Community-Based Flood Management approaches

IDMP/APFM Virtual Exchange:
Community-based flood and management - sharing of experience and learning for the future
05 June 2024

WORLD METEOROLOGICAL ORGANIZATION

K&I Conoscenza e Innovazione

20 YEARS APFM ASSOCIATED PROGRAMME ON FLOOD MANAGEMENT

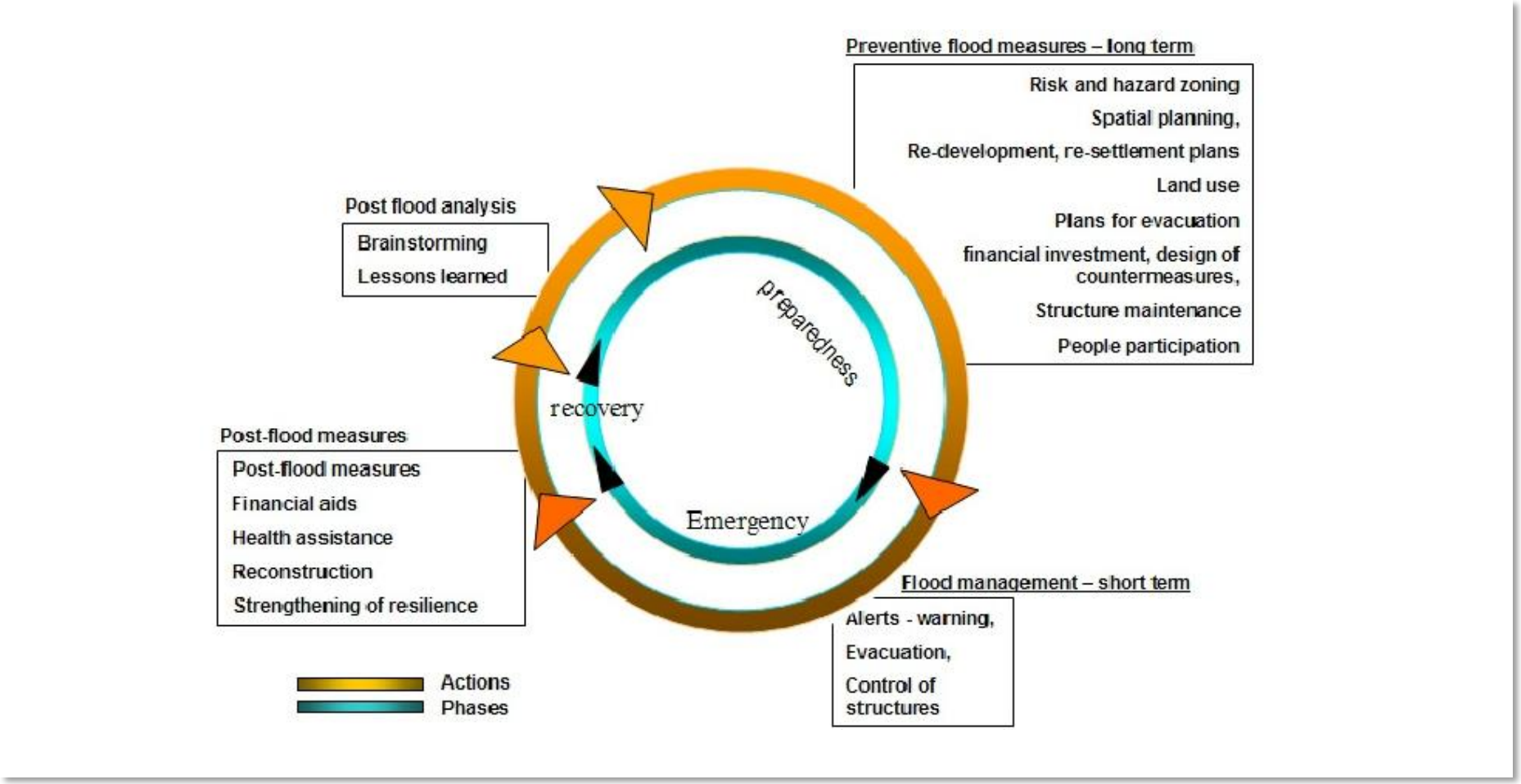
CBFM

What is it?

Multi-Stakeholder involvement in flood management

- Ensure implementation of basin flood management plans with full public support
- Ensure sustainability of plans and associated decisions
- Build consensus and public support on the flood management options
- Build stakeholders commitment
- Build/strength resilience of flood-prone communities
- Raising public awareness
- Provide all stakeholders, including the public, with full opportunities to share their views and influence the outcome ensuring cultural, language etc.

