

Anticipatory Briefing Note – 10 October 2016

MALI Floods



Need for international assistance	Not required	Low	Moderate	Significant	Major
Expected impact	Very low	Low	Moderate	Significant	Major

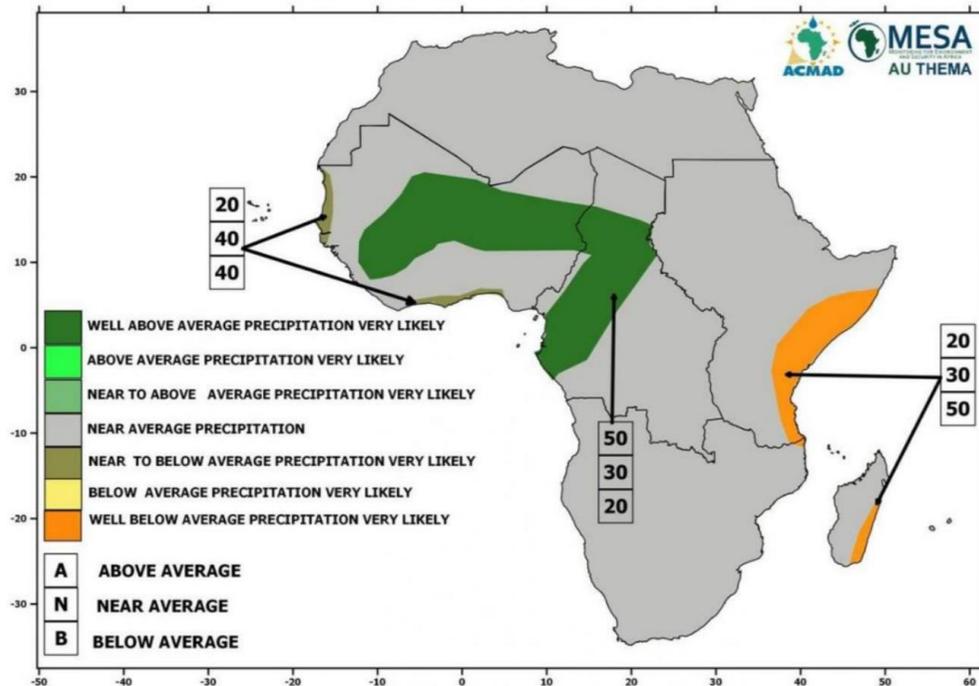
The floods that began on 11 July brought heavy and above average rain and have so far affected some 9,500–15,000 people across Mali, including the regions of Sikasso, Koulikoro, Segou, Mopti, Timbuktu, Gao, and Kidal. 13 people have died. The total population of these areas is roughly 10,000,000.

The weather forecast for the remainder of October and November suggests that above-average rainfall will persist and cause the Niger River that flows through the above mentioned regions, to overflow, possibly causing the worst floods in 50 years.

Based on experiences from floods in 2012 and 2013 that were less serious than this year's predictions, up to 30,000 people are likely to be affected, though a precise prediction is impossible to make at this point. The capital, Bamako, is at risk of flooding.

Crisis overview

SEASONAL PRECIPITATION FORECAST AUGUST – OCTOBER 2016



Source: OCHA 30/09/2016

Key findings

Priorities for humanitarian intervention

- Emergency shelter;
- Water, sanitation, and hygiene promotion;
- Health: prevention of communicable diseases;
- Food assistance.

Humanitarian constraints

Flooding of roads and railways in the affected regions will delay the delivery of aid. Insecurity in the northern and central provinces as well as insecurity due to robberies by armed groups on the road constitute another risk for humanitarian assistance.

Limitations

So far there is little information regarding the damage done by flooding up to date. Although predictions for the coming months indicate high levels of rainfall it remains uncertain which areas are going to be the worst affected. Needs analysis is limited to lessons learned from earlier floods in the area and predictions based on the population figures of people living in the affected area.

Crisis impact

Heavy seasonal rainfall between 11 and 23 July caused extensive flooding and damage. Gao, Mopti, Segou, and Sikasso regions were initially the worst affected (IFRC 05/08/2016). By the end of the month, rains had caused flooding in nearly all of the Niger Delta Basin states in Mali, including Sikasso, Kolikoro, Segou, Mopti, Timbuktu, Gao, Kidal and Menaka, affecting up to 9,500 people and causing 13 deaths (OCHA 22/08/2016). The most urgent needs to date are for emergency shelter, water, sanitation, and hygiene promotion, the prevention of communicable diseases, and food assistance (IFRC 05/08/2016).

However, reports indicate that Mali has not seen the worst of the flooding yet. A forecast suggests that Mali's Inner Niger Delta will experience its highest level of flooding in 50 years. The peak is due between late October and early November (Floodlist 14/09/2016, OCHA 30/09/2016). The maximum flooded area is predicted to be 18,777 km², with a peak 2 m higher than safe levels, and an area 2.5 times larger than in regular years (OPIDIN 04/10/2016).

