

2016

Monsoon Contingency Plan

FATA Disaster Management
Authority

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Acronyms

FRs	Frontier Regions
FATA	Federally Administered Tribal Areas
SAFRON	Ministry of State and Frontier Regions
EOC	Emergency Operations Centre
AEOC	Agency Emergency Operations Centre
FEOC	FATA Emergency Operationcentre
NEOC	National Emergency Operations Centre
NDMA	National Disaster Management Authority
DDMA	District Disaster Management Authority
UN	United Nations
INGOs	International Non-Government Organization
NGOs	Non-Government Organization
DRM	Disaster Risk Management
ER	Early Recovery
HQ	Head Quarter
ERUs	Emergency Response Units
FDMF	FATA Disaster Management Fund
WHO	World Health Organization
UNICEF	United Nation International Children's EMERGENCY Fund
APA	Assistant Political Agent
PA	Political Agent
IASC	Inter AgencyStanding Committee

Acknowledgements:

Pakistan experiences Monsoon induced flooding and related disasters, between June till the end of September annually. FATA also experiences Monsoon systems. FDMA in consultation with relevant stakeholders in FATA leads contingency monsoon planning. FDMA is mandated to formulate, assess the needs and implementing the contingency plan for monsoon in FATA.

The contingency plan for 2016 was designed in close consultation with FATA secretariat line departments under the overall guidance of FDMA's Director General. We extend our gratitude to all senior staff of FDMA who all provided critical support in designing and preparation of the plan. Moreover, we are greatly indebted for the support and oversight provided by the Additional Chief Secretary FATA Secretariat, Honorable Muhammad Aslam Kambooh in relation to setting up strategic objectives of the contingency plan, and enabling us to meet the needs of affected population in FATA. Last but not the least, we acknowledge the contributions of the political administration of all agencies in FATA and the DCs of FRs for their valuable inputs that make this document comprehensive and identifies the needs and resources available for Monsoon contingencies in FATA.

Executive Summary

Generally the South Asian region is regarded as one of the most disaster prone regions of the world. In the South Asian context particularly Bangladesh and Pakistan are declared as particularly prone to different kinds of manmade and natural disasters including floods, earthquakes and cyclones amongst others. For instance during the last decade Pakistan experienced multiple disasters for example in 2001 the country was hard hit by floods causing a loss of 219 people, in 2003 floods resulted in 484 deaths, while in 2004 floods resulted in 85 fatalities. The super earthquake of 2005, which had a magnitude of 7.6 resulted in a loss of over 73000 people, and caused economic losses worth billions of dollars. Similarly in 2006, 2007 and 2008 floods again killed over 1200 people. In 2008/09 miscreants led to a mass displacement crisis from the Malakand division that led to millions of people to become homeless and displaced. Floods in 2010 were categorized by the UN to be the most disastrous flood event in the known history of the country. All these events show the proness of the region to disasters, their complexities and the urgent need to carry out disaster risk reduction and increased capacity building to meeting these eventualities.

This document discusses in detail various kinds of hazards and their expected outcomes in FATA. It permits all key stakeholders and communities to be adequately prepared by all means before hand and facilitates government departments & the international humanitarian actors to cope with these eventualities in a well-coordinated manner that avoids overlapping and wastage of efforts and resources in case of the onset of a disaster.

The Monsoon flooding in FATA is a regular phenomenon in the region. The mountainous terrain and poorly constructed mud and stone houses make the community more vulnerable to disasters like flash floods and earthquakes. The development of poor infrastructural measures, poses greater vulnerability risk in relation to the onset of potential disasters. In such cases even a moderate disaster could bring devastating effects on communities.

The FDMA is mandated for planning, implementing and coordinating all activities in case of the onset of a disaster. Therefore, there was a specific requirement for developing a plan that effectively responds to any Monsoon induced emergency. The development of this contingency plan is a step towards achievement of this aim. The contingency plan (CP) enables FDMA Headquarters, FATA Secretariat, the Political Administration in FATA, UN agencies and other stakeholders to be better equipped for the forthcoming monsoon season. The plan is based on mapping of monsoon hazards in all 7 agencies and 6 FR's of FATA.

The key aim of the Contingency Plan is to sensitize, prepare and equip the Political Administration, government line departments, communities, local organizations in FATA to create effective response mechanism at all levels. It further complements efforts of all stakeholders in relation to meeting the needs of people affected by potential flooding during the

period of the monsoon flooding season, taking in to account lessons learnt and needs identified from the monsoon flood response of 2010. The document outlines mapping of material and human resources available in each sector to the humanitarian community in each agency, the management and coordination arrangements, and provides standard operating procedures (SOP) during the response phase. It needs to be noted that the contingency plan remains an integral part of the FDMA Disaster Management Plan.

1. FATA-Introduction

Population in FATA is by and large predominantly Pakhtun (also called as Pashtuns). The society is seen to have conservative tendencies since the role of females remains largely restricted in relation to economic activities.

The Federally Administered Tribal Area (FATA) is spread over 27,220 sq. km. Khyber Pakhtunkhwa (KP) and FATA which largely lie on the west bank of the Indus River and the western edge of the international border with Afghanistan. According to the 2008-09 estimates, FATA's total population was 4.02 million. Which had the following demographics:

- i) an annual growth rate of 2.19%
- ii) a sex ratio of 108 males per 100 women
- iii) out of the total workforce 24.4% reside outside FATA in mainland Pakistan and as expatriates in other countries
- iv) 29.5% resides in other provinces
- v) 10.3% live in other agencies of FATA and districts of KP.

A large majority of the Population resides in rural areas with agriculture as the mainstay of the economy supported with subsistence-level use of natural resources. Only 17% of the general population is literate with female literacy as low as 3%. FATA has consistently been ranked as the most deprived and underdeveloped areas of Pakistan in relation to key sets of human development indicators including health, Education, water and sanitation, and housing etc.

Administratively, FATA comprises of seven Tribal Agencies including Bajaur, Mohmand, Khyber, Orakzai, Kurram, North Waziristan, South Waziristan and the six Frontier Regions including Peshawar, Kohat, Bannu, Tank, Dera Ismail Khan and Lakki Marwat. FATA operates under the Federal Government through its Ministry of SAFRON, whereby the Governor of KP is designated as the representative of the federal government. The Governor maintains control over the agencies through his agents i.e. the Political Agents who are entrusted with broad political, administrative, and judicial powers. In addition, FATA is supported with its own Civil Secretariat in Peshawar i.e. the FATA Secretariat, which is led by the Additional Chief Secretary.

Geographically, FATA is bounded to the north by Lower Dir in Khyber Pukthunkhwa and to the east by KP's districts of Bannu, Dera Ismail Khan, Karak, Kohat, Lakki Marwat, Malakand and Peshawar. On the south, FATA joins the districts Musa Khel and Zhob . Afghanistan is located on the western end of FATA.

FATA is the most underdeveloped region in Pakistan with 60 percent of its population living below the national poverty line (see Table 1. for demographics). Most of FATA is mountainous and shares a 373-mile long border with Afghanistan that is also referred to as the Durand Line.

Table 1: FATA Statistics

Agency/FR	Area (sq km)	Population (total)1998	Population density (persons per sq km)	Annualgrowth rate, 1981–98 (%)	Projected Population 2016
FATA	27,220	3,176,331	117	2.19	5,015,330
Bajaur	1,290	595,227	461	4.33	1,059,147
Khyber	2,576	546,730	212	3.92	932,503
Kurram	3,380	448,310	133	2.50	650,050
Mohmand	2,296	334,453	146	4.28	592,116
North Waziristan	4,707	361,246	77	2.46	521,206
Orakzai	1,538	225,441	147	- 2.69	334,600
South Waziristan	6,620	429,841	65	1.95	580,715
FR Bannu	745	19,593	26	- 6.65	43,046
FR Dera Ismail Khan	2,008	38,990	19	- 2.09	53,658
FR Kohat	446	88,456	198	2.59	129,694
FR Lakki	132	6,987	53	- 4.81	13,036
FR Peshawar	261	53,841	206	2.22	75,356
FR Tank	1,221	27,216	22	- 0.61	30,204
Source: GoKP, 2005a. GoP, 1998b.					