In all the steps of the Flood Management Cycle



Which institutions are relevant for flood management in a community?

Which "institutions"/stakeholders in a community

- Associations, cooperatives
- NGOs
- Civic organisations / Community-based organisations/CBOs (including religious groups, women committees, youth groups...)
- Local (public) authorities
- Community leaders (including religious leaders; elders; formal and informal)
- Technical services (e.g. meteorology, energy, civil protection, the environment, hydrology, agriculture, health, etc.)
- Enterprises/companies (e.g. SMEs, micro-enterprises)
- Micro-finance institutions
- Disaster management committees
- Professional organizations; Community colleges
- Senior citizen groups / Youth groups / Women groups
- Religious groups
- …

Community participation at the basis of the Community-Based Flood Management (CBFM)

Community participation has to match a community's needs in terms of:

- Vulnerability and risk reduction (and resilience enhancement)
- Sustainability in activities for infrequent and recurrent events
- Establishing partnerships, involving NGOs, private actors and other

Community participation produces its effectiveness and efficiency by:

- Synergizing effects of limited financial and human resources
- Understanding societal actors and their actions
- Providing the best mix of community experience and technological knowledge
- Connecting individual requirements and government preparedness

Community participation ensures practicability for implementation through:

- Undertaking floods management at each stage (prevention, preparedness, response and recovery)
- Creating opportunities for training and drills as realistically as possible

CBFM: Participation + Empowerment

CBFM is a participatory process

- Communities are actively engaged in the identification, assessment, treatment and planning for hazards and vulnerabilities of various kinds (in particular FLOODS)
- So, CBFM can be defined as inclusive, active and owned community driven processes aimed at addressing the drivers of disaster risk creation (specifically FLOOD); disaster risk reduction; and societal resilience building, within the context of local knowledge
- CBFM allows the inclusion of all relevant actors in the decision making-process

CBFM is an empowerment tool :

- CBFM process aims to enhance skills and capacities and to build resilience in the community
- CBFM us centered on training and awareness-building

Community-Based Flood Management: Step by Step

STEP 1: Design the process

Identify stakeholders and their activities, knowledge and resources

Create a shared vision through a participatory process

Use a two-way public awareness campaign to keep the community engaged

Identify information requirements and develop a data collection methodology

STEP 2: Assess vulnerability and risk

Use historical and local knowledge of the community

Take an inventory of land-use practices, resource locations and natural courses of rivers

Use a multihazard perspective to assess hazards

Assess flood vulnerability

Align identified risks with risks perceived by stakeholders

Identify at risk communities and support community level risk assessment

STEP 3: Analyze the problem

Assess capacities of community members and institutions

Identify positive and negative human factors contributing to flooding

Identify floodplain areas in terms of risk level according to different flood magnitudes

STEP 4: Set goals

Determine objectives based on risk assessment results and vision

Decide on the scope of community activities

Take note of regional development objectives like securing livelihoods and preserving the environment

STEP 5: Draft an action plan

Evaluate possible measures within the scope

Develop an action plan with clear roles, activities and responsibilities

Set the timeline and expected results

Carry out an economic analysis and financing arrangements

Set procedures for monitoring, evaluation and review

Share the draft plan with the community

STEP 6: Implement in stages (prevention, preparedness, response, recovery)

Conduct mock drills to optimize plan

Approve the plan through community consultation

Form and strengthen community institutions

Implement short-, medium- and long-term activities

Monitor, evaluate and keep improving participation

Keep updating assessments using a participatory process

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ASSOCIATED PROGRAMME ON FLOOD MANAGEMENT
www.floodmanagement.info

