

# From Flood Resilience Measurement for Communities (FRMC) to Intervention

Learning brief – December 2020

**CONCERN**  
worldwide

ENDING  
EXTREME POVERTY  
WHATEVER  
IT TAKES



*Figure 1: The Community Resilience Action Group (CRAG) of Vati Kapasia, Kapasia Union, Sundarganj, Bangladesh showed us the Community Action Plan (CAP) and map they developed following assessments of the natural capital and flood risk in their community. The CAP highlights the different issues, targeted households, what support is required, from whom and the timeframe for action. Photo: Amy Rose McGovern / Concern Worldwide.*

## Key Takeaways

- Engaging communities in the process from the beginning was vitally important to the success of the programme. This included a particular focus on women and other marginalised groups in the communities such as youth, people with disabilities and the elderly. The Community Action Plans included the needs of women and those of other marginalised groups that were identified by each community.
- The Community Resilience Vision Statements are a unique innovation that helped engage new communities with a complex process. The Resilience Statements provided a platform on which to communicate quite a complex grading assessment of resilience in a way that the community can relate to. This improved acceptance and maintained ownership of the process at the community level.
- It was important to include women in all aspects of the programme, to build their capacity and confidence, but also to allow the men to get used to having women involved. This was important for the long-term sustainability of the programme to ensure that women continue to participate in decision-making in their communities after the programme has finished.
- The technicality of language and the FRMC tool itself required all Concern and partner staff to be adequately trained and prepared to facilitate the roll out of the FRMC in communities. It was necessary to invest sufficient time and resources into staff to ensure they were fully prepared to assist community members.
- Both community and programme planning is important. Because the programme plan was developed based on the Community Action Plans, time for this needed to be built into the implementation plan. This is a departure from typical development programmes where monitoring and evaluation (M&E) elements such as M&E Plan and Programme Logframe are developed at the outset in advance of programme activities commencing.

## Introduction

Concern Worldwide is currently implementing a five year flood resilience project in two districts of Bangladesh (Gaibandha and Lalmonirhat) funded by Z Zurich Foundation as part of the Zurich Flood Resilience Alliance (ZFRA) project. The aim of this project is to provide a resilience measurement system that can be applied to influence policy decisions to improve funding allocations in support of pre-event flood resilience work. It is widely recognised<sup>1</sup> that flooding is the most significant extensive hazard risk affecting communities and that Bangladesh suffers regular significant flooding. Findings<sup>2</sup> from research the Alliance has carried out show that the vast proportion of funding goes to post-event flood recovery rather than pre-event flood resilience.

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. Concern is implementing this project in Bangladesh as part of Zurich Flood Resilience Programme (ZFRP), and it is expected that learning and observation from Bangladesh will inform scale-up opportunities to further expand this footprint to achieve a critical mass in terms of changing approaches towards pre-event flood resilience and to transpose this to related additional hazards.

Concern is implementing the project in two districts, Lalmonirhat and Gaibandha districts, which are located in Rangpur Division, in northern Bangladesh. The project is being implemented in Bangladesh in partnership with Concern's local partner 'Assistance for Social Organization and Development (ASOD)', which is a Bangladeshi non-governmental local organisation based in the district of Rangpur. ASOD has experience and expertise in working in the areas of Disaster Risk Reduction (DRR), Livelihoods, and Humanitarian sectors with the most vulnerable communities in the different districts in Northern Bangladesh. Concern and ASOD are directly working with the selected 22 communities of Lalmonirhat and Gaibandha districts for building resilience against negative impacts of flooding. The selected 22 villages, located in the Jamuna and Teesta chars, are vulnerable to floods due to their socio-economic context and their proximity to the flood-prone rivers. The communities were selected through systematic review of the level of risk exposure and susceptibility to flooding while local stakeholders were involved in this selection. Scalability of political impacts of interventions were considered along with accessibility to the intervention areas. Concern and ASOD worked closely with the selected communities in the design of the Flood Resilience Measurement for Communities (FRMC) tool, the collection and feedback of this information to communities and selection of interventions for building flood resilience.

