

# Message from the NSTF Executive Director

## No longer “safe as houses”

Storms pounded the north coast (northwards from Durban along the coast of KwaZulu-Natal) on 12 March, about the same time as Cyclone Idai made landfall in Mozambique (14 March). (See my previous [opinion piece](#) on Idai in the April 2019 NSTF e-newsletter). The south coast in KwaZulu-Natal (KZN) experienced storms starting on 18 April 2019, with torrential rainfall resulting in severe flooding, mudslides, sink holes, and building collapse, a mere month after Cyclone Idai took place.

### About the Durban Easter floods

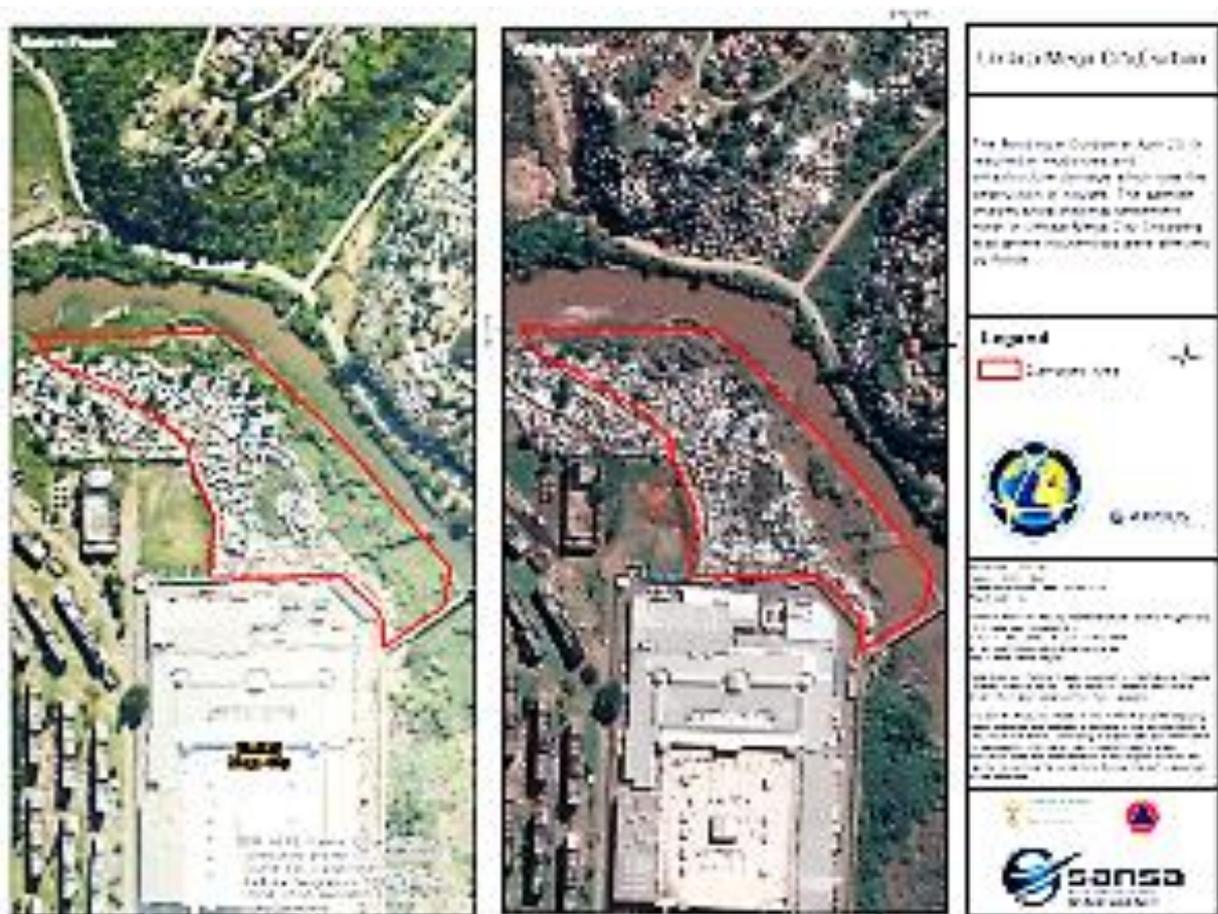
#### Key figures, according to news reports:

- Area affected by floods: south coast, particularly uMlazi, eManzimtoti, Chatsworth, Malvern and Queensburgh. Areas affected stretch as far south as the Eastern Cape (Port St Johns). A month earlier damage was caused on the north coast, including parts of KwaMashu, Inanda and Ntuzuma.
- Deaths: at least 85 ( according to the premier of the province on 25 April).
- Injuries: unknown. (This was apparently not reported in the news.)
- Displacement: at least 1000 people, could be as high as 1600. On 29 April there were still people missing.
- Houses damaged: many, perhaps thousands
- Damages in monetary terms: More than R1 billion, as estimated by the province’s premier, Willies Mchunu. Previously an eThekweni interim report estimated it at at least R650 million, including public infrastructure, medical facilities, and caring for displaced people.
- Rainfall: 165mm during 24 hours on 22 April, a record amount for the area in 33 years. Port St Johns recorded 190mm of rainfall.

It was difficult to find exact figures on any of the above. A web search leads mostly to news sites with unverified information. The figures mentioned sometimes contradict each other, or are such rough estimates that they are not very meaningful.

### Tracking the flood damage

The South African National Space Agency (SANSA), National Disaster Management Center of South Africa (NDMC) and the International Charter Space and Major Disasters collaborated in tracking the flooding, mapping and assessing the flood damage through satellite imagery. This makes it possible to assess the damage and do disaster recovery.