1.2 Climate

FATA is situated on the fringes of major climatic systems. Most parts of FATA are arid and semi-arid, with warm summers and chilled winters, Although some areas in Kurram and Orakzai agencies fall within the humid & sub-humid zones.. The pattern of rainfall in summers and winters is irregular to such an extent that it is difficult to generalize weather patterns. According to meteorological information, the area receives more winter precipitation because of western based rain systems and is also influenced by monsoon in the summers. Annual rainfall in the area varies dramatically from 630 millimeters reported in Kurram during the course of 2001-02 to 88 millimeters in neighboring Khyber Agency during the same period (GoKP, 2005a). However, the 2010 monsoon brought unprecedented climatic behavior that resulted in increased rainfall and flash floods in FATA. Moreover, the global warming and hydrological imbalances and differential weather patterns also need to be researched to assess the likelihood of unexpected disasters in areas that did not experience these disasters previously.

1.3 River Systems of FATA:

1. The Kurram River flows north-west to south east, entering North Waziristan below the town of Tal in the Hangu district of the Khyber Pakhtunkhwa flowing in to the Indus River.
2. In Orakzai Agency, the Khanki and Mastura streams flow to the east to join the Bara River. The towns of Bara and Khajuri form a plain area from where the Bara River and its tributaries join the Kabul River near Peshawar district.

To the north of the Kabul River stand the Mullagori and Shalman hills. The fertile Bara, Khanki, Kurram, Wana and Mastura valleys contain the most extensively cultivated land in FATA. These rivers have an immense catchment area and exhibit complex watersheds and hydrological cycles that require more research and detailed mapping.

The following table outlines the major rivers and their tributaries in FATA;

Table 2: FATA Rivers/Tributaries

Agency	River/Tributaries	Annual Discharge Rate
Bajaur	Rud, Kulala	4,050 Cusec
Mohmand	Swat, Kabul	
Khyber	Bara ,Chora, Ali Masjid Khwar	
Kurram	Kurram River	7,080 Cusec
NWA	Kurram, Tochi, Kheto, Khaisora	4,050 Cusec
SWA	Gomal ,Wana Toi	
Orakzai	Mastura, Khankai	

In relation to the Monsoon trends observed by Pakistan Climate Knowledge Processing Centre (CDPC) over the past 30 years, it is observed that heavy rains in monsoon season took place in all agencies of FATA. However most likely, the heaviest rains occur in the July and August timeframes.

Each year, in FATA the monsoon rainy season occurs between June and September, the levels of these major water channels rise sharply, sometimes causing extreme flood disasters. Pakistan regularly experiences several kinds of floods that include Riverine floods that are caused by heavy rains or snowmelts in the north, that lead to excess water flows exceeding the capacity of the riverbeds. Moreover, in the form flash floods, which are caused by sudden large-scale rainfalls. In addition, water conservation & storage systems/infrastructure is lacking throughout Pakistan.

1.4 Floods induced damages

The impact of floods (2010) and internal conflicts has severely affected the life of local communities in FATA. Most of the communities have been deprived of their basic livelihoods in the shape of both money and material assets. Main roads, link roads and bridges were washed away in floods or damaged in the military operation, against the militants, which has restricted access of the communities to local markets.

The communication method of the area has consequently been dismantled, which has resulted in losses to all kind of businesses. Floods and the continuing conflicts have affected all sectors of life including livestock, irrigation, health, Education, forestry, roads, bridges and communication. The most affected of all these sectors is agriculture, since agricultural crops, vegetables and fruits are unable to get access to the main markets. The farmers as such have been unable to fetch market prices for their crops which they had to sell in their own areas. This has led to severe financial implications for local farmers.

2. CONTINGECY PLAN

Introduction

Taking in to account the likelihood of potential flooding that is expected to occur in view of the current rainfall patterns in the last week of June and particularly with the onset of the Monsoon season of 2016. In addition, taking into account the lessons learnt from the 2010 floods response, the FATA Disaster Management Authority (FDMA) has prepared a comprehensive Contingency Plan that provides mechanisms and tools for disaster risk management and initiating an immediate response to the monsoon flooding.

Hazard & Risks Analysis

General Overview of Hazards

FATA is highly vulnerable to natural disasters and to human induced disasters. Flash floods occur predominantly in the mountainous and semi-mountainous areas in the region and also in the adjoining plains that lie in the FRs (Frontier Regions). In recent years the flash flood trends are on the rise, due to changing weather patterns and increased construction activities in the flood plains in FATA.

In addition, FATA is an unstable area of Pakistan where complex emergencies including a combination of refugees from Afghanistan and internal displacement of the population is in progress periodically. FATA is overlaid with frequent & massive scale of natural disasters including earthquakes, droughts and floods.

Major hazards of the region include:

Region	Major disaster hazards
FATA	Flash Floods, Riverine Floods, Earthquake, Conflict, Severe Winter, Forest Fires, Landslides , Cloud Burst and Drought

Expected Scenarios

In case of any emergency situation resulting from the monsoon we can expect to experience the following types of disaster induced scenarios:

- Destruction of civic facilities (health, schools, water processing, roads and bridges)
- Displacement of the population
- Loss of lives, high number of injured and psychosocial impact on survivors;
- Number of Vulnerable groups will be Increased (children, ladies, older people, Guests who have no idea of local language/ knowledge, disabled and mentally ill)
- Outbreak of communicable diseases;
- Increased risk of epidemics, including diarrheal diseases, malaria, cholera and measles;
- Disruption of Education services and reduced access to basic social services;
- Increased risk of gender-based violence;
- Destruction of crops, livestock and other livelihood sources of communities in FATA, as well as depletion of household assets;
- Further increase in malnutrition;

- Food insecurity;
- Protection and human rights threats, including land and property rights;
- Insufficient response capacities of humanitarian organizations in case of the onset of a large scale disaster
- Increased security concerns in the area including KP
- Increased incidence of water borne diseases
- Hydrological imbalances and water logging in the area

PLAN OF ACTION

Keeping in view the 2010 floods, FDMA has planned the following line of action to avoid any disaster situation in the upcoming 2016 monsoon season. This plan will be equally applicable to all future natural emergencies. However, the data and information will need to be updated accordingly.

Establishment of Emergency Operation Centre (EOC):

The EOC mechanism is based on the fact that any significant operation needs a dedicated coordination in relation to the general operational management of the response. The FATA EOC will be headed by the Director Operations FDMA. The participation of the following core stakeholders and departments (Irrigation, Meteorological, Focal Personnel of Political Administration, Security Forces deployed at FATA, UN Agencies & law enforcement agencies) will be ensured in the EOC.

A 24/7 Emergency operation centre will be established in the headquarters of FDMA in Peshawar during the monsoon season. The FATA EOC will serve as a hub for receiving early warning and disseminating information to the public, media, line directorates of FATA & humanitarian agencies. The EOC will also lead the coordination and management of relief operation in affected areas. All the stakeholders such as civil defence, armed forces, irrigation, meteorological, focal personnel of political administration, UN Agencies & other relevant stakeholders will be coordinated by the EOCs at respective levels.