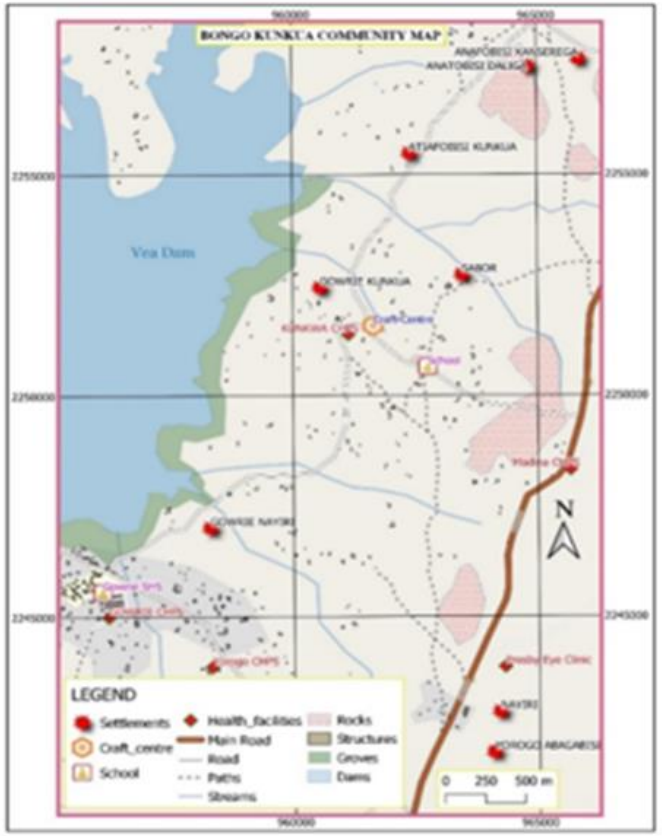
Global Water Partnership

Good Practices
of CBFM…
and where

Participatory mapping in *Kunkua - Ghana*

Example

"The community actors were guided to sketch and include community key features to the map. That also includes the floods prone areas of the community, as well as houses who live vulnerable people (disabled people, elderly people, etc. who, in the event of a disaster, must be rescued). A digitized map is accompanied with the community sketched map."



Safety markets in *Sangabili - Cote d'Ivoire*

Example

The safety marking was done with the help of different colored paint (Yellow-Orange-Red) which calls for vigilance for a safe evacuation. Three markers were installed in the community of Sangabili at the level of flooded surfaces
Each marker has a designated person who will report the water level to the Committee during times of flooding. Explanations on these colors were again given to the community prior to the start of the marking
- yellow applied at 60 cm from the ground and communicates the phenomenon is relatively dangerous.
- orange between 60 and 120 cm: the phenomenon is dangerous and extensive,.
- Red, more than 120 cm, symbolizes a dangerous phenomenon of exceptional intensity

Strenghtening capacities through training

Ban Suan Luang - Thailand

Example

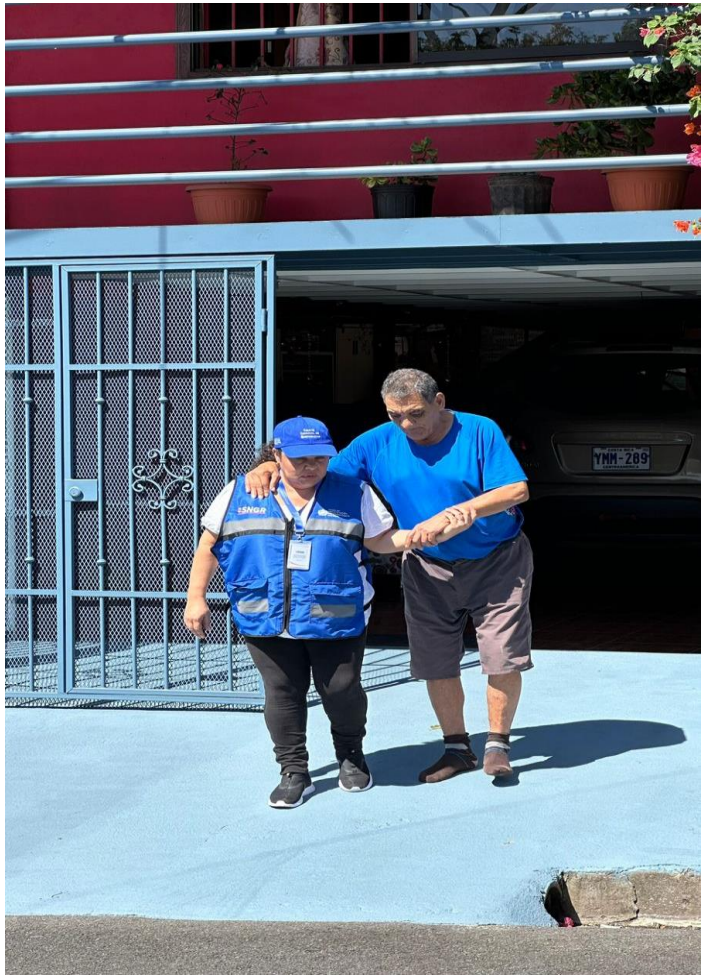
The training helped community members to improve their understanding of flood risks, the need for preparedness, how to use the early warning equipment and the coordination actions to be taken among different subcommittees and external stakeholders. To build capacities of various actors, such as the Village Disaster Prevention and Control Committee, first-aid and village flood management plan committees, various training were carried out relevant to their role and responsibilities before, during and after flood. Workshops not only involved experienced people but also individuals who were interested in contributing to the resilience of the community

Preparedness through simulation exercises

Turrialba - Costa Rica

Example

The community-based flood management plans were tested in a simulation exercise, which helped the committee members to better understand their roles and responsibilities during the emergency scenarios and bring about more effective coordination between the community and external stakeholders. This also allowed the communities to adjust their flood management plan based on the dynamics and learnings resulted from the simulation exercise.



