | 0321-5918987 |

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 |
|----|---|---|---|--|--|
| 1 | Tanzeem-eAmal, Jhelum. | Local | Shandar Chowk Jhelum | Working in Health Field | Khawaja Javed Iqbal 03335861115 |
| 2 | Al-Falah Jhelum | Local | Machine Mohallah No. 2 Jhelum | General Welfare | Umar butt 0331-8001122 |
| 3 | SEHET Jhelum | Local | Muhammadi Chowk Jhelum | Health | Dr. Yousaf 03009516228 |
| 4 | Khair-un- Naas Tanzeem Jhelum | Local | Jada Chungi Jhelum | Health, Education and General Welfare | Ch. Iqbal 03009522689 |
| 5 | Rehmat Welfare Foundation Jhelum | Local | Kala Gujran Jhelum | Health Facilities for Kidney Patients | Ijaz Ahmed 03337105055 |
| 6 | Anjuman Rafa-e- Aama P.D.Khan | Local | P.D Khan City | Industrial Home | Ch. Irshad Ali 03014188779 |
| 7 | Deaf & Dumb Association Usman | Local | Haran Pur | Welfare of special persons | Ch. Abdul Aziz 03454257857 |
| 8 | AIMS P.D Khan | Local | AIMS P.D.Khan | General Welfare | Ubaid Malik 03005309064 |
| 9 | Anjuman Rafa-e- Aama Gharibwal. | Local | Dharyala | General Welfare | Abdul aziz 03454257857 |
| 10 | Anjuman Falah-e- Saroba Life Care Association Toba | Local | Toba | General Welfare | Dr. Furqan 03145457351 |
| 11 | Anjuman Behbood-eMarizan Dina | Local | Mangla Cantt Chowk dina | Patient Welfare | Saleem Kisana 03009586319 |
| 12 | Burraq Human Rights Welfare Organization Rohtas | Local | Rohtas Fort | General Welfare | Ch. Muhammad basher 03215403488 |
| 13 | Muhammad Khan social Welfare Council Sohawa | Local | Govt. Elementary School for Boys | General Welfare | Dr. Furqan 03145457351 |

ANNEX VII: CONTACT LIST OF MAIN STAKEHOLDERS / DEPARTMENTS

| S# | Person Name | Desigantion | Telephone (Office) | Mobile |
|----|---------------------------------------|--|----------------------------|------------------------------|
| | Focal Person for Disasters | Addl.Deputy Commissioner (Rev), Jhelum | 05449270102 | 0345 5924460 |
| 1 | Rao Parviaz Akhtar | Deputy Commissioner, Jhelum | 0544-9270081 | 0304 0920071 |
| 2 | Shakar Hussain Dawar | District Police Officer, Jhelum | 5449270042 | 0300-9521434 |
| 3 | Dr. Waqar Ali Khan | Addl.Deputy Commissioner (Rev), Jhelum | 0544-9270102 | 0345 5924460 |
| 4 | Mr. Rab Nawaz Khan | Addl.Deputy Commissioner (F&P), Jhelum | 0544-9270016 | 0300-5179705 |
| 5 | Mr. Omer Sherazi | Addl.Deputy Commissioner (G), Jhelum | 0544-9270109 | 0346-6649994 |
| 6 | Mr. Zulfiqar Ahmad | Assistant Commissioner, Jhelum | 0544-9270077 | 0332-4547429 |
| 7 | Mr. Waqar Hussain | Assistant Commissioner, Dina | 0544-280255 | 0333-7536977 |
| 8 | Mr. Mian Murad Hussain | Assistant Commissioner, P.D Khan | 0544-210503 | 0321-7722001 |
| 9 | Mrs. Maria Javed | Assistant Commissioner, Sohawa | 0544-224036 | 0324-9747930 |
| 10 | Mr. Muhammad Saleem | Assistant Commissioner, (Coord) | 0544-9270106 | 0334-6137633 |
| 11 | M. Ibrahim Warraich | DSP H/Q | 0544-9270059 | 0336-5673300 |
| 12 | Insp. Ghulam Abbas | I/C Legal Branch | 544-9270060 | 0333-5108552 |
| 13 | Mohammad Akram Gondal | DSP Saddar | 544-9270046 | 0300-6257415 |
| 14 | M. Ibrahim Warraich | DSP City | 544-9270050 | 0336-5673300 |
| 15 | Syed Iqbal Kazmi | DSP Sohawa | 0544-224188 | 0333-5159082 |
| 16 | Mohammad Saleem Khattak | DSP PD Khan | 0544-210524 | 0333-5446887 |
| 17 | Arshad Ali | DSP Traffic | 0544-9270300 | 0300-9411359 |
| 18 | Yasir Rabbani | Chief Security Officer | 0544-9270060 | 0333-5853380 |
| 19 | Tabriaz | Reader Pattrolling Police Jhelum | | 0333-5875310 |
| 20 | Mr.Aslam Gujjar | Tehsiladar Jhelum | - | 0333-3314483 |
| 21 | Mr.Zafar Abbas | Tehsildar Dina | - | 0300-5394084 |
| 22 | Mr. Thair Shah | Tehsildar PD Khan | - | 0300-0142918 |
| 23 | Mr. Sohail Rizwan | Tehsildar Sohawa | - | 0300-9621000 |
| 24 | Mr. Inaam Ul Rahim | Chief Officer Muncipal Corporation, Jhelum | 0544-9270098 | 0321-5119369 |
| 25 | Mr. Ulfat Shahzad | Chief Officer Muncipal Committee, Dina | 0544-636550 | 0345 4192440 0300-9519305 |
| 26 | Mr. Akhtar Islam | Chief Officer Muncipal Committee, Sohawa | 0544-224065 | 0301-6257057 |
| 27 | Mr. Muzaffar | Chief Officer Muncipal Committee, PD Khan | 0544-210211 0544-212811 | 0333-4600215 |
| 28 | Mr. Malik Sajid Mehmood | Chief Officer Tehsil Council Jhelum | 0544 9270093 | 0315-5008383 |
| 29 | Mr. Ulfat Shahzad (Additional charge) | Chief Officer Tehsil Council Dina | - | 0345 4192440 0300-9519305 |
| 30 | Mr. Akhtar Islam (Additional charge) | Chief Officer Tehsil Council Sohawa | - | 0301-6257057 |
| 31 | Mr. Malik Khalid | Chief Officer Tehsil Council PD Khan | - | 0303-0164043 |
| 32 | Mr. Khalid Raza | XEN P.H.E.D | 0544-9270114 | 0301-6704801 |
| 33 | Mr. Fahad Mazhar | XEN Building Division Jhelum | 0544-280269 | 0323-4759210 |

