Community Voices for Flood Resilience in Tana River County

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ENDING EXTREME POVERTY WHATEVER IT TAKES

September 2022

Kiembeni community identifying the capitals during the validation exercise. May 21st 2022. Photo: Euniah Miruka / Concern Worldwide.

Introduction

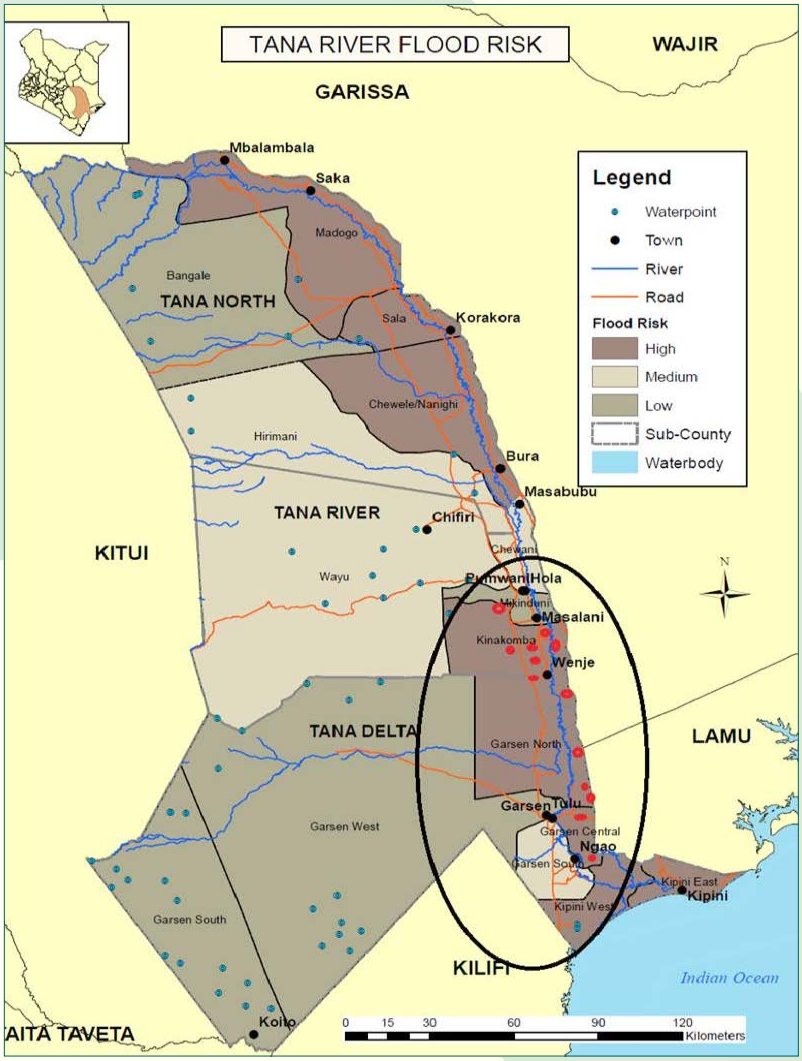
Concern Worldwide is currently implementing a flood resilience project in Tana River County, Kenya. It is funded by the Zurich Foundation as part of the Zurich Flood Resilience Alliance (ZFRA) project. Zurich Flood Resilience Alliance is a multi-sectoral partnership focusing on finding practical ways to help communities in developed and developing countries strengthen their resilience to flood risk.

The aim of this project is to ensure that floods have no negative impact on people's and businesses' ability to thrive, advocating for increases in social, political and financial investment in community-based flood resilience-building through public, private and third sector partnerships.

This project, based on empirical evidence, aims to shift the narrative for supporting flood-affected communities away from flood response and recovery to pre-event resilience, so that flooding does not have a significant negative effect on lives and livelihoods. The flooding is often severe along the Tana River, which runs along the eastern boundary of the County, and the Tana Delta, where the river feeds into the Indian Ocean. These are some of the most populous areas in the County. The communities farm along the river which exposes them to agricultural produce losses of 60 per cent or more almost every year. In addition to the livelihoods losses, the County is characterized by flood-induced displacements that disrupt access to essential services such as health, water, and education.

Concern is implementing the project in 13 communities in Tana Delta Sub County namely Mikameni, Wema, Bandi, Danisa, Mtapani, Feji, Kiembeni, Handaraku, Kolrabe, Odole, Onkolde, Galili, and Lazima. The sub county has a population of 116,757 (35.9 per cent of the total county population)[1], experiences the worst effects and highest frequency of flooding within the County.

