



# Struggles of Cyclone Idai Floods Survivors Inhabiting Spaces of Vulnerability and Reconstructing Their Fractured Livelihoods

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## Abstract

In March 2019, cyclone Idai swept across Mozambique, Zimbabwe and Malawi, creating disaster landscapes with destroyed lived spaces and fractured livelihoods. This chapter explores the impoverishing effects of the cyclone on the affected population and examines the resilience-enhancing strategies of survivors who are still rooted in spaces of vulnerability. Drawing on a mixed research methods approach, consisting of a desktop study, focus group discussions (FGDs) and in-depth key informant interviews, this chapter provides useful insights on experiences of the flood survivors. A key study finding is that while official disaster management responses were swift and had saved many lives, reconstruction has been slow and has not reversed the consequential effects of cyclone Idai in the affected areas. The voices of the cyclone survivors reveal that despite the resilience at the local level, it will take long for life to return to

normal in the disaster landscapes of both countries. The findings will be of help to policymakers as they refine their disaster management programmes when responding to similar hydro-meteorological disasters.

## Keywords

Cyclone Idai · Internal displacement · Livelihoods · Resilience

## 9.1 Introduction and Background

The occurrence of hydro-meteorological hazards, especially cyclone-induced floods, has increased considerably during the past two decades. In southern Africa, several large-impact tropical cyclones (e.g. cyclone Dineo in 2017, cyclones Idai and Kenneth in 2019) have been experienced since 2015. These cyclones have produced distinct disaster landscapes that are characterised by destroyed physical infrastructure and human settlements, fractured local economies and ruptured livelihoods. The disaster landscapes are experiencing sustainability challenges that threaten to deepen existing levels of poverty, unemployment and socio-spatial inequalities. Also, these natural disasters are a threat the growth of GDP through

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disruptions of local economic activities and household livelihoods. National governments in southern Africa have responded to the call by the United Nations Office for Disaster Risk Reduction (UNISDR) to reduce risk and to strengthen resilience as part of their disaster emergency strategies, by adopting disaster management programmes informed by the Sendai Framework for Disaster Risk Reduction and the Africa Regional Strategy for Disaster Risk Reduction.

Scholarly research on why some communities are more vulnerable to floods than others has focused on meteorological (e.g. frequency of cyclones), hydrological (e.g. catchment form and management) and socio-economic (e.g. incidence of poverty) factors. According to Rufat et al. (2015), demographic characteristics, socio-economic status and health remain the primary drivers of social vulnerability to floods in the global South. This reality helps to explain the renewed focus of several academic studies on the social determinants of flood preparedness and response at the household level (Mabuku et al., 2018; Mavhura, 2018). Kikwasi and Mbuya (2019) single out poverty and construction of low-quality houses in flood-prone areas as the main reasons why rural settlements are invariably washed away during floods. Other studies have focused on the intertwined connections between natural disasters and migration (Bates, 2002; Weerasinghe & Taylor, 2015). While hydro-meteorological hazards at times result in rural-urban migration, the most common impact of floods is internal displacement (Islam & Hasan, 2016; Mallick & Vogt, 2014; Manyena et al., 2011). In such cases, households are forced to move out of their settlements and have nowhere to go and often become homeless people residing in the same spaces of vulnerability without access to livelihoods and food. A recent study by Week and Wizer (2020) highlights the debilitating effects of floods on household food security in the Niger Delta of Nigeria. Also, a study by Pacetti et al. (2017) done in Pakistan and Bangladesh confirms the intertwined connection among the occurrence of extreme floods, loss of

field crops and increased incidence of food insecurity.

This chapter examines the destruction and disruption caused by cyclone Idai and the floods that it brought. The focus is on areas and features that constitute spaces of vulnerability, including general poverty-stricken communal areas in rural spaces and low-income urban informal settlements, mostly in the peri-urban zone, flood-prone low-altitude coastal settlements, floodplain settlements and regions that are predominantly occupied by migrants. A common characteristic of spaces of vulnerability is their above-average exposure to natural hazard risks as a result of their locational, physical or socio-economic attributes.

Also, this chapter explores the impoverishing effects of the cyclone on local economies and it also examines the resilience-enhancing strategies pursued by flood survivors most of whom are compelled by various circumstances to remain rooted in the spaces of vulnerability that they inhabit. The chapter is divided into four sections. Section 9.1 (introduction and background) provides the context and it frames the arguments that are developed in this chapter. Section 9.2 (methods) outlines the mixed research methods approach that was used to collect both secondary and primary data. Section 9.3 (findings and discussion) explores the destructive impacts of the cyclone and the emergency response measures that were implemented. This section also discusses the impacts of the cyclone on the local economies and the various strategies used by households and communities to reconstruct their livelihoods. Section 9.4 (conclusion and policy suggestions) addresses the lessons from the disaster response experiences of Zimbabwe and Mozambique.

