



ZUIA MAFURIKO & RAMANI HURIA

A Partnership with Communities for
Flood Resilience in Dar es Salaam

2017

INTRODUCTION



To address ever-growing needs and limited resources, the humanitarian sector is increasingly utilizing coalition-based approaches to increase efficiency and collective impact

Dar es Salaam is the largest city of the Republic of Tanzania and the country's economic center. With a population of more than 4.3 million inhabitants, the city is known for its tourist attraction. 70% of the city's inhabitants live in informal settlements. The city is prone to regular flooding and experienced four major floods in the past ten years.

The main causes of floods in Dar es Salaam are inadequate and blocked drainage systems. Flood effects are then amplified by unplanned and crowded settlements, weak municipal capacity to issue flood warnings, evacuate communities in high-risk areas and poor sanitation infrastructure.

Most recently, in April 2014, three consecutive days of heavy rainfall led to extensive floods throughout the city leaving 19 people dead and 20,000 others displaced from their homes, moreover, major service delivery systems such as roads, water and sewage systems were also affected.

To address the cyclonic disaster, a consortium of institutions was formed in two municipal councils of Dar es Salaam, namely Ilala and Kinondoni. The partnerships led to the formation of the Zuia Mafuriko/Ramani Huria project that ran from July 2015 to July 2016 that was implemented by the following:

The partnerships included:

- Tanzanian Red Cross
- American Red Cross
- World Bank
- Ardhi University
- The Danish Red Cross
- The Red Cross Red Crescent Climate Centre
- The Tanzania Meteorological Agency
- Tanzania Commission for Science and Technology
- Buni Innovation Hub
- The University of Dar es Salaam
- The Global Facility for Disaster Reduction and Recovery (GFDRR)
- Humanitarian Open Street Map Team (HOT)
- Digital Globe and Deltares



PARTNERSHIP BACKGROUND

Goal and objectives of the partnership

Goal: to reduce the impact of floods in the most at risk locations of Dar es Salaam through informed risk analysis and evidence-based planning for institutional and community action by 2016. This goal would be realized through the following objectives:

Objective 1:

Develop data-driven disaster preparedness and response plans with Tanzania Red Cross Society and Dar es Salaam Municipal Authorities to enhance their capacity to deliver, coordinate, and advocate for more effective flood risk management in Dar es Salaam.

Objective 2:

Reduce the impact of floods in the most at risk locations of Dar es Salaam through informed risk analysis and evidence-based planning for institutional and community action.

The Partnership, Roles, Activities and Results

The partnership was a blend of two projects brought into one - Ramani Huria ('open map' in Swahili) led by the World Bank and Zuia Mafuriko ('prevent flooding' in Swahili) led by the Tanzania Red Cross Society with technical support from American Red Cross. The project was implemented in parallel streams of implementation such as:

One stream was led by the World Bank and focused on community mapping of flood prone areas of Dar es Salaam. Here, the World Bank worked with Ardhi University to tailor their flood modeling to the needs of risk communities in Dar es Salaam. In addition, the World Bank funded these key activities, contracted the Humanitarian OpenStreetMap Team (HOT) to do the mapping. HOT worked with Ardhi University and University of Dar-es-Salaam, who provided 250 students that did the actual mapping. The students were paired with Red Cross volunteers in the 10 most flood prone wards.

At the same time, the Red Cross Red Crescent Climate Centre (RCRCCC) worked in parallel with

the Tanzania Meteorological Agency (TMA) to incorporate rainfall forecasts into the flood model. In the end RCRCCC focused on identifying rainfall forecasts for use in the forecast based financing mechanism.

Another critical support came from the Tanzania Red Cross Society (TRCS) who were involved in the development of disaster preparedness and response plans for ten of the most flood prone wards of Dar es Salaam; utilizing the information compiled by the World Bank led initiatives (mapping and analysis of historical rainfall forecasts). This was done with technical support provided by the American Red Cross (ARC) and the RCRCCC, in collaboration with the World Bank and Municipality Councils of Kinondoni, Ilala and Temeke, local authorities at ward level and communities.

Another key activity in the partnership was the establishment of the Dar es Salaam Urban Forum, which was convened on quarterly basis through the project lifetime. This Forum aimed at enhancing coordination between all actors working on resilience building in Dar es Salaam. It was not specific to this project, but would aim to contribute to longer-term development and planning goals. The Municipal Councils remained a co-chair of this forum and community representatives were identified to participate, with an emphasis on gender equity.

TRC also trained Community Disaster Preparedness and Response Teams (CDRT's) to build their capacity and equip them with the necessary skills.

The main donors of the project were, The World Bank, American Red Cross and Danish Red Cross (DRC).

Extensive community involvement through equitable allocation of resources and decision-making to both males and females was critical to the success of all three of these phases in order to ensure the needs of people living in the most at risk areas of Dar es Salaam were addressed.