These communities have low resilience to hazards including flooding. This is because coupled with the conditions of extreme poverty that the community live in, a lack of diversified means of income renders the community vulnerable such that when a disaster occurs they lack capacity to deal with its impact. Moreover, the communities are located in flood-prone areas and are frequently displaced by flooding during the two rain seasons every year. The selected communities live in conditions of extreme poverty compared to the national average. Concern has extensive experience of working with communities living in extreme poverty and is applying tested approaches for these communities (e.g. use of local language translators, the use of pictorials instead of text-based job aides). To ensure there is room to scale up under different contexts, both farming and pastoralist communities are targeted, which takes into consideration their different perceptions of resilience based on their different livelihood options.



The information for this brief was gathered through documents produced as outputs of the process such as vulnerability index and community feedback. The project utilised the Flood Resilience Measurement for Communities (FRMC) tool, which was developed by the Zurich Flood Resilience Alliance. The FRMC process, explained in depth below, is a way to measure the resilience of a community to floods before and after intervention. The FRMC captures data, provides a benchmark for the current level of resilience, and provides an entry point for improving risk-informed decision making to develop interventions and the interventions will further strengthen that purpose. The project staff received training on the FRMC approach, process and steps. They engaged closely with the County government in the process of site selection and community selection. Using outcome mapping, communities developed their resilience vision statements.

The FRMC study was set up based on community scoping assessments, the FRMC survey and grading of the results. An analysis was conducted in conjunction with the community through a tailored feedback process. There was a community reflection and validation process to check whether the results present an accurate picture and whether any additional area of focus should be identified.

FRMC and Process

In each community, the FRMC looks at five Capitals and 4R system (explained below) to see how flood risk-aware these elements are in each community, and to determine relative or respective areas of focus for the intervention building stages and then tests these through several lenses;

- the Disaster Risk Management (DRM) cycle (Preparedness, Response & Recovery)
- Eight themes (livelihoods, life and health, education, governance, assets, natural environment, social norms and lifelines)
- the four properties of a resilient system (“the 4Rs”) – Robustness of critical assets to absorb flooding; Responsiveness of the

1 2019 Kenya Population and Housing Census

community's ability to react to flooding risk; Redundancy, being the amount of spare capacity in the system; and Rapidity, the speed of response

- Binary Views (Sex, Age & Disability)

The project considers flood resilience in the context of its interaction with the five capitals: Human, Physical, Natural, Financial and Social capitals determine economic, political and institutional aspects, the nature of the interaction between the community and the natural environment in terms of access to and use of critical resources.

The Process

The use of FRMC gives the community, stakeholders and project staff an understanding of the current resilience status of a community and enables them to develop participatory risk-informed resilience actions. Participating communities are engaged effectively using the following methods;[2]

1. Orientation of the communities and stakeholders

The project entry process included a series of inception meetings and project orientation meetings with the County government of Tana River leadership, in order to orient them to the project objectives and process, include their perceptions, and obtain their buy-in from the very beginning. The County government shared their plans with respect to limiting the negative impact floods have on communities and their livelihoods in Tana River. To this end, the County government shared that they had identified and set aside an area where the communities experiencing perennial floods could relocate to which they termed "eco-village". This sharing of projects and plans between Concern, the communities and the County government is necessary to ensure a community-led process is followed.