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## 9.2 Research Design

Cyclone Idai struck Mozambique, Zimbabwe and Malawi in March 2019, however, the current phase of the study is limited to the effects of the cyclone in the first two countries. The study is

based on a mixed research methods approach that involved the collection of both secondary and primary data. The desktop phase of the study entailed collection of available information on the occurrence and effects (both immediate and medium term) of cyclone Idai. The main phase of the desktop study involved a systematic search of peer-reviewed articles, electronic and print media reports and organisation reports on cyclone Idai floods, impacts and responses. Also, media reports and grey literature (in the form of organisation reports), and various online documents, were retrieved from the websites of organisations that were involved in disaster relief activities.

The primary data collection phase of the study involved in-depth interviews with key informants in Mozambique and focus group discussions (FGDs) in Chimanimani District, Zimbabwe, that was ravaged by the cyclone. This phase of the study generated the qualitative data that was used in this chapter. Focus group discussions with market vendors and traditional leaders at Ngangu business centre in the Chimanimani District of Zimbabwe were carried out in January/February 2020. All of the focus group participants had first-hand experience of the rainfall, floods and the destruction that was caused by cyclone Idai, and they had remained in the area in order to continue with their livelihood strategies. Ngangu business centre was selected for the focus groups because of its ideal location in the middle of an area that was ravaged by the floods. Also, being a business centre, it was relatively easy to get enough people in this area, with lived cyclone Idai experience, to participate in the focus groups.

In Mozambique, the prevailing COVID-19 lockdown restrictions compelled the researchers to drop the idea of having focus group discussions or face-to-face interviews, which would have facilitated a neat comparison with the Zimbabwe data that were collected at the beginning of the year. Instead, purposive sampling was used to identify four informants (two adult men and women) for multiple phone interviews about 16 months after the floods. The four were selected based on having experienced the floods in three districts (Nhamatanda, Catandica and Mossurize) that were badly affected by the floods but they

also have homes in Maputo and Beira. The four informants were willing to spend considerable time discussing their experiences of loss and recovery and how they were struggling to reconstruct their fractured livelihoods.

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## 9.3 Presentation and Discussion of Findings

### 9.3.1 Cyclone Idai and the National Emergency Responses

#### 9.3.1.1 Mozambique

In March 2019, cyclone Idai struck an area covering 1300 km<sup>2</sup> in the provinces of Sofala, Manica, Zambézia, Inhambane and Tete region. The cyclone was characterised by torrential rainfall and floods which destroyed homesteads in communal rural areas, peri-urban zones and urban informal settlements, secondary and main roads, bridges and agricultural land. Both print and electronic media reports, including reports produced by various funding organisations, have provided extensive quantitative data on the cyclone Idai rage and devastation as it moved across Mozambique into the eastern region of Zimbabwe (see: FAO, 2019; Globo, 2020; OCHA, 2019a; OCHA, 2019b; TransConflict, 2019; WFP, 2020). According to Marima (2019), writing in the *African Business* magazine, nearly 240,000 houses were damaged, including 111,000 that were totally destroyed. According to estimates made by various international organisations, the damage to human settlements in both rural and peri-urban areas resulted in the displacement of about 1.75–2 million people. Although the government of Mozambique responded immediately by declaring the cyclone Idai ravaged areas a disaster zone, thereby prompting the call for a state of national emergency, the damages and disruptions were extensive. Many people could not get immediate assistance from the disaster risk management (DRM) response teams due to accessibility challenges. The national emergency response was spearheaded by government institutions, through the National Institute for Disaster Management

(INGC) with support of the Humanitarian Country Team (HCT) that consisted of several United Nations agencies, international organisations and civil society groups. About 1400 people were rescued and 29,000 internally displaced persons were provided with shelter, food and water (INGC, 2019). In fact, within 6 months after the landing of cyclone Idai about a million adults in the affected areas had received food support, especially those who had lost livelihoods and had become more impoverished since the arrival of the floods. The FAO, in collaboration with the International Organisation for Migration (IOM), distributed seeds and farming tools in the affected areas to promote household food security and to facilitate the recovery of a badly damaged smallholder farming sector. In addition, training was provided to 44,000 people with the goal of resuscitating destroyed livelihoods, especially in areas where subsistence agriculture dominated (World Vision, 2020).