Food: While the food security situation across Mali is favourable with Minimal (IPC Phase 1) outcomes, the levels of agricultural production for the Niger Basin regions of Gao, Timbuktu and Mopti are likely to drop as a result of flooding. As of September, these regions may experience Stressed (IPC Phase 2) outcomes (FEWSNET 09/2016).

Health: Past floods in the same area have always resulted in the outbreak of water-borne diseases such as cholera and diarrhoea. Malaria usually surges as well due to increased breeding grounds for mosquitoes (OCHA 11/09/2016). These hazards, in combination with the country's weak health system, put large parts of the population in flood-affected areas at risk of infectious diseases while having limited access to medical services (WHO 2013).

WASH: Access to safe drinking water and sufficient sanitation facilities is already low in provinces such as Gao and Timbuktu (Country Data Mali UNICEF 2016). Heavy flooding will put parts of the population in need of assistance: drainage systems have reportedly been blocked already, causing further flooding (RFI 29/08/2013, CRM 05/08/2016). Wells were reported to have collapsed in July in Segou (FS Cluster 05/08/2016).

Protection: The limited availability of pasture following the peak of the floods will likely lead to more competition among pastoralists, which may lead to conflict and protection concerns (OPIDIN 04/10/2016).

Impact on critical infrastructure

Power shortages have occurred in past floods, where infrastructure has collapsed and cables have been submerged.

Vulnerable groups affected

Pastoralists are at risk of their cattle dying if they remain. They usually cross the Niger River with their cattle at Diafarabe. The particularly high level of flooding this year will render this impossible and delay the grazing of the herds until mid-December, putting an extra strain on pastoralists' livelihoods (OPIDIN 04/10/2016).

Humanitarian and operational constraints

Road: Mali's road network is extensive but old, and there is a risk that a significant part of the Malian road system could be cut by flooding. During past floods, the pre-existing bad road conditions made it hard to reach certain areas (CRM 05/08/2016). Mali's main economic link to the coast could be flooded, if river levels keep rising as predicted: the paved road between Bamako and Abidjan in Côte d'Ivoire is essential to logistics in the country. Many other important intercity roads could be rendered inaccessible by flooding.

Rail: The railway network connecting Bamako with Dakar in Senegal will likely be disrupted if flooding increases, affecting train services for people and freight (NATO/Government of the Netherlands 2013).

Air: Gao and Timbuktu airports, as well as the Bamako and Mopti airports to a lesser extent, are nearby the Niger river and could also be at risk.

Water: While in normal, drier years, low water levels before the rainy season make the Niger River non-navigable by commercial vessels, flooding also constitutes a problem for travel and transport (CIA Factbook 2011).

Insecurity: The ongoing conflict in the north of the country would put aid deliveries to the north in jeopardy. Frequent armed robberies on the roads also make aid deliveries by lorry transport dangerous (NATO/Government of the Netherlands 2013).

Between January 2015 and June 2016, 41 aid workers were reported killed in Mali, while 15 were reportedly kidnapped and 35 assaulted or injured (Insecurity Insight 15/07/2016).

Aggravating factors

Dry season

Very little rainfalls is expected in November and December in Mali, which could help the situation to improve more rapidly (Accuweather 10/10/2016).

Population density

The likely flood-affected area of the Inner Niger Delta covers both dense urban areas and sparsely populated rural areas. Population density is very high in Bamako, and lower in the northern regions of Gao and Timbuktu. This makes the capital much more vulnerable to flooding damage and puts a higher number of people at risk of being affected. Low population density in rural areas and a more mobile rural population weakens the negative impact of flooding on shelter.

Region	Population density (people per square km)
Bamako	8,563.4
Sikasso	44.8
Segou	42.9
Mopti	30.7
Koulikoro	30.1
Kayes	19.9
Gao	3.8
Timbuktu	1.6

Source: Open Data for Africa 2014

Location and type of housing/infrastructure

Many houses throughout Mali are reportedly made of rammed earth, vulnerable to floods (BFMTV 08/09/2016). Close to 1,500 houses collapsed following the July floods in Mali (Maliweb 29/07/2016).

Political stability and security

The northern Mali region is unstable, and there has been a recent surge in violence between non-government armed groups in the North, especially in the Kidal region (RFI 07/10/2016). Both the Malian army and the UN peacekeeping force MINUSMA have been targets of attacks by armed groups in the northern and central regions (ACLED 01/10/2016).

Municipal and communal elections are scheduled for 20 November 2016; however, opposition leader Soumaila Cisse has asked for their postponement due to insecurity in the north (Africanews 09/09/2016).

Intercommunal clashes

Clashes between breeders and farmers regarding livelihoods, sometimes part of a wider situation of intercommunal tensions, are sporadic, with five reported dead in an incident in August in Tenenkou, Mopti (Maliactu 28/08/2016).

Epidemics

Rift Valley Fever (RVF) has been reported among pastoralist communities in neighbouring Niger (Jeune Afrique 05/10/2016).