The EOC will cover the areas where the likelihood of any kind of flash floods is comparatively higher. The EOC will be responsible for sharing and disseminating flood related information in advance to the local authorities, so they can evacuate people and minimize human and material losses. The EOC will be responsible to contribute towards provision of basic facilities to flood affectees for example, relief, logistics, emergency health, shelter and support areas such as administration, finance, telecommunications, knowledge and human resources.

The staffing and allocation of financial and related resources including technical equipment for the EOC will be contingent on the size and frequency of disaster, and the available resources.

EOC Activation Procedure:

Activation procedure of EOC consists of the following steps;

1. On Receipt of Alert (Standby - Stage one)

EOC receives alerts and regular updates on potential disaster or emergencies from the Meteorology department. Director General FDMA will seek alert/activation approval, from the Chairman FATA Disaster Management Commission (FDMC) for which the mechanism is under consideration and presently being streamlined. Until that is finalized, under current circumstances the DG FDMA will seek approval from Additional Chief Secretary (ACS) FATA. Following, which approval of Alert Phase is notified to the Political Administration, FATA Secretariat, key stakeholders and humanitarian organizations. SOPs for this stage will be as followed:-

- Closely coordinate activities on the basis of situational updates from Agency emergency operation centers
- Regular monitoring of the Situation
- Updating DG FDMA and FDMC or ACS FATA
- Alert the FEOC staff
- Activate FEOC to become functional

2. Activation of EOC (Stage two)

Notification for activation will be issued and FEOC remains operational on 24/7 basis. The Director General FDMA will share information with concerned departments/stakeholders e.g. Irrigation, Agriculture and Livestock, Public Health Engineering, Education, Communication and Works, Revenue Department, NDMA and humanitarian organizations, UN, I/NGOs, NGOs and Media etc.

SOPs to be followed for this stage are:

- Emergency Operations center will be fully operational
- Collect essential knowledge including detail of resources, which are necessary for relief operation
- Coordinate with all relevant departments to ensure their participation in the EOC
- Coordinate & share updates with concerned, departments, & other stakeholders
- Closely coordinate & consult DG FDMA or his/her designate.
- Coordinate with relevant departments, humanitarian agencies, etc to prepare for provision of relief services
- DG FDMA will update FDMC/ACS FATA about the situation

- Coordinate regularly with NEOC (National Emergency Operations Centre) and AEOC (Agency Emergency Operations Center)

3. Stand Down Procedure (Stage three)

After reviewing the situation and in consultation with concerned Agency Emergency Operation Center (AEOC), FEOC will advise the DG FDMA for stand down. After getting approval of FDMC, Chairman FDMC/ACS FATA will approve the stand down of the EOC. FDMA will notify the relevant stakeholders and line departments at regional level.

SOPs to be followed for this stage are:

- EOC will debrief the DG FDMA about stand down.
- DG FDMA will advise Chairman FDMC/ACS FATA to approve stand down of FEOC
- Chairman FDMC/ACS FATA will approve it. FDMA issues notification in this regard
- DG FDMA through EOC will disseminate notification to the relevant departments and other stakeholders.
- Final document on the emergency operations will be circulated to key stakeholders
- Inform AEOC and NEOC about stand down
- Share key lessons learnt with stakeholders

It will be at the discretion of the DG FDMA to activate the appropriate action as conditions and resources may dictate during the given scenario.

Resource Identification

The FDMA has an effective mechanism in place at all agency levels by deploying Agency Coordinators. In addition to that the Political Administration and line departments of FATA secretariat have been requested to develop their own contingency plans for the upcoming Monsoon 2016. Political Administration in a few Agencies has developed a detailed Monsoon Contingency Plan 2016 with clear distribution of roles and responsibilities of each and every line department in their respective Agency. Political Administration has also developed an effective coordination mechanism matrix. They have the capacity and in house resources to respond effectively to any disaster situation. Disaster Management committee's has been formed at each Tehsil level of the Agency and in addition they will be properly oriented on disaster related issues.

Capacity Analysis

FATA Disaster Management Authority is presently working in all the 7 Agencies & 6 FRs of FATA. In terms of capacity and institutional strengthening, the FDMA has core expertise in

disaster response & reduction. It is to the credit of the authority that it successfully established three IDP camps. FDMA has managed the camps and successfully facilitated IDPs to return to their places of origin. FDMA is in the process of strengthening the response mechanism. Under the supervision of FDMA, the Bakka Khel camp in FR Bannu is still in operation. FDMA has constructed warehouses at Khyber and Orakzai Agencies with the financial support of WFP, where relief items like food, shelter, water & medicine will be stocked. Three Permanent ware houses each at Bajaur, Mohmand and North Waziristan Agencies, are under construction for storage of contingency material. FDMA is gradually enhancing its capacities to cover all aspects that relate to both Pre and Post disaster management in FATA.

Deployment of Agency Coordinators

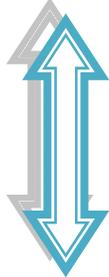
Emergency operations are complex, in area like FATA where movement remains restricted. FDMA will assign duties to the Agency coordinators in relation to monitoring the general emergency situation and updating Head Quarters regularly. During the emergency phase the situation is expected to be complex and demanding- the coordinators will therefore be responsible to undertake ground assessment and create an effective coordination mechanism amongst relevant stakeholders. Unlike development program, which are designed & implemented over much longer time frames, complex emergencies need rapid assessment, close coordination with dozens of actors, rapid decision-making and rapid deployment. Agency coordinators of FDMA are capable of effectively carrying out these activities.

FATA Disaster Management Fund (FDMF)

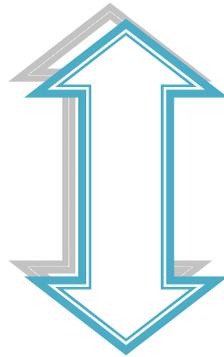
Under the NDMA act 2010, FDMA has the authority to access and use FATA Disaster Management Fund (FDMF). It can be used to provide emergency funding to support Agencies and FRs. FDMF allocations are made with a view to start up operations in case of major disasters and are reimbursed to the fund when sufficient funding is received to the emergency appeal. Allocations may also be made as grants to provide support to smaller-scale emergencies, or strengthening preparedness for imminent crises, where emergency appeals are either not needed or donor interest is lacking. But in cases where FDMA response is specific in relation to substantial humanitarian needs, funds can be made immediately available for use by the FDMA for carrying out emergency response operations.

