

Working together to save lives

The April 2022 floods which affected most parts of the KwaZulu-Natal (KZN) province of South Africa, particularly Durban, showed how much can be achieved if different stakeholders work together for a common good. No doubt that the damage caused by the floods not only included huge financial losses to the city and its residents, but it also brought traumatic experiences to the victims, as some families are still looking for their missing loved ones, hence the discussion around the floods is still a sensitive matter which needs to be carefully handled. The total number of deaths was reported to be 460, and this number will likely increase as more bodies are still missing.



Figure 1: Quarry Road Informal settlement after the floods,

However, the floods catalysed action by different stakeholders working together to respond to the immediate and longer-term needs of flood victims. The recent flooding event showed how much can be achieved if stakeholders work together, both as events are unfolding during the flooding and in post-flooding response. The flood victims received support from non-profit organisations, research institutions, private citizens and government (from local to national). One example of where this support and relief was evident was in the informal settlement called Quarry Road West (QRW), where University of KZN, eThekweni Municipality departments, local community members and the Palmiet River Watch conservancy used a WhatsApp group, linking settlement residents with information from the city's forecast early warning system, providing real time data on rainfall intensity and stream levels.

Community leaders from this settlement have been participating in transdisciplinary research, in particular risk mapping for flood and fire, so were already capacitated on the threats posed by intense rainfall in the catchment. Typically, it takes about 20 minutes for high stream levels measured higher up in the catchment to reach the settlement, in the flood plain at the bottom of the catchment. In at least half a dozen high rainfall events during the past five years, the WhatsApp group has allowed residents to evacuate and save their possessions before flooding occurred.

The events on 11 and 12th April far exceeded any flooding experienced previously in this settlement. With clear warnings being broadcast via the FEWS system, and with city and academic project partners

in attendance, settlement residents were convinced to evacuate their dwellings, despite the torrential rainfall that fell that night of the 11th. Over 400 dwelling units were washed away when the river changed direction because the bridge immediately above the settlement blocked with trees, plant matter (mostly alien invasive plants with shallow root systems), plastic and sediment, causing the river to flow directly through the settlement. Had people being sheltering in their dwellings, hundreds of lives would have been lost. In the end, only one life was lost, and that was due to electrocution by an illegal electricity connection. Undoubtedly, the Whatsapp messaging, the familiarity with community leaders with that messaging and the actions of the in-situ officials saved many lives that night. The question that arises now is how to upscale this approach to community leaders from other vulnerable settlements as an immediate response during the chaotic time when flood events are unfolding.

Further collaboration between eThekweni Municipality, UKZN academics and students and QRW community leaders has involved the piloting and implementation of the [Educational Partnership for Innovation in Communities \(EPIC\)](#) model in Durban. EPIC originates from USA universities. EPIC is an innovative and efficient model for action research in communities. Essentially it is a partnership between a city government, a university, and a community with research questions from a range of disciplines targeting a challenge within the community of focus. Challenges across a range of disciplines/ sectors within a community of interest are addressed by students studying within said disciplines.



Figure 2: EPIC students engaging with the Quarry Road West Informal Settlement community to develop disaster management plan after the 2019 floods

In EPIC, students develop solutions to these challenges and the city implements the solutions in partnership with the community. Our EPIC students developed a Disaster Management plan for this informal settlement based on their research within this settlement. Unfortunately, this plan was not used during the last floods due to and the Disaster Management Unit being totally overwhelmed during the

event. The floods have, however, provided more impetus to the uptake and roll-out of the disaster management plan for informal settlements.

Through the EPIC Durban project, QRW flood victims have received trauma counselling which was identified as an urgent need by South Africa's Minister of Environment, Forestry and Fisheries, Barbara Creecy, during her follow-up visit to the settlement after the floods. These counselling sessions would have been difficult to coordinate and implement in a short period of time, were it not for the EPIC Durban framework being in place (providing transport and access for UKZN student and intern counsellors to settlement residents).

We live in the world where working in silos needs to be avoided and partnership and collaboration needs to be promoted and form part of the discussions if we want to achieve more and also if we want to respond effectively on different challenges whether social, economic, political, etc. In working together we stand to do more with limited resources.