### 9.3.1.2 Eastern Zimbabwe

As cyclone Idai swept across Mozambique westwards into neighbouring Zimbabwe, it brought powerful high-speed winds and heavy torrential rainfall. The result was flash flooding and landslides in the predominantly rural districts of Chimanimani, Chipinge, Buhera, Mutare Rural, (Manicaland Province) Bikita, Gutu and Chiredzi (Masvingo province) (United Nations Office for the Coordination of Humanitarian Affairs [OCHA] 27/03/2019a). The cyclone struck with such ferocity that it caused widespread ecosystem disruptions, economic losses and internal displacement in the affected districts in Manicaland and Masvingo provinces. In remote rural areas, the damages to road networks telecommunications and national supply chains were not fixed for periods up to several weeks, and this adversely affected the local economy that is mostly based on agriculture, forestry and tourism. For example, several districts in Manicaland are major producers of forestry products and a range of agricultural produce and they continue to attract a fairly large pool of seasonal workers from Mozambique.

Also, worth noting is that in eastern Zimbabwe, the livelihoods of over 270,000 peasant farmers, farmworkers and cross-border traders were either disrupted or destroyed by the cyclone. According to the United Nations Office for the Coordination of Humanitarian Affairs, 51,000 people were internally displaced at times to more marginal spaces and uncultivable hilly areas well above the flood lines. Over 500 people lost their lives to flooding in Manicaland, Mashonaland East and Masvingo provinces (OCHA 27/03/2019a). The scale of the local and sub-national damage has been well documented in the media and various official reports (DW, 2019, 2020; OCHA, 2019b). In Zimbabwe, the government-led response was coordinated by the Department of Civil Protection (DCP) through the National, Provincial and District Civil Protection Committees, with support from several private, local and national emergency services assisting the humanitarian relief activities (OCHA 27/03/2019a).

## 9.3.2 Impact of Cyclone Idai on Local Economies and Livelihoods

### 9.3.2.1 Central Mozambique

Cyclone Idai has been the most destructive cyclone to make landfall in Mozambique since the El Niño in 2000. Beira, a commercial city in the central region of Mozambique and regional gateway into southern and east Africa, was damaged. In addition, several small urban centres and villages in Sofala, Manica and Zambezia provinces were damaged. Also damaged were sugar mills, electricity supplies, public buildings and markets (Marima, 2019). Sections of the highways connecting Mozambique to neighbouring Zimbabwe to the East and Malawi to the North were extensively damaged and rendered partially inoperable for several days following the floods and this resulted in long delays in the movement of regional exports and imports. Another economic impact of cyclone Idai on neighbouring countries was illustrated by immediate power shortages and several days of load shedding in

South Africa after its daily electricity imports of roughly 1000 MW from Mozambique's Cahora Bassa hydroelectric power plant could not be met. Cyclone Idai made landfall in Mozambique at a time when the country's fragile economy was under stress and still recovering from several decades of economic stagnation and armed resistance.

Worth noting is that by disrupting transport, communication and travel, the floods left several places inaccessible for days thereby disrupting local and cross-border commodity supply chains. During in-depth interviews with four participants, an effort was made to establish whether households had been informed about the imminent cyclone. The other questions asked aimed to establish the extent of the damage to properties of participants. Another key question focused on the adaptation strategies. Below is an in-depth interview with Leonor Luciano (not her real name), who is a widow and has been a long resident of the cyclone-damaged Chaimite neighbourhood in Beira. She narrated her traumatic experience as follows:

*'We were informed on National Radio Mozambique and Mozambican Television Station, WhatsApp group messages and phone calls that a huge cyclone was arriving and would affect our city. Then I gathered my family consisting of my grandson, son and daughter-in-law. We remained in the house for 24 hours. Then the wind came... it blew away the roof of the building and broke most of my windows.... After the storm we were left in a big mess but were grateful to be alive.... Fortunately, we received immediate assistance from relatives based in Tete and Maputo. They sent us some money that we used to buy groceries and materials to repair the broken roof and windows.... After the situation stabilized a month later.... my neighbour, who has a 4 wheel drive vehicle decided to visit his machamba (a rural family homestead) near Nhamatanda District (about 107 km from Beira), where I also have a machamba, gave me a lift.... Nhamatanda is one and half hours drive away from Beira but this time the drive was very slow because the roads still had obstacles, such as fallen tree trunks and various materials from the destroyed houses.... On our way we saw destroyed houses and schools...and people, who had lost most of what they owned, desperately trying to start all over again. I have seen destruction caused by the previous war but this one was worse than what I had seen before. When we arrived in*

*Nhamatanda, I found out that my small hut and fruit trees (mango and coconut) had fallen. My vegetable garden was completely flooded and buried in debris....several roads were not passable as they were twisted like a wet towel. Driving was very slow because the roads were badly damaged. Currently, the roads are now better because they have been rebuilt by the Chinese. However, in the city centre of Beira, the situation is much difficult. For example, in the Municipal Square the roads have not been fixed properly because the Government wanted to repair the rural and national first' (Phone interview with Leonor Luciano, November 2020, city of Beira).*

