

MOZAMBIQUE

Tropical Cyclone Idai – Update II

Tropical Cyclone Idai made landfall on the city of Beira, central Mozambique on 14 March with sustained wind of up to 185km/h and torrential rains affecting Sofala, Zambezia, Tete and Manica provinces, bringing wide-spread destruction across parts of Mozambique, Malawi and Zimbabwe. So far there are 1.85 million people affected, including nearly 127,500 people displaced and sheltered in 143 accommodation centres; also 468 people were confirmed dead in Mozambique, more than 1,500 people injured, and some 90,000 homes damaged and destroyed. The impact on food security and livelihoods will affect the population in the long term, due to extensive damage to crops right before the harvest due in March-April as well as loss of goods in markets, seeds and tools. Health needs are also increasing with cases of diarrhoea and respiratory diseases reported.

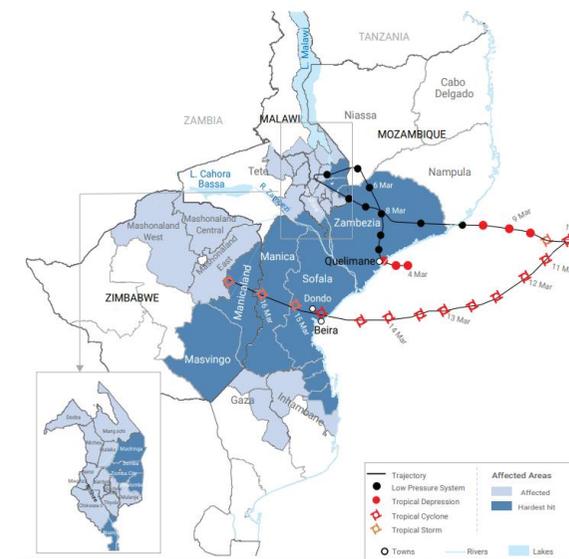
NEED FOR INTERNATIONAL ASSISTANCE



IMPACT



CYCLONE AND FLOOD AFFECTED AREAS



Source: OCHA 26/03/2019

Anticipated scope and scale

A full picture of the impact of Cyclone Idai is still under assessment and search and rescue operations are still underway. It is estimated that **nearly 2000 sq/km of land remains under water**. Rains are expected in the coming days, exacerbating the **risk of further flooding** particularly in smaller coastal basins between Beira and the Zambezi river mouth. Above recommended water levels at Cahora Bassa Dam (the fourth largest in Africa) in Tete province could lead to a forced release of water increasing the risk of flooding.

Key priorities



1.85 million
people affected



500,000 hectares
of crops destroyed



+90,000
homes damaged and
destroyed

Humanitarian constraints



Electricity from power-grids is still down in Beira, while 80% of electrical infrastructure in Dondo is also damaged. Storage capacity in Beira remains constrained. In Mossurize and Sussundenga districts, Sofala province 2 bridges have collapsed and 5 are still flooded. Entry to Mossurize is only possible through Zimbabwe.

Limitations

Mobility constraints due to extended flooding is preventing access and limiting full assessment of the impact. There are over 40 languages spoken in Mozambique, where only half the population, less in rural areas, can speak Portuguese, thus increasing communication challenges.

Crisis impact

As of 26 March, there are at least 468 people dead due to the impact of the cyclone and more than 1,500 people have been injured. (OCHA 26/03/2019) As waters recede and rescue teams are able to reach more communities affected the full scale of the damage will become more apparent and these figures may increase. Nearly 500,000 people are estimated to have been forced away from their homes, with 127,500 people currently sheltered in 154 accommodation centres across Sofala, Manica, Tete and Zambezia provinces while the rest is likely to have returned or is still stranded and inaccessible. (OCHA 25/03/2019) (IFRC 25/03/2019) (Médecins du Monde 22/03/2019) The impact of the cyclone and related floods in rural areas is still harder to assess due to limited but the situation is expected to be more severe than in urban areas.