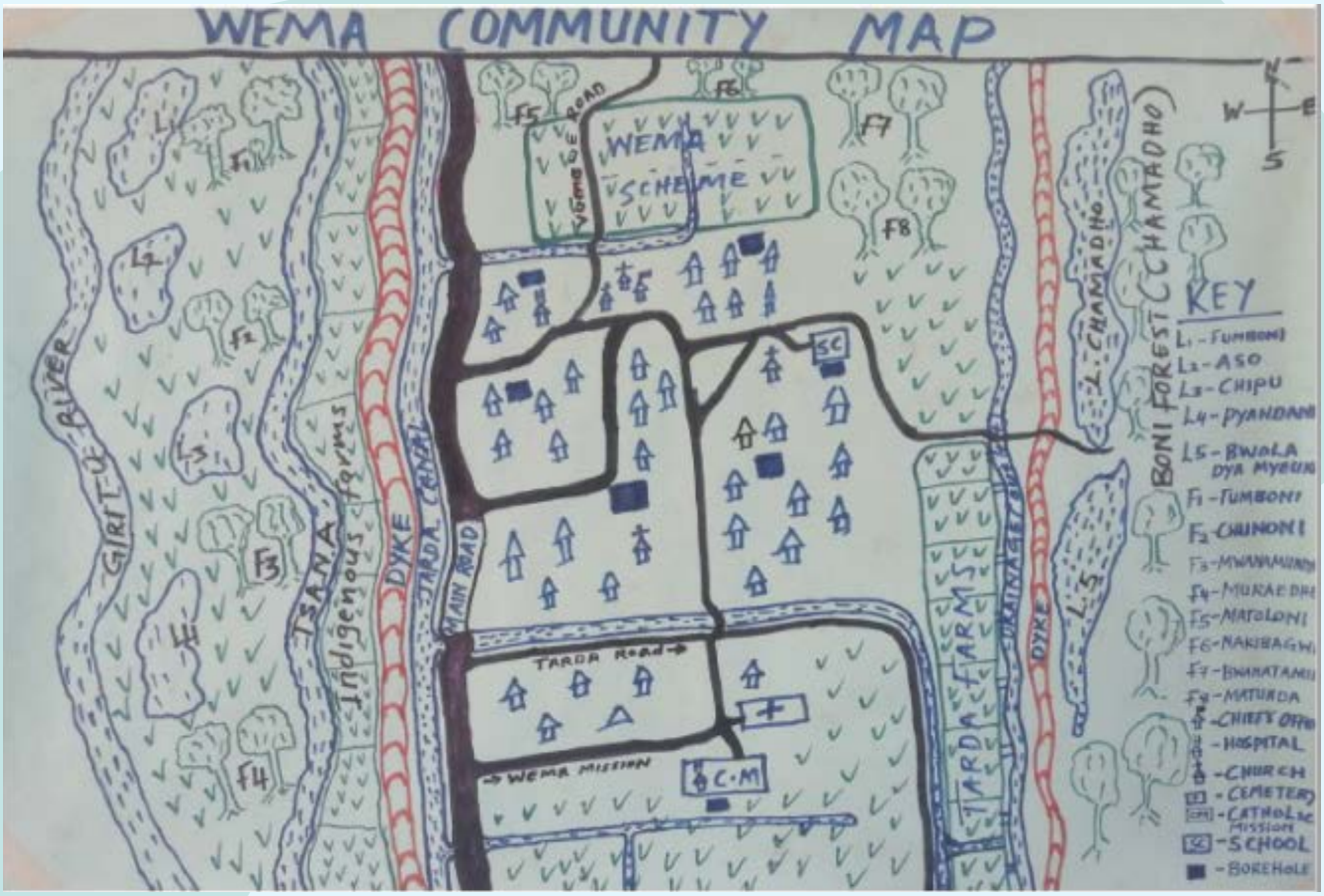
2. Scoping Exercise

There were four aims to the scoping; 1) to understand the flooding context, 2) to understand the key stakeholders and issues, 3) to develop the vision for a pre-event resilient community and 4) identify any omissions in the FRMC components, so a local focus was developed.
This was done by drawing of community maps, preparing a natural capital assessment matrix and calculating the flood return interval for these communities. In the natural capital assessment, the communities identified how their natural environment helps them cope, buffer and recover during a flooding event. The community were asked to look back to 1990 to identify the types of floods that they have experienced; normal, moderate or severe and the effects that they caused. Based on the shared understanding of the risk and vulnerabilities to the flooding, the communities developed a vision of where they wanted to see their community in terms of flood resilience in five years' time.

Lazima Community Flood Risk Maps from scoping exercise. The section marked in red represents the low land area that is flood risked. The green represents the highlands, which experiences minimal floods.

For instance, Bandi community's vision statement was "In five years' time, Bandi will experience developed flood control systems and infrastructure through public-private partnerships to enable them to be able to settle comfortably and to be able to continue with their business during and after floods like building dykes." The communities did this by making a list of the challenges in their community while creating their vision statements. The communities also undertook stakeholder analysis to flag their actions before, during and after flooding to locate stages of engagement such as response, recovery, preparedness, corrective risk reduction and prospective risk reduction. This enabled better targeting of key informants and FGDs in the study.

2 The FRMC data collection methods included focus group discussions (FGDs), key informant interviews, household surveys and participatory methods of data collection.



Wema Community Flood Risk Maps from scoping exercise.

3. T0 study

The T0 (the original time point) survey was applied at four levels: household, Focus Group, Key Informant and secondary sources. In this stage, the project team collected data from the communities and relevant stakeholders using household surveys, key informant interviews (KIIs), focus group discussions which targeted men, women, youth, elderly and secondary sources of information to understand community sources of resilience levels. Grading of results was then done in the FRMC tool to look at the five asset groups and test these through several lenses.