| S# | Person Name | Desigantion | Telephone (Office) | Mobile |
|----|-------------------------------------|---|--------------------|--------------|
| 34 | Mr. Rana Qamar | XEN Prov. Highway | 0544-280237 | 0331-5225131 |
| 35 | Mr. Muzaffar Khan Jappa | XEN Irrigation UJC JLM | 0544-9270331 | 0345-6500439 |
| 36 | Mr. Mubashar Hussain | XEN Small Dam | 0544-651360 | 0332-5449212 |
| 37 | Mr. Shahid Butt | XEN Building (M&R) RWP-II | 0544-9270254 | 0321 5555896 |
| 38 | Mr. Thair Akram | XEN Highway (M&R) RWP-II | 0544-9270153 | 0313 5350008 |
| 39 | Muhammad Arshad | SDO Highway (M&R) RWP-II | 0544-9270153 | 0333 5821172 |
| 40 | A. Awais | SDO Building (M&R) RWP-II | 0544 9270067 | 0306-5822099 |
| 41 | M. Ahmad Rafiq | SDO Small Dam | 0544-651360 | 0348 8633368 |
| 42 | Dr. Waseem Iqbal | Chief Executive Officer, DHA Jhelum | 0544-9270266 | 0300-5421011 |
| 43 | Dr. Mian Mazhar Hayat | DHO(PS) DHA Jhelum | 0544-9270267 | 0333-5827424 |
| 44 | Dr. Muhammad Ali | DDDO Health PD Khan | 0544-210998 | 0333-5301963 |
| 45 | Dr. Masud Ahmed | DDHO Jhelum | -- | 3328787668 |
| 46 | Dr. Umair Khalid | DDDO Health Sohawa | 0544-710759 | 0334-5097295 |
| 47 | Dr. Awais Khattak | DDDO Health Dina | 0544-635944 | 0345-9511241 |
| 48 | Dr Farooq Ahmed Bangash | MS DHQ Hospital Jhelum | 0544-9270262 | 0300-8549095 |
| 49 | Dr. Khalid Farooqi | MS THQ Hospital PD Khan | 0544-210998 | 0333-6408687 |
| 50 | Dr Ijaz Butt | MS THQ Hospital Sohawa | 0544-710759 | 0333-5275275 |
| 51 | Muhamamd Maroof | Chief Executive Officer, DEA Jhelum | 0544-9270208 | 0300-7921946 |
| 52 | Syed Walayat Ullah | DEO (Sec), DEA Jhelum | 0544-9270213 | 0333-8485333 |
| 53 | Mazhar Hussain Shah | DEO (M-EE) Jhelum | 0544-9270211 | 0336-4244421 |
| 54 | Mst. Kousar Saleem | DEO (W-EE) Jhelum | 0544-9270212 | 0320 4779718 |
| 55 | Mr. Abdul kareem | Dy. DEO (M-EE) Jhelum | -- | 0332-4128524 |
| 56 | Mr. Safdar Ali | Dy. DEO (M-EE) Dina | -- | 0336-6965355 |
| 57 | Mr. Habib Ullah | Dy. DEO (M-EE) PD Khan | -- | 0342-5154231 |
| 58 | Mr. Sohail | Dy. DEO (M-EE) Sohawa | -- | 0345-5107436 |
| 59 | Mr. Shakeel Sipra | Extra Assistant Director of Agriculture (E&M) | 0544-274055 | 0334 7807496 |
| 60 | Mr. Habib ur Rehman | Dy. Director Colleges | 0544-734193 | 0300-4967363 |
| 61 | Mr. Ishtaiq Ahmad | Dy. Dir. (Development) | 0544-9270016 | 0334-8758494 |
| 62 | Mr. Saqib | AD Planung | 0544-9270015 | 0331-4854390 |
| 63 | Mr. Noor Zaman | District Monitoring Officer, Jhelum | 0544-9270089 | 0334-5110094 |
| 64 | Engr. Saeed Ahmed | District Emergency Officer, Rescue 1122 | 0544-275522 | 0333-5526365 |
| 65 | Muhammad Arshad | Rescue & Safety Officer, Tehsil Pind Dadan Khan | | 0300-9127350 |
| 66 | Mr. Shahid Bukhari | Dy. Director Agri. Extension | 0544-9270324 | 0335-9432746 |
| 67 | Mr. Shakeel Akhtar | System Network Administrator Jhelum | 0544-276727 | 0333-4149029 |
| 68 | Mr. Sheikh Asif | District Sport Officer, Jhelum | 0544-9270273 | 0331-5502583 |
| 69 | Mr. Tanveer Humayoun | Assistant Director Labour Welfare | 0544-923046 | 0333-4437618 |
| 70 | Dr.Bashir ahmad (Additional Charge) | Addl. Director Live Stock, Jhelum | 0544-9270080 | 0300-6744959 |
| 71 | Dr.Bashir ahmad | Dy. Director Live Stock Tehsil Jhelum | -- | 0300-6744960 |
| 72 | Dr.Masoud Hussain | Dy. Director Live Stock Tehsil Dina and Sohawa | | 0300-5458814 |
| 73 | Dr. Zafar Abbas | Deputy Director (Livestock) PD Khan | -- | 0331-5882405 |
| 74 | Muhammad Hamid Bhatti | DO IPW&M | 0544-276643 | 0347-6083428 |

| S# | Person Name | Desigantion | Telephone (Office) | Mobile |
|----|-----------------------------|--|--------------------|--------------|
| 75 | Mr. Usman Ahmad Sindhoo | District Information Officer | 0544-276346 | - |
| 76 | Ch. Wajid Hussain | Dy. Director (Social welfare) | 0544-9270190 | 0300-5414155 |
| 77 | Ch. Wajid Hussain | Manager District Sanatzar | 0544-9270199 | 0300-5414155 |
| 78 | Mr. Sudhair | Divisional Forest Officer, Jhelum | 0544-9270032 | |
| 79 | Rana Khalid Ikram | District Food Controller | 0544-9270094 | 0300-9694380 |
| 80 | Vacant | Dy. Director Local Government | 0544-230253 | - |
| 81 | Mr. Izhar | Assistant Director (Enviroment) | 0544-272937 | 0332 8009695 |
| 82 | Mr. Babur Zaheer | District Population Welfare Officer | 0544-734515 | 0300-9789578 |
| 83 | Mr. Khali Mehmood Cheema | Circle Rejistrar Cooperative | 0544-230373 | 0332-8627220 |
| 84 | Mr. Sheikh Shahid Iqbal | Excise & Taxation Officer, Jhelum | 0544-9270309 | 0333-5173445 |
| 85 | M. Sarfraz Khan | DO Civil Defence | 0544-9270256 | 0300-9495204 |
| 86 | Mr. Najmal Hassan Gilani | DO Zakat & Ushar | 0544-9270091 | 0343-5060378 |
| 87 | Mr. Babar Javed | District Public Procecuter, Jhelum | 0544-9270412 | 0306-6653037 |
| 88 | Raja Hassan Raza | Dy. Director Agri on Farm Water Mangement | 0544-731115 | 0300-9511449 |
| 89 | Mr. Saboor Saqib | DDMC Jhelum | 0544-230151 | 0333-5863919 |
| 90 | Mr. Sohaib | Manager Auqaf Jhelum | | 0333-6868166 |
| 91 | Babar Javed | Distt Public Prosecuter | - | 03066653037 |