The town of Buzi, 60km west from Beira, has reportedly disappeared under water, with water levels as high as the palm trees. Nhamatanda district, Sofala province has also been entirely affected by the cyclone and related floods. (OCHA 25/03/2019)

Above-average wet conditions are expected to persist over central and northern Mozambique, sustaining the risk of floods in some areas. (FewsNet 22/03/2019)

| Province | Total population | People displaced and hosted in accommodation centres | N. of accommodation centres |
|----------|------------------|--|-----------------------------|
| Sofala | 2,221,803 | 96,300 | 114 |
| Manica | 1,911,237 | 14,800 | 26 |
| Zambezia | 5,110,787 | 9,600 | 10 |
| Tete | 2,764,169 | 6,800 | 4 |
| Total | | 127,500 | 154 |

Source: OCHA 26/03/2019

Health: Health concerns are high and organisations on the ground are working to prevent the risk of an epidemic due to waterborne diseases. There has been an increase in cases of acute watery diarrhoea in Beira, and of malaria cases in Manica province, although figures are not yet available. (IFRC 22/03/2019) (O Pais 25/03/2019) In Beira, some people are reported to have died after suffering from symptoms related to cholera, although lack of resources is hampering accurate diagnosis. (Club of Mozambique 25/03/2019) The risk of pneumonia is very high, especially among children, due to living conditions of people left without shelters, sleeping outside with high humidity levels. (The Guardian 24/03/2019) Electricity has been restored at Beira Central Hospital. Reports indicate that 45 health centres have been destroyed, with 28 out 157 health facilities in

Sofala province either entirely or partially destroyed. (HI 23/03/2019) (Direct Relief 22/03/2019) People living with HIV/AIDS are in urgent need of resuming treatment as soon as possible; Sofala, the region most impacted by the cyclone has one of the highest rates of HIV infection in the country. (The Guardian 24/03/2019) Among women impacted by the cyclone there are some 75,000 reported to be pregnant, of whom 43,000 are expected to give birth during the next six months. Nearly 7,500 pregnant women are at risk of life-threatening complications and need access to health facilities and care. (OCHA 23/03/2019) Due to floods, it has been impossible to bury dead people, and the mortuary at Beira Central Hospital is reportedly full. Psychological support is also highly required in relation to the heightened possibility of post-traumatic disorders and depression with the risk of suicidal actions. (O Pais 24/03/2019)

Food: Food security has been highly impacted by the cyclone, with long-term effects on the population. Nearly 500,000 hectares of crops have been destroyed just prior to harvest, and people are also without products to sell at the market, affecting their livelihoods. In hard to reach areas, people have not had access to food for many days, and some are relying on fish washed up by the storm surge that flooded villages and streets. (The Guardian 23/03/2019) In Nhamatanda district, food being provided in emergency shelters is not enough and food stocks are likely to run out within a week. (OCHA 25/03/2019)

Livelihoods: In addition to the loss of crops and livestock, livelihoods are further affected by damage and loss of goods in stalls, warehouses and supermarkets, with some 80% of the infrastructures in Beira destroyed. The Maquinino informal market, the largest one in Beira, was also heavily affected. (OCHA 23/03/2019) Due to roads damage, goods can't reach Beira and the impact on the availability of essential products is making prices increase rapidly by more than 100%. (Club of Mozambique 22/03/2019) (HRP 2018-2019 revised 26/03/2019) The agricultural sector, which employs nearly 75% of the labour force of the country and accounts for around 25% of Mozambique's GDP, has been highly affected by the cyclone and long-term effects on food security and livelihoods are expected. (HRP 2018-2019 revised 26/03/2019)

WASH: Reports indicate that the water system in Beira and other districts in Sofala has been highly damaged and latrines have been destroyed. The hydric station in Mutua, some 90 km from Beira, is only working at 50% of its capacity after the impact of Cyclone Idai, and maintenance work is underway to restore installations with support from Unicef. (RFI 26/03/2019) The water supply system has very low water pressure due to minimal levels of water in the city's deposits. (Club of Mozambique 25/03/2019) Reports indicate that raw sewage has contaminated water sources, increasing the risk of waterborne diseases such as diarrhoea and cholera. Water purification tablets, hygiene kits, and hygiene promotion are needed in order to prevent disease outbreaks. (OXFAM 22/03/2019) Even before the cyclone hit Beira, some 250,000 people in the city had no

access to clean drinking water, with only a small area of the city covered by a sewer network and the rest relying on poorly built and maintained sanitation systems. (WSUP 27/03/2019)