The scores should not be used to compare communities to each other, but rather to compare the same community at different timepoints. A community's average score (eg. In Graph 1 below) of 23 represents relatively less flood risk awareness than a score of 39, but this is not meant to imply that one community is 'better' than another. This may be because some sources of resilience may be less relevant than others in different communities, or that communities may not have been aware of the relevance of other sources of flood resilience.

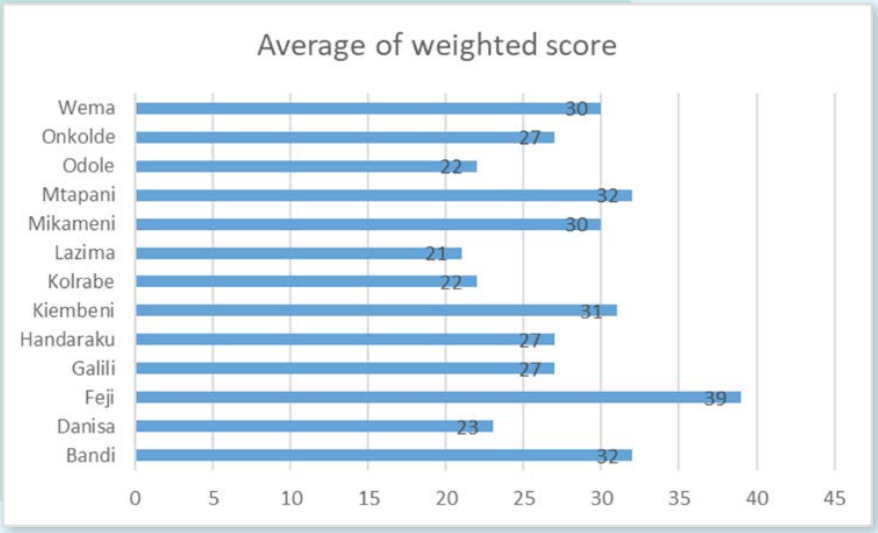
*Table SEQ Table * ARABIC 1: FRMC Resilience Scores of Different Communities against the Capital lenses*

	T0 (Bandi)	T0 (Danisa)	T0 (Feji)	T0 (Galili)	T0 (Handaraku)	T0 (Kiembeni)	T0 (Kolrabe)	T0 (Lazima)	T0 (Mikameni)	T0 (Mtapani)	T0 (Odole)	T0 (Onkolde)	T0 (Wema)
Financial	14	14	24	19	19	28	19	14	14	38	9	19	14
Human	78	41	48	67	52	48	37	41	48	48	33	41	48
Natural	26	20	46	13	26	26	13	13	26	13	20	40	13
Physical	17	28	33	17	22	39	22	28	30	41	25	14	33
Social	24	12	45	21	18	12	21	12	33	18	21	21	42
Average of weighted score	**32**	**23**	**39**	**27**	**27**	**31**	**22**	**21**	**30**	**32**	**22**	**27**	**30**

4. Community Feedback and validation

Results were presented to and verified by the community. The results were presented in a way that was linked to the resilience outcome statements that the communities had developed themselves. For example, Concern identified that sources of resilience such as household flood protection, large-scale flood protection, asset protection knowledge, environmental management awareness and community safety corresponded to the specific element of '**Developed measures that can effectively control flooding**' expressed by the Bandi community in their community's resilience vision. During feedback, the community then considered the findings of the study in relation to the sources of resilience and then the community discussed whether these represented the right areas of focus on which to build an intervention and/or whether any additional issues needed to be considered.

*Graph SEQ Figure * ARABIC 1: The 13 communities' average resilience score.*



In this way the community validated the findings of the study before developing the interventions, while at the same time refining their understanding of the sources of resilience in order to better define those interventions (an example of which is provided in the final table on Page 10). The communities reviewed and agreed on the results of the study, and indicated the areas each community wanted to focus on.

The results were shared with each community in a simple format and in two phases. Phase 1 presented the key findings of the FRMC and how it coincides with the resilience statement components. This provided the community members with an understanding of the flood resilience status of their communities in terms of the resilience lenses.

Odole Flood committee member presenting community feedback. 3rd March 2022. Photo: Euniah Miruka / Concern Worldwide.

In Phase II the information was shared through the community flood action committee, purposely to get community feedback from the greater community. The community feedback process was carried out as a dialogue where results were presented in a graph and each element explained and discussed. The committee's role was to interrogate their feelings about why the results were as they were and confirm if they agreed with the findings and to ascertain whether this was a true reflection of their situation.

The committee undertook this process by engaging the entire community to ensure it was an inclusive feedback process. To allow for validation of the T0 results, the committee shared community feedback from this process with the programme team and added some of their views that in their opinion were not captured in the survey. After this process, the communities validated the results to be a true reflection of their situation.