As the project progressed, the consortium of partners reached out to additional partners and stakeholders based on need for further technical expertise and collaboration, as the need was identified throughout the project implementation. These included The Disaster Management department of the Prime Minister's office, Dar es Salaam Multi Agency Emergency Response Team (DarMAERT) and a local affiliate of Slum Dwellers International (Centre for Community Initiative).

Through this partnership Dar es Salaam was extensively mapped, capturing approximately 750,000 buildings and over 2,000 kms of roads through collaboration between 165 local university students and 140 newly recruited Red Cross volunteers (the project community groups). An atlas of flood maps was also developed with community input to facilitate development planning by local government. Tanzania Red Cross volunteers were recruited from existing community groups to increase sustainability and develop a coordination mechanism for local civil society to liaise with local government at the Ward level.

Using these mechanism and extensive collaboration with municipal representatives, flood preparedness and response plans were drafted for ten wards and three municipals – including forecast based financing mechanisms within the plans. In addition to this work an Urban Forum was created which is co-hosted by Tanzania Red Cross Society and Municipal Government.

Two master's thesis at the Ardhi University were also sponsored by the project. The thesis and research, focused on increasing understanding of urban flood preparedness in Dar es Salaam. Volunteers were trained in first aid as well as basic preparedness and response skills. The Tanzania Meteorological Agency studied and identified a potential new forecast with longer lead time to better enable preparedness actions that will be explored and tested in future phases.

“ARC mapping team (based at its headquarters in Washington DC) worked closely with HOT to give them transfer capacity from our team around mapping skills and technologies; and coordinated on their behalf to get them satellite imagery so that they could do better mapping.” Julie Arrighi, Climate Adaptation Advisor, American Red Cross

The mapping covered up to:



750,000
buildings



2,000 kms
of road



PARTNERSHIP OUTCOMES AND SUCCESSES

1. Recognition of the value for data: The community involvement in development of community data for mapping produced a sense of appreciation for data. Moreover, the information from the mapping exercise produced valuable data that is up to date, practical and actionable. For instance, ward officers received maps that are representative and statistical. They now know how many houses and how many people are in a flood prone area in their ward.

2. Skills building to impact future town planning: Through this project, 200 Masters level university students benefited from on the job training on collecting map data from areas which were quite obscure and quite hard to get into, through traditional means of survey. This in essence, training the next generation of urban planners are in readiness to find solutions to the needs of their society.

3. There is a better understanding of flood related risks of flooding in communities and preparedness action. The community continues to use the skills and training they have received. A secondary outcome is communities knowing about water safety and risk of water borne diseases.

4. Partnerships built to strengthen community flood resilience: This has not just been the World Bank and Red Cross together; but municipalities, local government, ward officers with community leaders, community activists and vulnerable groups

to dialogue around evidence - the map that people have created together: “why does the risk profile look the way that it does; who is creating this, who is solving this, what can we do.” Essentially getting communities to take actions themselves as opposed to through external engines. The project has created networks and long term working relationships between the stakeholders.

5. The community now has a sense that the government understands their challenges. For instance the move by the government to deconstruct some houses to create a passage out for water in some areas. The move also meant some house owners had to relocate to other designated areas in order to free space for water passages. This move reduced floods in the Wards.

6. Community ownership of the project: The volunteer network of Community Disaster Preparedness and Response Teams (CDRT) continues to participate in the weekly clean up days inform the community members of the importance of this in reducing flood risk.

7. Project model and outcomes have been shared in global platforms and informed partner programming beyond Tanzania.

8. There was a lack of joint branding. This led to confusion externally about how the projects were connected.

“Partnership is a great way to work because when you bring different partners together who bring their different skills and resources. This approach strengthens the productivity and quality of work by all actors this is because they focus on what they are really good.” Julie Arrighi, Climate Adaptation Advisor, American Red Cross



ACKNOWLEDGING CHALLENGES

1. Lack of a clear communication and feedback mechanisms to ensure all partners and stakeholders were consistently informed.
2. Lack of a communications and documentation plan to ensure the project received maximum profiling and visibility.
3. Lack of clarity on some on partner's roles and responsibilities led to difficulty in managing expectations of partners.
4. Weakness in monitoring and evaluation from an independent party to give an objective view on project performance.
5. The CDRTs teams were formed during a political transition period in Tanzania and in some instances leaders drawn from opposing parties perceived the teams as being part of the previous governance.
6. The biggest disappointment was that the project lasted only a year; and sustaining gains has been a challenge



VALUE OF COLLABORATIVE APPROACHES

There are three big advantages and big value in using a collaborative approach:

1. First communities have knowledge that is very difficult to get hold of from other sources. Up to date information such as If a drain is blocked, they would know, if there is a big pothole, if there is no drain at all because someone built over it. These kinds of details are very difficult for a city GIS team or a consultancy to get hold of. Therefore important, valuable information was easily available.
2. The second is the value of cost. It is not affordable to have engineering firms map every single detail of the city every year. However, the

city is changing every year therefore we need to update it somehow. Using community members or using students participating together is a more affordable way of working at scale. Hence getting better, cheaper data.

