

# Disaster/Monsoon

## Nutrition Sector

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### 1) Overview

CO-LEADS	PEOPLE IN NEED	PEOPLE TARGETED	FUNDING REQUIREMENT
NHSRC UNICEF	<b>1.3M</b>	<b>342k</b>	<b>\$6.8M</b>

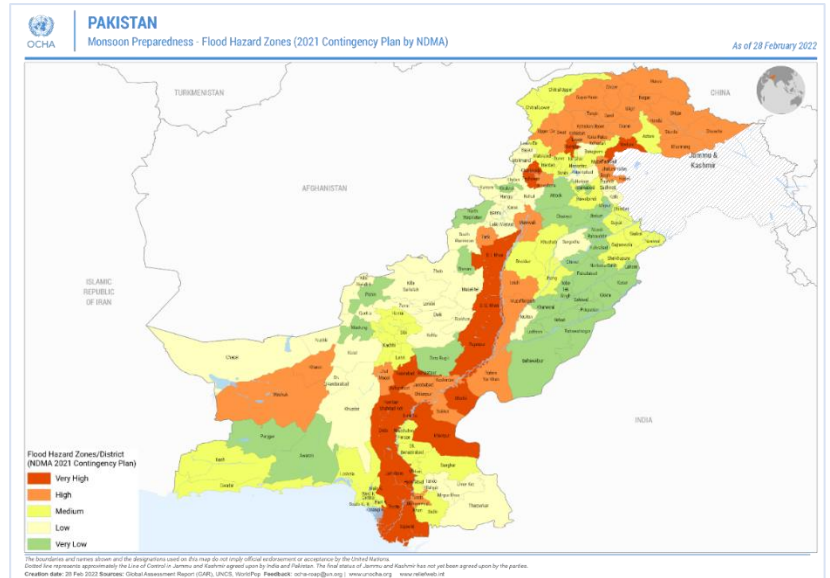
Pakistan faces some of the highest disaster risk levels in the world. According to the Climate Risk Index 2021<sup>1</sup>, the country ranks 8<sup>th</sup> in terms of countries most affected by extreme weather events while climate risk continues to increase. This risk is driven in large parts by the countries' high exposure to flooding. Monsoon floods are a major recurrent disaster in Pakistan which in recent years have affected large proportions of the population and resulted in huge losses to lives and property, while severely affecting the livelihoods of vulnerable groups in flooded areas. Between 2000 and 2020, the average annual cost of damage due to natural disasters is estimated at US\$1.6 billion.<sup>2</sup> The flood of 2010, one of the worst in the last 80 years, resulted in an estimated 1,700 lost lives and affected nearly 20 million people including over 7 million people who were displaced. In 2020, flooding in Sindh Province affected some 2.4 million people, damaged about 356,000 houses, and destroyed over 1 million acres of crop area.

Monsoon season in Pakistan typically runs from July until September each year. Most flood risk-prone areas across the country are affected by riverine and flash flooding during a monsoon. Rural regions, especially the southern districts of Sindh and Balochistan, can be devastated by flash floods that wash villages and farmland away while blocking essential roads to remote areas. Urban areas, especially Karachi, have experienced some of the worst urban flooding in the history of the country. Streets and houses are quickly overwhelmed by rain and sewage water due to outdated drainage systems. Urban flooding mostly occurs in major cities including Mianwali, Rawalpindi, Islamabad, Multan, Lahore, Thatta, Hyderabad, Karachi, DI Khan, Mardan, Kohat, and Peshawar. Hazard maps show that during monsoon floods, areas in the north of Pakistan, including Khyber Pakhtunkhwa (KP) and Gilgit-Baltistan (GB), are most vulnerable to landslides, avalanche and glacial lake outburst flood (GLOF) events. Melting glaciers are causing rising water levels in the Indus River, which can be further increased by torrential monsoon rains. Areas of northern Pakistan are, of course, at the highest risk of GLOF.

