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Climate change and its consequences: concerns and experiences of Mozambican citizens

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INTRODUCTION

According to the Global Climate Risk Index¹, Mozambique was the country most affected in the world by the impacts of climate related extreme weather events in 2019. Climate related hazards such as droughts, floods and tropical cyclones are occurring with increasing frequency and pose a significant threat to the country's growth and development. Climate change is therefore an increasingly important issue that needs to be incorporated in the country's national development planning.

Tropical cyclone Idai - the second most-deadliest tropical cyclone recorded in the Southern Hemisphere - caused catastrophic damage across Mozambique, Zimbabwe and Malawi in 2019. It destroyed housing, community and public infrastructures and killed hundreds of people. A major humanitarian crisis unfolded in the wake of the cyclone, with hundreds of thousands of people displaced and in urgent need of assistance. Before Mozambique completed early recovery efforts from Idai, a second cyclone (Kenneth) hit the country in the northern region, mainly affecting Cabo Delgado province causing significant damage and killing 45 people. Post-disaster needs assessments estimated the total recovery and reconstruction needs of Mozambique to be US\$3.2 billion². In 2021, Mozambique was hit by Tropical Cyclone Eloise; and in 2022 by Tropical Storm Ana in January and Tropical Cyclone Gombe in April with devastating outcomes³; not to mention other climate risks and slow onset events such as sea-level rise.

This policy brief is based on the concerns and experiences expressed by Mozambican citizens following a nationwide public opinion survey conducted between May and June 2022. Among political and socioeconomic issues, the survey included questions on climate change upon which this policy brief is based.

Quantitative and qualitative public opinion data on "Attitudes toward Political and Socioeconomic Issues" was collected by the Centre for Research on Governance and Development (CPGD) in all provinces, except Cabo Delgado due to security reasons. The quantitative data is based on a nationally representative probability multi stratified random sample of 1,200 adult population (+18 years of age) through face-to-face interviews and with a gender quota of 50-50%. The qualitative data is from 30 in-depth focus group discussions (FGDs) which were conducted simultaneously in the same areas where the quantitative nationally representative survey was collected. Each FGD was comprised of 6-12 adults in one of the following groupings: young adult male, young adult female, older adult male or older adult female⁴.

This brief firstly summarises Mozambican citizen's recent experiences of climate change; how they have tried to cope with it; their concerns for the future and the actions that either

¹ Eckstein, D., Künzel, V., and Schäfer, L. (2021). Global Climate Risk Index 2021, Germanwatch *Briefing Paper*. www.germanwatch.org/en/cr/.

² Norton, R., MacClune, K., and Szönyi, M. (2020). When the unprecedented becomes precedented: Learning from Cyclones Idai and Kenneth. <https://www.preventionweb.net/publication/when-unprecedented-becomes-precedented-learning-cyclones-idai-and-kenneth>.

³ <https://www.carbonbrief.org/analysis-africas-unreported-extreme-weather-in-2022-and-climate-change/>.

⁴ Young adults are those aged 18-35 years old; older adults are aged above 35 years old.

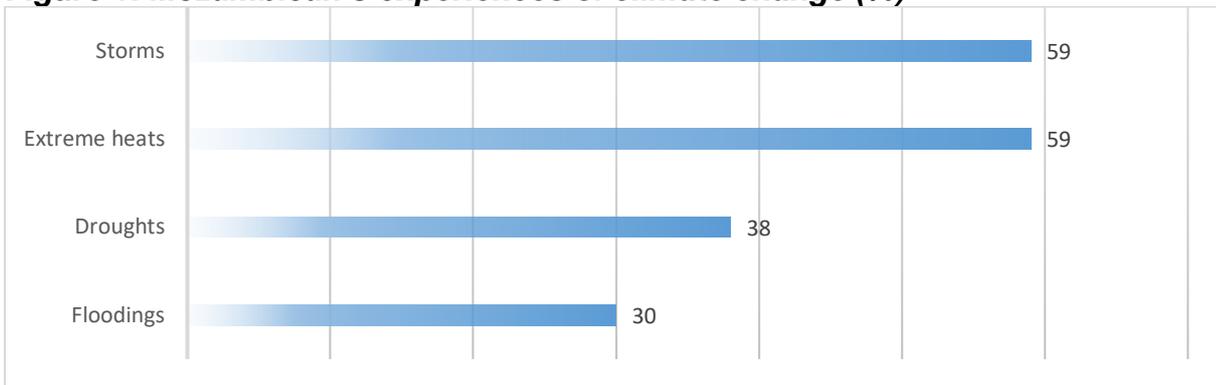
have been taken or, in their view, should be taken to address it. It concludes with policy recommendations for how citizen’s concerns and experiences of climate-related impacts could be better incorporated into national development planning and implementation.