Shelter and NFIs: The tropical cyclone and flooding have caused widespread destruction, with over 90,000 homes completely or partially destroyed, and flooded. (INGC 27/03/2019) Out of a population of 550,000 in Beira, 300,000 people were living in informal settlements, thus even more vulnerable to natural disasters. (WSUP 27/03/2019) Two-thirds of the houses in Beira city have had their roof destroyed and one-third suffered structural failure. (OCHA 24/03/2019) NFIs have also been lost; shelter and kitchen kits are a priority. People displaced are being sheltered in 154 collective centres, with the arrivals of displaced people increasing every day, in Sofala, Manica, Tete and Zambezia. These facilities lack separated sleeping arrangements and proper sanitation facilities. (HRP 2018-2019 revised 26/03/2019)

Protection: In such a situation of an onset disaster, women face heightened protection risks, especially gender-based violence, particularly in crowded makeshift shelters with poor lightning and lack of privacy. (UNPF 25/03/2019) (OCHA 15/03/2019) An unknown number of children has been separated from their families during the emergency. During past disasters in the country, heightened risk for unaccompanied children were reported including sexual violence and trafficking. (HRP 2018-2019 revised 26/03/2019) Higher vulnerabilities are also likely to increase the risk of early child marriage, especially for girls, as families find ways to cope. (World Vision 25/03/2019) Loss of personal documentation in relation to land and property right is also a concern.

Education: Reports indicate that at least 3,140 schools have been destroyed, affecting 90,000 students. (OCHA 23/03/2019) In addition, school facilities are being used as shelters by displaced people compromising access to education for children, although transferrals of IDPs sheltering in schools to accommodation centres started on 25 March. (Club of Mozambique 26/03/2019)

Impact on critical infrastructure

Electricity from the power-grid is still non-functional in Beira, although it has been restored in some parts of the city, prioritising the Central Hospital. (OCHA 24/03/2019) Power restoration to the whole city will take time since many pylons are still down. (Club of Mozambique 25/03/2019) There has been an increase in fuel demand in Sofala province following the electricity cut, however fuel trucks are reportedly still stuck in Inchope due to inaccessible roads to Beira. (OCHA 24/03/2019) Shortages of fuel have also been reported in Tete city. (Logistics Cluster 25/03/2019)

Four out of seven prisons in Sofala province have been damaged by the cyclone. In Buzi, 40 prisoners and prison staff are trapped on the roof, without food nor water. (ICRC 22/03/2019)

Humanitarian and operational constraints

Operational constraints are slowly improving compared to the beginning of the emergency, although many challenges persist due to damage to road infrastructure, making it difficult to reach communities flooded and deliver life-saving supplies.

Beira is now accessible from Maputo by N1/N6 roads. (Logistics Cluster 25/03/2019) (INGC 24/03/2019)

Caia-Beira road is passable but with challenges, especially between Muanza and Inhaminga in Chringoma district. Difficulties have been reported for 30 mt trucks to access. Experienced drivers and sturdy trucks are recommended. (Logistics Cluster 25/03/2019)

Beira-Chimoio railway services remain not operational, while railway services between Moatize (Tete province) and Beira are functional. (Logistics Cluster 25/03/2019)

Beira airport and sea port are fully operational, including customs operations. The airport in Chimoio has limited operations at night due to lack of illumination. (Logistics Cluster 26/03/2019)

Vulnerable groups affected

The authorities have identified 7,500 vulnerable people within IDPs sites, including the elderly, people with disabilities, sick people, and children separated from their families or left orphaned. (INGC 27/03/2019)

Children are particularly vulnerable during flooding, due to the higher risk of drowning as well as the risk of being separated from their parents. Among 100,000 people evacuated so far, 60% are children. (Save the Children 14/03/2019) Save the Children is working in coordination with the government and other partners in order to reunite children with their families; for the purpose announcements are being made on the radio notifying parents to contact aid organisations. (Save the Children 22/03/2019)

People with disabilities are also at risk, especially people with mobility restrictions due to flooding. It is likely that many of them have been unable to flee to safety. (HRP 2018-2019 revised 26/03/2019)

People in need of lifesaving treatments, like patients with HIV/AIDS and tuberculosis, are increasingly vulnerable due to the disruption of the health system, reduced access to health facilities, and/or availability of medicines. Mozambique has a prevalence rate of HIV infection at 12.5% of the population, one of the highest in the world. (Direct Relief 22/03/2019)