The second participant (Nélio Leonardo) to be interviewed had this to say when asked about communication issues in the area almost 2 years after cyclone Idai:

*'Soon after Cyclone Idai we had major telecommunication challenges for about six months.... Only one mobile company was reliable. Due to overload as all users were using the same network. Even now, I communicate with my relatives who live in Mossurize District (a border district with Zimbabwe and is about 400 km from Beira) which became unreachable and isolated. I tried to travel to find out how they are....before the destruction caused by the cyclone...there was a drift (small bridge) that we used to cross along Mossurize River, but this was washed away by cyclone Idai. I heard that the drift has been fixed. The problem now is which better way to use because not every road has been fixed. For example, there is no communication between Mossurize and Machaze district, which is another district of Manica.... That's why some of my relatives do cross the Zimbabwean border to sell or to buy goods' (Phone interview with Nelio Leonardo, November 2020).*

The third participant, who is a father of several adult children, had this to say:

*'My family heard about the cyclone on radio, TV and via social media.... My wife and our two sons... including the one who recently graduated and one daughter... were living in Dondo, which is an hour of driving from Beira.... Once we heard about the cyclone we packed some clothes, food and blankets and we boarded one of the chapas (semi-public transport). With the worsening of the situation in Beira (e.g. lack of food, clean water, electricity, and shelter) we decided to move to our rural home in Nhamatanda rural area because that is where I was rearing goats and chickens....In Dondo our house was completely destroyed and my 14 chickens disappeared, because of the heavy winds and rain....also, some people took advan-*

*tage of the disaster and stole some of our belongings.... In Nhamatanda the situation was worse.... some of our goats disappeared and our house was destroyed. The situation was so bad that as we travelled from Beira to Dondo and further...the transport fares increased sharply. We used to pay 75 Meticaís from Beira to Dondo and from Dondo to Nhamatanda we used to pay 120 Meticaís. But soon after the cyclone, the prices arose up to 2000 Meticaís. People who owned cars made a lot of money. The poor road conditions and the increased price of petrol led to high transport fares....The roads were not passable. We were lucky because after we crossed the bridge on Pungoe River it collapsed... The bridge has been rebuilt. However, due to the approaching rainy season, we fear that the bridge will collapse again.... Although the road that links Beira and Nhamatanda (National Road No 6) is now passable, the secondary roads, including bridges, are still not passable. The National Road (N 6) is the only road that is in good condition. No one cares to repair the unstarred secondary roads which quickly become muddy after light rains...We received aid from relatives who live in Metuchira, in Nhamatanda District. Also, we got a donation of zinc sheets and tents, from the National Disaster Management Institute. A neighbour who is a bricklayer and carpenter helped me to rebuild the house using some of the donated materials' (Phone interview with Eduardo Dias, November 2020).*

The fourth interviewee who was residing in Maputo at the time of the interviews had this to say about his recent trip to his parental home in Catandica area a year after it was ravaged by cyclone Idai:

*'I needed to go and find out by myself how the situation was as I have some businesses there....Yes, it is a fact that the roads were improved, but continue to be in bad condition, mainly because the bridges are not passable.... Roads are the heart of the business. My parents are taking care of my machambas.... I lost everything. I had some cattle, goats pigs and poultry.... and fruit trees such as mangos, litchi, lemon and orange. That cyclone not only affected poor people but people who had properties. From Chimoio towards Catandica, people are complaining about the roads which are still not properly fixed. We are suffering because of that. But one thing that I noticed is the spirit of solidarity. People support each other and while we wait for actions from Government or Aid Agencies, the communities constructed their own paths otherwise they would have died of hunger' (Phone interview with Evaristo Daimone, November 2020).*

The four in-depth interviews above are quite revealing. First, they provide useful insights into how the households in the cyclone Idai-devastated region of Mozambique have struggled to deal with extensive material losses (e.g. shelter, household items, clothing and livestock). Second, they show that in addition to the national emergency response that was spearheaded by government institutions, family and local community networks provided the badly required social capital that nurtured the adaptation strategies of affected households. Third, they help to explain the role that the spatially split households which occupy both urban and rural spaces as both a calculated livelihood and resilience strategy. The split household depicted in the in-depth interviews is characterised by household members who normally reside in urban areas but have to make a rural home that consists of a homestead, vegetable garden and a small piece of land (typical 1–5 ha) where staple crops are cultivated.