<sup>1</sup> [https://www.germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021\\_2.pdf](https://www.germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_2.pdf)

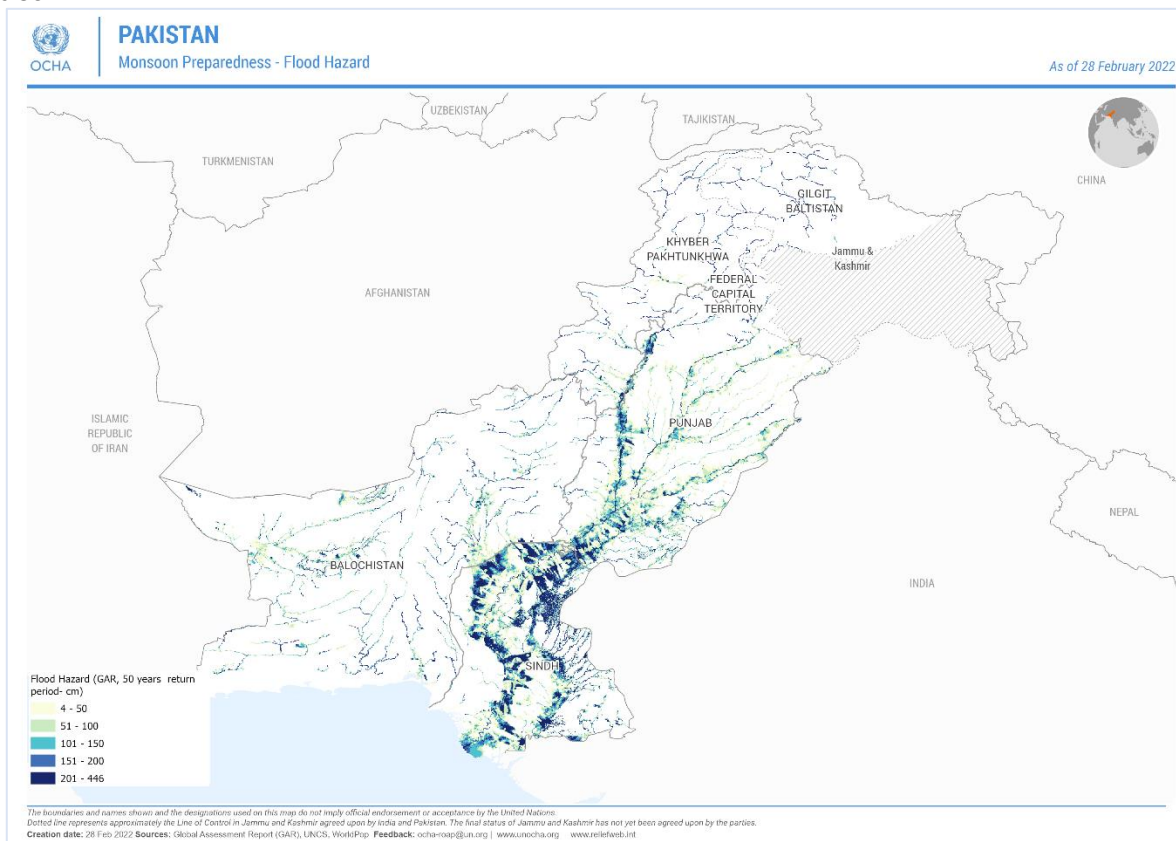
<sup>2</sup> According to Emergency Events Database (EMDAT) data

According to National Disaster Management Agency (NDMA) classification of the districts to flood hazard, 66 districts are in low, 39 in medium and 54 in high hazard classes. Map 1, (right) shows the flood hazard zones<sup>3</sup> in Pakistan, based on NDMA's 2021 contingency plan.



**Map 2: Flood hazard areas in Pakistan**

This map shows flood hazard area for 50 years return periods in Pakistan, which in combination with impact information from 2010 flood is used to estimate population exposed and affected for this current scenario exercise.