Gender Mainstreaming and Youth engagement in flood management *Chikwawa district - Malawi*

Example

Gender mainstreaming Regional and national workshops in SADC region were organized for National agencies (Hydro-met, disaster management), Gender department and community-based organizations. These workshops aimed to mainly understand the issues, needs and identify activities to have mainstreaming gender into water management and in particular in E2E-EWS value chain.

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Better collaboration between the hydrometeorological department and the local community

Talad Kao *Thailand*

Example

Mr Sakrasae works at the Kabinburi district hydrometeorological station. Every day, he collects readings from the rain-gauge and river-gauge devices installed at the meteorological station and the nearby river. The data collected monthly is submitted to the municipality and provincial hydrometeorological department. When there is a higher reading (i.e. 6 metres in the river), he is tasked with immediately disseminating information to the municipality so that the communities can be informed through loudspeakers timely . Mr Sakrasae regularly participated in the CBFM and agreed to join the LINE app group with other members from the district and provincial hydrometeorological department, irrigation and water resources, provincial disaster prevention and mitigation office, municipality and CBFM members of Talad Kao.

Community-based flood management pilot projects by APFM and its partners

First pilot: India, Nepal and Bangladesh
Replicated in Thailand, Lao PDR, Volta Basin, Malawi, Costa Rica and Cambodia

Community-based flood and drought management in the Volta Basin

Funding agency

Adaptation Fund

Implementing partners

WMO/APFM,
Global Water Partnership-West Africa,
Volta Basin Authority, K&I and CIMA

Countries

Benin, Burkina Faso, Cote d'Ivoire,
Ghana, Mali, Togo

List of Activities Implemented

- The development of the flood and drought hazard and vulnerability maps
- Installation of the local meteorological station
- Over 200 individuals including women and youths from each community are trained on the concept of flood and drought management including preparedness and response measures to be taken
- More than 50 individuals from the six communities are trained on first-aid measures and availability of first-aid kits in each community
- Conducted community-based training workshop on gender mainstreaming in different phases of flood management
- Implemented strategies for effective EW information dissemination mainly through amplifier and wires
- Simulation exercises in the community with other stakeholders

Community-based pilot projects in South and South-East Asia by APFM and its partners

"*Community Approaches to Flood Management (CBFM)*" project in India, Nepal and Bangladesh during the year 2004-05.

Funding Partner: APFM Trust Fund

Technical Support: APFM

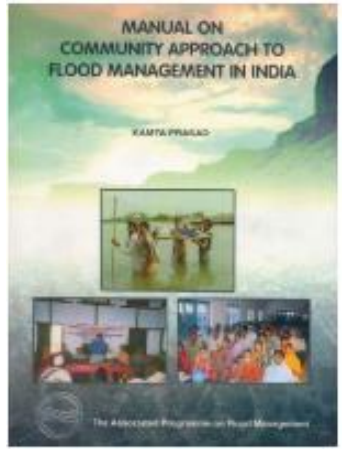
Implementing Partners:

Bangladesh Unnayan Parishad (BUP), Bangladesh;

Institute for Resource Management and Economic Development (IRMED), India; and

Jalsrot Vikas Sanstha (JVS), Nepal.

For more information: *click here*



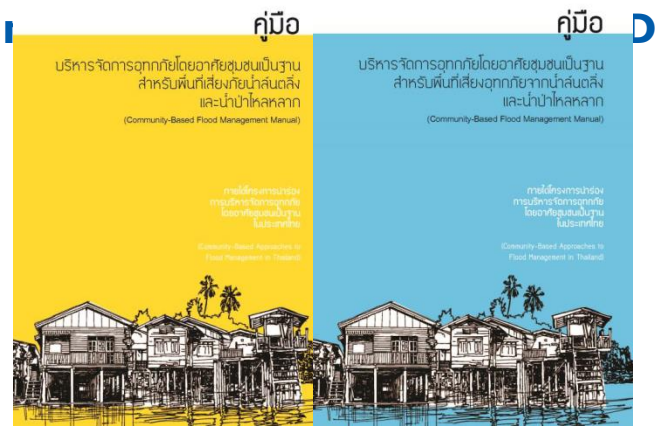
"CBFM in the flood prone commu... DR... year 2013-2016

Funding Partner: USAID/WMO

Technical Support: APFM

Implementing Partners: ADPC

more information: *click here*



Community-based flood management manual in Thai and Lao Language