During the past two decades, the rural home in many southern African countries has emerged as an important source of food for their own consumption or the market. Studies done by the African Urban Food Network (AFSUN) in several cities (Maputo, Harare, Manzini, Cape Town, Johannesburg, Maseru, Windhoek, Lusaka, Blantyre, Gaborone and Msunduzi) show that many urban households regularly receive food from rural areas and this has helped to improve household food security (Crush et al., 2018; Tevera & Simelane, 2016). However, this perfectly rational coping strategy by urban households facing food shortages or rising food prices was disrupted by the cyclone when the rural homes and livestock were destroyed (as was the case of urban city residents with rural homes in Nhamatanda rural area), thereby exposing more urban people to food insecurity and poverty.

The results of the desktop study show that staple foods from the 'grain basket of Mozambique' outside the city of Beira were temporarily made inaccessible along some routes following the washing away of low-level bridges. Also worth noting is how cyclone Idai disrupted the post-independence patterns of

cross-border employment of Mozambican nationals, who often cross the border at official border posts (such as Forbes border near Mutare on the Zimbabwean side and Machipanda on the Mozambique side), as well as several informal border crossings, to work in towns (such as Nyanga, Mutare, Chimanimani and Chipinge) as well as on commercial farms and mines in eastern Zimbabwe. Duri (2012) has written about the cross-border employment of Mozambicans in Zimbabwe and of informal cross-border trade activities of Zimbabweans along the Beira corridor rail and road systems that not only provide passenger and goods transport between link Beira and Mutare but also connects the economies of the two countries. In southern Africa, informal cross-border trade has grown into a key sector whose contribution to national and regional economies is quite significant and has increased sharply since the late 1990s. Although informal cross-border trading has become a way of life for many people residing in the border zone, the volume of movement reduced during the floods because it was not safe to travel and mainly because some of the roads had been damaged.

### 9.3.2.2 Eastern Zimbabwe

Heavy rains and strong winds caused flooding that affected 237,000 people in the predominantly rural Chipinge and Chimanimani Districts. In these districts, the two main groups badly affected by the cyclone were international refugees and the local rural population. For example, when the cyclone struck Tongogara Refugee Camp near the city of Mutare, the extensive structural damages to the complex left 6000 refugees and asylum seekers without accommodation (Marima, 2019). Also, near the small town of Chimanimani, the livelihoods of farmers, farmworkers and local communities connected to the timber, avocados and macadamia nuts plantations were either disrupted or destroyed, following the damage to the road networks that link Chimanimani District to other parts of the country. The damages affected both the local markets and the related international commodity value

chains. Similarly, small- and large-scale farmers producing food crops for the nearby urban markets were badly affected. The temporary loss of urban markets during the cyclone and immediate post-cyclone phases resulted in the loss of earnings that compelled some large-scale farmers to temporarily reduce their demand for seasonal semi-skilled farmworkers. A focus group discussion (FGD) with businesspeople in Chimanimani District revealed that the local economy in the district was badly affected by cyclone Idai as shop owners found it extremely difficult to stock their shops with goods which were normally supplied by delivery trucks. Extracts below from the FGD show that businesspeople at Ngangu, which is one of the badly affected areas in Chimanimani, were still struggling to recover from the immiseration effects of cyclone Idai 9 months after the floods.

*Interviewer: Respected local chiefs, how did cyclone Idai affect the local economy in both Biriri and Saurombe areas?*

*Participant: (Because of) the loss of gardens and fields when irrigation pipes were swept away by the floods many households in the area experienced hunger and lost incomes. For example, at Biriri an irrigation scheme that was funded by Royco, with 72 families benefiting from the gardens, was swept away by the floods. As a result, the members can no longer afford to send their children to boarding schools. All they can afford now is to send them to Mhakwe, the local day school. The loss of the scheme is contributing to household food insecurity because the potatoes, tomatoes and onions they used to grow are no longer part of the diet because they cannot afford them.*

*Interviewer: How has cyclone Idai affected your business here in Chimanimani?*

*Participant: We were badly affected. When the cyclone came electricity was cut off in the area, roads were destroyed and as a result, we were unable to stock our shops with goods. Power cuts resulted in al refrigerated food*

*getting bad. Flood water damaged goods in my shop. I am in a mess. I wish there was a donor to assist businesspeople like me.*

One of the challenges that is slowing down the post-cyclone reconstruction process in Chimanimani District is the general lack of support from the local administrative structures. Rural District Councils in Zimbabwe were established by an Act of parliament (the Rural District Act of 1988) and their main function is to administer communal areas. However, due to a weak revenue base and inability to attract high calibre administrators, most Rural District Councils in the country are considered to be weak and not developmental in orientation. During the focus group discussion, it was evident that the local council had not been able to show a presence and had failed to provide financial or logistical assistance to the communities that had been badly affected by the floods. As a result, this had upset the local population, especially the business community that pays an annual levy to the council for road maintenance and borehole drilling and other community-based small-scale projects. The segment below from one of the focus group participants captures the sense of frustration within one of the communities that was badly ravaged by cyclone Idai.