**Scenario**

In the planning scenario, unusually strong rainfalls for over a week during the monsoon season in early August results in rapidly rising water levels in the Indus River Basin which traverses from the north to the south of Pakistan. Excess water in the Indus River and its tributaries causes their levees to breach, and flood water starts to pour into adjacent plains and downstream, resulting in widespread flooding in several provinces in the northwest, east and southeast of the country.

<sup>3</sup> The global flood hazard data at 1km x 1km resolution is available from the GAR Atlas global flood hazard assessment which uses a probabilistic approach for modelling riverine floods in major river basins around the globe.

The timing and duration of the floods varies for the affected provinces. Initially, flash floods and landslides affect KP in the north of Pakistan. After about a week, flood waters in KP and northern parts of Punjab start to recede, enabling access to the affected areas and allowing populations to return to their villages. However, floodwater continues to travel further downstream, causing new riverine and flash floods further south in Punjab, Balochistan and Sindh, which result in trapped communities, extensive damage to villages, contaminated water sources, and challenges to reach affected populations with humanitarian assistance. In addition, stagnant flood waters in the low-lying plains of Indus River prevent communities to return and results in large displacement, as well as destroyed crops, lost food stockpiles and livestock, and damaged farmlands and equipment.

Coupled with rural flooding, rapid urbanization, increased population and poor drainage network intensified heavy rainfall impacts and caused severe urban flooding in Karachi. This has resulted in loss of life, destruction of public infrastructure and private properties. These damages also brought about a series of subsequent crises such as collapse of buildings and electrocution.

Over 10.6 billion people are affected, of which about 5.2 million people were displaced considered as the most vulnerable and in need of humanitarian assistance. An estimated 1,000 people have been killed. One month after the initial flooding, about XX million people remain displaced in formal camps, makeshifts and hosted by relatives.

The floods result increased poverty and vulnerability of the affected population. The rural areas affected by floods consistently lagged in terms of socioeconomic and educational indicators and had pre-existing vulnerabilities including malnutrition among children and women, loss or lack of livelihoods due to COVID-19 for the last two years which led families to resort to negative coping ways such as selling livestock, land or borrowing. Further loss to infrastructure and livelihood sources due to flooding pushed them farther behind. The people most severely affected are predominantly small farmers and unskilled laborers. Food prices increased dramatically after the flood due to destroyed farmland and agricultural losses. The situation is aggravated by pre-flood high food prices and increase in global food prices due to Ukrainian crisis that impact import of wheat, fertilizers, fuel, among others.

The most affected provinces are Punjab, Sindh and KP, where the monsoon floods caused extensive damage to houses, agricultural land and infrastructure, including major roads, bridges, electrical plants, healthcare facilities, and schools. More than 1 million houses are completely destroyed or-inhabitable. More than 2 million hectares of standing crops were damaged or lost. Most people do not know when they would be able to resume their livelihoods. The damage was most pronounced in the districts of Muzaffargarh and Rajanpur in the Punjab; Jaffarabad, Jacobabad, Shikarpur and Thatta in Sindh, and; Nowshera and D.I.Khan in KP.

### Planning assumptions

In event of a large-scale flooding, impacting multiple provinces, the government response capacity is overwhelmed to respond to the immediate needs in a timely manner, thereby accepting international humanitarian assistance. The Provincial Disaster Management Authorities (PDMA) in Punjab, Sindh and KP declared flood-affected areas as “calamity hit”. The military is deploying helicopters and boats for search and rescue and relief support to stranded and cut off communities in the affected areas.

Due to high number of people displaced from their flooded houses, additional relief stocks, tents, de-watering pumps, medical supplies are required that are limited in amount with provincial and federal authorities.