Aggravating factors

Flooding

The provinces of Zambezia, Sofala and Tete have had intense flooding since 9 March causing extensive damage to houses, crops, and public infrastructure. Heavy rains due to Cyclone Idai as well as storm surges have brought more water to areas already flooded, increasing widespread damage and leading to more displacement. (AfricaNews 15/03/2019; Reuters 15/03/2019)

Previous disasters

Mozambique has seen a pattern of deadly floods worsened by devastating hurricanes in the past. The strongest storm to make landfall in Mozambique was Tropical Cyclone Eline, which hit the southern parts of the country in February 2000, killing 350 people and displacing 650,000 people across Southern Africa. (Reuters 15/03/2019) Other major tropical cyclones with a Category 3 intensity happened in 2007 and 2008, when 285,000 people were affected and 163,000 displaced. In 2011-2012 the combined impact of tropical storms Dando, Funso and Irina affected 108,000 people, including 44 deaths. In 2013, floods from the Limpopo River displaced 186,000 people and killed 113, with extensive damage to road infrastructure and on the agricultural sector. In 2015, significant floods affected 160,000 people, including 50,000 displaced, in Nampula, Zambezia and Cabo Delgado provinces. (WFP 05/02/2015) The last tropical cyclone with a Category 4 hit Mozambique in mid-February 2017. (Wunderground 13/03/2019) Tropical Cyclone Desmond hit the country on 22 January 2019, making landfall in the city of Chinde (Zambezia province) as a tropical storm although the worst of the rains impacted Beira, resulting in 120,000 people displaced. (Salvation Army 21/02/2019) The recurrent impact of these hazards has likely reduced the coping capacities of the population, especially impacting food security. This has also been made worse by recurrent drought periods.

Population density and poverty

Beira is the fourth largest city in Mozambique with a population of 530,000 people. As much as three-fourths of the population in the affected areas live below the poverty line and are therefore socially vulnerable. (Direct Relief 14/03/2019) Poverty analysis conducted in Mozambique have shown that events such as cyclones, floods, and droughts can lead to a drop of up to 25-30% in per capita food consumption. (HRP 2018-2019) The impact of Cyclone Idai will likely increase disparity and inequality in Mozambique.

Location

Beira is the most vulnerable city in the country to rising sea levels and storm surges. (Weather Underground 14/03/2019) A sea level rise of one meter can flood 40% of the town, including the port and the airport. Beira's port is the second busiest in the country and has long been a major trade point for exports coming in and out of Zimbabwe, Malawi, Zambia, and other Southern African nations. (Weather Underground 14/03/2019) The impact of the cyclone on the port, despite being again operational, has very likely affected trade networks in the region, with still unknown economic losses.

Drought and food insecurity

The heavy rains are falling on areas usually affected by drought. In Zambezia and Nampula provinces, thirty days of rainfall deficits were reported between February and March. (FEWS NET 15/03/2019) The below average rainfall in the southern region has negatively impacted the current agricultural season.

The main harvest due in March will likely be severely disrupted now that nearly 500,000 hectares of crops have been destroyed. (INGC 27/03/2019) Damage to key supplies routes in country are also likely to aggravate on the food situation. (HRP 2018-2019 revised 26/03/2019)

The likelihood of an El Niño event between November 2018 and March 2019 had been revised to at least 80%, with El Niño induced effects, in this case dryness, that have had a deteriorating impact on food insecurity in the country. Zambezia, Tete and Nampula are among the provinces most affected. (IPC 10/2018) (HRP 2018-2019) Floods will have both short- and long-term effects on food security, due to loss of harvest and impossibility of replanting.