**Interviewer:** *Are you getting any assistance from the local Council?*

**Participant:** *Council has never provided direct emergency assistance. However, indirectly they assisted us by making sure that the road that was damaged by floods is repaired and is now operational. However, I hear the donor fixed the road and not the Council.*

**Interviewer:** *In the past wholesalers used to deliver goods. Are they still providing that service or do you now go to major towns to buy goods for resale?*

**Participant:** *So far there is a lorry belonging to Dengende which delivers goods to shopkeepers. We no longer have bakeries delivering bread to shop owners.*

The extract below, from the focus group discussion (FGD) with businesspeople in Chimanimani District, reveals that in addition to the destruction caused by the cyclone some households returned to homesteads that had been vandalised during the time they had fled the area during the floods.

**Interviewer:** *Did you experience burglaries or people looting shops which had been damaged by the cyclone during the floods period?*

**Participant:** *What happened was people fled from the area because they thought part of the local hill was going to break apart and crush people. So when people left the area thieves broke into shops and houses stealing blankets and clothing items. This is something that has negatively affected us.*

Since most of the people in the affected areas relied on agriculture for survival, the disruptions had a direct effect on household employment, incomes and food security.

**Interviewer:** *Respected local chiefs, how did cyclone Idai affect the local economy in both Biriri and Saurombe areas?*

**Participant:** *It has been difficult for this area to recover from the damage caused by the cyclone. The temporary loss of electricity resulted in considerable loss of perishable food items. When the roads got damaged deliveries stopped and this caused many shortages. Because of the shortages and high costs, prices have increased sharply and many people here can no longer afford to buy basic items. Also, after the local Council raised licence fees for shops some of the shop owners decided to use vendors and sell food items in streets.*

Some of the affected people were permanently displaced from their homes, land and communities. Lack of food and a lack of access to roads and social services played a huge role in demotivating many households on taking the option of returning to their communities. As a result, they had to pick up the pieces and begin



living all over again without crops, livestock, homesteads and familiar livelihoods. Many households not only lost livelihoods but also experienced recurring episodes of household food insecurity and lack of essentials.

The connection between damage to roads and electric power lines and livelihoods was well articulated during the focus group discussion with businesspeople and local leaders in Chimanimani District.

**Interviewer:** *What has been the situation regarding your business here in Chimanimani since the cyclone up to now?*

**Participant:** *Transport is my biggest challenge. I travel long distances each time I go out ordering goods to sell in my shop. Shortage of fuel is a major challenge in this area. I often buy expensive fuel on the black market. This reduces my profit margins.*

The focus group discussion highlights the considerable challenges with post-disaster reconstruction from the cyclone Idai impacts and the long-lasting economic crises experienced during the past two decades. Local economies were devastated by the disruptions of food systems including food production and distribution. The food aid that was distributed hardly benefitted the local economy because the food came from outside the district and the vehicles that were used to distribute all the food and other material supplies were from outside the district. As a result, virtually no local multiplier effects were generated and the local business community was quite concerned about this.

**Interviewer:** *Did local businesses benefit from some of the emergency funds that international donors brought to the area? For example, was some of the food that was distributed to displaced communities sourced locally? If that was the case, did this help to revive the local economy?*

**Participant:** *Unfortunately, none of the food aid was sourced from here in Chimanimani. Maybe, the donors sourced the various food items from Chipinge or Mutare. What hap-*

*pened here in Chimanimani was simply the distribution of food items that were brought in from other places.*

What is emerging from both the focus group discussion and the desktop study is that government, with the support of various international organisations, implemented restorative practices following cyclone Idai by providing shelter to displaced people, repairing damaged roads and restoring electricity. This helped to reduce the number of deaths due to exposure to the elements and general lack of access to basic needs, such as food and shelter. However, the focus group discussion reveals that in some of the areas that were ravaged by cyclone Idai, such as Chimanimani, the restorative practices that were implemented had not reversed the destructive effects of the floods.

**Interviewer:** *Do you think that the situation will return to the pre-cyclone Idai time? If so, will that take a long time?*

**Participant:** *The economy is bad at the moment. I don't see a pathway to a better economy. It's not sustainable for prices to rise on a weekly basis. If this continues I don't see myself continuing to operate a shop.*

There are several reasons why this has been the case. First, once the immediate harm associated with the floods had been addressed by governments in both countries, with the support of various international organisations, relief support was withdrawn before most of the affected communities were back on their feet again. Efforts should have been made to empower communities to start all over again by providing grants and loans to facilitate reconstruction of houses and rehabilitation of livelihood projects, such as community gardens, farming activities and retail businesses. Second, in rural areas, the capacity of local communities to mobilise resources and to engage in restorative activities and projects remains limited by socio-economic development challenges and rural poverty in general. During the focus group discussions, the participants shared their cyclone Idai experiences and frustra-

tions. For example, the local businesspeople felt that they were not only 'flood victims' but were also 'excluded from the process of reconstruction' because rebuilding contracts were given to the urban-based large companies from outside the area.