Information flow Mechanism for Early Warning

Meteorological Department



FATA Disaster Management Authority

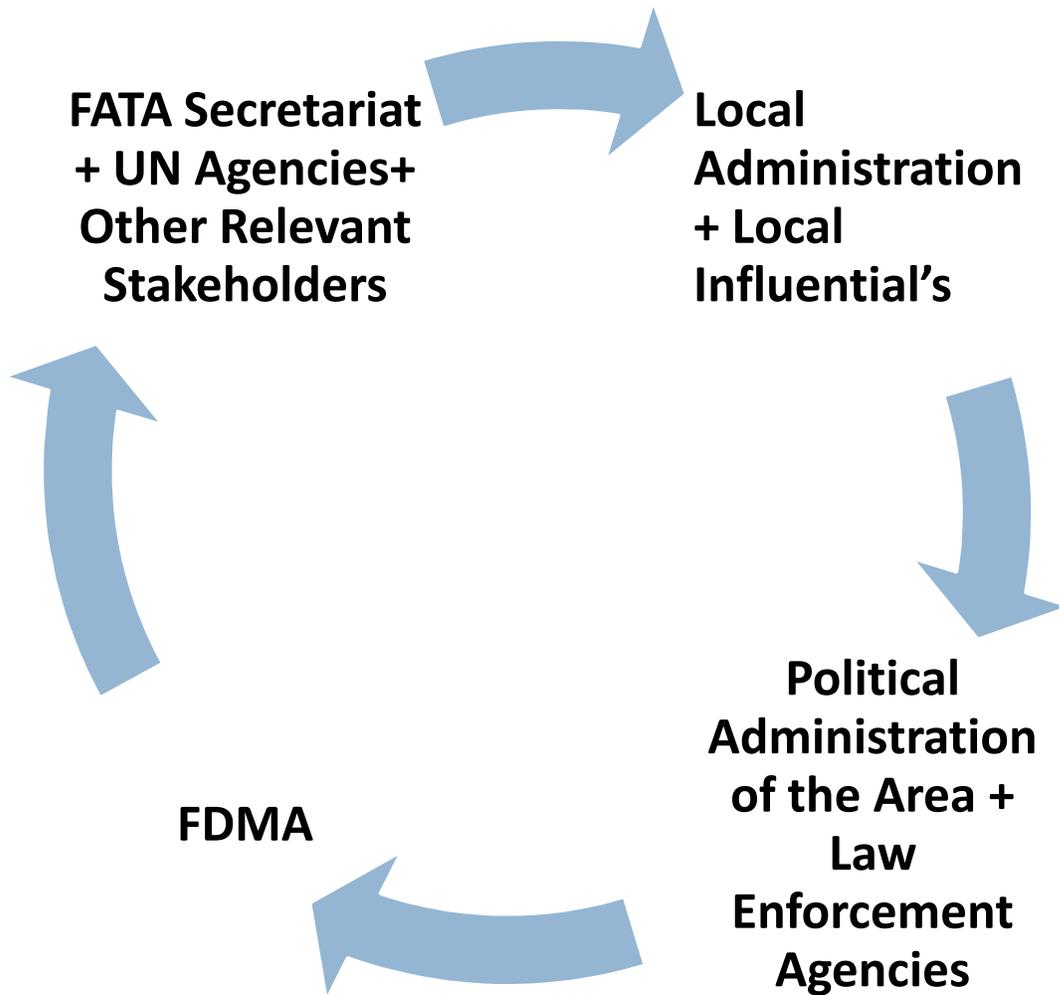


FATA Secretariat + Political Administration / DCOs FRs/ Law Enforcement Agencies/ Local, National and International NGOs + UN Agencies + Relevant Stakeholders



Local / Tehsil Administration + Influential of the Area

Mechanism for Emergency Response



Preparedness, Response Activities of different stakeholders

At any given situation FDMA, Line directorates, Law enforcement Agencies, Meteorology Department, UN agencies and all other stake-holder will be responsible to undertake the following measures:

FATA Disaster Management Authority Preparedness Activities

- Prepare emergency preparedness plan
- Prepare multi hazards and disaster specific contingency plan
- Establish communication mechanisms for early warning response in Agencies, Meteorology department, Irrigation and in relation to other stakeholders.
- Share contingency plan with Emergency Operation Centre (EOC), relevant departments like Health, Education, Irrigation, Logistics and Communication
- Provide technical assistance for preparing disaster preparedness and response designs for each agency in FATA
- Create hazard specific maps of agencies and ensures availability of such maps on the FDMA web-site.
- Facilitate all agencies to set up Emergency Control Room (ECR) and maintain adequate readiness levels with all equipments in working order
- Create and maintain Regional Disaster Response Team (RDRT)
- Coordinate with FATA Secretariat Local, National, I/NGOs and UN for sharing of resources on preparedness and emergency response.
- Prepare communication and transportation plan for potential disaster response
- Prepare security guidelines for response teams working in the disaster affected areas (particularly in relation to insecure conflict affected areas where kidnappings are common).

Response Activities

- Activate Emergency Operations Centre (EOC)
- Deploy Agency Coordinators for effective functioning of the response
- Conduct preliminary assessment of disaster affected areas and assess the extent and volume of losses, and the scale of relief required to mitigate these damages
- Coordinate and inform all concerned departments and stakeholders in relation to preparation of the emergency response(UN Agencies, DMAs and organizations working on disasters)
- Ensure provision of food, drinking water, medical supplies and non-food items to the affected population.

- Organize detailed assessment for the early recovery program and prepare plans and proposals for circulation to FATA Secretariat, UN agencies and other stakeholders
- Prepare a transition plan from relief to recovery program
- Organize regular media and public knowledge briefings
- Prepare situation updates on every day and every week basis and circulate to the relevant departments, UN, DMAs and other I/NGOs working on the disasters etc

Irrigation Department

Irrigation department will be responsible to carry out the following measures at the onset of disasters and emergencies in relation to floods;

Mitigation

- Supervise, direct and control flood prevention measures and bund protection activities, such as the strengthening, maintenance and construction of additional embankments
- Review of critical water with a particular emphasis on control of potentially breaching sections
- Regular visits and inspection of flood protection works
- Vulnerability and risk analysis for flood prone areas
- Coordinate with FDMA, Flood Forecasting and Warning Division and jointly identify appropriate actions for reducing the vulnerability of communities to flooding and other risks that may disrupt livelihoods in irrigated areas.
- Protection of irrigation infrastructure (barrages, canals, bunds and spurs etc) and communication network (roads, bridges) etc.

Preparedness

- Placing the requisite machinery and materials at safe locations near vulnerable areas for emergency use.
- Prepare stocks of equipments and materials within nearest locations for each head works and flood protection structures.
- Keep the gauge stations in operational mode and provide information and knowledge to the concerned authorities for issuance of Alerts and Warning messages.
- Supervise and coordinate actions to save stock, property, machinery, and equipment from flood destruction

- Create a disaster risk management plan to deal with hazards and disasters within the department's mandate
- Allocate money in the annual budget for implementation of disaster risk management activities in flood and drought prone areas

Response

- Survey the extent of damage to bunds, embankments, canals and irrigation tube wells
- Organize and setting up the Flood Emergency Cell within the Department.
- Assist and coordinate the repair of public services
- De-silt irrigation channels post-floods
- Provide assistance in safe evacuation
- Assist the revenue authorities to survey crops damaged by the flooding

Health Department

Preparedness Activities

- Preparation of emergency preparedness plan for the health sector and sharing it with FDMA Management.
- Prepare protocols and guidelines to address public health issues as part of preparedness, response and recovery designs.
- Creating maximum standards in health services in emergencies situation and share it with FDMA management (Sphere standards).
- Creating health assessment checklists, health monitoring and evaluation formats for emergency response program.
- Creating lists of medical and paramedics to be deployed in case of a major disaster in any part of the region
- Prepare a list of surgical, hospital equipments, human resources, vehicles, ambulances, medicine stocks for use in emergency health assistance in major disasters

Response Activities

- Designate a representative in EOC at the onset of an emergency
- Alert and deploy medical teams and paramedic staff in the affected areas for speedy assessment and emergency response
- Exercising vigilance in relation to the possibility of any epidemic/outbreak and take effective measures against it

- Provide technical support to Political Administration and FATA Secretariat, in smooth provision of health services during emergency response.
- Ensure that WHO protocols on quality and Sphere Maximum Standards are followed by medical professionals in the field.
- Coordinate and facilitate with WHO/UNICEF and other humanitarian organizations working in health sector in the affected areas.
- Monitor health situation in the affected areas.
- Document the lesson learnt from the response experiences and incorporate same in future planning.

Communication Directorate of FATA

Preparedness Activities

- Prepare a communication strategy on emergency response
- Document and broadcast good practices on emergency response
- To ensure that actual updates are going to be shared with print and electronic media
- Provide to the public timely and factual information on FDMA responses during emergencies
- Create an awareness strategy for the public that encompasses the emergency response period.
- Organize awareness program for media journalists on FDMA disaster response.