FINDINGS

1. Mozambican’s lived experiences of climate change

To determine whether Mozambicans have experienced any effects of climate change we asked whether, in the previous 12 months, they had faced any problems with: flooding, drought, extreme heat, and storms⁵. Of the 1,200 adults interviewed, 59% responded that they have faced problems with extreme heat and an equal percentage said the same with respect to storms, 38% drought and 30% flooding (Figure 1).

Figure 1: Mozambican’s experiences of climate change (%)



Question: During the past year did you face any problems with: floods; drought; extreme heat; and storms?

The in-depth focus group discussions provided further context. Respondents said that extreme heat and drought (16 groups out of 30) are negatively affecting Mozambican’s agricultural activities (crop loss and land degradation) as well as exacerbating health conditions. Many also spoke about damage to housing, infrastructure and livelihoods (through loss of food and/or income) resulting from severe storms (18 groups) and flooding (14 groups) which have also led to displaced communities.

Notably over one third of the groups (11) spoke about unpredictable weather patterns. They stated that the seasonal weather they have been used to in the past is no longer the same which causes problems, particularly in relation to food security for those citizens reliant on subsistence agriculture, as well as those reliant on outdoor livelihoods such as street vendors and those working (mostly informally) in construction.

*“When these storms appear, they spoil everything, they destroy our crops and our homes. But this didn't happen in the past. When I was growing up I never saw anything like this, we are only seeing it now.” **Older adult males, Zambézia***

*“The intense heat is causing drought and our farmland doesn’t produce much anymore and we get diseases like hypertension because of the heat.” **Young adult males, Maputo City***

*“When there is a lot of rain, the houses fall, the fields are flooded, then there is a shortage of vegetables and flour at home.” **Young adult females, Zambézia***

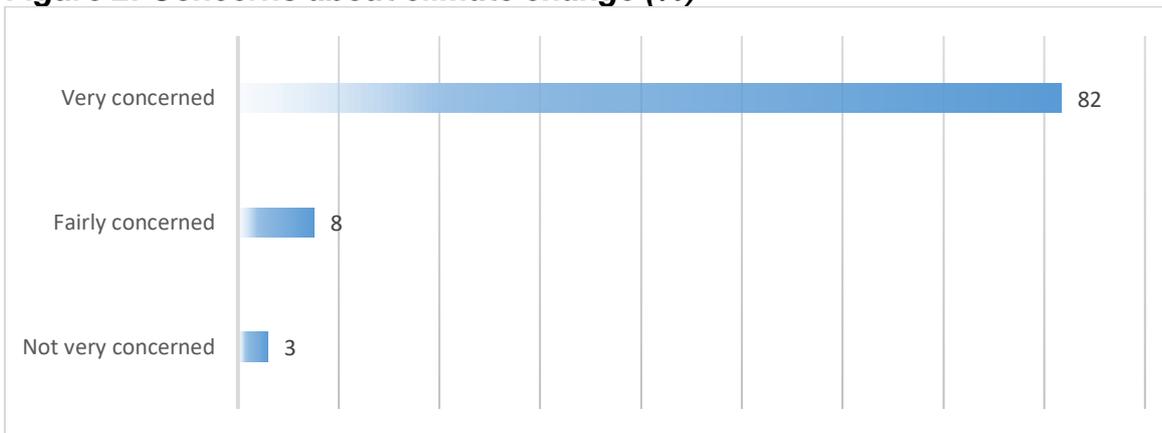
⁵ A deliberate decision was taken to ask about citizen’s experiences of climate-related events rather than use the term climate change which may not be a term commonly understood by all citizens.