ANNEX VIII: LIST OF VOLUNTEERS

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|---|-----------------|---|--------------------------|-------------|------------------------------|
| 1 | Sajjad-ul-Haq S/O M. Mazhar-ul-Haq | 37301-6910956-3 | Near Police Lines, Dhoke Muqarrab, Jhelum | 0335-5418103 | | 30 Minutes |
| 2 | Raheel Ali S/O Mehboob Elahi | 37301-7819395-3 | Mohallah Bagh, Jhelum | 0333-5846918 | | 30 Minutes |
| 3 | Ramzan Ali S/O Mumtaz Ali | 37301-1945017-7 | House No. C/83, Mohallah Malahan Jhelum | 0300-5422186 | | 30 Minutes |
| 4 | Muhammad Irfan S/O Nazir Muhammad | 81202-8299778-1 | House No. D/97, Bagh Mohallah Jhelum | 0336-9353770 | | 30 Minutes |
| 5 | Muhammad Afzal S/O Abdul Aziz | 37301-2250996-3 | House No. B-1-705, Street No. 2, Moh. Chishtian Jhelum, | 0313-5463423 | | 30 Minutes |
| 6 | Ikram S/O Rahim Dad | 37301-7578280-9 | Shalom Christian Center, Civil Lines Jhelum | 0332-0505220 | | 30 Minutes |
| 7 | Haroon Tariq S/O Tariq Masih | 37301-4473191-3 | Nai Abadi Dhoke Firdaus, Dhoke Naik Alam Jhelum | 0343-5928725 | | 30 Minutes |
| 8 | Suleman Zahid S/O Muhammad Zahid | 37301-6500153-9 | House No. D-314, Bagh Mohallah Jhelum | 0332-2953612 | | 30 Minutes |
| 9 | Raja Muhammad Farooq S/O Raja Abdul Ghani | 37301-9049623-7 | House No. B-X-3-R-37, Bagh Mohallah Jhelum | 0334-9200007 | | 30 Minutes |
| 10 | Muhammad Waqas S/O Muhammad Ramzan | 37301-6781856-9 | House No. B-V-99, Moh. Kharadian, Jhelum | 0322-5894361 | | 30 Minutes |
| 11 | Usama Azhar S/O Azhar Hussain | 37301-9088219-9 | House No. C/52, Mohallah Malahan, Jhelum | 0305-8706812 | | 30 Minutes |
| 12 | M. Akhter Ali S/O Nazir Ahmed Mirza | 37301-2333685-5 | H. # BX-1-3R-33, Baba Karam Shah Jhelum | 0300-4724384 | | 30 Minutes |
| 13 | Tariq Mehmood S/O Haji Ata Muhammad | 37301-0328199-9 | House No. C-30, Mohallah Shumali, | 0336-5816576 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|---|-----------------|---|--------------------------|-------------|------------------------------|
| | | | Jhelum | | | |
| 14 | Bilal Haider S/O Muhammad Akhter Ali | 37301-4881716-5 | Mohallah Shumali, Jhelum | 0331-5564962 | | 30 Minutes |
| 15 | Muhammad Mushtaq S/O Muhammad Ismail | 37301-2358396-9 | House No. A-80, Ghallah Mandi, Jhelum | 0321-5425119 | | 30 Minutes |
| 16 | Muhammad Saeed S/O Muhammad Aslam | 37301-2252864-3 | House No. BXI-14-5- 2, Moh. Shumali, Jhelum | 0306-8164884 | | 30 Minutes |
| 17 | Asif Mehmood S/O Ata Muhammad | 37301-2242281-5 | House No. C-30, Mohallah Shumali, Jhelum | 0336-5816576 | | 30 Minutes |
| 18 | Shafiq-ur-Rehman S/O Nazeer Ahmed | 37301-2360363-1 | Mohallah Ameer Muavia, Jhelum | 0300-9515101 | | 30 Minutes |
| 19 | Nazir Mehmood S/O Subah Sadiq | 37301-2299333-9 | Street No. 8, Mohallah Shumali, Jhelum | 0332-5842708 | | 30 Minutes |
| 20 | Asif Mehmood S/O Muhammad Hussain | 37301-6164336-3 | Kutchehry Road, Mohallah Dhoke Muqarrab, Jhelum | 0301-8165326 | | 30 Minutes |
| 21 | Asad Mehmood S/O Arshad Mehmood | 37301-5341095-9 | Nai Abadi Karim Pur Road, Mohallah Dhoke Firdaus, Jhelum | 0307-5649271 | | 30 Minutes |
| 22 | Muhammad Yousaf S/O Noor Muhammad | 37301-2409103-3 | Machine Mohallah No. 3, Jhelum | 0313-0815102 | | 30 Minutes |
| 23 | Nasir Malik S/o Muhammad Afsar | 37301-7693804-7 | House No. D-159, Mohallah Bagh, River Road Jhelum | 0313-5411982 | | 30 Minutes |
| 24 | Rashid Mehmood S/O Muhammad Ramzan | 37301-4906569-5 | House No. B-V-99, Moh. Kharadian, Jhelum | 0315-5861662 | | 30 Minutes |
| 25 | Qasim Hussain S/O Mushtaq Hussain | 37301-9232460-9 | Near Sabri Masjid, Bilal Town Jhelum | 0317-5596946 | | 30 Minutes |
| 26 | Asghar Ali S/O Ghulam Qadir | 37405-7616166-5 | Civil Lines, Jhelum | 0300-4724384 | | 30 Minutes |
| 27 | Nasir Jameel S/O Muhammad Sabir | 37301-5144391-9 | H. # BII-15, Moh. Baba Mehdi Shah, Jhelum | 0308-9149775 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|---|-----------------|--|--------------------------|-------------|------------------------------|
| 28 | Muhammad Awais S/O Muhammad Ramzan | 37301-6575742-9 | House No. B-V-99, Moh. Kharadian, Jhelum | 0332-9496618 | | 30 Minutes |
| 29 | Saeed Ahmad S/O Muhammad Saddique | 37301-2242299-9 | H. # B-II-56-S, Machine Moh. No. 03, Jhelum | 0300-9515070 | | 30 Minutes |
| 30 | Mirza Ijaz Baig S/O Tariq Baig | 37301-2245238-5 | Street Mirza Ahmed Baig, H. No. K-276, M.M No. 03, Jhelum | 0300-8302931 | | 30 Minutes |
| 31 | Saim Tariq S/O Tariq Hussain | 37301-6877959-5 | H. # K-104, Machine Moh. No. 03, Jhelum | 0309-5971537 | | 30 Minutes |
| 32 | Usama Tariq S/O Tariq Mehmood | 37301-9224784-7 | Nai Abadi Karim Pura, Jhelum | 0318-0569092 | | 30 Minutes |
| 33 | Shaheen Adil S/O Salehon | 34401-7292110-1 | Jada, Mohallah Mujahid Abad, Jhelum | 0340-3317842 | | 30 Minutes |
| 34 | Muhammad Usman S/O Hakim Ali | 81302-5964267-9 | Moh. Abbas Pura, Near Police Lines Jhelum | 0342-5247748 | | 30 Minutes |
| 35 | Muhammad Saghir S/O Muhammad Nazir | 37301-1594766-1 | Iqbal Town, Dhoke Firdaus Jhelum | 0336-5124152 | | 30 Minutes |
| 36 | Shabbir S/O Manzoor Hussain | 37301-9328452-3 | H. # B-1-120, Dhoke Naik Alam, Jhelum | 0343-8501394 | | 30 Minutes |
| 37 | Adnan Iqbal S/O Zafar Iqbal | 37301-2302817-5 | Dhoke Firdaus, Jhelum | 0344-5357542 | | 30 Minutes |
| 38 | Ali Asghar S/O Muhammad Nazir | 37301-7630757-5 | Iqbal Town, Dhoke Firdaus Jhelum | 0336-5336588 | | 30 Minutes |
| 39 | Faisal Shahzad S/O Muhammad Farooq | 37301-6152742-5 | H. # 247/74, Karim Pura Road, Dhoke Firdaus, Jhelum | 0310-9214302 | | 30 Minutes |
| 40 | Jahangir Nasir S/O Nasir Mehmood | 37301-6276136-1 | H. # BX-3-S-55, Moh. Mistran, Jhelum | 0331-4458580 | | 30 Minutes |
| 41 | Tahir Waseem S/O Ch. Muhammad Sultan | 37301-2069826-3 | Machine Moh. No. 03, Near Masjid Allah Wali, Jhelum | 0300-9523599 | | 30 Minutes |
| 42 | Muneer Ahmed S/O Abdul Aziz | 37301-2272707-7 | Civil Lines, Mohallah Kausar | 0309-0540470 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|--------------------------------------|-----------------|--|--------------------------|-------------|------------------------------|
| | | | Colony, JLM | | | |
| 43 | Muhammad Hamza S/O Sana Ullah | 37301-0338615-3 | Near G.G.P.S Moh. Karim Pura, Jhelum | 0318-0562326 | | 30 Minutes |
| 44 | Umar Farooq S/O Sh. Rafi-ud-Din | 37301-1597409-7 | H. # C/13, Koocha Daktran, Moh. No. 03, Jhelum | 0331-5998785 | | 30 Minutes |
| 45 | Sadaf Hussain S/O Muhammad Khaliq | 37301-7449268-3 | H. # BII-802, Machine Moh. No. 03, Jhelum | 0348-5610510 | | 30 Minutes |
| 46 | Ghyas Ali S/O Zamurd Hussain | 37301-8744524-9 | House No. 309, Moh. Shumali Jhelum | 0321-5431732 | | 30 Minutes |
| 47 | Iftikhar Ahmed S/O Muhammad Younas | 37301-2299297-5 | Shumali Mohallah Jhelum | 0332-5883536 | | 30 Minutes |
| 48 | Rizwan Rehmat S/O Ch. Rehmat Khan | 37301-9261799-5 | Civil Lines, Gulshan Town, Jhelum | 0332-9690700 | | 30 Minutes |
| 49 | Javed Mehmood Butt S/O M. Anwar Butt | 37301-3334801-5 | Chak Baraham Road, Kala Gujran Jhelum | 0334-8995783 | | 30 Minutes |
| 50 | Umair Majeed Ahmed S/O Majeed Ahmed | 37301-5812236-5 | House No. D-429, Bilal Town Jhelum | 0302-5835790 | | 30 Minutes |
| 51 | Yasir Saleem S/O M. Saleem Raza | 37301-5636099-7 | Usman Street, Moh Itehad Colony Jhelum | 0334-5419080 | | 30 Minutes |
| 52 | Muzaffar Iqbal S/O M. Iqbal | 37301-2233576-7 | Kotha Purana, P.O Kal Gujran, Jhelum | 0312-6753684 | | 30 Minutes |
| 53 | Shahid Mehmood S/O Rasheed Ahmed | 37301-2302732-1 | Village Raia, Jhelum Cantt. | 0300-5430600 | | 30 Minutes |
| 54 | Muhammad Azeem S/O Muhammad Naeem | 81102-4688949-5 | Dhoke Juma, Jhelum | 0317-7907918 | | 30 Minutes |
| 55 | Sabir Hussain S/O Roshan Din | 82102-8232261-7 | Mohallah Chishtian, Jhelum | 0301-5832979 | | 30 Minutes |
| 56 | Luqman Talat S/O Talat Mehmood | 37301-3918306-7 | Imam Bargah, Machine Moh. No. 01, Jhelum | 0331-5964526 | | 30 Minutes |
| 57 | M. Ubaid Akhter S/O M. Akhter | 37301-9447201-3 | Moh. Gulab Abad, Kala Gujran Jhelum | 0344-4456727 | | 30 Minutes |