Response Activities

- Designate a representative in EOC , during the emergency response period
- Take steps for due projection of FDMA disaster response activities.
- Provide public, timely and provide factual information on FDMA response during emergency operations.
- Disseminate information about the short/long term measures initiated by FDMA for relief and rehabilitation of affected people.
- Pass on public awareness messages on health and other issues which help to reduce human losses.
- Highlight needs and issues of survivors in relation to operations carried out during disasters.

OPERATIONAL MANAGEMENT AND COORDINATION DURING DISASTER RESPONSE

Authority	Lead Person/Department	Focal Person	Fax/telephone numbers
FATA Secretariat	Secretary Admin & Coordination	Mr. Waqar UI Hassan	091-9214013
FDMA	Dir (Ops & relief)	Mr. Muhammad Arif	091-9216336
Met Department	Director General Deputy Director	Mr. Mushtaq Shah Mr. Alam Zeb	091-9210190
Irrigation Department	Director (FATA Secretariat)	Mr. Nawab Khan	091-9212149
Works & Services Department	Chief Engineer	Mr. Shahaab Khattak	091-9211725 091 9210212
Health Department	Director	Mr. Jawaad Habib	091-9210106
Education Department	Director	Mr. Hameed Ullah Jan	091-9210166
Directorate of Media	Director	Mr. Fazal - Ullah	091-9212153
Civil Defense	Superintendent	Mr. Naushad Khan	091-9211368 0333-9179032
UNOCHA	Head of Provincial office	Mr. Tareq Talama	091-58522791
Political Administration	Political Agent/APO		Annexed at <u>F/A</u>

Department of Civil Defense

The Civil Defense will create its capacity for disaster preparedness and response in all agencies in close coordination with the FDMA and Political Administration. Key functions of Civil Defence are:

Preparedness

- Standardize and specify Civil Defense equipment and fire appliances for Fire Brigades, industries and other institutions
- Provide First Aid, fire safety and rescue trainings to communities, individuals and organizations.
- Improve community awareness on public safety
- Recruit/induct operational staff for search and rescue
- Enhance capacity of existing search and rescue teams of the department
- Ensure provision of trained rescue workers / Razakars and First Aid staff
- Educate and train volunteers on first aid and emergency evacuations and protection procedures against poisonous gases, chemical/biological/radiological explosions or attack;
- Participate in emergency drills with other stakeholders;
- Specify coordinate and enforce Fire Protection measures in industrial and commercial areas;

Response

- Search and rescue activities
- Carry out emergency first aid and transport;
- Assist in debris clearance and restoration of essential services;
- Identification and diffusion of unexploded bombs;
- Provide emergency rescue equipment.
- Work with the Fire Brigade in rescue and first aid operations
- Provide assistance, render advice and impart training in bomb detection and disposal

Political Administration

In case of any urgency Political administration will be responsible for the following activities:

- Establishment of emergency team for sub Tehsil
- Ensure Provision of Shelter to affectees at safe places
- Ensure launching relief operations
- Ensure the provision of Food and other basic facilities
- Ensuring safe and secure evacuation of the affectees

Mitigation and Preparedness

- Mark and identify safe areas in case of emergency
- Establish rub halls at each agency for stocking food and non-food items in the event of a disaster
- Conduct capacity building trainings at all levels
- Equip disaster prone areas with necessary stockpiles

Department of Works & Services

The Executive Engineer, Work & Services will rehabilitate any portion of road/building in case of floods or landslides. Details of machineries required for such operation should also be kept in hand so that it could be mobilized quickly in case of an emergency. In addition, the Work & Services Department will ensure the disposal of the following assignments before, during and after disaster stage:

1. To instruct/direct all the officials at construction sites to keep manpower prepared for protection and repair of public works.
2. To direct the construction authorities and contractors to prepare necessary workers and ensure availability of machineries in or near areas likely to be affected by the floods.
3. To provide assistance to the damaged assessment teams for carrying out survey of damaged roads and other Govt: buildings, infrastructures/communication networks.
4. To take steps for clearance of debris and assist search and rescue teams.
5. To disseminate information regarding operational areas and safe routes/alternate routes for evacuation of flood affected populations.
6. To launch repair missions for critical damaged infrastructures/communication networks.
7. To take steps for ensuring speedy repair and restoration of transportation links.
8. To prepare a detailed work plan for rehabilitation of damaged public works.

Law Enforcement Agencies

Law enforcement Agencies already deployed at different Agencies of FATA will assist the Political Administration in case of any emergency situation. Law enforcement agencies have their own contingency plan in place but they will assist in search and rescue and in relation to any other help needed by Political administration.

UN Agencies

UN Agencies play a key role in disaster management especially in assessment, planning, coordination, response, recovery and longer term disaster risk reduction program. The main purpose of the Inter Agency Standing Committee (IASC) is to organize and coordinate meetings of UN and INGOs on every week basis to monitor the response of various agencies. In addition to that, the UN plays a pivotal role in capacity building of public sector in policy formulation in disaster management, providing technical support to provinces and districts in disaster management planning, strengthening public sector organizations in emergency response and disaster preparedness through capacity building trainings.

FDMA Response to Disaster with in different timeframe

<p>FDMA Action within first 24 Hours of the onset of a disaster</p>	<ul style="list-style-type: none"> ○ EOC declares the Contingency Plan activated ○ Control room start functioning ○ Deploy First Aid Services. ○ Deployment of assessment teams. ○ Transportation of the emergency medicines to the affected area through assessment teams. ○ Deployment of search and rescue teams
<p>Actions within the first 72 hours</p>	<ul style="list-style-type: none"> ○ Emergency Assessments, First Aid Services through local administration and volunteers ○ Deployment of mobile medical teams through the Unit channel supported by HQ. ○ Unit wise allocation and transportation of relief goods from stock. ○ Identification of additional needs and plan procurements ○ Formation of damage assessment team
<p>Actions within the first 7 days</p>	<ul style="list-style-type: none"> ○ Compilation of unit / field reports ○ Analysis of assessment reports. ○ Unit-wise allocation of relief goods (Health, Agriculture, Education, Livelihood etc) ○ Prepare and implement Action Plans in light of findings of damage assessment team ○ Selection of beneficiaries ○ Conduct / participate internal & external coordination meetings ○ Reinforcement of mobile medical teams including logistics from HQ if needed
<p>Actions within the first 15 days</p>	<ul style="list-style-type: none"> ○ Ensure provision of basic facilities to the affectees ○ Deployment of FDMA staff at evacuation points ○ Arrange media visits to evacuation points ○ Monitoring and reporting of ongoing activities at all levels. ○ Follow up / revised action plans ○ Follow-up on financial issues