Food security projections January-March 2019

| Province | Total population | IPC 3 Crisis | IPC 4 Emergency |
|----------|------------------|-----------------|--------------------|
| Nampula | 6,102,867 | 183,086 | 183,086 |
| Zambezia | 5,110,787 | 255,539 | 51,108 |
| Tete | 2,764,169 | 331,700 | 27,642 |
| Sofala | 2,221,803 | 22,218 | 0 |
| Niassa | 1,789,120 | 89,456 | 35,782 |

Source: IPC January-March 2019 projections

Disease outbreaks

Cholera: Mozambique regularly suffers outbreaks of cholera and diarrhoea during the December-April rainy season. As cholera is spread through contaminated water, the most affected communities are usually those having poor access to sanitation facilities. Children, especially under five years of age, and pregnant women are particularly vulnerable. Different areas from Quelimane to Beira and inland across Zimbabwe are considered to be at high risk of cholera and may see a rapid resurgence of the bacteria. (Direct Relief 22/03/2019) Mozambique suffered a major outbreak of cholera in Tete, Nampula and Niassa provinces in 2015 and in Nampula and Cabo Delgado in 2017. (MSF 27/02/2015) (WHO 19/02/2018)

Malaria: Most of the country has year-round malaria transmission with a seasonal peak during the rainy season. Floods have likely contributed to an increase in malaria transmission in recent years, particularly in low-lying coastal areas and along major rivers. Between 2015 and 2016 malaria cases increased by 17%, reaching 8.5 million cases, and nearly 10 million cases were recorded in 2017. (AllAfrica 26/04/2018) (USAID 2018) A decline of 2.6% in malaria cases was recorded in the first nine months of 2018 compared to the same period the previous year, mainly due to the late start of the rainy season that extended the mid-season dry spell. (Club of Mozambique 02/11/2018) (HRP 2018-2019) Malaria is considered the most significant public health problem in Mozambique and accounts for 29% of all deaths. Among children under five years of age, malaria accounts for 42% of deaths. (USAID 26/10/2016)

Political instability and insecurity

A violent Islamist insurgency is operating in Cabo Delgado province, northern Mozambique, however the situation is very unlikely to hamper relief distribution and humanitarian access and response in the central provinces.

Response capacity

Local and national response capacity

The provincial governor of Zambezia has activated the Coordination Operation Centre and all actions are being coordinated by the National Institute of Disaster Management (INGC). A registration of beneficiaries in the accommodation centres has been carried out in order to facilitate distribution of food and NFIs. (OCHA 23/03/2019) The Government has established a temporary medical centre in Beira and is activating mobile medical teams in Sofala province. (WHO 24/03/2019)

International response capacity

On 22 March, an Inter-Agency Standing Committee (IASC) system-wide scale-up was activated for Mozambique for a period of three months following the devastating impact of Cyclone Idai. (Logistics Cluster 25/03/2019) This has enabled the activation of multi-agency clusters to coordinate relief efforts. (WFP 22/03/2019) An increasing number of international organisations and governments have deployed staff to the country and response is ongoing in all sectors. (OCHA 23/03/2019) Inter-agency airlifting operations are currently ongoing as this is the most reliable and time-efficient way to deliver assistance to the affected populations. The Logistics Cluster, with support from partners, is coordinating these operations. The response is also focusing on reconnecting separated families through an online system to register and search missing people. So far 200 people have been registered as missing in Mozambique and Zimbabwe, but the number is likely to increase once connections are restored in most areas. (ICRC 22/03/2019) A list of available supplies in Beira and incoming supplies has been made available by OCHA. (OCHA 25/03/2019)

An ICRC team of forensics is being deployed and will take care of dignified burials, including a system for later identification by family members. (ICRC 22/03/2019)

Emergency kits, including high-energy biscuits and micronutrient-rich peanut paste to prevent and treat malnutrition, is being airdropped to stranded communities outside Beira.