| 58 | Asad Ali S/O Azhar Ali | 37301-3110787-1 | Near Masjid Gunbad Wali, | 0321-5811999 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|--|-----------------|--|--------------------------|-------------|------------------------------|
| | | | Jhelum | | | |
| 59 | Aafaq Rasheed S/O Muhammad Rasheed | 37301-5682877-1 | Mohallah Chishtian, Street No. 4, Jhelum | 0301-5823942 | | 30 Minutes |
| 60 | Muhammad Usman S/O Ehsan Ahmed | 37301-8885342-9 | House No. D-835, Bilal Town Jhelum | 0310-1569385 | | 30 Minutes |
| 61 | Waleed Anwar S/O Muhammad Ishaq | 37301-9958144-7 | Yousaf Street, Madni Mohallah Jhelum | 0321-1554945 | | 30 Minutes |
| 62 | Jahanzaib Anwar S/O Muhammad Anwar Aasi | 37301-1928827-7 | Street No. 5, Bilal Town Jhelum | 0332-5030302 | | 30 Minutes |
| 63 | Abid Hussain Shah S/O Mehmood Ali Shah | 37301-2356268-7 | Kashmir Colony, Jhelum | 0336-0593710 | | 30 Minutes |
| 64 | Gul Faraz S/O Gul Nawaz | 37301-8333650-7 | Raji Pur, Tahlianwala, Jhelum | 0304-0134696 | | 30 Minutes |
| 65 | Muhammad Shakir Alam S/O M. Noor Alam | 37301-7553012-9 | House No. 12, Bilal Town Jhelum | 0344-5511023 | | 30 Minutes |
| 66 | Haroon Shahzad S/O Rasab Khan | 37301-7274601-9 | Village Jandwal, Chak Daulat, Jhelum | 0300-5431734 | | 30 Minutes |
| 67 | Muhammad Ali S/O Muhammad Sharif | 37301-0500552-1 | Street No. 5, Mohallah Chishtian, Jhelum | 0304-5979170 | | 30 Minutes |
| 68 | Kamran Shahzad S/O Amanat Ali | 37301-7170057-7 | Kharala, Jhelum | 0334-5280623 | | 30 Minutes |
| 69 | Awais Arif S/O Arif Masih | 37301-3946516-1 | Shah Muhammad Line, H. No. 9, Block No. 15, Jhelum Cantt. | 0311-5664951 | | 30 Minutes |
| 70 | Aadab Hussain S/O Abdul Rehman | 37301-0952083-1 | Mohallah Mujahid Abad, Jhelum | 0345-5052004 | | 30 Minutes |
| 71 | Syed Ali Imran Naqvi S/O Syed Iqbal Hussain Naqvi | 37301-1158254-7 | H. No. G-335, Street No. 7, Machine Moh. No. 3, Jhelum | 0321-5402618 | | 30 Minutes |
| 72 | Rashid Mehmood S/O Allah Ditta | 37301-2357167-3 | Haji Street, M.M No. 3, H. # B-11-36- 41, JLM | 0310-5413000 | | 30 Minutes |
| 73 | Sultan Mehmood S/O Ghulam Meeran | 37301-2292306-9 | Shamas Pur ,Jhelum | 0332-5825975 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|--|-----------------|--|--------------------------|-------------|------------------------------|
| 74 | Naveed Ahmed S/O Zafar Iqbal | 37301-4873334-1 | Dhoke Mehar Adalat Khan, Rohtas Road JM | 0321-5422119 | | 30 Minutes |
| 75 | Ghulam Shabbir Shah S/O Ameer Shah | 37301-5546785-3 | Street No. 04, Mohallah Chishtian, Jhelum | 0300-5456488 | | 30 Minutes |
| 76 | Tariq Mehmood S/O Ghulam Meeran | 37301-2292307-2 | Shamas Pur, Jhelum | 0302-8787360 | | 30 Minutes |
| 77 | Sajjad Hussain S/O Muhammad Sadiq | 37301-2205841-5 | Bagh Wala Kunwan, Kala Gujran, Jhelum | 0313-5415499 | | 30 Minutes |
| 78 | Shoaib Sarwar S/O Shabbir Hussain | 37301-2268473-1 | H. # B-1-179, Mohallah Mujahid Abad, JLM | 0333-5847513 | | 30 Minutes |
| 79 | Tahir Abbas S/O Muhammad Latif | 37301-6815039-3 | Mohallah Mujahid Abad, Jhelum | 0309-5160255 | | 30 Minutes |
| 80 | Asad Mehmood S/O Arshad Ali | 37301-3166634-1 | Mohallah Mujahid Abad, Jhelum | 0323-5782428 | | 30 Minutes |
| 81 | Yasir Sohail S/O Muhammad Sadiq | 37301-2199409-3 | Machine Mohallah No. 03, Jhelum | 0342-5286621 | | 30 Minutes |
| 82 | M. Naveed Ashraf S/O M. Ashraf | 37301-3635994-3 | H. #B-II-33-S-12, Machine Moh. # 03, JLM | 0314-9518016 | | 30 Minutes |
| 83 | Usama Babar S/O Babar Hussain | 37304-0348904-3 | Mujahid Abad, Jhelum | 0316-5526724 | | 30 Minutes |
| 84 | Syed Khushood Haider S/O Syed Mehmood Haider | 37301-5625441-9 | House No. G-336, Machine Mohallah No. 3, Jhelum | 0331-5156030 | | 30 Minutes |
| 85 | Akbar Abbas S/O Syed Shahbaz Abbas Naqvi | 37301-8624263-1 | House No. G-335, Street No. 7, M.M No. 3, Jhelum | 0336-5569664 | | 30 Minutes |
| 86 | Mirza Zain S/O Mirza Israr | 37301-6101591-1 | Street No. 4, Machine Moh. No. 1, Jhelum | 0305-5034081 | | 30 Minutes |
| 87 | Atif Jawad S/O Raja M. Tasleem Bhatti | 37301-7409850-3 | Kotla Aima, P.O Kala Gujran Jhelum | 0333-5866010 | | 30 Minutes |
| 88 | Khurram Ali S/O Shabbir Hussain | 37301-7514981-7 | H. No. A-12, Kashmir Colony Jhelum | 0308-8789276 | | 30 Minutes |
| 89 | Ghaffar Ahmed S/O Muhammad Anwar | 37301-9971966-3 | House No. B-1, Kashmir Colony, | 0307-8622361 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|-----|---|-----------------|---|--------------------------|-------------|------------------------------|
| | | | Jhelum | | | |
| 90 | Mohsin Ali Mughal S/O Muhammad Ashraf Mughal | 37301-2798148-5 | Kashmir Colony, Rathian, House No. A-24, Jhelum | 0306-0887490 | | 30 Minutes |
| 91 | Umair Rizwan S/O Kausar Rasheed | 37301-7041817-5 | Qaid Abad, Kala Gujran Jhelum | 0335-2124295 | | 30 Minutes |
| 92 | Sheeraz Ahmed S/O Muhammad Maskeen | 37301-2363365-9 | Kashmir Colony, Jhelum | 0332-5454661 | | 30 Minutes |
| 93 | Tahir Mehmood S/O Muhammad Maskeen | 37301-7043211-5 | Bhatial, P.O Kashmir Colony, Jhelum | 0302-5800527 | | 30 Minutes |
| 94 | Zeeshan Rauf S/O Abdul Rauf | 37301-4878002-3 | Bhatial, P.O Kashmir Colony, Jhelum | 0334-5452800 | | 30 Minutes |
| 95 | Muhammad Adnan S/O Muhammad Haneef | 37301-6129500-5 | H. No. A-35, Kashmir Colony Jhelum | 0317-3960505 | | 30 Minutes |
| 96 | Syed Nouman Ahmed S/O Shamas Ur Rehman Shah | 37301-2950271-3 | House No. A-28, Kashmir Colony, Jhelum | 0335-5058813 | | 30 Minutes |
| 97 | Saadat Shafiq S/O Abdul Shafiq | 37301-2996322-3 | Kotla Aima, P.O Kala Gujran Jhelum | 0333-5957864 | | 30 Minutes |
| 98 | Mazhar Nazir S/O Nazir Ahmed | 37301-2258387-1 | H. # 3456/3, Fine Flour Mill G.T Road JLM | 0333-5563613 | | 30 Minutes |
| 99 | Hurair Saddique S/O Iftikhar Waseem | 37301-044889-3 | Kotla Aima, P.O Kala Gujran Jhelum | 0334-5583050 | | 30 Minutes |
| 100 | Mansoor Qalib S/O Raja M. Tasleem Bhatti | 37301-8023195-1 | Kotla Aima, P.O Kala Gujran Jhelum | 0334-5583050 | | 30 Minutes |
| 101 | Muhammad Tanveer S/O Fazal Karim | 37301-9373004-1 | Muslim Town, Jhelum | 0346-4695526 | | 30 Minutes |
| 102 | Rizwan Afzal Hashmi S/O M. Afzal Hashmi | 37301-8223741-3 | Chak Khasa, Tahlianwala Jhelum | 0300-9510032 | | 30 Minutes |
| 103 | Muhammad Jahanzaib S/O Muhammad Jahangir | 37301-4070813-1 | Kala Gujran, Mohallah Dara, Jhelum | 0305-8657204 | | 30 Minutes |
| 104 | Syed Fiaz Hussain Shah S/O Syed Jamat Ali Shah Jameel | 61101-8327748-5 | H. No. B-4, Kashmir Colony Jhelum | 0303-5578655 | | 30 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|-------------------------------|-------------------------------|-----------------|-------------------------------------|--------------------------|-------------|------------------------------|
| 105 | Munir Masih S/O Lal Masih | 37301-2360276-1 | Main Bazar Kala Gujran, Jhelum | 0344-5729720 | | 30 Minutes |
| Rescue 1122 Volunteers | | | | | | |
| 1 | Asfandyar Asad | 37301-1526977-3 | Jhelum City | 0334-0112393 | | 20 Minutes |
| 2 | Jabbar Ahmed | 37301-4936241-9 | Jhelum City | 0334-8885816 | | 20 Minutes |
| 3 | Hassan Raza | 37405-5338051-9 | Jhelum City | 0345-5127606 | | 20 Minutes |
| 4 | M Abdullah Tasawar | 37301-5983017-7 | Jhelum City | 0347-5406771 | | 20 Minutes |
| 5 | Asad Shahzad | 37301-1227632-3 | Jhelum City | 0303-8500232 | | 20 Minutes |
| 6 | Muhammad Mudassar | 37301-9250183-3 | Jhelum City | 0348-5861097 | | 20 Minutes |
| 7 | Yaseen Jamshaid | 37301-8218780-5 | Jhelum City | 0333-5400444 | | 20 Minutes |
| 8 | Muhammad Anees | 37301-6705370-1 | Jhelum City | 0342-0797521 | | 20 Minutes |
| 9 | Saif Ur Rehman | 37301-1690295-7 | Jhelum City | 0314-9614459 | | 20 Minutes |
| 10 | M.Abdullah Zarar Sheikh | 37301-6685348-5 | Kala Gujran | 0312-9510189 | | 10 Minutes |
| 11 | Sheroz Hassan | 37301-8070120-3 | Kala Gujran | 0312-5442272 | | 10 Minutes |
| 12 | Sheikh Virad Ali | 37301-3289492-9 | Kala Gujran | 0333-9498552 | | 10 Minutes |
| 13 | Sheikh Abdul Wadood Ali Saeed | 37301-3385347-9 | Kala Gujran | 0342-1512902 | | 10 Minutes |
| 14 | Danyal Ahmed | 37301-1594029-1 | | 0302-5215309 | | 10 Minutes |
