



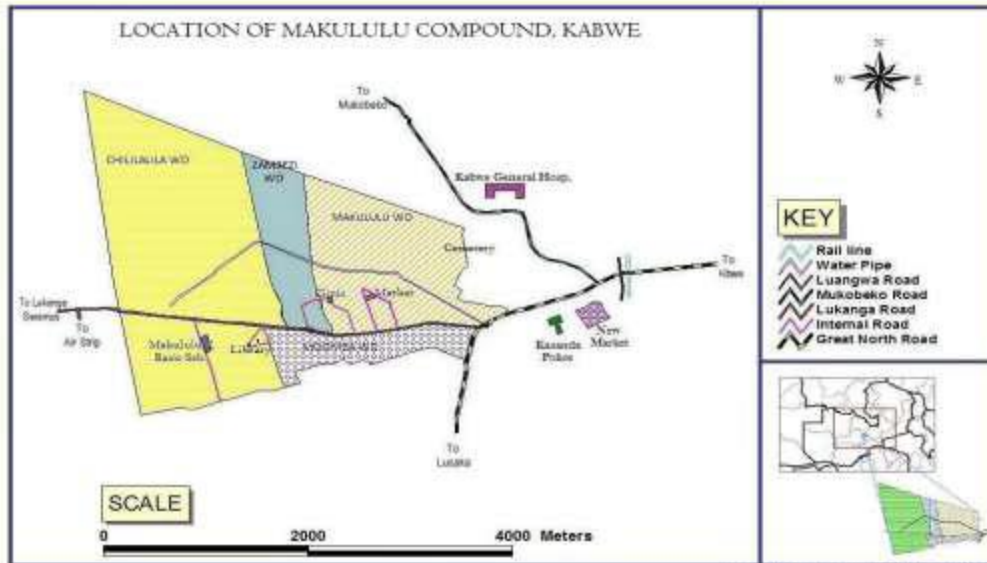
Tackling urban flooding in a 'shanty' settlement Action at the Frontline, Kabwe, Zambia

SUMMARY:

Makululu is an informal settlement in the Central Province of Zambia. Typical of settlement it is habited by poor and vulnerable members of society deprived of basic necessities of life by the government. Water is accessed from open shallow wells located in close proximity to pit latrines, with no drainage channels to direct water to safe locations. The drainage system is blocked due to indiscriminate waste disposal. Flooding, outbreaks, cholera and diarrhoea, collapsing of houses are the order of the day especially during the rainy season. AFL attempted to solve this problem through community based approach against flooding.

The project took place in Makululu an informal settlement located in outskirts of Kabwe, the provincial capital of the Central Province in Zambia. The location is a flat land an extension of the Lukanga swamp with a high water table.

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INTRODUCTION:

Makululu settlement was selected because it is one Zambia's densely populated informal settlements. The settlement is perpetually prone to urban flooding caused by several factors. First, it is an informal settlement and receives limited support from the government in provision of safe water and sanitation services, no waste collection, and blocked drainage channels all culminating into flooding nearly every year. Effects of which include water related hazards of cholera and diarrhoea disease outbreaks and destruction of housing and other infrastructure.

Geographically, Makululu is located in the Lukanga swamp watershed area with a high water table. Flooding as a result has been experienced every year in the settlement. As part of my university's under Mulungushi University and the Disaster Management Training centre (DMTC) community service, we have been working various NGOs including CARE International, Concern and World Vision in teaching communities about disaster risk reduction and climate change adaption country wide and not in Kabwe.

Mukululu settlement was selected as a local community in which we could implement a community based action from the frontline interventions to alleviate suffering of the vulnerable community exposed to urban flooding. The project made the university and DMTC more relevant to local community blessings of having a university nearby.

The main livelihood in Makululu settlement is basically divided and typically informal. Trading and vending on the streets, domestic work, and daily wage work are among the most common employment opportunities.

Key Actors in the project are:

Women and men actively participated in drainage clearing and awareness creation Members included staff from Kabwe Municipal Council (KMC) Public Health Department, local clinic, Church, Ward Development Committees (WDC) members participated in drainage clearing. Community members had a key role to play in maintain the drainage channels through sensitising community fellow members.

OVERCOMING CHALLENGES:

The participation of the community in Makululu was identified through the interaction we had through data collection for AFL 2009/2011 to get views from the frontlines. It was discovered that the community is highly neglected in terms of provision of goods and services particularly that of being an informal settlement with access to basic services such as water and sanitation provided by the government. There is no drainage system, no waste collection among other challenges.