3. The final value is the participation itself meaning that people are more engaged in a conversation after the project. If community members were actively involved in making the map then they would be more likely to engage in the conversation about using the maps created. So it is the beginning to a beneficiary feedback loop that would be quite difficult to establish in other areas.

SUCCESS STORY

A partnership breed project provides all year round disaster risk prevention in Dar Es Salaam

Text and Photos by Nancy Okwengu



Fatuma Ramadhan, 41, plans to work hard and is determined to become a make it in the city life while she stays in Dar Es Salaam. She wants to become a rich businesswoman in Tanzania. Life has been difficult for Fatuma whom 24 years ago moved from in Morogoro to Dar es Salaam to seek better opportunities. Access to basic amenities such as clean food and education even became harder when floods hit Dar es Salaam. “It like life stand still and one is unable to move freely or safely without risking drowning,” she says. But a new day has dawned for children living in Kinondoni and Ilala Wards of Dar Es Salaam. The Zuia Mafuriko/Ramani Huria project has supported her community by putting in place disaster risk preparedness and response actions.

“ When it floods the children cant go to school. I can’t go to my business. Our lives stop,” she adds.

To ensure that her children don’t miss school or risk not finishing the curriculum or fail the final exams, Fatima has to seek for private tuition, which obviously costs money.

Fatima who sells home made juice by the roadside for income is rendered dependent on others when it floods. Another common result of the floods is cholera outbreak in the city. Not only are her customers rendered immobile, the cholera outbreak also means that road side food vendors like her cant run the business for fear of spreading Cholera.

Without a steady income Fatima also has to tackle how she will pay a loan that requires monthly payment, which she got to kick-start her business.

“Controlling the floods has offered me a more stable and predictable life. My children can go to school and achieve their dreams. I can run my business and also pay my loan in good time,” she says.

From building a volunteerism spirit, to cultivating a productive partnership, to nurturing a community owned project, hope has sprung up in Ilala and Kinondoni Wards. There is still so much to do, like lobbying for more involvement of local influencers and increase the number of volunteers, but these communities seem to be willing to do things one step at a time and build a better future. More importantly, they are willing to work hard for it.

SUCCESS STORY

A partnership breed project provides all year round disaster risk prevention in Dar Es Salaam

by Nancy Okwengu



Mbiu ya mgambo ikilia kuna jambo is an ancient Swahili saying which loosely implies “an announcement from the alarmist can not be ignored”. Such is the announcement from the Tanzania Metrological Agency. It is weather forecast information that is sent to various recipients one to two days before a heavy downpour in Dar es Salaam. Typical weather forecast news can be categorized as; “Business as usual” or “Likelihood to occur” or “Impact will be severe”. “Impact will be severe” is that call of the alarmist that can’t be ignored. In the past, disasters in the Wards were enhanced by external hazards such as littering that clogs the city’s drainages, house constructions on water pathways, tree branches and leaves that get entangled on electric poles.

Weather forecasting in Kinondoni and Ilala Wards of Dar Es Salaam City is part of a now well-knit process of disaster risk preparedness and response. Disastrous floods that hit the Wards have in the past caught the communities often and unprepared. But when floods hit Dar es Salaam in April 2017 they found early warning early action systems in place and beyond doubt, saved lives and reduced economic losses. These are fruits of the Zuia Mafuriko/Ramani Huria project, a venture which centered on the community support and ensured the community understood threats and are aware of how to avoid them.

Forming community groups in large cities (a different approach)



Formation of community groups is underpinnings of Disaster Risk Reduction work in the Red Cross Red Crescent movement. In large urban areas traditional approaches to group formation (such as wide recruitment, community voting, etc) are less effective. This is due to higher densities/numbers of people in targeted areas, time limitations of targeted populations and general time 'competition' with other priorities. Based on these challenges articulated from RCRC community experience, a new approach to community group formation was tested. This involved recruitment of representatives from existing formal and informal civil society entities formed at the Ward level by residents of the targeted communities. Individuals recruited from these groups were brought together to form a local level coalition focused on reducing flood risks. They received training in flood preparedness and response activities, they led development of local level flood plans, provided local knowledge into the mapping exercise and inputted into municipal flood planning process. The idea behind this approach was that 1) each representative would have a network of committed individuals to draw on for larger project activities, 2) individuals already involved in other groups would be more committed to volunteering, and 3) that as these groups were brought together they could better liaise with local government and support each other regarding their requests and needs from government. Overall this approach seems to have worked and there were some anecdotal reports of groups collaborating on other initiatives outside of the Red Cross Red Crescent work.

References

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Humanitarian
OpenStreetMap
Team