| 15 | Furqan Anjum | 37301-2361378-5 | Islamia High School Mohalla, Jhelum | 0324-7581122 | A+ | 20 Minutes |
| 16 | Faizan Ahmed Raza | 37302-9047525-7 | Haran pur PD Khan | 0346-5833363 | O+ | 20 Minutes |
| 17 | M Furqan Butt | 37301-6582738-1 | Kala Gujran Jhelum | 0313-5663143 | O+ | 20 Minutes |
| 18 | Amir Shahzad | 37301-9400558-3 | Rohtas Road Jhelum | 0334-0069306 | A+ | 20 Minutes |
| 19 | Sajjad Farooq | 37301-9560397-9 | Sagri Dina Jhelum | 0334-8632712 | O+ | 20 Minutes |
| 20 | Muhammad Saeed Arif | 37301-0268814-9 | Talianwala Jhelum | 0300-9524765 | B+ | 20 Minutes |
| 21 | Faheem Khudadad | 37301-7843884-5 | Kolpur Tahliawala Jhelum | 0344-5674010 | A+ | 20 Minutes |
| 22 | Ahmad Nabeel Ahsan | 37301-9812367-1 | Jada Jhelum | 0331-9290712 | O+ | 20 Minutes |
| 23 | Umer Shahzad | 37301-3446486-3 | Karim Pura Jhelum | 0308-5812626 | O+ | 20 Minutes |
| 24 | Qamar Shahzad | 37301-9595950-7 | Karim Pura Jhelum | 0315-5730086 | O+ | 20 Minutes |
| 25 | Muhammad Bilal | 37301-2149905-1 | Muhammadi Chowk Jhelum | 0342-5991475 | O+ | 20 Minutes |
| 26 | Naeem Akhtar | 37301-2248790-9 | Chak Doulat Jhelum | 0300-5438253 | A+ | 20 Minutes |
| 27 | M Saqlain Khan | 37301-2224788-7 | Fazil Pur Chak | 0300-5426746 | O+ | 20 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|----|---------------------|-----------------|-------------------------------|--------------------------|-------------|------------------------------|
| | | | Dolat Jhelum | | | |
| 28 | Imran Shahzad | 37301-2584412-3 | Janwal Chak Dolat Jhelum | 0346-5882313 | A+ | 20 Minutes |
| 29 | Ghulam Murtaza | 37301-9966936-5 | Masoom Pur Chak Dolat Jhelum | 0344-1545425 | B+ | 20 Minutes |
| 30 | M Hamza Meer | 37301-4643787-7 | Chak Dolat Jhelum | 0331-5848163 | O+ | 20 Minutes |
| 31 | Muhammad Ramzan | 37301-9833946-1 | Chak Dolat Jhelum | 0303-5645102 | B+ | 20 Minutes |
| 32 | Danial Hussain | 37301-9735520-5 | Fazil Pur Chak Dolat Jhelum | 0332-1504485 | O- | 20 Minutes |
| 33 | Danyal Ahmad | 37301-6124540-5 | Masoom Pur Chak Doulat Jhelum | 0331-5663164 | O+ | 20 Minutes |
| 34 | M Adil | 37301-0473957-7 | Masoom Pur Chak Doulat Jhelum | 0324-7558587 | B+ | 25 Minutes |
| 35 | Ikhtlaq Hussain | 37301-4349962-1 | Pasrali, PO Jakkar, Jhelum | 0306-5810914 | O+ | 20 Minutes |
| 36 | Muhammad Gulzar | 37301-2312436-5 | Chak Dolat Jhelum | 0331-5580588 | O+ | 20 Minutes |
| 37 | Muhammad Nisar | 37301-9777997-5 | Chak Dolat Jhelum | 0331-8726348 | AB- | 20 Minutes |
| 38 | Abdul Jabbar | 37301-2312501-5 | Chak Dolat Jhelum | 0300-5439108 | A- | 20 Minutes |
| 39 | Muhammad Sulman Mir | 37301-9001492-3 | Chak Dolat Jhelum | 0333-8899872 | A+ | 20 Minutes |
| 40 | Khayyam Ahmed | 37301-5473336-5 | Chak Dolat Jhelum | 0332-5728528 | B+ | 20 Minutes |
| 41 | Muhammad Imran | 37301-8420294-3 | Chak Dolat Jhelum | 0334-8600913 | A+ | 20 Minutes |
| 42 | Muhammad Irfan Mir | 37301-5276732-5 | Chak Dolat Jhelum | 0331-5800923 | O+ | 20 Minutes |
| 43 | Yaseen Ali | 34202-5310619-3 | Chak Dolat Jhelum | 0336-8532499 | A+ | 20 Minutes |
| 44 | M. Raza Mughal | 37301-1616779-5 | Jhelum City | 0337-6115227 | | 20 Minutes |
| 45 | Rehan Saleem | 34203-4261988-9 | Jhelum City | 0332-5403334 | | 20 Minutes |
| 46 | M Ehsan Khan | 43504-0376345-1 | Jhelum City | 0345-5965787 | | 20 Minutes |
| 47 | Yasir Ali Malik | 37301-2287409-5 | Jhelum City | 0334-5959004 | | 20 Minutes |
| 48 | Ehsaan Raza | 37301-1015987-9 | Jhelum City | 0332-5729096 | | 20 Minutes |
| 49 | M Asim Khan | 37301-6294248-3 | Jhelum City | 0332-5868589 | | 20 Minutes |
| 50 | Zubair Sultan | 37301-4351509-7 | Jhelum City | 0340-8106049 | | 20 Minutes |
| 51 | Usman Javed | 37301-6125345-7 | Jhelum City | 0332-8882444 | | 20 Minutes |
| 52 | Ch Shujat Ahmed | 37301-6641538-1 | Jhelum City | 0342-0783799 | | 20 Minutes |
| 53 | Sharyar Haider | 81302-0555392-5 | Jhelum City | 0315-5611485 | | 20 Minutes |
| 54 | Arshad Malik | 37301-1990057-9 | Jhelum City | 0312-1888486 | | 20 Minutes |
| 55 | Waleed Amir | 37301-5365517-7 | Jhelum City | 0344-3602577 | | 20 Minutes |
| 56 | Syed Abbas Jamil | 37301-8503572-7 | Jhelum City | 0321-9834399 | | 20 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|-----|-------------------------|-----------------|-------------|------------------------------|-------------|------------------------------|
| 57 | M. Rohaib | 37301-8777806-3 | Jhelum City | 0332-5898738 | | 20 Minutes |
| 58 | Raja Muhammad Imran | 37301-8757822-7 | Jhelum City | 0315-5757427 | | 20 Minutes |
| 59 | Raja Jahanzeb Nazir | 37301-0756360-3 | Jhelum City | 0333-1560005 | | 20 Minutes |
| 60 | Syed Asad Mehmood | 37301-3120817-1 | Jhelum City | 0336-4242000 | | 20 Minutes |
| 61 | Waleed Ur Rehman | 37301-3039799-1 | Jhelum City | 0312-5974066 | | 20 Minutes |
| 62 | Sheryar Ali | 37301-1632522-3 | Jhelum City | 0315-5975099 | | 20 Minutes |
| 63 | Umer Raza | 37301-4448233-3 | Jhelum City | 0336-5146672 | | 20 Minutes |
| 64 | Malik Zeeshan Awan | 37301-3024829-7 | Jhelum City | 0317-5425030 | | 20 Minutes |
| 65 | Ahmed Zulfiqar Malik | 37301-9506256-9 | Jhelum City | 0311-5436244 | | 20 Minutes |
| 66 | Muhammad Bilal Dar | 37301-4885786-5 | Jhelum City | 0305-5170406 | | 20 Minutes |
| 67 | Humza Dar | 37301-2472504-3 | Jhelum City | 0312-7611786 | | 20 Minutes |
| 68 | Sheraz-Sultan | 37301-3970907-3 | Jhelum City | 0334-8620560 | | 20 Minutes |
| 69 | Yasir Rafique | 42401-1544890-7 | Jhelum City | 0347-8310099 | | 20 Minutes |
| 70 | M Waheed Iqbal | 37301-5220587-9 | Jhelum City | 0300-5454851 | | 20 Minutes |
| 71 | Asad Ali | 37301-3726014-5 | Jhelum City | 0332-1926892 | | 20 Minutes |
| 72 | M Asim | 37301-9769933-9 | Jhelum City | 0301-2425026 | | 20 Minutes |
| 73 | Taseer Ali | 37301-8378225-5 | Jhelum City | 0300-5419300 | | 20 Minutes |
| 74 | Khizar Hayat | 37301-3801919-5 | Jhelum City | 0311-9522023 | | 20 Minutes |
| 75 | Waleed Ur Rehman | 37301-3039799-1 | Jhelum City | 0312-5974066 | | 20 Minutes |
| 76 | Muhammad Abdullah | 37301-6479551-7 | Jhelum City | 0317-8093258 | | 20 Minutes |
| 77 | Saad Mirza | 42401-4732652-3 | Jhelum City | 0332-9785228 | | 20 Minutes |
| 78 | Inam Ul Hassan | 37301-6885149-5 | Jhelum City | 0335-9515045 | | 20 Minutes |
| 79 | Muhammad Mateen Naeem | 37301-2937554-3 | Jhelum City | 0341-6543509 | | 20 Minutes |
| 80 | Malik Faizan | 37301-8563174-1 | Jhelum City | 0332-5585857 | | 20 Minutes |
| 81 | Waseem Abbas | 37301-5597574-9 | Jhelum City | 0313-5600687 | | 20 Minutes |
| 82 | Ibtehaj Hassan | 34203-9202862-9 | Jhelum City | 0340-7015692 0301-2705861 | | 20 Minutes |
| 83 | Hamza Khan | 37301-7336698-5 | Jhelum City | 0348-1898861 | | 20 Minutes |
| 84 | Waheed Sarwar | 37301-0520746-1 | Jhelum City | 0309-5242271 | | 20 Minutes |
| 85 | Farhan | 37301-4869733-7 | Jhelum City | 0332-5827894 | | 20 Minutes |
| 86 | Abdur Rehman | 37301-0384770-5 | Jhelum City | 0306-5850694 | | 20 Minutes |
| 87 | Name M Mateen Asad | 37301-5615241-3 | Jhelum City | 0304-9460549 | | 20 Minutes |
| 88 | Ch Sohail Ahmed | 37301-2364036-5 | Jhelum City | 0300-9514320 | | 20 Minutes |
| 89 | Sarfraz Khan | 37301-7699565-5 | Jhelum City | 0346-8514288 | | 20 Minutes |
| 90 | Touseef Haider | | Jhelum City | 0347-9666875 | | 20 Minutes |
| 91 | Ayaturrehman Khan Barki | 42301-5558563-9 | Jhelum City | 0324-7588898 | | 20 Minutes |
| 92 | Ch. Ehtisham Tariq | 37301-5868237-1 | Jhelum City | 0313-5516279 | | 20 Minutes |
| 93 | Musa Nouman | 37301-1234916-5 | Jhelum City | 0314-7564224 | | 20 Minutes |
| 94 | Zaryab Ali | 37301-4174239-5 | Jhelum City | 0314-5428431 | | 20 Minutes |
| 95 | Sahil Mehmood | 37301-0646031-1 | Jhelum City | 0314-9357300 | | 20 Minutes |
| 96 | Tayyab Khalid | 81202-0917461-3 | Jhelum City | 0303-5251113 | | 20 Minutes |
| 97 | Masroor Ul Haq | 37301-7200423-3 | Jhelum City | 0336-5463515 | | 20 Minutes |
| 98 | Umer Iqbal | 37301-8729047-3 | Jhelum City | 0303-5603920 | | 20 Minutes |
| 99 | Sheraz Sultan | 37301 3970907 3 | Jhelum City | 0334-8620560 | | 20 Minutes |
| 100 | Naveed Ahmed | 37301-7179219-1 | Jhelum City | 0307-5242218 | | 20 Minutes |