The information for this learning brief was gathered through interviews with key implementing programme staff and documents produced as outputs of the process such as vulnerability index and community feedback. The project staff have received training on the FRMC approach, process and steps. They engaged closely with the communities in the process of site selection and community selection. Wellbeing analysis, community engagement process, and outcome mapping were carried out and communities were facilitated to develop their resilience vision, to set up the FRMC study, FRMC survey, grading and analysis. Findings of all of these were shared with communities for their feedback and to facilitate developing community resilience action plans. This learning brief contains the learnings of the programme team throughout the journey from preparation of the FRMC to developing the action plans.

The Zurich Flood Resilience Project (ZFRP) is being implemented in 11 countries<sup>1</sup> in partnership with nine organisations, spanning research, NGO and the private sector.

The 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. ZFRA's vision is that floods have no negative impact on people's and businesses' ability to thrive. ZFRA has three objectives:

- Increase funding for flood resilience
- Policy at global, national or sub-national level is improved
- Improve flood resilience practice

<sup>1</sup> Bangladesh, Nepal, Indonesia, Philippines, Albania, Montenegro, Peru, Mexico, Honduras, El Salvador, Nicaragua

<sup>1</sup> <https://floodresilience.net/resources/item/introduction-to-zurich-flood-resilience-alliance>