2. Life changes and concerns due to climate change

When asked if they have had to make any changes in their life due to problems related to flooding, drought, extreme heat or storms, about one-fifth (21%) of Mozambicans responded yes. Moving to the in-depth focus group discussions, when asked about their coping mechanisms, some (5 groups) said that they try to make do with what (little) resources they have by replanting their crops, repairing housing damage and looking for additional work to cover their losses. Others (8 groups) had no solutions.

When asked about the level of concern of climate change on their life and livelihoods, the overwhelming majority of 82% of Mozambicans responded that they are very concerned with climate change affecting their livelihood (Figure 2).

Figure 2: Concerns about climate change (%)



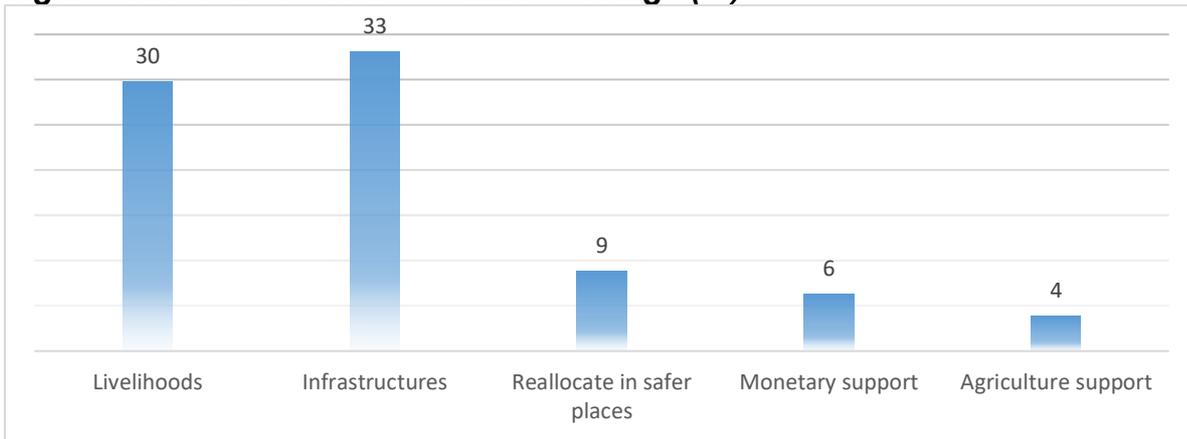
Question: How concerned are you with climate change or changes in climate patterns on your life and on your livelihood?

The high level of concern was detailed in the in-depth qualitative focus group discussions. Of the 30 focus groups, 23 expressed their worries about how climate change would have an impact on their life in the next five to ten years. Of those 23 groups, nine commented that climate change would reverse the development trajectory of the country by negatively affecting any previous progress made in relation to agriculture, housing and employment.

3. Actions to address climate change

In terms of actions to address the impacts of climate change (Figure 3), 33% view that the government, donors and NGOs need to rebuild housing and other infrastructure affected by climate change. About the same percentage (30%) observe they should support the affected people by providing better livelihood support, particularly those affected by storms or flooding who have lost everything or have been relocated to accommodation centers far from where they used to live. Respondents also said that people living in floodplains should be relocated to safer neighborhoods (9%) and should receive monetary support (6%).

Figure 3: Actions to address climate change (%)



Question: How should the government, donors and non-governmental organizations support people affected by climate change or changes in weather patterns?

The focus group discussions provided additional context to these suggested actions. Half of the groups (15) responded that the government does not provide any support to help them deal with the impacts of climate change. Twelve groups noted that whilst they see the government has made some efforts to respond to the impacts of climate change, in particular the work of the national institute for disaster management (INGD) in providing immediate post-disaster/humanitarian support (tents, food aid etc.), these efforts are too small in comparison to the scale of the problem. In addition, some commented that corruption or mismanagement meant they did not receive the support intended for them (10 groups). Others (6 groups) commented that climate-related impacts, such as flooding in urban areas, were exacerbated by in-action of authorities, such as failure to maintain drainage ditches, manage waste and sewage or monitor/enforce people from living in flood risk areas where it is prohibited to construct homes.