### Response targeting

Highly vulnerable groups to be prioritized for assistance, include:

- Newly displaced populations
- People living in poor shelter conditions and groups of people who have lost their livelihood (farmers, laborers) who have lost their means of income for at least three months.
- Female-headed households
- Persons with disabilities (PWD)
- Afghan refugees residing in flood-affected areas in KP

### Government Response

The National and Provincial Disaster Management Authority (N/PDMA) are responsible for disaster preparedness, preparation of emergency response plan, rescue and relief measures and rehabilitation plan. The PDMA's examine the vulnerability of different parts of the province to different disasters and specify prevention or mitigation measures. They lay down guidelines for preparation of disaster management plans by the PDMA's, evaluate preparedness at governmental and non-governmental, coordinate response in the event of disaster and give directions to District Disaster Management Authorities (DDMA's). The NDMA maintains over-all strategic management of emergency response in the country while relief operations and implementation at the District and Tehsil/Union Council level are performed by DDMA's.

The Pakistan Army is one of first responders undertaking relief and rescue operations for protection of life and property during the flooding season. Over the period, army has developed a comprehensive organizational setup, Army Flood Protection and Relief Organization, to address challenges resulting from floods in the country. The equipment for flood relief operations is provided to different formations according to their requirements

### Early Warning/Early Actions

The Pakistan Meteorological Department has the key responsibility for flood forecasting and early warning. A special cell, Flood Forecasting Division (FFD), collects hydro-meteorological data and after analysis dispatches necessary alerts and flood warnings to various stakeholders. Flood Early Warning System of Pakistan (FEWS-Pakistan) is based on mathematical model composed of two components: hydrological model and hydraulic model. The NDMA, through the Pakistan Telecommunication Authority (PTA), issues SMS alerts through the respective mobile networks to populations at risk in specific areas, 24 hours in advance. These SMS texts are drafted in close coordination with the respective DDMA's.

## 2) Impact and Key Immediate Needs

### Phase 1: 0-2 weeks

- Undertake rapid nutrition assessment in the affected area for the needs of the affected population and establish a rapid nutritional status of the affected children under 5 and PLW's in collaboration with the Ministry of Health (MoH) and partner agencies
- Undertake a mapping exercise to determine number of children & women and locations
- Provide supplies and equipment, including therapeutic food, micronutrients and fortified foods for children, lactating and pregnant women
- Establish Out-patient therapeutic programme and supplementary feeding programme in the affected area

### Phase 2: 2-4 weeks

- Integrate Infant and Young Child feeding within the treatment of acute malnutrition.
- Immediately protect breastfeeding by preventing general supply of powdered milk or formulas as BMS
- Start supplementary feeding, CMAM, Multi-micronutrients and IYCF in the affected areas
- Monitor supplementary feeding, CMAM and the general nutritional status in the affected areas, in collaboration with the Ministry of Health (MoH) and partner agencies

### Phase 3: 1-2 month

- Continue provision of treatment of malnutrition through OTPs, TSFPs and NSCs
- Continue monitoring of services

- Continue monitoring nutritional status in affected areas
- Continue general supply of BMSs

### 3) People in Need and Targeted

Province	People in Need (PIN)	People Targeted	Rationale for PIN and targeting figures (data-sets or formula used for calculation)
Sind	502,287	116,874	A total of 74,998 refugees are also targeted in these provinces.
Punjab	496,630	122,653	
KP	121,371	22,297	
Balochistan	17,717	5,248	
Total			

### 4) Priority Activities

Phase 1: 0-2 weeks		
Priority Activities	Modality (In-kind, Cash...)	Partners
Rapid assessment	In-Kind	Govt, UNICEF, WFP, WHO
Establish OTPs, TSFPs and NSCs	In-Kind	Govt, UNICEF, WFP, WHO

Phase 2: 2-4 weeks		
Priority Activities	Modality (In-kind, Cash...)	Partners
Distribution of MMN	In-Kind	Govt, UNICEF, WFP, WHO
Treatment of Malnutrition at OTPs, TSFPs, NSCs	In-Kind	Govt, UNICEF, WFP, WHO
IYCF		Govt, UNICEF, WFP, WHO
Monitoring of activities		Govt, UNICEF, WFP, WHO