The main challenge affecting the community is that urban flooding caused by the blockage of the drainage channel due to indiscriminate waste disposal. Building trust about the project Local leadership structures of Councillors were targeted as the entry point through partnership with the Public Health Department of Kabwe Municipal Council (KMC). Ward Development Committees (WDC) representatives were also identified to as grass root members to implement DRR interventions. These in turn mobilised community members especially women

and some youths to be involved.

The responsibility and powers for the project was balanced by involving the governance structures of development i.e. KMC and WDC members in planning and supervision of the community works on drainage clearing.

A community meeting was held with the community to profile risks of Makululu community and the Kabwe Municipal Council (KMC) Community Development Officer. Area Councillors and Ward Development Committees (WDCs) and some community members.

The meeting discussed and identified common disaster risks they are exposed to. Risks identified included; flooding, poor sanitation and unsafe water sources, poor waste management; drainage. There was competing needs of meeting the needs for various communities. Others wanted improving access to water and sanitation as opposed to drainage clearing.

After deliberations, flooding is the main hazard affecting the community and drainage clearing as the most urgent activity to start within the community. Therefore we budgeted for drainage clearing requirements (tools and safety attire).

The community was later engaged in carrying out drainage clearing works using the tools bought from the project money. After the clearing exercise, the community and committee will in charge of maintaining the drainage network.



The risk profiling process started with identifying key people and institutions responsible for the welfare of the community. In this regard, the local authority through KMC, public health Director, Community Development facilitator, Ward Development committee members and Councillors. This was at administrative level under the local government Act Cap 281 of the Laws of Zambia in governance.

A bottom-up approach was used with key stakeholder to list their community hazards

which needed solutions. Poor sanitation through use of pit-latrines, accessing water from shallow wells, poor drainage network and poor waste management.

People were listed the problems according to the priority for interventions i.e. clearing drainage, provision of safe water and lastly solid waste management. Drainage clearing as the major problem affecting the majority of residents of Makululu. Blocked drainage result in water failing to drain hence flooding the entire settlement. Further, water sources were contaminated due to flooding and so is the erosion of solid waste into safe water sources. Hence, drainage clearing was selected as the major project.

There was differing views on what should be taken as a priority intervention on the hazards identified (drainage clearing). Other bodies of knowledge consulted included the staff at the Makululu Health centre to assist in sensitising the community on hygiene and prevention of water borne diseases.

Consideration for land use patterns, ecosystems, time issues like longer-term risk due to climate change. The advent of climate change, the frequency and intensity of rainfall has increased resulting into flooding annually.

The major cause is lack of land-use planning and maintenance of the drainage network. Further, houses are in a haphazard format with no way for roads and in land drainage channels. No water is provided because the settlement is not yet fully recognised as formal settlement to receive basic services.

Priority was given to the needs for the community particularly women on issues of water management (flooding) and hygiene.

Clearing of the drainage and sensitisation of the community on management of the drainage channels was important. The drainage is now clean and water flows swiftly greatly reducing the impact of flooding and water related diseases. The next project will focus on repairing water sources boreholes.

The main challenge was mainly the habit of people continuing to throw garbage into the cleared drainage even a day or two after cleaning. The project steering committees promised to keep on sensitisation of the community members living along the drainage channel.



RISK PROFILE:

The community is exposed to a variety of hazards including access to water, poor sanitation, blocked drainage channels and diseases.

Blocked channel was identified as the priority risk in alleviating urban flooding in Makululu. The blocked drainage channel has a great bearing on other major risks in Makululu highlighted above. Women and children are the worst affected and at risk of this risk than men. Their responsibility in water and sanitation and family rearing duties exposes them negatively to these risks.

The root cause of urban flooding is attributed to the following:

- Lack of land-use planning authority (informal settlement status of the area) by the government
- Poor and limited provision of basic services of safe water and sanitation by the government
- High poverty levels in the area.
- Last minute response from the government of relief rather than preparedness and mitigation and prevention.



LESSONS LEARNT:

The community can do a lot of work once provided with basic tools and sensitisation on the DRR.

- Participation of the affected community is cardinal in reducing vulnerability in the community.
- Outside institutions should let the local leadership take a leading role in addressing hazards. They can offer both financial and technical support but the local community has the capacity to manage their affairs.

CONCLUSIONS:

The next step is to address the next hazard of access to safe water. It was proposed that if there was second funding the next activity has been promised to repair 2 old existing boreholes which used to supply water to the community. We will continue with sensitisation programmes on understanding and reducing disaster risks.

We also commit to continue with community sensitisation training to increase learning and exchange of knowledge among community members and follow-up of the actions plans.