Seven focus groups spoke of the importance of early warning systems to alert communities in advance of severe storms to try and minimize damage to their homes. Several spoke of the need to expand these warning systems and to better educate communities on the impacts of climate change and the environment more generally.

Four groups commented that citizen’s action themselves can impede the efforts that the authorities are trying to make, for example when people return to live in flood zones after the government has reallocated them to live in alternative areas. However, these groups also noted that reallocation made the government was often to unsuitable areas where there are limited basic infrastructures

“The government is doing something but it is too little for what needs to be done. They don’t look at the consequences of the infrastructures being built. You can build a road, but the drainage ditches are not built [or maintained] so when there are storms there is nowhere for the water to go and so it floods people’s homes.”
Young adult males, Maputo City

“There was a cyclone, but we didn’t have any support. Our houses fell, we lost our farms. Neighborhood authorities made a list of cyclone victims. But after that nothing happened, nobody received anything.”
Older adult females, Nampula

“The government is doing something positive. It already created the Disaster Management Commission [INGD], and we received support from other countries that help with clothes, food in order to help those affected.”
Older adult males, Nampula

“If the government could bring people that understand climate change and could prepare us with communication (radio) that would help. For example, if next season we have a catastrophe but we are given advance notice, this would help us to reserve one thing and another like food and seeds [to plant] for the next season to try to cope.”
Young adult males, Manica.

(electricity, transport, income-generating potential) or inadequate conditions for people to live in these locations; which is sometimes a contributing reason why people return to at-risk areas.

CONCLUSIONS AND POLICY RECOMMENDATIONS

Mozambicans' experiences of climate change comprise both sudden, extreme events alongside slow-onset events ranging from tropical storms and cyclones, extreme heat, flooding and drought. As a result, about one-fifth of Mozambicans have changed their lifestyle because of climate change and the overwhelming majority is very concerned about the uncertain future that lies ahead.

The following policy recommendations are made, based on the findings of this public opinion research:

- For **the government** to recognise the potential impacts of climate related events on its citizens and to incorporate appropriate climate adaptation measures into national and local development planning as a cross-cutting issue.
- For **the government, with support from donors and NGOs**, to develop assistance programmes for victims of climate change that provide infrastructure and livelihood support.
- For **the government, with support from donors and NGOs** to ensure that citizens displaced by climate-related events are relocated to areas that have adequate basic infrastructures and livelihood opportunities.
- For **the government, with support from donors and NGOs**, to scale up early warning systems on climate related events, including but not limited to further enhancing the work of INGD and related agencies, and strengthening communication efforts to increase education and awareness of climate change and its impacts in all levels of society.
- For **the national and local government, donor agencies and implementation partners** to 'climate-proof' reconstruction and development efforts (particularly in relation to house, roads, bridges and other public infrastructures) to mitigate, to the extent possible, future climate impacts on those investments.
- For **the national and local government authorities** to ensure that they enforce existing policies and procedures that mitigate the impacts of climate-related events for citizens, such as maintenance of (storm) drainage channels, waste management and enforcement of 'no-build' zones in floodplains.

CPGD Policy Brief Series

1. Shenga, C. (2017). Solving the Concerns of Mozambican Youth. CPGD Policy Brief No 1.
2. Shenga, C. (2020). The Risk of Covid-19 Pandemic Emergency Measures to Democratic Standards in Eastern and Southern Africa. CPGD Policy Brief No 2.
3. Shenga, C. (2022). Why are youth concerns marginalised in development programming? CPGD Policy Brief No 3.
4. Howe, L. and Shenga, C. (2022). Climate change and its consequences: concerns and experiences of Mozambican citizens. CPGD Policy Brief No 4.



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ANNIVERSARY

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CPDG is based in Mozambique, harnessing local expertise, to conduct research in the areas of democracy, governance, energy, youth and social development with the aim of building an effective and capable state that is accountable and transparent, inclusive and responsive.

Our goal is to strengthen empirical social science capacity by supporting and conducting relevant systematic research to inform Mozambican decision-makers for policy intervention and implementation.

Our mission is to produce and promote evidence-based research for effective public policy and decision making in Mozambique and the wider Africa region.

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