<sup>2</sup> Ibid



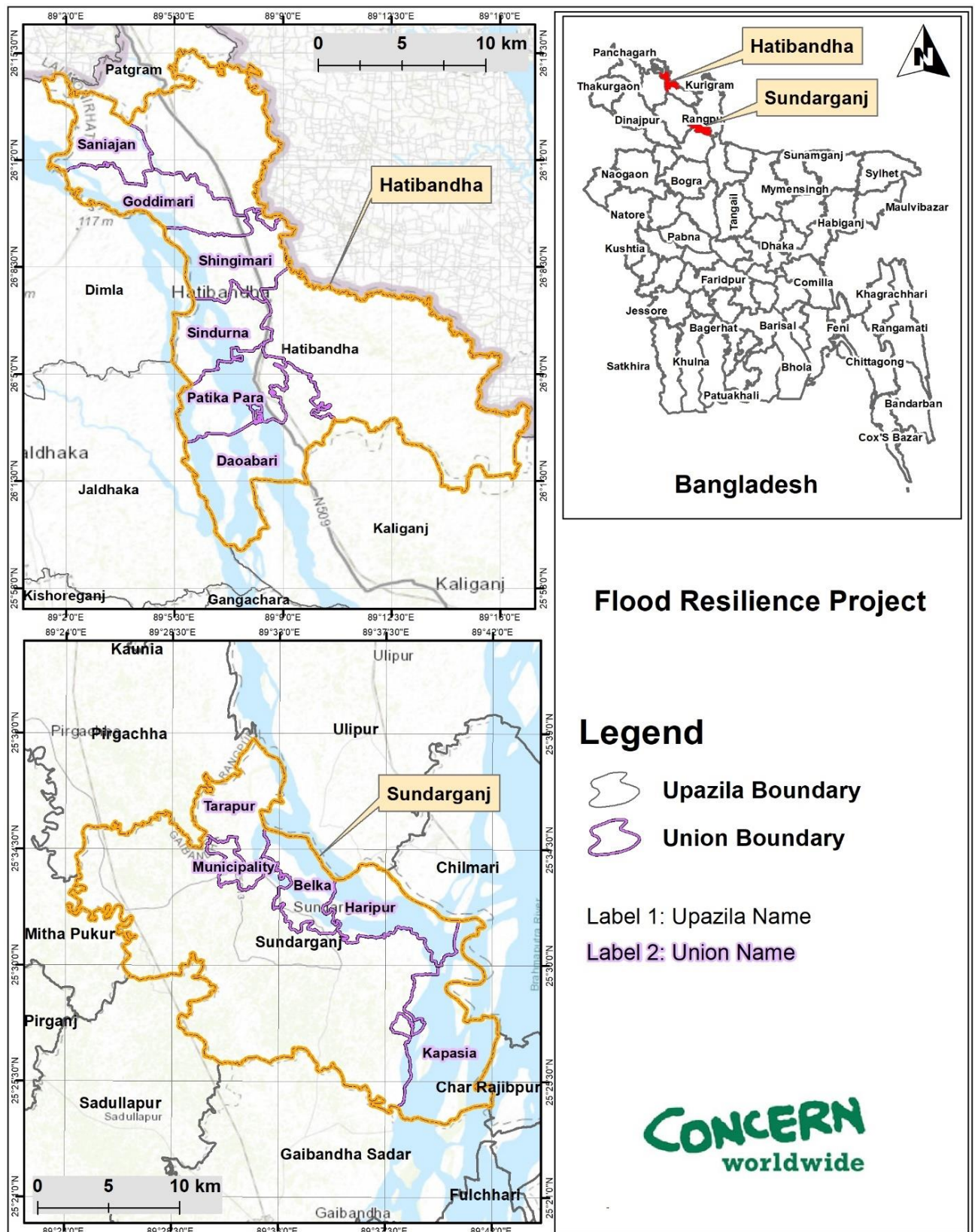


Figure 2: Map of Concern and ASOD intervention areas with the ZFRA project

## The FRMC – a decision-support tool

The project considers flood resilience in the context of its interaction with the five core capital groups, which are Human, Physical, Natural, Financial and Social capitals that determine the nature of the interaction between the community and the natural environment in terms of access to and use of critical resources. Furthermore, these interactions are considered in terms of 4R measures, which are Robustness of critical assets to absorb flooding; Responsiveness of the community's ability to react to flooding risk; Redundancy, being the amount of spare capacity in the system; and Rapidity, the speed of response. The process is described as a tool called the Flood Resilience Measurement for Communities (FRMC) tool, which captures data and 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. There are some general principles, which were considered during applying the tools:

- The FRMC does not generate interventions; it highlights opportunities and critical issues that need exploring by the community before any intervention is agreed.
- Information generated through the FRMC process is not by itself enough to fully understand the community. Results need to be complemented with information from other participatory tools such as Vulnerability and Capacity Assessments (VCA), participatory risk mapping, etc.
- The FRMC promotes systems thinking: sources of resilience should not be looked at in isolation and lenses should be used as much as possible.
- Organisations can address a range of different scores and grades (A, B, C, D) emerging from the FRMC results and should explore interconnections between them (for example, how can existing strengths be used to improve some weaknesses?).
- It might not be possible or relevant to address all the low scores or grades of one community.
- The FRMC analysis and planning is an iterative process and not linear.
- The FRMC can be used to compare two points in time in the same community but should not be used to compare communities with each other.

Concern conducted the FRMC baseline survey in the selected 22 villages and each of the villages was considered as one unit of that study. Data was collected through household interviews, focus group discussion (FGDs) and key informant interview (KIIs) and from different levels including community, union, and sub-district level.

Concern also conducted an assessment on natural capital for better understanding of the natural capital elements of the FRMC, to thereby assist in improved decision making for flood resilience. The findings from the Natural Capital Assessment were used to incorporate local questions into the FRMC, which helped to understand how communities relate natural capital assets to flood events. The assessment deepened the understanding of natural capital to better quantify the grading results and provided essential baseline data on natural capital to guide intervention decision making in the community.

## Community Resilience vision: a way to contextualize the FRMC findings

As mentioned above, the FRMC is a decision-support tool for choices regarding intervention prioritization and planning taken with the community, not an assessment tool. At this point, the challenge was thinking about how to contextualise the FRMC and ensure the process of data collection and feedback was community-owned, when the process of analysis is relatively complex. It was an overlying question for the community to understand what resilience looks like for them in relation to flooding and what needs to happen in the community to better facilitate or enable this achievement.