Follow up, Evaluation and Needs

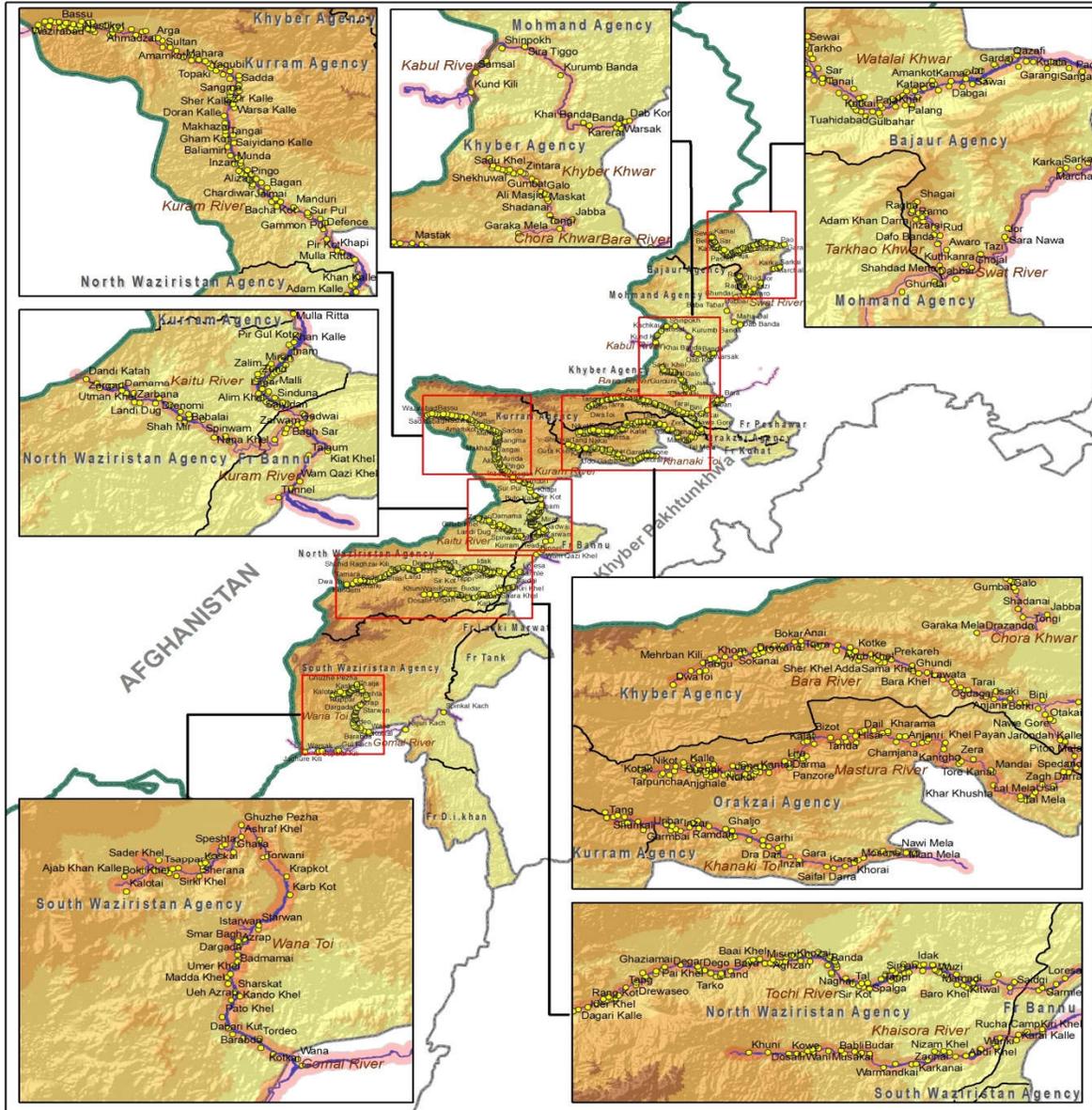
- Continued distribution of relief (food & non-food), & recovery options.
- Monitoring and reporting of the on-going activities at all levels.
- Evaluation and Lessons learned on emergency operations

- Recommendations for future plans
- Extension of radar system to FATA
- Installation of warehouses at separate agency levels

List of Political Agents Contact Numbers:

S.No	Agency	Name	Office No.	Cell No.
1	Bajaur	Muhammad Yahya Akhon	0942-220558	0300-5861711 0346-2021010
2	Khyber Agency	Shahab Ali Shah	9211901-4	0300-2808333
3	Kurram	Ikramullah Khan	0926-310599	0303-9002288
4	Mohmand	Waqar Ali	0924-290001-2	0300-9706933 0345-9435161
5	North Waziristan	Kamran Afridi	0928-300600	0333-9189606
6	South Waziristan	Zafar Ul Islam	0963-510364/510709 0965-210296, 210748	0343-9993999
7	Orakzai	Muhammad Zubair	0925-690008 621542-3	0336-9479799

FATA - Flood Vulnerable Settlements



Legend

Settlements at Risk	Elevation (m)
Major Rivers	223 - 1,000
Flood Vulnerable Area	1,001 - 1,500
International boundary	1,501 - 2,500
Province boundary	2,5001 - 3,500
Agency/FR boundary	3,501 - 4,565

Map Doc Name: IMMAP_FATA Flood Vulnerable Settlements Map_A4P_v01_052212
Creation Date: 22 May 2012
Projection/Datum: WGS 1984
Web Resources: <http://www.immap.org>

Map Scale: 0 20 40 80 Kilometers

Map data source(s): PCO, FATA Secretariat

Disclaimers: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the FATA, USAID or IMMAP concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



Name and Contact Numbers of Focal Persons for the Monsoon Contingency Plan 2016						
S.No	Name	Designation	Directorate/Agencies	Contact No		Email Address
				Mobile	Land Line	
Line Directorates in FATA						
1	Dr.Ziauddin	Agency Livestock Officer	Directorate of Livestock	0308-8447797		
2	Mr.Rashid Khan	Accountant	Directorate of Population Welfare	0343-9039319		rashidqacc1@gmail.com
3	Dr.Niaz Muhammad Afridi	Program Manager Mobile Hospital Program FATA	Directorate of Health Services FATA	0300-5991516		
4	Mr. Shahzad Khan	Assistant Director	Directorate of Local Government & Rural Development	0314-4553737		shahzad.hadi@google.com
5	Mr. Zahidullah	Assistant Horticulture Officer	Directorate of Agriculture Extension FATA	0344-9093645		agricfata@yahoo.com
6	Mr. Naushad	Superintendent	Civil defence FATA	0333-9179032		
7	Mr.Amin Jan	ADE	Works & Services FATA	0300-5994560		
8	Mr.Abid Ali	ADE	Works & Services FATA	0336-9172287		
9	Mr.Jehanzeb Khan	ADE	Works & Services FATA	0333-9119123		
10	Mr.FazalEllahi	Divisional Forest Officer	Conservator Forests FATA	0300-9034468	091-9213830	dfokfd@yahoo.com

11	Mr.Abbas Khan	DeputyDirector	Directorate of Education	0333-3111262		Abbaskhan70@hotmail.com
Agencies						
1	Mr. Muhammad Israr Khan	Sub Engineer	Mohmand Agency/Finance & Planning	0300-5824046		amjid_alikhan786@yahoo.com
2	Mr. Anwar Sherani	AdditionalPoliticalAgency	North WaziristanAgency	0345-5922497		
3	Mr. Khaista Akbar	PoliticalNiabTehsildar	Orakzai Agency	0332-9677295	0925-650712	
4	Mr. Anwar Ali	Assistant Agency Finance Officer	KurramAgency	0300-5485000	0926-301169/ 313532	anwarzainpk@hotmail.com
5	Mr.Qaiser Munir	Assistant Agency Finance Officer	KhyberAgency	0301-8925545		Qaisermunir52@gmail.com
6	Irfan uddin	AdditionalPolitical Agent	Bajaur Agency	0942-220294		
Frontier Regions (FRs)						
1	Mr. Gul Shahzad	PoliticalNaibTehsildar	FR Peshawar	0302-4242242		
2	Mr. Muhammad Alam	PoliticalNaibTehsildar	FR Lakki Marwat	0346-9286308		
3	Habib Nawaz	PoliticalNaibTehsildar	FR. Bannu	0300-5766636		
4	Mr. Latifullah	PoliticalNaibTehsildar	FR. Tank	0963-512385		
5	Mr.Mahmood Khan	SDO	FR.D.I.Khan	0969-542335		
6	Mr. Nauman	Political Naib Tehsil Dar	FR. Kohat			

Different Case Scenarios Needs and Requirements

Anticipated Prone Population to Hazards in whole FATA	Estimated Affected House Holds in whole of FATA	Basic Requirements for One Month			
		Tents Required	Foods Requirement (MT)	Water	Non food Item Kits
				15 ltr per day per person	
Worse Case scenario					
521030	55893	9846	7480	6945450	59670
Moderate Case Scenario					
298165	33129	5522	4281	4472475	33129
Low Case Scenario					
160020	18277	3046	2297	2400300	18279

RESOURCE AVAILABILITY FOR MONSOON 2016 HEALTH AND RELIEF (FOOD DISTRIBUTION) ITEMS

RESOURCE AVAILABILITY FOR MONSOON CONTINGENCIES 2016 IN FATA¹

○ 10 % of Expected low case load amounting to approximately 2,000 households is available with the Pakistan red-crescent society PRCS – FATA
○ Total number of Vehicles available at FDMA`s disposal = 5
○ Amount of 1.5 Million to each Political Agents and 0.5 Million to each APA FR, have been transferred as contingency amount.