Phase 3: 1-2 month		
Priority Activities	Modality (In-kind, Cash...)	Partners
Distribution of MMN	In-Kind	Govt, UNICEF, WFP, WHO
Treatment of Malnutrition at OTPs, TSFPs, NSCs	In-Kind	Govt, UNICEF, WFP, WHO
IYCF		Govt, UNICEF, WFP, WHO
Monitoring of activities		Govt, UNICEF, WFP, WHO

## 5) Budget Requirements

Activities	Planned reach with activity (# of people)	Location (List Provinces or specific locations)	Estimated requirements (US\$)
SAM treatment (OTP)	17,201	All provinces	2,924,156
MAM treatment for Children	17,967	All provinces	696,229
MAM treatment for malnourished pregnant women	15,832	All provinces	1,432,824
SAM treatment (SC)	1,720	All provinces	946,051
IFA and MMT for PLW	109,188	All provinces	109,188
MNP for children	81,891	All provinces	81,891
Promotion of IYCF (traditional and use of digital /mass media)	98,270	All provinces	294,809
Provision of PPEs for safe services		All provinces	367,072
<b>Total:</b>			

## 6) Cross-cutting Issues

### COVID-19 modifications and considerations:

- Simplified approach in community management of acute malnutrition will be followed where required
- Safe service delivery will be ensured by training and provision of PPEs

### Protection, Gender considerations and persons with specific needs:

Gender and children or PLWs with special needs will be catered on priority

## 7) Current Capacity to Respond

Partner/Agency name	What do you have now	Location
		-
WFP	Technically, we don't have separate pool of funding to address emergency to respond. But with the consent of management and approval from the respective donor, required resources will be diverted to certain locations. WFP implementing multiple nutrition programmes across country. At the moment, we are expecting 160 MT dates for 79775 beneficiaries across Pakistan.	Presence, All Provinces including AJK and GB

	Furthermore, WFP will capacitate to respective Provincial Health Departments and other stakeholders before, during and in after post emergency activities.	
UNICEF	Therapeutic spread,sachet 92g/CAR-150	2000 Pacs
	Micronutrient tabs, pregnancy/PAC-1000	400 Pacs
	Multiple micronutrient pdr,sach./PAC-30	10,500 pacs
	F-75 therap. diet,sachet,102.5g/CAR-120	03
	F-100 therapeutic diet,sach.,114g/CAR-90	02
	Iron 60mg+Folic ac.400mcg tab/PAC(10x10)	1600 Pacs
	Nut,Kit inpatient module-equipment: Nut,Kit inpatient module-registration: Nut,Kit inpatient module-med ,supplies:	02 each
	Portable baby/child L-hgt mea.syst/SET-2	90 each
	Scale,electronic,mother/child,150kgx100g:	98 each
	MUAC,Child 11.5 Red/PAC-50	115 pac
	MUAC,Adult,without colour code/PAC-50	115 pac

## 8) Preparedness Actions

	Minimum Preparedness Actions	Who will do it	Status	Update/review
			Choose from: - Completed - In-Progress - Pending	Choose from: - Regular - One-off - Yearly
1	WFP will coordinate with respective Provincial departments and stakeholder for assessing allocation of resources in terms of partner identifications, beneficiaries' assessments, coordination with respective donors through coordinated efforts, establishment of Hubs, NDMA's/PDMA's and other counterparts.	WFP in Consultation with Nutrition Cluster and UN agencies	In Progress	Regular

PAKISTAN CONTINGENCY PLAN

2	<i>Rapid Assessment</i>	<i>UNICEF, WFP, WHO and other partners</i>	<i>Pending</i>	
3	<i>Preparedness plan for nutrition Sector</i>	<i>Nutrition Sector</i>	<i>In-Progress</i>	
4	<i>Prepositioning of contingency stock</i>	<i>Nutrition partners</i>	<i>In-Progress</i>	
5				
6				
7				
8				
9				
10				