*Figure 3: Community members discuss to identify resources and flood risk in Talukbelka community of Sundarganj. Photo: Emdadul Haque, Programme Coordinator, ASOD.*

With this context, Concern carried out an outcome mapping process in all 22 communities which followed a participatory approach. In the outcome mapping process, the communities analysed flood issues, flood vulnerability, resources and stakeholders, and historical analysis of floods in their area. This process provided the communities an understanding and ownership over the steps and processes carried out by the project as part of FRMC and intervention planning. Most importantly this participatory process helped the communities to understand the resilience pathways for their communities and to develop their own flood resilience vision statement. At the end of the process each of the 22 communities had their vision for resilience.

This led to a review of the existing questions in the FRMC to ascertain whether these questions adequately covered the information needs required. The process of developing the Community Resilience Vision Statements highlighted new elements which required incorporating local questions to contextualise the FRMC to each community setting. This also assisted in the planning and set-up of the Key Informant Interview and Focus Group Discussion elements of the FRMC study set-up.

Most importantly, it was learned that the community's resilience vision statement was used to contextualize the results of the FRMC for community feedback and decision making toward resilience as they vision for that. To connect the community-owned resilience vision statement to the FRMC result, Concern has used resilience statement components throughout grading assessment findings and structured the feedback process for the communities. To allow mapping the community resilience statement to FRMC results and sharing that to the community for feedback, the resilience vision statement was broken down to its key components. Then the key components were mapped to the principal sources (of resilience) in the FRMC and grading results, analysed and aligned with the core principles for results analysis. For example, one of the key components from the resilience statement for a community *Kismat Sadar* was 'responsive and inclusive decision making'. This component of the resilience statement was mapped to the findings from the same community on social and human capitals and the dominant capital elements of those capitals, which are participation, coordination, inclusiveness, leadership, and governance. Using the resilience vision component as anchor points and mapping them to the FRMC results provided a picture of the communities' current resilience status against communities identified resilience components. The process of analysis is shown in Table 1.

Table 1: Mapping back FRMC sources and results to Community Resilience Statement components

Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
mover	Responsive and inclusive decision making	Social	1	participation	D	L+H	Res	1%	2	P
			6	coordination	C	SN	Res	0%	2	C
			7	Inclusiveness	C	SN	Res	0%	1	C
			8	leadership	C	Gov	Res	43%	2	PS
		Human	9	Governance	C	Gov	Res	1%	2	C
Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
outcome	Faster Response and Recovery	Social	2	External	C	L+H	Res	6%	2	P
			4	planning	C	Gov	Rap	0%	3	PS
			5	mutual assistance	C	SN	Res	13%	1	R
			6	coordination	C	SN	Res	3%	-	
			8	leadership	C	Gov	Res	43%	-	
		Financial	1	asset recovery	D	Assets	Red	77%	1	RY
			2	emergency funds	C	Gov	Res	64%	2	RY
		Human	1	evacuation and safety	B	L+H	Rob	56%	3	P
		Physical	5	Household Flood Protection	C	Assets	Rob	74%	2	C
		Physical	3	flood emergency infrastructure	C	L+H	Res	41%	1	P
			9	food supply	D	Lifelines	Rob	0%	1	R
Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
enabler	Livelihoods	Financial	4	Household income	C	Livelihoods	Red	4%	3	P
			5	Risk Reduction Investments	C	Assets	Rob	40%	2	C
		Human	4	flood exposure awareness	B	Assets	Res	90%	2	C
			5	Asset protection	D	Assets	Rob	10%	2	C
		Physical	5	Household Flood Protection	B	Assets	Rob	74%	-	C
Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
outcome	Financial Capacity	Financial	2	Disaster fund	C	Gov	Res	13%	-	
			4	Income continuity	C	Livelihoods	Red	4%	-	
	Communications	Physical	2	EWS	D	L+H	Rob	9%	1	P
			7	Transportation	D	Lifelines	Red	100%	2	R
			8	Communications	D	Lifelines	Rap	100%	1	R
Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
driver	Knowledge of FR	Human	1	evacuation and safety	B	L+H	Rob	56%	-	P
			4	flood exposure awareness	B	Assets	Res	75%	1	C
			5	Asset protection	D	Assets	Rob	10%	-	
			6	future flood risk awareness	A	Assets	Rob	100%	1	PS
		Natural	8	Environmental Management	D	Nat. Env.	Res	40%	1	PS
			1	NC Condition	D	Nat. Env.	Red	50	1	PS
			2	PNU	D	Nat. Env.	Rob	16%	1	PS
		Physical	6	large scale flood protection	D	Assets	Rob	40%	1	C
		Social	1	participation	D	L+H	Res	1%	-	
			4	planning	C	Gov	Rap	0%	-	
Connector	Resilience Statement	Source	Component	Desc	Result	Theme	4R	HHBI	Freq	DRM
outcome	Stronger Lifelines	Physical	7	Transport connections	D	Lifelines	Red	n/a	-	
			10	Flood Safe Water	D	Lifelines	Rob	9%	1	R
		Financial	5	Risk Reduction Investments	C	Assets	Rob	20%	-	
			1	evacuation and safety	B	L+H	Rob	56%	-	
		Human	7	WASH	B	L+H	Rob	73%	1	R
			2	1st Aid	C	L+H	Rob	50%	1	P
			9	Governance	C	SN	Res	1%	-	
		Social	2	External Assistance	C	L+H	Res	6%	-	
			4	planning	C	Gov	Rap	0%	-	
			9	inter community coordination	C	SN	Res	20%	1	P
			3	Community Safety	D	L+H	Rob	11%	1	Ry