| S# | Volunteer Name | CNIC | Address | Contact Number and Email | Blood Group | Time Required to be on-board |
|-----|----------------|-----------------|-------------|--------------------------|-------------|------------------------------|
| 101 | Fida Hussain | 373012-306693-7 | Jhelum City | 0333-5834420 | | 20 Minutes |
| 102 | Usman Amin | 37301 6029186 5 | Jhelum City | 0324-5021302 | | 20 Minutes |
| 103 | Hamza Naeem | 37301-5623605-9 | Jhelum City | 0346-5295266 | | 20 Minutes |
| 104 | M. Afzal | 42000-5882629-1 | Jhelum City | 0303-8078329 | | 20 Minutes |
| 105 | Muhammad Umer | 42000-5732380-3 | Jhelum City | 0332-5212746 | | 20 Minutes |
| 106 | Yousaf Raza | 37301-2216991-1 | Jhelum City | 0335-8284120 | | 20 Minutes |
| 107 | Adnan Shahzad | 37301-4276655-9 | Jhelum City | 0317-5382417 | | 20 Minutes |
| 108 | Musa Nouman | 37301-1234916-5 | Jhelum City | 0314-7564224 | | 20 Minutes |

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-66 | Ch. Farrukh Altaf | | 0300-8510510 | PP-25 | Raja Yawar Kamal | | 0345-5744444 |
| NA-67 | Fawad Ahmed Ch. | | 0300-8447141 | PP-26 | Ch. Zafar Iqbal | | 0335-9510222 |
| | | | | PP-27 | Haji Nasir | | 0333-5233081 |

ANNEX XI: DATA COLLECTION PERFORMAS

P1: House Damage Assessment

District: _____

Date: _____

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

P2: Deceased Person Reporting Performa

District: _____

Date: _____

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

P3: Injurd Person Reporsrtng Performa

District: _____

Date: _____

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

P4: Cattle Head Perished

District: _____

Date: _____

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

P5: Crop Damages

District: _____

Date: _____

| S# | Tehsil | Qanoongoi | Union Council | Mauza | Farmer Name | Land owner/Tenant | CNIC of farmer | Contact number | Type of Crops | Total land affected (acres) | % of mauza affected |
|----|--------|-----------|---------------|-------|-------------|-------------------|----------------|----------------|---------------|-----------------------------|---------------------|
|----|--------|-----------|---------------|-------|-------------|-------------------|----------------|----------------|---------------|-----------------------------|---------------------|