Information gaps and needs

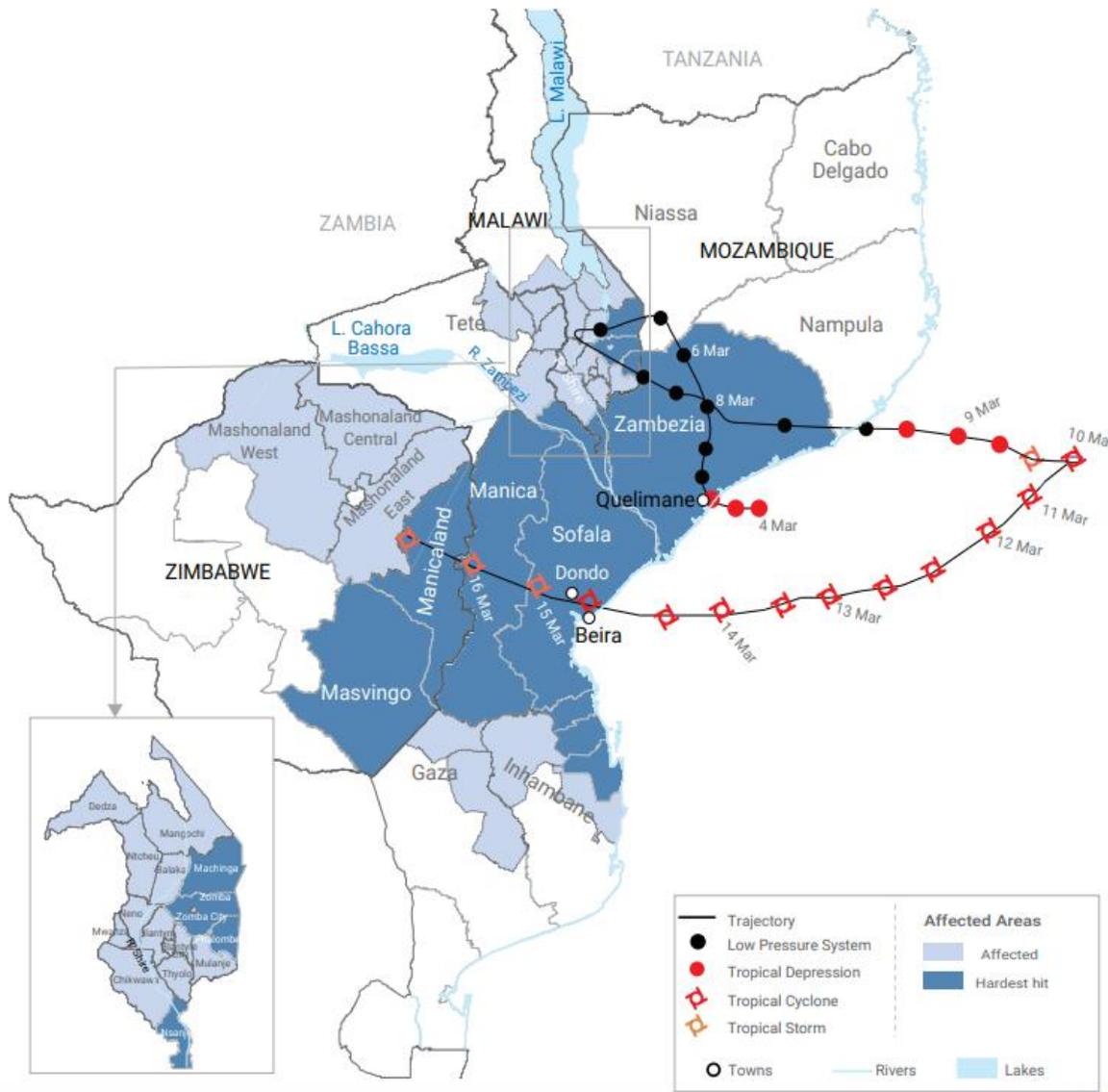
- Despite Mozambique being prone to natural disasters and having experienced the impact of a tropical cyclone multiple times, information on coping mechanisms of the population and how they would behave in the face of such a disaster is unavailable.
- Information on the patterns and dynamics of population movements especially in the very poor coastal areas of Mozambique is not available. (Direct Relief 14/03/2019)