It's important to note the amount of **time** required to carry out the grading assessment to ensure it is properly done. In Bangladesh, Concern conducted a workshop on grading the data collected in the FRMC. As the grading exercise is a kind of data analysis it required those carrying it out to have experience and knowledge of the communities being graded. It was found to be important that front line staff of the project team who had been involved in the data collection at the community level be included in the grading exercise as they would have first-hand knowledge of the community contexts. Concern's Disaster Risk Reduction Technical Advisor from headquarters facilitated the workshop while team members of the Bangladesh programme including Concern and ASOD joined the workshop. The team was divided into groups to carry out the grading and the groups were divided in such a way that the front line staff were represented in every grading group. During the grading, the Community Resilience Vision Statements were considered and reflected on in the comments sections as appropriate. It was also important that the team conducting the grading were familiar with the resilience vision statements and their value to the communities. Grading for one community required 3-5 days depending on team and community.

It has been suggested that it could be better to include community representatives in the grading process workshops. However, given the numbers of people involved, logistics of organising the meeting centrally, and the technicality of the grading process it was decided not to include community members when this was conducted in Bangladesh. The community peoples' perspectives were included instead through the Community Resilience Vision Statements. Because the front line staff who assisted in the preparation of these statements were present during the grading process, it was hoped that they could represent faithfully the communities' perspectives. It was found that this was actually quite an efficient way of conducting the process. There did not seem to be any major issues arising from conducting the grading in this way, and communities did not express that they felt left out or had any misgivings about the process being conducted in this way.

The **findings of the grading analysis were then shared with the respective community** in a simple format and in two phases. Phase 1 presented the key findings of the FRMC and interface with the resilience statement components. This provided the community members with an understanding of current resilience status of their communities in the community context, which supported them with informed decision making for resilience. Based on the results shared in Phase 1, in Phase 2, they identified the key programme themes including the connections needed between community, cluster, Upazila and district levels.

In the next steps, **communities categorised the options** to a) intervention areas, then to b) project/activity ideas, which were then prioritised considering communities' needs and capacity as well as implementing organisation's' capacity and strategic aspects. This analysed what action needed to be done at what level (eg community, cluster or sub-district level). Then through mapping the actions from the 22 community action plans and mapping the change pathways expected, the identified actions were used to form the intervention programme plan and monitoring and evaluation (M&E) framework.