The disaster response experiences of both Mozambique and Zimbabwe reveal a real need for having national level but with a local presence, disaster risk reduction (DRR) management structures and processes that can provide awareness and equate help to affected communities before, during and after natural hazards. During the pre-hazard phase, the focus is on warning communities about the impending danger, by relying on media announcements (as was largely the case in both Zimbabwe and Mozambique). However, this approach might not be as effective as expected at the village level in the rural areas where communication via radio, television and cell phones is made difficult by lack of electricity and Wi-Fi connectivity. Nevertheless, in both countries, disaster risk reduction responses during the emergency phase have been reasonably effective as local leadership structures are often involved and the activities are given extensive media attention. However, it is during the third phase (the reconstruction phase, usually months and years after the hazard), when communities are left, and with limited financial and organisational support, to reconstruct their battered settlements and livelihoods. The situation is much more difficult when communities that inhabit spaces of vulnerability struggle to overcome the double predicament of social and hydro-meteorological crises that have been highlighted in this chapter.

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## 9.4 Conclusion

The findings reveal that cyclone Idai transformed many spaces of vulnerability into disaster landscapes through extensive destruction of rural and urban spaces, transport networks and fractured livelihoods. The immediate humanitarian response to the crisis provided emergency and relief in the form of healthcare, shelter provision,

food and material assistance to displaced families. However, it also revealed disaster response shortcomings that require attention. For example, the in-depth interviews (Mozambique survey) presented in this chapter have revealed that when households lost homes and livelihoods, they experienced a loss of income, food insecurity and increased poverty. Also, the focus group discussions (Zimbabwe survey) highlighted the micro-level challenges that were still being experienced by households and businesspeople almost a year after the flood disaster in Chimanmani District.

There are two main disaster risk management lessons to learn from this study. First, both the focus group discussions (FGDs) and the in-depth interviews with key informants have shown that cyclone Idai survivors in the affected areas of Mozambique and Zimbabwe have been resilient due to individual agency and friends/family support during the reconstruction phase (i.e. 12–18 months) after most of the official disaster emergency assistance had ended. Clearly, despite their fractured livelihoods resulting from loss of incomes, friends, relatives and the local community, in general, have made it possible for flood survivors to engage in resilience-enhancing activities. The study reveals how both households (especially in the case of Mozambique) and communities (especially in the case of Zimbabwe) have exhibited adaptive and transformative capacities to respond to new challenges mobility, food and livelihoods that emerged during and after the floods. Second, official disaster risk management programmes need to be capacitated so that they provide relief to communities that occupy spaces of vulnerability in order to make them less susceptible to hydro-meteorological disasters and to improve local adaptive capacities to similar natural disasters. This can be achieved through the development of national policies and programmes that aim to assist communities occupying various spaces of vulnerability to re-settle to less flood-prone areas or through the construction of flood barriers in specific areas. It is further recommended that for effective disaster risk reduction (DRR) management, government response programmes need to redefine the emergency relief period (whose two phases are 'just

before impact' and 'during and several days after impact') by co-ordinating relief operations for periods up to a year after natural disasters in specific areas that justify being mapped as spaces of vulnerability. This would be a pragmatic response to the real need for national disaster risk reduction management institutions to be actively engaged during the three phases of the cycle (before, during and after natural hazards).