Lessons learned

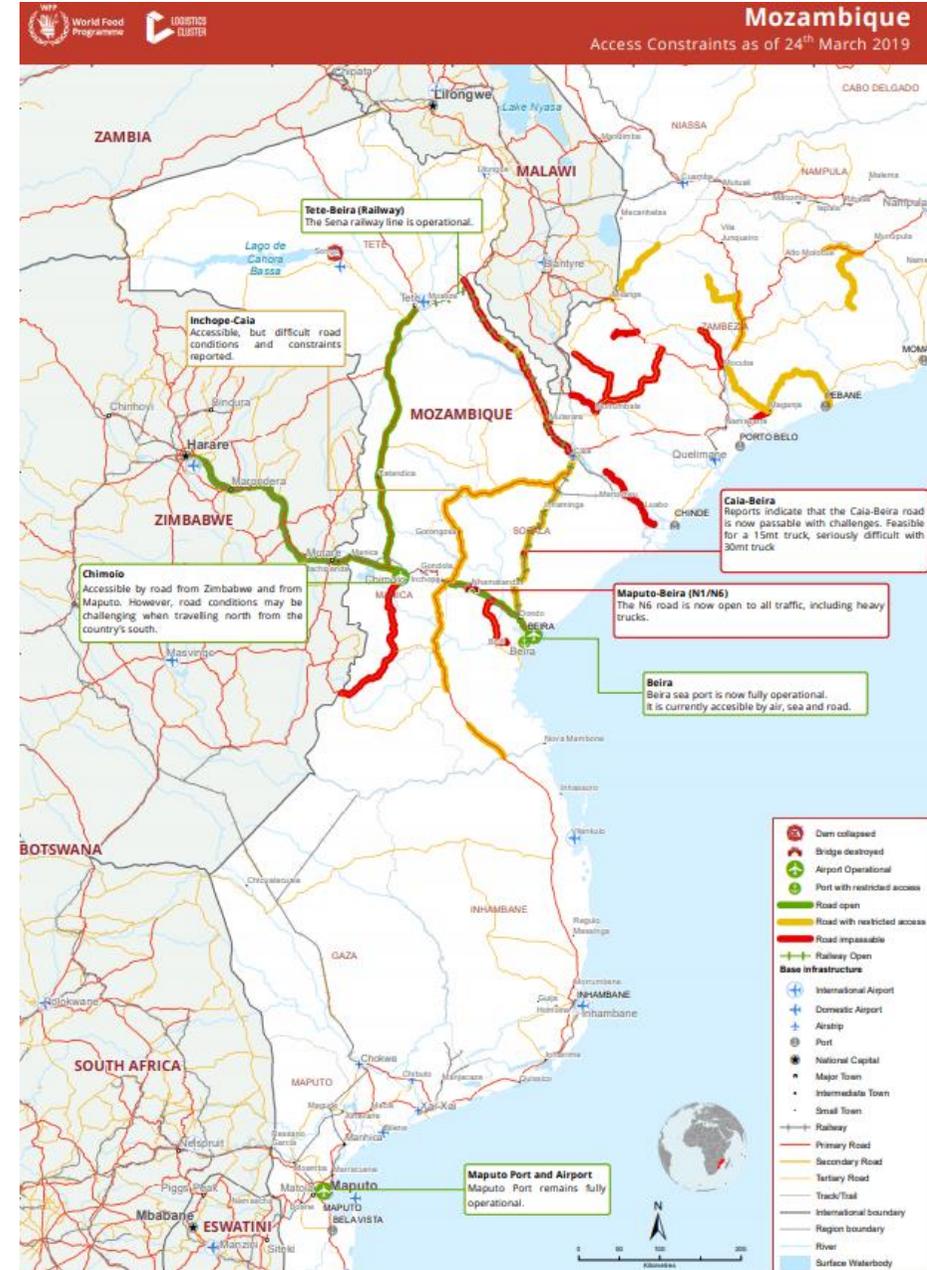
- Despite the effectiveness of early warnings, the need to build more resilient infrastructure is imperative and urgent. (UNDRR 18/03/2019) The impact of Cyclone Idai demonstrates the necessity to develop better emergency preparedness. Risk management and mitigation is important in planning for disasters and is more effective in terms of saving lives and reducing economic losses, as opposed to disaster recovery. (ECA 24/03/2019)
- The Order on Engineers of Mozambique has stated that all recovery and reconstruction operations should be an opportunity to provide a better-quality infrastructure to the population affected, rather than a combination of punctual interventions. Despite the urgency to restore all destroyed infrastructure, rigorous criteria should be applied; infrastructure to be prioritised includes basic sanitation and domestic sewage, water supply system, drainage of rainwater, as well as infrastructures for energy supply and telecommunications and the already known works of coastal protection. (O Pais 26/03/2019)
- The education sector is always affected by heavy rains, cyclones and floods in Mozambique. School infrastructure is vulnerable to weather events, given its diverse construction typology: conventional, mixed, and local material. (UN 31/12/2016)

Maps

CYCLONE AND FLOOD AFFECTED AREAS



Source: OCHA 26/03/2019



Source: Logistics Cluster 24/03/2019