Satellite images comparing an area before and after the floods

### It is all one world

The closeness in time between Cyclone Idai and the disaster in KZN and the Eastern Cape should make us think – urgently – of the interrelatedness of disasters in SADC, and of adaptation to global warming. Surely humanity should move on from being shocked at the phenomena associated with climate change and debating the causes of extreme weather events. We should be working hard at anticipating such events and preventing the devastation that they cause. As many have pointed out, extreme events have the greatest impact on poorer countries because of the lack of resources to deal with them and take measures to prevent at least some of the damage.

South Africa is both a developed and developing country (which is why it is part of the BRICS countries). It is an uncomfortable combination, with ever increasing social inequalities. However, the recent floods in KZN provide a case study of the effects of extreme weather events on both rich and poor communities and those in-between. The floods damaged the holiday homes of the well-off, in one case making a house disintegrate because the ground underneath it caved in. But people who can afford comfortable holiday or retirement homes can usually afford insurance, can find alternative accommodation, and have social and family contacts who can provide a safety net to some extent at least. The poor have no compensation for the loss of that which they have carefully gathered over time, their only possessions – including furniture, bedding, clothes, kitchenware and appliances. All the small things that are essential or make life a bit more comfortable are irreplaceable due to the lack of money, work and opportunities. There is no safety net because the poor come from impoverished communities. The loss of life is the most devastating among the poor,

as they do not always live in houses that can give a measure of protection during storms. In the Durban storms even brick houses were seriously damaged or destroyed, but it is perhaps more likely that their occupants survived.

### **Disaster in Durban**

The government provided disaster relief and the National Defence Force gave their assistance, various organisations gave assistance in kind. Naspers pledged R1 million, and Coca-Cola R600 000. The money and assistance are mainly for disaster relief itself, and not for rebuilding or compensation. For that, eThekweni and the Province have estimated the costs to be covered as R650 million and R1.1 billion respectively. It is not clear from the news reports whether funds of that order have been agreed to by Treasury.

The havoc wreaked by the storms could have been worse. Prof Jennifer Fitchett says in an article for *The Conversation*: “Lower-lying, relatively flat areas are more prone to flooding than higher elevation regions or those with rugged topography. This is part of the reason that Idai caused such severe flooding. Some regions will have better suited storm water infrastructure. And when flooding does occur, some regions are better able to warn and evacuate people to prevent or minimise the loss of life.”

The storms would have been even more devastating than they were, if the coastal regions of KZN were not hilly and the vegetation so dense. Nevertheless, could some of the damage be attributed to the clearing of vegetation, or building activity that made the beach areas flatter, and so allowed the water to stream inland more quickly? Was there sufficient warning of the intensity of the coming storms? Was it possible to evacuate people before they struck?

### **Towards the adaptation of coastal cities**

What must be done to make metropolitan areas along the coast more resistant to extreme weather events?

Urban planning should become a priority. The government has been aware of the need for urban planning to bridge the inequality gap and to reverse the Apartheid social engineering that caused the poor to live far away from the rich and the economic hubs where more jobs are available. In some cases metropolises and provinces have attempted to address these problems, and in some cases, succeeded. But the transformation is very limited at this stage. With coastal areas being under increased threat from extreme weather events, urban planning becomes an urgent need, not something that is only planned in broad outlines and implemented over many years (if at all).

Cities are the future. It is accepted across the world that populations will rapidly urbanise, and that it is even desirable for them to do so. Density is efficient. It allows for cheaper and more efficient service delivery, better access to schools and medical facilities, a rapid way to provide much needed housing, more efficient and eco-friendly public transportation systems, and for people to move about more easily on foot, bicycle and scooter. People live closer to their place of employment, and it is easier to search for work. The virtues of populations living in cities are such that the Chinese government wants to move its entire population – of about 1.2 billion - to cities by 2030. Over the past forty years, the Chinese have had a good sense of what would be good for their country and its people. Not that they are always right. However, in this case there seems to be broad agreement with decisions and planning in many other places in the world. The most recent edition of *National Geographic* features cities and issues around them, and describes how different countries approach urbanisation and urban planning (including the comment above about China’s planning).

One of the basic principles of town planning along the coast has always been to build only above the flood line. The difficulty is that the flood line keeps moving inland now. It is necessary to make provision for that in planning, and it is now urgent to enforce existing building regulations. Civil engineers are needed, more than ever, and must be involved in the detailed planning for roads, storm water drainage systems, electricity and water distribution, sanitation systems, and the placement of larger building projects. We have to learn from other experts, both locally and in other countries, what best practices and cutting edge technologies would make our cities and towns more flood proof and resilient. Storm damage is more expensive to repair than to prevent, and the loss of life can never be reversed.

It has become critically important to house all people, especially along the coast and especially the most vulnerable. It is critical, in all cities, to plan for the influx of people, which will definitely continue, and not just regard it as a 'problem', an inconvenience or a burden on cities.

Let's use this opportunity to make progress towards several goals at once – better service delivery and provision of facilities, better quality of life, greater efficiency, safer houses and other structures, and create cities with high density housing but safe and pleasant to live in. Restore coastal vegetation and allow it to flourish with the minimum of human interference. This would be in the interest of both biodiversity and stemming the flow of storm water. If all this is done with forethought the natural environment should also benefit, and the city inhabitants will in turn benefit from the natural environment.

*The opinions expressed above are those of the Executive Director, Jansie Niehaus, and do not necessarily reflect the views of the Executive Committee or members of the NSTF.*

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