P6: Relief Distribution Tracking Performa

District: _____

Date: _____

| S# | Location/ Destination | Arrival Date and time | Items | Quantity | Items short (if any) | Items sent by | Driver name | Received by | Bilty no |
|----|-----------------------|-----------------------|-------|----------|----------------------|---------------|-------------|-------------|----------|
|----|-----------------------|-----------------------|-------|----------|----------------------|---------------|-------------|-------------|----------|

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

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

District: _____

Date: _____

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

P8: Relief camp registration Performa

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

District: _____

Date: _____

| S# | Nationality | Domicile | Male | Female | Age | Children Under 12 | Infants under 3 | Sick | Injured | Pregnant |
|----|-------------|----------|------|--------|-----|-------------------|-----------------|------|---------|----------|
|----|-------------|----------|------|--------|-----|-------------------|-----------------|------|---------|----------|

P9: NGOs registration performa

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

District: _____

Date: _____

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

P10: Control Room

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

District: _____ Focal Person: _____ Date: _____

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

ANNEX XII: CAMP MANAGEMENT SOPS

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

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

ANNEX XIII: FLOOD BUNDS

INFORMATION REGARDING FLOOD BUND CATEGORY A

| SR:# | NAME OF DIVISION | NAME OF EMBANKMENT / BUND | LENGTH (ft) |
|----------------------------|------------------------------|-------------------------------|-----------------|
| SARGODHA ZONE | | | |
| 1 | Rasul Head works Division | Right Guide Bund | 2,121 |
| 2 | -do- | Left Guide Bund | 3,360 |
| 3 | -do- | Right Guide Spur | 2,762 |
| 4 | -do- | Left Marginal Bund | 17,170 |
| Total in feet. | | | 25,413 |
| Total in Miles. | | | 4.81 |
| PMO BARRAGES | | | |
| 1 | Kalabagh H/Works Division | Jinnah Barrage | 25,080 |
| Total in feet. | | | 25,080 |
| Total in Miles. | | | 4.75 |
| FAISALABAD DIVISION | | | |
| 1 | Khanki Division | Left Marginal Bund | 21,000 |
| 2 | -do- | Right Marginal Bund | 29,000 |
| 3 | Jhang Division | Jhang Flood Protection Bund | 43,875 |
| 4 | Qadirabad Barrage Division | Left Marginal Bund | 20,000 |
| 5 | -do- | Right Marginal Bund | 20,000 |
| Total in feet. | | | 133,875 |
| Total in Miles. | | | 25.36 |
| BAHAWALPUR ZONE | | | |
| 1 | Punjad Head works Division | Right Marginal Bund | 15,000 |
| 2 | -do- | Left Marginal Bund | 15,000 |
| 3 | -do- | Colony Protection Bund | 15,000 |
| 4 | Khanpur Canal Division | Minchin Flood Bund | 10,000 |
| Total in feet. | | | 55,000 |
| Total in Miles. | | | 10.42 |
| MULTAN ZONE. | | | |
| 1 | Trimmu Division | Right Marginal Bund | 20,000 |
| 2 | -do- | Left Marginal Bund | 20,000 |
| 3 | Sulemanki Division | Left Marginal Bund | 10,000 |
| 4 | -do- | Right Marginal Bund | 10,000 |
| 5 | Shuja Canal Division | Right Bank of Shujabad Branch | 10,000 |
| 6 | -do- | Akbar Flood Bund | 10,000 |
| Total in feet. | | | 80,000 |
| Total in Miles. | | | 15.15 |
| D.G.KHAN ZONE | | | |
| 1 | Taunsa Barrage | Right Guide Bund Upstream | 15,000 |
| 2 | -do- | Left Guide Bund | 20,000 |
| 3 | -do- | Shahwala Groyne | 10,000 |
| 4 | Muzaffargarh Canal Division | Muzaffargarh Flood Bund | 50,000 |
| 5 | -do- | Doaba Flood Bund. | 5,000 |
| 6 | -do- | Khargarh Flood Bund | 5,000 |
| 7 | -do- | Khanwah Flood Bund | 5,000 |
| 8 | Jampur Construction Division | Jampur Flood Bund | 5,000 |
| 9 | -do- | Rojhan Flood Bund | 20,000 |
| Total in feet. | | | 1,35,000 |
| Total in miles | | | 25.57 |

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

INFORMATION REGARDING FLOOD BUND CATEGORY B

| S# | Name of Division | Name of Embankment / Bund | Length (ft.) |
|------------------------|----------------------------|--------------------------------|----------------|
| SARGODHA ZONE | | | |
| 1 | Rasul Headworks Division | Important / Vulnerable Reaches | 10,000 |
| 2 | Bhakkar Division | -do- | 10,000 |
| 3 | Layyah Division | -do- | 10,000 |
| 4 | Jhelum Division | -do- | 5,000 |
| Total in feet. | | | 35,000 |
| Total in miles | | | 6.63 |
| FAISALABAD ZONE | | | |
| 1 | Khani Division | -do- | 20,000 |
| 2 | Jhang Division | -do- | 50,000 |
| 3 | Qadirabad Barrage Division | -do- | 60,000 |
| 4 | Burala Division | -do- | 35,000 |
| Total in feet. | | | 165,000 |
| Total in miles | | | 31.25 |
| BAHAWALPUR ZONE | | | |
| 1 | Punjad Headworks Division | -do- | 90,000 |
| 2 | Khanpur Canal Division | -do- | 100,000 |
| 3 | Bahawalpur Canal Division | -do- | 50,000 |
| 4 | Rahimyar Canal Division | -do- | 50,000 |
| Total in feet. | | | 290,000 |
| Total in miles | | | 54.92 |
| MULTAN ZONE | | | |

| | | | |
|-----------------------------|--------------------------------|------|----------------|
| 1 | Trimmu Division | -do- | 80,000 |
| 2 | Suleimanki Division | -do- | 50,000 |
| 3 | Shujabad Canal Division | -do- | 60,000 |
| | Total in feet. | | 190,000 |
| | Total in miles | | 35.98 |
| <u>D.G.KHAN ZONE</u> | | | |
| 1 | Taunsa Barrage | -do- | 80,000 |
| 2 | Kot Adu Canal Division | -do- | 90,000 |
| 3 | Muzaffargarh Canal Division | -do- | 180,000 |
| 4 | River Diversion Division | -do- | 80,000 |
| 5 | Jampur Construction Division | -do- | 140,000 |
| 6 | D.G.Khan Construction Division | -do- | 60,000 |
| | Total in feet. | | 630,000 |
| | Total in miles | | 119.32 |
| <u>LBDC (IP)</u> | | | |
| 1 | Balloki Headworks Division | -do- | 40,000 |
| 2 | Okara Division | -do- | 40,000 |
| 3 | Sahiwal Division | -do- | 20,000 |
| | Total in feet. | | 100,000 |
| | Total in miles | | 18.94 |
| <u>LAHORE ZONE</u> | | | |
| 1 | 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 |
| <u>PMO BARRAGES</u> | | | |
| 1 | Jinnah Barrage | -do- | 20,000 |
| | Total in feet. | | 20,000 |
| | Total in miles | | 3.79 |
| | Grand Total (in miles) | | 350.76 |

ANNEX XIV: RIVER DISCHARGE RATES

| River | Gauge Site | Designed Capacity (lac Cs) | Flood Limits in Lac Cs. | | | | |
|--------|---------------|-------------------------------|-------------------------|------|------|-----------|-----------|
| | | | Low | Med: | High | Very High | Exp. High |
| INDUS | Kalabagh | 9.5 | 2.5 | 3.75 | 5 | 6.5 | 8 |
| | Chashma | 10 | 2.5 | 3.75 | 5 | 6.5 | 8 |
| | Taunsa | 10 | 2.5 | 3.75 | 5 | 6.5 | 8 |
| JHELUM | Kohala | 12 | 1 | 1.5 | 2 | 3 | 4 |
| | 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 | |
| | Suleimanki | 3.25 | 0.5 | 0.8 | 1.2 | 1.75 | 2.25 |
| | Islam | 3 | 0.5 | 0.8 | 1.2 | 1.75 | 2.25 |
| | Mailsi Syphon | 4 | 0.75 | 1.1 | 1.5 | 2.25 | 3 |