HEALTH RESPONSE COMPONENTS AVAILABILITY FOR MONSOON 2016²

○ 26 mobile health units available for catering to monsoon related emergencies – Mobiles are well-stocked to provide medicine
○ Each mobile unit includes X Ray scanners, mini-OT & Tests lab
○ 5 provided by USAID (2 in Bajaur, 2 in Mohmand and 1 in SWA)
○ 7 provided by KFW (2 in Upper Kurram, 1 in lower Kurram, 1 in upper Orakzai, 1 in lower Orakzai and 2 in NWA)
○ 14 additional mobile health units available at Jamrud (where health dept. has arrangements to house them)

¹ Source PRCS and FDMA

² Source Health Dept. FATA

RELIEF DISTRIBUTION MECHANISMS AND WAREHOUSING OF RELIEF INVENTORIES FOR MONSOON CONTINGENCIES

<ul style="list-style-type: none">○ FDMA has ample space in all agencies
<ul style="list-style-type: none">○ FDMA has a viable food distribution mechanism for Displaced Populations
<ul style="list-style-type: none">○ Has the Capacity of immediate allocation of food related resources in close consultation with WFP
<ul style="list-style-type: none">○ WFP can arrange in 72 hours - food items - NFI`s provided by UNHCR
<ul style="list-style-type: none">○ 2 warehouses constructed (1 at Orakzai 150 MT covers south FATA, 1 at Jamrud 300 MT covers north FATA) and 3 permanent ware house for contingency material is under construction at Mohmand, Bajaur and North Waziristan
<ul style="list-style-type: none">○ 2 additional warehouses in Bajaur (through BEST NGO)
<ul style="list-style-type: none">○ Ample space available in all agencies for establishing warehouses - political administration compounds.

Flood Frequency FATA (Tehsils affected by floods)

Frequent (0-1 year)

Occasional (1-5 years)

source FDMA ICT database

Agency	Tehsil	Frequency
Bajaur Agency	Barang	Frequent
	Khar	Frequent
	Nawagai	Frequent
	Charmarkand	Occasional
	LoiMamond	Frequent
	Salarzai	Frequent
	UtmaKhail	Frequent
	WaraMamund	Frequent
Mohmand Agency	Prang Ghar	Occasional
	Pindialay	Frequent
	Khwaizai	Occasional
	Safi	Occasional

	Ghalanai	Frequent
	Ambar	Occasional
	Ekkaghund	Occasional
Kuram Agency	Lower Kurram	Occasional
	Upper Kurram	Frequent
	Central Kurram	Frequent
	Charmarkand	Occasional
Agency	Tehsil	Frequency
Orakzai Agency	Lower Sub Division	Frequent
	Upper Sub Division	Frequent
	UtmaKhail	Frequent
	WaraMamund	Frequent
KhyberAgency	Bara	Frequent
	Jamrud	Frequent
	LandiKotal	Frequent
South WaziristanAgency	Birmal	Frequent
	Ladha	Frequent
	Wana	Frequent

	Makin	Frequent
	Shakkai	Frequent
	Sararogha	Frequent
	Sarwakai	Frequent
	ToiKhullah	Frequent
FR Bannu	FR Bannu	Occasional
FR Lakki	FR Lakki	Occasional
FR Tank	FR Tank	Frequent

Prioritized Vulnerable sections identified by Irrigation directorate ANNEXURE – F

Detail of Vulnerable points in FATA

S.no	Name of Agency/ FR	Total Vulnerable Points	Reconstruction Cost Specified by Irrigation Department (In Million PKR)	Amount required for Emergency Measures before Monsoon @ .25 Million PKR per scheme
1	Mohmand	10	312,3	2,5
2	Orakzai	8	207,0	2
3	Kurram	5	33,2	1,25
4	Khyber	14	208,0	3,5
5	Bajur	7	420,0	6,25
6	NWA	31	616,3	7,75
7	FR Bannu	6	133,0	1,5
8	FR Lakki	20	165,5	5
Total			2095.18	29.75

List of the Prone Villages

No	Agency/FR s	Tehsil	Prone Villages to Flash Floods	Anticipated Prone Population to Hazards	Priority areas for preparedness i.e construction of retaining wall, Spurs, Check Dams, Pavement of Canals etc
1.	Kurram	Parachinar	Kharlachi, Amal Kot, Borki ,Kharlachi, Pekar , Kurram, Sehra kali basooshingak, shalozan, alisheri,larzar,dago kali kachkina, karakhela, kurram river, luqmankhel , nastikot, chapri, parachinar city, quabadshahkhel, sports complex, zeran, sra gala, purkho , ahq hospital, pasta shaga, Bughdai, shakh, daradar , mana kirman, mana , noor khan khanda, muqbal,matasangar, ghuzgari, tarimangal to kutrisursurang.	40000-50000	Protection wall, Retaining wall, spurs, pavement canal and check Dams.
		Sadda	Sadda, Alizai, Dogar ,Shakardara, Gosar, Ramaki Kali, Topaki, ShashooKhawar, Tari tang, Shahbaz	20000-30000	As above

		Alizai	Sam , Judara, Surpukh, Murghan, Badama Tabai KhoniKhel, Parachamkani, Thindo, KhoidadKhel area, Arwaza ,Makhranai. Alizai , Chapri, Tangai, SarkalaKhawarBagzai, KhairullaMela , Baggan, Bilyamin, Chardiwar, Inziri, BhutoKhapyanga, Hikman Shah Kali Baggan, Mandor, Uchat, AhmadiShahma.	25000-32000	As above
	Bajaur	Nawagai	Nawagai	2000	Protection Wall
		Khar	InzariKhawar, Samsai,KharVillage ,Maminzo, Musa Kass, Seraj	17900	Protection Wall
		Mamund	Damadola, Billot, Lagharai	2000	Protection Wall
		Salarzai	Danqol,Dandokai,Atkui,Chargo,Sadokai,Talai,GhalSalay	10600	Protection Wall
		Barang	Barangkhass, Takht	6500	Protectionwall
		Utman khel	Bandagai, Mattaka, Mandal khel	12000	Protectionwall
3.	North Waziristan Agency		Pai Khel, Mohammad Khel, Hamzoni ,DarpaKhel ,Miranshah,Tappi ,Idak, Khaddi ,HassuKhel, Haider Khel, Mohammadi	2500	Galvanized Iron wire crate/ protection band /Delay action d3am / Spur
4.	FR Bannu		Tal Gai, Chashma ,Kir Lasta ,DaryobaBakaKhel ,SardiKhel, Jani Khel, Sain Tanga, Sadgai	18000 persons	Galvanized Iron wire crate/ protection band /Delay action dam / Spur