Keeping the **resilience components as anchor points**, it was ensured that all interventions on the programme plan were connected to the communities' resilience vision statements and Community's Resilience Action Plan. There are two major points to note here. Firstly, communities have their own Resilience Action Plan, which is backed by their community vision for resilience and which is expected to be continued even after the project is completed. Secondly, Concern and ASOD have developed the organisational level programme plan based on the community plans following a bottom-up approach, implementation of which will facilitate implementation of community resilience action plan.

## Learning from undertaking the process

### Community engagement is vitally important

Engaging the communities in the process from the very beginning is important. Concern engaged the communities and local stakeholders before starting the FRMC survey through well-being analysis, vulnerability analysis, stakeholder mapping, outcome mapping exercise and inception workshop at union, sub-district, and district levels. It has found that it was extremely important for the project to understand how communities perceive flood vulnerability and resilience in their context. This engagement process was crucial for communities to build their vision for resilience. That has provided the communities ownership over the process and findings.

### Women's engagement at all stages is important

It was found that special efforts needed to be made to include women in all stages of the programme to ensure that the community action plans would be informed by women's needs. It was also felt that it was a positive contribution to build the capacity of women in these communities to be involved in community level activities, and particularly to encourage women in decision-making in the communities.

### Taking consideration of local context of project participants' convenience and logistics

In order to ensure full community buy-in to the programme, it was necessary to consider the communities' availability to engage in the project activities. This included considering the communities' busy times for cropping, flood season etc. During harvest time (typically November – January and March- April), neither women nor men were available for long hours of project activities. For women, 11am- 4pm is the best time to engage them, which is after the morning cooking and before the dinner time cooking. Scheduling the meetings to be located in convenient areas was also found to be necessary. This meant sometimes going to people's workplaces for meetings – whether this was a central location next to agricultural land, or offices for the few community members who worked in offices. The convenient times and places for engaging the community in the project needs to be accounted realistically for at planning stages in order to avoid delays in completion of planned work.

It was also imperative to consider the remote locations of the communities selected for the programme. Communities were selected based on their exposure to floods, geographic locations and other criteria, so from the beginning of the programme this remoteness needs to be accounted for. For most of the communities there is little to no regular electricity supply. Given that the FRMC survey tool is run using an application on tablet computers which require power for charging and eventually an internet connection to upload the surveys, access to these needs to also be considered when planning the programme.

These challenges were addressed by the staff charging the devices overnight in the project office so that they were fully charged for the next days' worth of data collection. The synchronisation of the data was also carried out in the office where Wi-Fi was available to upload the information to the online platform. Care should be taken when rolling out a new FRMC study that such an office with a reliable electricity and internet supply is available.

### Community Resilience Vision Statements used to contextualise the FRMC findings

Throughout the process, Concern learned facilitating communities to developing a resilience vision statement and linking back the FRMC results with the components of those community resilience statement has generated several benefits:

- First, it has provided a platform on which to communicate quite a complex grading assessment of resilience in a way that the community can relate to.
- Second, it has contextualised the sources in the framework of the resilience vision, and has increased the acceptance and ownership of the results in the community.



## **FRMC to intervention**

- Third, it facilitated closer understanding in the community of the type of intervention that they need to address key elements of their own resilience vision.
- Fourth, it has provided a framework on which to build the monitoring and evaluation for the programme.

Although the team was trained well, they have faced some challenges in sharing the FRMC findings with communities, because communities were not familiar the terminologies FRMC uses. Therefore, it was a challenge to communicate the data in such a language that communities understand and that matches their interest and context.

There were varying levels of understanding among the community members and the different communities. If not communicated well there was a chance that communities could lose their interest and trust regarding the FRMC findings. The communities' resilience vision statements have played a significant role to combat this. Since the communities prepared their own vision for resilience it was meaningful to them when the team presented findings of the FRMC in line with the resilience statements. They welcomed the FRMC findings.

