

# After cyclone ruin, back to square one for Mozambique's Beira

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Electricity networks, roads and bridges in Beira were devastated by the superstorm

Daviz Simango, mayor of Beira on the Mozambican coast, had worked

to shore up the city's climate defences, drawing on World Bank help to build deterrents against rising seas, flooding and storms.

But in just a few hours last month, Cyclone Idai devastated the city of half-a-million people, wiping out his efforts.

Packing winds twice the speed Beira was built to withstand, the superstorm swamped the city's drainage system, overwhelmed its floodgates and mocked its brand-new basin, designed to hold storm water.

Nearly 90 percent of the regionally-vital port city was damaged or destroyed.

"We have never seen this before. Our infrastructures were prepared to handle winds up to 120 kilometres (75 miles) per hour, but this time we were subjected to winds of 240 kph," the mayor said.

Idai made landfall on March 14, ripping roofs off buildings, pulling down electricity pylons, uprooting trees, and bringing heavy rains and floods that swamped an area larger than Luxembourg.

More than 600 people died, as well as nearly 200 in neighbouring Zimbabwe.

Mozambican former first lady Graca Machel, on a post-cyclone visit, declared Beira "will go down in history as having been the first city to be completely devastated by climate change."



After the destruction of Cyclone Idai, mayor Simango is determined to forge ahead with plans to raise Beira's storm readiness

## Science

Climate scientists hesitate to attribute a single extreme-weather event to climate change, a long-term meteorological shift.

But many would agree that Cyclone Idai is entirely consistent with scenarios about the impact on weather systems of global warming—the relentless buildup of heat-trapping greenhouse gases emitted by burning coal, oil, and gas.

A study in the journal *Nature* last November said average global

warming of one degree Celsius (1.8 degrees Fahrenheit) to date had boosted the amount of rain that hurricanes, typhoons and cyclones produce, and warned such storms will become wetter and windier in future.

Warmer oceans provide more of the raw fuel on which cyclones feed, and higher sea levels boost storm surges that may overcome coastal defences.

The world's nations agreed in 2015 to cap the global rise in temperature at 2C from pre-Industrial Revolution levels.

"We can say with certainty: tropical cyclones will become more intense under global warming. And very strong tropical cyclones will become more frequent," physics professor Anders Levermann from the University of Potsdam in Germany told AFP.

## **Mounting risk**

Cyclones that make landfall in southeast Africa are relatively rare.





Beira, a city with poorly-planned settlements, inadequate housing and a fast-expanding population, is particularly exposed to devastating cyclones

But Mozambique is vulnerable, with a sub-tropical climate, a nearly 2,500-kilometre (1,600-mile) shoreline and entrenched poverty that makes it hard to raise funds for climate resilience or emergency response.

Beira, a city with poorly-planned settlements, inadequate housing and a fast-expanding population, is particularly exposed.

The city has grown rapidly in recent decades, fed by an influx of people fleeing the civil war that ended more than 20 years ago after claiming at least a million lives.

The World Bank ranks Mozambique, after Somalia and Madagascar, as the third-most at-risk country in Africa to climate change, with cyclones and floods among the top threats.

Prior to Idai, Simango had overseen projects funded under a \$120-million (106-million euro) credit from the World Bank's International Development Association.

The work including rehabilitating the water drainage system, upgrading and building 11 kilometres (seven miles) of canals, creating floodgates, and building a large water retention basin.

These projects were supposed to mean "the end of the suffering of a whole population," Simango said last year.

But this was not to be.



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### **'Alarm bell'**

Idai "may turn out to be one of the deadliest weather-related disasters to hit the southern hemisphere," according to World Meteorological Organization (WMO) executive director Petteri Taalas.

UN Secretary General Antonio Guterres described it as "an uncommonly fierce and prolonged storm."

It sent "yet another alarm bell about the dangers of climate change,

especially in vulnerable, at-risk countries".

Mozambique is no stranger to extreme weather.

In 2000, southern parts of the country—including the towns of Chokwe and Xai-Xai—were completely submerged following heavy rains brought by cyclone Eline. Some 800 people were killed.

Simango is determined to forge ahead with his plan to raise Beira's storm readiness.

"Now we have to adapt and we have to create conditions that allow us to mitigate this situation... these types of strong winds," he said.

Last month, the World Bank approved a \$90 million grant for the Mozambican government's natural disaster resilience programme.

"Without changes in climate and disaster risk management and financing policy, climate change is expected to cause economic damages of up to US\$7.4 billion during the period 2003–50 in Mozambique," it said.

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