5.	FR Lakki		Adezai ,TaruKhel, ShahdiKhel, Ali Khel, MastiKhel,, GuliKhel, Wateen Bagh, Wargara	16000 persons	Galvanized Iron wire crate/ protection band /Delay action dam /Spur
6.	FR Tank		Jandola, UmerKhel, KhachaiKali,SohalatoArca, Ping Area, Pir Tangi	15000	Galvanized Iron Wire, Protection Wall, Peep Wall, Ponds
7.	FR D.I. Khan		Mughal Kot, BehramVillage,Merali, Sheikh Mela, Hassan Khel, Ola Khel,KohiBohra, Kohi Power, Parawar	25000	Galvanized Iron Wire, Protection Wall, Peep Wall, Ponds, Delay Action Dams, Earthen Ponds
8.	South Waziristan Agency		Badar, ShamriLadha, Dowatoi, Piza, Bangiwala/ShamimKhel, Koltakai and SpinkaiRaghzai, Khaisara, Borward, Shahoor, AzamWersak, Sholam,WinchaShana, Dhana, WounchaKhasraw, Somer Bagh, ToiKullah, Spin , Tanai, TirazaKhulla	40000	Galvanized Iron Wire, Protection Wall, Peep Wall, Ponds, Delay Action Dams, Earthen Ponds
9	Khyber Agency	Jamrud	Ghalanai, Lda China, Tagan, Qadam, Braj, Jalal Din, kharkaiLashora, Haji Ibrahim Kalai ,GudarKalai ,Chooru Villages , OsaiKhulaKalai, Haji Khan AfzalKalai , ToorKhelKalai,Malik Gul Rehman Kalai	35000	GI wire crated ,Protection Bund,P.CC Prot Spurs, Delay action Dams, Check Dams
		LandiKotal	WaliKhel area, NikiKhel Area, Malayano Kalai Ash Khel area, PeroKhel Area, SheikhmalKhel area KhugaKhel area Baghkalai, MulayanokalaiKozKalai, DurmaKhel, GlundaKhel, Yousaf Khel	20000	GI wire crated, Protection Bund,P.CC Prot Spurs, Delay action Dams, Check Dams

		Bara	BenaiAkaKhel, BorkaiStoriKhel, SawkaniStoriKhel, Sawai Kot StoriKhel, ChlagazaiStoriKhel, BoiegaraiAkaKhel, MamonieyAkaKhel, SraShagaAkaKhel, ZoreKalaiAkaKhel, Mada KhelAkaKhel, ZiauldinZakhaKhel, SandanaSepah, Spin DrandSepah, Tarkho Kass Qambar Khel	40000	GI wire crated , Protection Bund, P.CC Pro Bunds, Spurs Delay action Dams, Check Dams
10.	Mohmand	HalimZai	Prata Bara Kadai,Babikhel,ShaniuKhel Mian Mandi,BaroKhel,Sado Kor Kamil, AtoKhel,GhaziBaig,HamzaKhel,Yasin/Diamirjor,ShahBaig,KozGando,KozaKdai, Dara (Yousaf Khel),Bara Kadi,Khawaja was kor,SultanKhelSanagarKhel,Gandhab	23200to 30600 & 500 shops at main Bazaar	Check dams, Protection Walls,Earthen Po Retaining Walls & Pavements (Lining) of Channels
		Safi	KarirQandhari,DerwazgaiQandhari, ChingalQandari,l,SanduKhel,Mansoor Kor, PesogeMiangan,ShalamKhel,Lakri Gurbaz,KatasarGurbaz,HawaraGurbaz, QallugaiGurbaz,ShewaFarshMasood, ChinariMasood,MohammadGot,Sagi Area Shinwari,AlingarShinwari,Sheikh Baba Shinwari,chamarkandShinwari	20200-29300	Check Dams, Protection Walls,Earthen Po Retaining Walls (Lining) of channel and Pavement

		Lower Sub Division	DawazaiArea,Tamanzaiarea,DanishKol, PaiKhan,SheenKamar,KotMiangan, Kotatrap,Derwazgai,ZareefKorbala,KadoKor, KashiKor,SourJohar, SpeenkaiSaleh,KowaroKalley,Malik Nawaz Korona,SpeenaKhowara,Juma KhelKachkolkalli,Qallagai,Mazrina Cheena,ZanwarCheena,SoorDag,Shah Dad Dheri,Khaista Khan Korona,AnwarKorona,Kira,Nawdand,sappore	18730	Check Dams, Protection Walls,Earthen Po Retaining Walls (Lining) of channel and Pavement
		Baizai/Khewezi	ManzariChena,ToorKhel,Shamshah, Ghana Shah,Sarakawa,SuranDarra,Kaka Kore/Aba Kore/Bakhsi Kore/Babi Kore & Aslam Kore	23500 to 2700	Check Dams, Protection Walls,Earthen Po Retaining Walls (Lining) of channel and Pavement
11.	Orakzai	Ismail Zai	KohiKali,ToorKanra,MazidGhari,Sarki Khel,Ghiljo Star Kali,MalanagGhari,Biland khelKhel,Mastikhel,GhuzGhar/Khi Kada	18200	Sand Bags. Flood protection walls, Tents, Foods, Retaining walls, Spur Construction, Drain Construction etc
		Lower	Dara Mani Khel,Kurez,TaziKhel/Pir Qiam, ZeraKharKhushta,Kalaya/KaddaBazar, Mish	9800	Sand Bags. Flood protection walls, Tents, Foods, Retaining walls, Spur Construction, Drain Construction etc
		Central	MishtiMela,RangeenKhel,Zawan Area, Kangana, EsaKhelToi Kali	6800	Sand Bags. Flood protection walls, Tents, Foods, Retaining walls, Spur Construction, Drain Construction etc
		Lower	Anjani/ZangoDara/Chamajana,Milo Sir, TotiBagh,Bezoti/Star Bezot/JalakaMela,Goen/Chontra/Mir bak	5600	Sand Bags. Flood protection walls, Tents, Foods, Retaining walls, Spur Construction, Drain Construction etc

12.	FR Peshawar		AshoKhel,KohiHusanKhel,MandaiJanakore,Sheraki, Pastwani ,Foridi	15000-20000	Check Dams,Protection walls,earthen Pond Retaining walls & Pavement (Lining) of channel.
13.	FR Kohat		Sheraki, BostiKhel, SaniKhel, Kohiwal, Akhur Khel, Ismail Khel, Ibrahim Khel, Sheen Dhand to gandialy dam	2500	Check Dams,Protection walls,earthen Pond Retaining walls & Pavement (Lining) of channel.

Medium Range Flood Forecasting Installation Venues

Identified Rivers	Agency
Bara River	Khyber Agency
Tochi River	North Waziristan Agency
Gomal Zam	South Waziristan
Kurram	Kurram Agency

Venues for Installation of Flash Floods Warning System

Agency/FR	Potential Canals	Installation Venue
Kurram	KhuwarmanaKhuwar/Kurram River	Sadda Bridge, Mali Khel Bridge
Bajuar	Munda Bajaur Road	Jar Bridge
SWA	Dana Algad, Azam Wersak Algad	Sholoum Area
Mohmand	Danish Kol, Piandiali	Danish Kol, Pindiali
Khyber	JabbaKhuwar, KhyberKhuwar	Chooria Area, Ali Masjid
Orakzai	Khankai Algad, Mastoora River	Ghalgo, Kalaya
NWA	Jani Algad, BuraKhel Algad, Chesma Algad	Marjani Kot, Chasma Village and ShahzadKot
FR Bannu	Khesora River	BakaKhel Area