The government has been closely watching the malaria situation in the regions of Timbuktu and Gao, as there is an epidemic risk – the malaria risk is reportedly higher during the rainy season, which lasts until October (Government 08/10/2016, OCHA 31/07/2016).

Response capacity

Local and national response capacity

The Direction Nationale de l'Hydraulique (DNH), within the Ministry of Energy in Water, is the governmental department in charge of monitoring water levels in Mali (DNH 2016). The Civil Protection Directorate is in charge of coordinating direct emergency preparedness and response, however, its director general has reported insufficient personnel – about 1,200 staff members, plus 500 in training (Maliactu 05/03/2016). The Direction Nationale du Developpement Social (DNDS), within the Ministère de l'action humanitaire, de la Solidarite et des Personnes Agees (MAHSPA) is in charge of elaborating, monitoring and coordinating emergency aid in some areas in Mali, notably displacements (MAHSPA 2016).

The *Outil de Prediction des Inondations dans le Delta Interieur du Niger* (OPIDIN) is an early warning system to predict the rise of water and potential floods and the moment of “deflooding” in the Inner Niger Delta, developed by the Malian government and Wetlands International (OPIDIN 2016) (Floodlist 14/09/2016).

Government access to some areas in the centre and to most areas in the north remain scarce, including for emergency response, and access to those regions hamper humanitarian access overall (OCHA 30/09/2016; UNHCR 31/08/2016). In northern Mali, the peace deal signed in 2015 grants more autonomy to local communities, with the Malian government, the GATIA and the CMA ensuring a transition period. Its application has been challenging at best, which has been further worsened by renewed clashes between the two groups since July 2016 (Mali's News 22/08/2016). The volatile security situation in the North makes it difficult for first responders to access the area and provide sufficient levels of aid.

The Mali Red Cross (CRM) has a reported volunteer roster of 10,000, spread throughout the country (CRM 05/08/2016).

International response capacity

Many international organisations and INGOs are present in Mali. Some international organisations responded to the July floods, including UNICEF and WFP (Malijet 31/08/2016).

MINUSMA has in the past provided emergency foods and escorted humanitarian actors (MINUSMA 11/08/2015).

Population coping mechanisms

Researchers have previously concluded that the traditional livelihood strategies in Mali are diversified and well-suited for historical meteorological conditions, but lack adaptability options in the case of extreme weather hazards (A. Kodio et al. 2012). It is reported that good familial and social institutions have helped the management of goods in crisis situations (SEI 03/2005).

Information gaps and needs

Overview data indicating the impact of previous and the recent flood by location is unavailable. Most data that is available on total impact summarises seasonal data for all of Africa.

There is limited information on sectoral needs per region.

Lessons learned

- Crisis follow-up is important including the conduct of a post distribution beneficiary satisfaction survey and lessons learnt workshop with flood affected people and responders alike, to improve subsequent response (IFRC 05/08/2016).
- To promote improved sanitation, conduct monthly cleaning and disinfection campaigns for latrines (bleach) and conduct hygiene promotion as well as monthly cleaning and disinfection campaigns (IFRC 05/08/2016).
- Immediate and efficient WASH interventions will be crucial in the coming months once flooding increases.

Key characteristics

The table below should be adapted according to need. It is a suggestion, to give some form of comparison if the disaster has affected more than one area.

Key indicators	Mali	Mopti	Gao	Bamako	Koulikoro	Segou	Sikasso	Kayes	Timbuktu	
Total population	15,840,000	2,036,000	542,000	1,810,000	2,422,000	2,338,000	2,643,000	1,994,000	675,000	
% population in rural areas	60,1% (2015)									
Gender and age distribution of population	1/1									
State capital	Bamako	Mopti	Gao	Bamako	Koulikoro	Ségou	Sikasso	Kayes	Timbuktu	
Lighting and cooking sources	Households: 295617, people: 1,478,000									
WASH	Access to safe drinking water: 76%, to improved sanitation: 24,7%		41% of water points not functional						14% of water points not functional	
Health figures										
U5MR /1000	123/1000	155/1000	124/1000	89/1000	155/1000	173/1000	172/1000	163/1000	134/1000	
Infant MR/1000:	108/1000	118/1000	96/1000	70/1000	102/1000	130/1000	127/1000	117/1000	103/1000	
Maternal MR/100,000:	550									
Food security	3.0M food insecure incl. 423,000 severely food insecure									
Nutrition levels	180,000 SAM 529,000 MAM Stunting prev: 39%				94,000 MAM 20,000 SAM		120,000 MAM 27,000 SAM		96,000 MAM 21,000 SAM (2015)	
Literacy rates	34,0% (2015)	24,0 % (2006)	24,2% (2006)	52,0% (2006)	23,2% (2006)	23% (2006)	23,8% (2006)	19,2% (2006)	19,3% (2006)	
Population Density	14,19/km2	30.7023 (2014)	3.7873 (2014)	8,563.4921 (2014)	30,01 (2014)	42.9490 (2014)	44.8207 (2014)	19.8592 (2014)	1.6250 (2014)	