5. Proposal prioritisation intervention and action planning

At the end of the previous process, each community was divided into women's group, youth group and elders (adult men typically making up the membership of the elders group) to discuss and propose interventions that would help them be flood resilient and each group presented their actions to the team. All the actions were listed down and the communities prioritized them by voting. Each person voted using three colours: green meaning the intervention is a priority, yellow meant a priority but one that could wait, and orange meant the intervention wasn't an immediate priority and could wait a little to be completed.

The communities selected interventions that could help them achieve the vision statements that they developed during the scoping exercise.

Finally, they developed their Community Action Plans considering communities' needs and capacity as well as implementing organisation's capacity and strategic aspects. This allowed for an analysis of what actions needed to be done and at what level such as community, ward or sub-county, county and national levels. Project staff facilitated the process of validation at the community level and documented the Community Actions Plans.

The results of this process including the inputs came from the community members. Further, through mapping the actions from the 13 Community Action Plans and mapping the change pathways expected, the identified actions informed the intervention programme plan, project Theory of Change, advocacy plan, and the monitoring, and evaluation (M&E) framework.

Wema Community voting for intervention prioritization. March 16th 2022. Photo Credit Euniah Miruka Officer MEL, Concern Worldwide.

Key lessons learned:

1. Engaging the communities and stakeholders from the very beginning of the project is essential to properly contextualise the resilience actions.
2. Through the Flood Resilience Measurement for Communities (FRMC) process, we are able to understand the communities better from a local perspective in terms of practical solutions they identify with.
3. Bottom-up and risk-informed flood resilience action planning through effective engagement of the community is possible and preferable.
4. Community-specific vision statements help create effective action plans to increase resilience building in the community.
5. Through the FRMC process, we are able to do other programming such as food security in a more informed manner such as avoiding planting along the river line since that contributes to flood risk.
6. The communities still have a strong preference to do agriculture in the flood prone areas as they use floodwater to irrigate crops they grow along the river. However, when floods are more severe than expected, this results in destruction of assets and has a negative impact on their livelihoods. This provides a challenge to utilise the natural capital in such a way that is resilient to the impacts of the more severe flooding.
7. The FRMC links to Concern's understanding of extreme poverty, particularly the dimensions of extreme poverty on assets ownership, returns on assets and risk and vulnerability. Through the FRMC process, we were able to understand the risks and vulnerabilities and assets communities lose which are valuable and how to help communities to maintain them.
8. Tana River keeps changing its course, which changes the areas and communities that are being affected by floods when they occur. This means that the interventions and solutions being implemented to address these challenges need to be replicable and rolled out to new communities that are affected as the river changes course in the future.

Concern Kenya Zurich Flood Resilience Alliance Project Interventions List

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Community	Odole	Mitapani	Wema	Lazima	Mikameni	Handaraku	Feji	Kolrabe	Danisa	Galili	Onkolde	Bandi	Kiembeni
Construction of water pans	Y					Y						Y	
Tractor ploughing services								Y					
Bridge and footbridge	Y			Y	Y	Y	Y			Y	Y		
Irrigation system and scheme	Y		Y	Y	Y	Y	Y			Y		Y	Y
Capacity building on modern farming techniques	Y	Y								Y	Y		Y
Purchase boats	Y						Y	Y		Y	Y		
Construction of canals	Y												
Relocation to highland		Y							Y			Y	Y
Awareness creation		Y											
Solarized boreholes		Y	Y	Y	Y								
Network booster				Y	Y								
Dispensaries				Y					Y				
Toilets	Y		Y			Y			Y				
Dyke						Y			Y	Y	Y	Y	
Market linkage							Y						
Farm Inputs								Y					Y
Beehives								Y					
Drip Kits											Y		
Road							Y			Y			
Schools					Y								Y
Electricity													Y

Community Voices for Flood Resilience in Tana River County

The Zurich Flood Resilience Alliance is a cross-sector collaboration which focuses on building community flood resilience in both developed and developing countries. We help people measure their resilience to floods and identify appropriate solutions before disaster strikes. Our vision is that floods should have no negative impact on people's ability to thrive. To achieve this, we are working to increase funding for flood resilience; strengthen global, national and subnational policies; and improve flood resilience practice.

Find out more: www.floodresilience.net

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For more information, contact:

Jackson Mekenye,
Consortium Programme Manager:
jackson.mekenye@concern.net

Maureene Atieno,
Governance and Advocacy Manager:
maureene.atieno@concern.net

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