ANNEX XV: LIST OF BASIC TERMS

Acceptable risk

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

Biological hazard

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

Capacity

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

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

Capacity building

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

Climate change

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

Coping capacity

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

Disaster

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

Disaster risk management (DRM)

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

Disaster risk reduction/disaster reduction

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

Early warning

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

Emergency management

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

Forecast

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

Geological hazard

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

(ANNEX-1)

PRE-FLOOD RECCENNAISSANCE REPORT – 23 APRIL 2020**RIVER TRAINING WORKS & RASUL BARRAGE**

1. **General.** The River Jhelum flows through Srinagar and Wular Lake before entering Pakistan through a deep narrow gorge. It is then joined by the Poonch River, and flows into the Mangla Dam reservoir in the Mirpur District. The Jhelum enters Punjab in the Jhelum District. From there, it flows through the plains of Punjab. It ends joins Chenab River at Trimmu in the Jhang District. River Kahan is a tributary of River Jhelum which is situated in Jhelum District. Lower Jhelum Canal irrigates the lands in Mandi Bahauddin, Sargodha and Jhang Districts. About 2.50 miles downstream of old Head Works, new barrage was constructed under the Indus Basin project in the years 1965-1967 to transfer water from Mangla storage on River Jhelum to Rivers Chanab, Ravi and Sutlej through Rasul-Qadirabad Link, Qadirabad-Balloki Link and Balloki-Sulemanke Link, respectively. The Rasul Barrage is situated about 45 miles downstream of Mangla Dam with designed capacity of 8,50,000 Cusecs. Releases from Mangla are regulated to the demand of irrigation subject to availability of water in the reservoir.

2. **Flood History.** On 10 September 1992, a super flood passed at Rasul Barrage with a peak discharge of 9, 52,170 Cusecs. The flood water over topped the left Marginal Bund and breached it. The uncontrolled water also entered in Lower Jhelum Canal and damaged the canal banks and bridges. Soon after flood, the main breach in the Left Marginal Bund was closed with the help of machinery. Thereafter, an exceptionally high flood with discharge of 5,49,598 Cusecs was passed through Rasul Barrage on 27 August 1997, which damaged the apron of Left T-Spur downstream Rasul Weir however the same was repaired / restored. On 6 September 2014, an exceptionally high flood of 516,387 Cusecs passed through Rasul Barrage safely. Whereas, during flood season of 2015, maximum discharge of 99,103 cusecs had passed safely without any damages.

3. **River Training Works.** Total 5 x bunds and 29 x Studs / Spurs were constructed in district Jhelum to protect the most vulnerable areas from flood. 3 x bunds are on River Jhelum and 2 x Bunds are on River Kahan (tributary of River Jhelum). Details of the bunds are given as under: -

- a. **Sarai Alamgir Bund.** It is located on left bank of River Jhelum downstream of Railway Bridge (Old GT Road) and upstream of Jhelum Bridge (30 Km downstream of Mangla Reservoir). NW of Sarai Alamgir and South West of Jhelum City. Total length of a bund is

1600 feet. It is to protect the Sarai Alamgir from Riverine flood. **Sketch / Pictorial View att as Anx Q**

- b. **City Bund.** It is located upstream of Railway Bridge on River Jhelum and 25 Km downstream of Mangla Reservoir. This bund is protecting whole of Jhelum City from Riverine flood. Its length is 6 Km starting from Railway Bridge and terminates short of Khokar Village located NE of Jhelum City.
 - c. **Cantonment Flood Bund.** It is a right guide bank of Jhelum Bridge. This bund was basically constructed to protect the Bridge. Its total length is 2300 feet. An extension up to 10000 feet is suggested downstream of Jhelum Bridge along the right bank of River Jhelum with a view to protect cantonment from Riverine flood.
 - d. **Naugran Flood Bund.** It is located on left bank of River Kahan facing downstream approximately 8 Kilometer west of Jhelum City. Its total length is 8 Kilometer. This bund is protecting Vill Naugran and Chak Esa from flooding.
 - e. **Gura Ahmed Bund.** It is located on right bank of River Kahan facing downstream approximately 8 kilometers west of Jhelum City. Its total length is 2 kilometers. This bund is protecting Vill Gura Ahmed located on right bank of River Kahan.
4. **Rasul Barrage / Breaching Section.** The safety of the barrage is of prime importance and if a condition of exceptionally high flood is reached, releasing some discharge through **Right Closure Bund** provides relief to the barrage structure. To meet with this situation a breaching section has been approved by flood Commission on 2 May 1981. The operation of breaching section will provide an immediate relief of 50,000 Cusecs. During exceptional high flood of 1992, the breaching section was tried to be operated, but owing to construction of road on right closure bund, the liners were buried / choked as result of which, same could not be operated. Therefore, choked liners were replaced during 1997-98. In 2017 complete breaching section was shifted into news.
5. **Participants.** Representatives of **108 Engineer Battalion** and **Irrigation Department, Jhelum Division and Rasul Division** carried out a joint pre-flood reconnaissance on **23 April 2020** to ascertain the condition of bunds/ spurs and the breaching section. Following were present: -
- a. **108 Engineer Battalion / Headquarters 37 Division**
 - (1) Lt Col Saboor Khan (Commanding Officer 108 Engineer Battalion)
 - (2) Major Kamran Nawaz (108 Engineer Battalion)
 - (3) Naib Subedar Kazim, *Training Junior Commissioned Officer.*
 - (4) Havildar Ijaz Ahmed, *Surveyor.*

b. **Irrigation Department – Jhelum Division UJC**

- (1) Mr Muzfar Khan Jappa, Executive Engineer Jhelum Division UJC Jhelum
- (2) Mr Muhammad Akram, Sub Engineer Headquarters Jhelum

c. **Irrigation Department – Rasul Barrage**

- (1) Mr Asad Shafeeq, *Sub Divisional Officer Rasul Barrage.*
- (2) Mr Toqueer Jamil, *Sub Engineer Barrage Section.*

6. **Observations / Analysis.** Report in this regard is appended below: -

a. **River Training Works**

- (1) **Bunds & Spurs.** All the bunds were inspected which were protected through stone-pitching against rain-cuts and erosions. However, some points / shortcomings observed are stated as under: -

(a) **Sarai Alamgir Bund.** This bund was in good condition. Stone pitching on the apron and side slope was there. However, some shortcomings observed are

- i. Rat holes on the bund.
- ii. Scouring at some places.
- iii. Encroachment was observed.
- iv. Gabion net was broken at places.

(b) **City Bund.** Maintenance remain satisfactory, however scouring was observed at some places.

(c) **Cantonment Flood Bund.** It was in satisfactory condition. However, its extension is planned upto 10000 feet. Model Study for proposed flood bund has been ordered by administrative department.

(d) **Naugran Flood Bund.** The points observed are appended below: -

- i. Stone pitching on side slope of bund has not been done.
- ii. Scouring at places.
- iii. Heavy encroachment.
- iv. Maintenance was not satisfactory.

(e) **Gura Ahmed Flood Bund.** The condition of bund was generally satisfactory. Total length of the bund is planned is 10900 feet. Approximately 7000 feet is completed and land acquisition issue is undergoing with locals. This bund is also under heavy encroachment.

b. Rasul Barrage

- (1) **Bunds and Spurs.** Marginal, Closure and Guide Bunds along with T-Spurs were inspected which were protected through stone-pitching against rain-cuts and erosions. Maintenance remain satisfactory with ample stock-pile of stones stored in order to meet any eventuality. However, no elaborate transport / machinery is planned, for stone transportation and its placement, to cater for a critical sit in flood season (Pictorial illustrations at **Annexure Q**).
- (2) **Breaching Section.** Maintenance of liners remain good. All 169 liners have achieved the requisite depths for demolition. (**Appendix I to Annexure A**). 29 x liner caps are damaged or missing, creating passageway. Liners on the bund upstream are partially filled with water. (Pictorial at **Annexure Q**).

7. Recommendation**a. River Training Works**

- (1) Rectification of rat holes on bunds.
- (2) Scouring to be checked and rectified.
- (3) Cantonment Bund extension matter to be pursued in consultation with civil administration.
- (4) Stone pitching on side slope of Naugran flood bund.
- (5) Land acquisition matter to be sloved as early as possible so that work on Gura Flood Bund can be continued
- (6) Matter of encroachment to be taken with civil administration.
- (7) Placement of reserve stone as per authorization stone at the site.

b. Rasul Barrage / Breaching Sec

- (1) Elaborate plan for transportation and placement of reserve stones, at critical places, to be made and shared with concerned departments.
- (2) 29 x damaged / missing Caps of liners are required to be replaced.
- (3) Liners to be cleared of water.