## **It was highly important to consider the team's capacity on community engagement and using the FRMC tool**

It was recognised that the FRMC process is highly complex and requires some background training to fully understand it before it's possible to implement it. To prepare the project team, trainings were provided on different aspects of the FRMC tools, which built the team capacity to conduct the tool with confidence. Concern's DRR Technical Adviser provided detailed guidance to the field team to carry forward the tools as well as to minimise any challenges the team faced. The project manager of the project at ASOD noted "it was very technical to setup FRMC and it was totally new for us but we overcome this challenge by help from the Concern Worldwide's experts".

Understanding of the steps of the FRMC by the project teams, and particularly the front line staff, was invaluable. Given that the FRMC is a decision supporting tool, particularly focused on bringing forward flood resilience interventions identified by the community and through the FRMC process, it is vital that the project teams have the skills at both the community level and in the technicalities of the FRMC itself. Facilitation of the whole process was dependent on the project team's understanding of the FRMC process, the project's broader goals and objectives and the interactions of community level work and national and global work on resilience building. Therefore, it was found to be necessary to train the project team through formal training sessions and also support them continuously through day-to-day monitoring and supervision. This continued support was found to keep the project team engaged and feel a sense of ownership over the success of the process.

## **Remembering that the programme cycle of this project includes the development of the programme plan**

Traditional development programmes operate under a programme cycle management system (PCMS) involving a continuous loop through the stages of 1) Programme design and planning, 2) Start up, 3) Implementation, monitoring and progress reviews, 4) Results-based review, learning and planning and 5) Periodic evaluation and learning. In traditionally designed programmes the programme plan, monitoring and evaluation plan, programme logframe etc are developed at the outset, before programme implementation begins.

However, in the FRMC approach, the programme plan is only finalised *after* the community action plans are developed. This is done to foster a sense of ownership of the project with the communities, and also to aid sustainability so that should Concern and ASOD cease the project, the communities will be able to continue implementing their community action plans. For programmes using the FRMC approach, the programme cycle has already begun with activities like community engagement before the programme plan and monitoring and evaluation elements are designed. This time needs to be accounted for in the programme design and a degree of flexibility is required in order to accommodate the community-led aspects of the programme. The whole process of the FRMC is time consuming and this should be understood from the beginning of the programme.

## Conclusion

The importance of engaging the communities in the process from the very beginning was found to be one of the strongest lessons learned. Undertaking proper participatory rural appraisal (PRA) techniques were used ensured that all sections of the community were included, especially marginalised groups such as women, youth, people with disabilities and the elderly. This also helped to ensure the long-term inclusion of women in decision-making processes at the community level.

The Community Resilience Vision Statements were an innovation that helped tie together the communities' priorities and a complex decision-support tool. The Resilience Statements provided a platform on which to communicate the grading assessment of flood resilience, in a way that the community could relate to. This improved acceptance and maintained ownership of the process at the community level. The investment in training for staff who facilitated the FRMC process was also highlighted as a key lesson learned. Given the complex nature of the tool and the approach itself, well trained and knowledgeable facilitators are a key ingredient to the success of the process.

Finally, the undertaking of the FRMC approach requires a departure from the current accepted Programme Cycle Management System. In typical development programmes, M&E elements such as the M&E Plan and Programme Logframe are developed before programme activities commence. However, under the FRMC, it is necessary to wait for the results of the FRMC study before a detailed Programme Activity Plan can be developed. This has implications for budgeting as well as programme management, and should be understood well by donors in order to allow for the kind of flexibility that is required.

The lessons learned from the first phase of this programme will be used to inform the planning and implementation of further phases. The Community Resilience Vision Statements are an innovative component of programmes implementing the FRMC unique to Concern and ASOD. We will continue to advocate for their inclusion in FRMC programmes.

### About the Zurich Flood Resilience Alliance

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](http://www.floodresilience.net)

This work was funded by Zurich as part of the Zurich Flood Resilience Alliance



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Place of registration Dublin, Ireland. Registered number 39647.  
Registered Charity No. CHY5745.

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