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## References

- Bates, D. (2002). Environmental refugees? Classifying human migrations caused by environmental change. *Population and Environment*, 23, 465–477.
- Crush, J., Hovorka, A., & Tevera, D. (2018). Farming the city: The broken promise of urban agriculture. In B. Frayne, J. Crush, & C. McCordic (Eds.), *Food and nutrition security in Southern African cities* (pp. 101–117).
- Duri, F. (2012). Negotiating the Zimbabwe-Mozambique border: The pursuit of survival by Mutare's poor, 2000–2008. In S. Chiumbu & M. Musemwa (Eds.), *Crisis! What crisis? The multiple dimensions of the Zimbabwean crisis* (pp. 122–139). HSRC Press.
- DW. (2019). *Maputo: Solidarity for the victims of Cyclone Idai*. March 23rd 2019. Retrieved from: <https://www.dw.com/pt-002/maputo-solidariedade-%C3%A0s-v%C3%ADtimas-do-ciclone-idai/av-48044847>. Accessed 26 June 2020.
- DW. (2020). *Beira: Beira: Much to do a year after Cyclone Idai*. March 15th 2020. <https://www.dw.com/pt-002/beira-muito-a-fazer-um-ano-depois-do-ciclone-idai/a-52781102>.
- FAO. (2019). *Mozambique- cyclones Idai and Kenneth- Situation report-October 2019*. Retrieved from: <http://www.fao.org/3/ca7638en/ca7638en.pdf>.
- Globo. (2020). *Um ano após o Idai, recuperacao de Mocambique avanca a conta-gotas*. March 18th 2020. Retrieved from: <https://g1.globo.com/mundo/noticia/2020/03/18/um-ano-apos-o-idai-recuperacao-de-mocambique-avanca-a-conta-gotas.ghtml>.
- Kikwasi, G., & Mbuya, E. (2019). Vulnerability analysis of building structures to floods. *International Journal of Building Pathology and Adaptation*, 37(5), 629–656.
- INGC. (2019). *Relatório de Avaliacao: Ciclone Idai*. Retrieved from: [https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/beira\\_rapid\\_assessment\\_report\\_pt.pdf](https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/beira_rapid_assessment_report_pt.pdf).
- Islam, M., & Hasan, M. (2016). Climate-induced human displacement: A case study of cyclone Aila in the south-west coastal region of Bangladesh. *Natural Hazards*, 81, 1051–1071.
- OCHA. (2019a). *Southern Africa: Tropical cyclone Kenneth. flash update No 10*. May 6th 2019. Retrieved from: ([https://reliefweb.int/sites/reliefweb.int/files/resources/national\\_sitrep\\_2\\_mozambique\\_17\\_may\\_2019\\_port.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/national_sitrep_2_mozambique_17_may_2019_port.pdf)).
- OCHA. (2019b). *Southern Africa: Tropical cyclone Kenneth flash update no. 12*. 12 May 2019. Retrieved from: [https://reliefweb.int/sites/reliefweb.int/files/resources/Mozambique\\_20190512\\_Flash%20Update%20%2313.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/Mozambique_20190512_Flash%20Update%20%2313.pdf).
- Mabuku, M., Senzanje, A., Mudhara, M., Jewitt, G., & Mulwafu, W. (2018). Rural households' flood preparedness and social determinants in Mwandu district of Zambia and Eastern Zambezi Region of Namibia. *International Journal of Disaster Risk Reduction*, 28(1), 284–297.
- Mallick, B., & Vogt, J. (2014). Population displacement after cyclone and its consequences: Empirical evidence from coastal Bangladesh. *Natural Hazards*, 73, 191–214.
- Manyena, B., O'Brien, G., O'Keefe, P., & Rose, J. (2011). Disaster resilience: A bounce back or bounce forward ability? *Local Environment: The International Journal of Justice and Sustainability*, 16(5), 417–424.
- Marima, T. (2019). Three countries count the cost of cyclone Idai. *African Business*, 29 April.
- Mavhura, E. (2018). Analysing drivers of vulnerability to flooding: A systems approach. *South African Geographical Journal*, 101(1), 72–90.
- Pacetti, T., Caporali, E., & Rulli, M. C. (2017). Floods and food security: A method to estimate the effect of inundation on crops availability. *Advances in Water Resources*, 110(1), 494–504.
- Rufat, S., Tate, E., Burton, C., & Maroof, A. (2015). Social vulnerability to floods: Review of case studies and implications for measurement. *Disaster Risk Reduction*, 14(4), 470–486. <https://doi.org/10.1016/j.ijdrr.2015.09.013>.
- Tevera, D., & Simelane, N. (2016). Urban food security and social protection. In J. Crush & J. Battersby (Eds.), *Rapid urbanisation, urban food deserts and food security in Africa* (pp. 157–168). Springer.
- TransConflict. (2019). *The impact of Cyclone Idai – Lessons for Africa*. Retrieved from: <http://www.transconflict.com/2019/06/the-impact-of-cyclone-idai-lessons-for-africa/>.
- Week, D. A., & Wozor, C. H. (2020). Effects of flood on food security, livelihood and socio-economic characteristics in the flood-prone areas of the Core

- Niger Delta, Nigeria. *Asian Journal of Geographical Research*, 3(1), 1–17.
- Weerasinghe, S., & Taylor, A. (2015). On the margins: Non-citizens caught in countries experiencing violence, conflict and disaster. *Journal on Migration and Human Society*, 3(1), 26–57.
- WFP. (2020). *One year since cyclone struck, many Mozambicans struggle to recover amid aid cuts*. March 12th 2020. Retrieved from: <https://www.wfp.org/news/one-year-cyclone-struck-many-mozambicans-struggle-recover-amid-aid-cuts>.
- World Vision. (2020). *2019 Cyclone Idai: Facts, FAQs, and how to help*. Retrieved from: <https://www.world-vision.org/disaster-relief-news-stories/2019-cyclone-idai-facts#damage>.