

Webinar - Live On Myanmar Water Portal Facebook Page

Flood Management from Various Perspectives



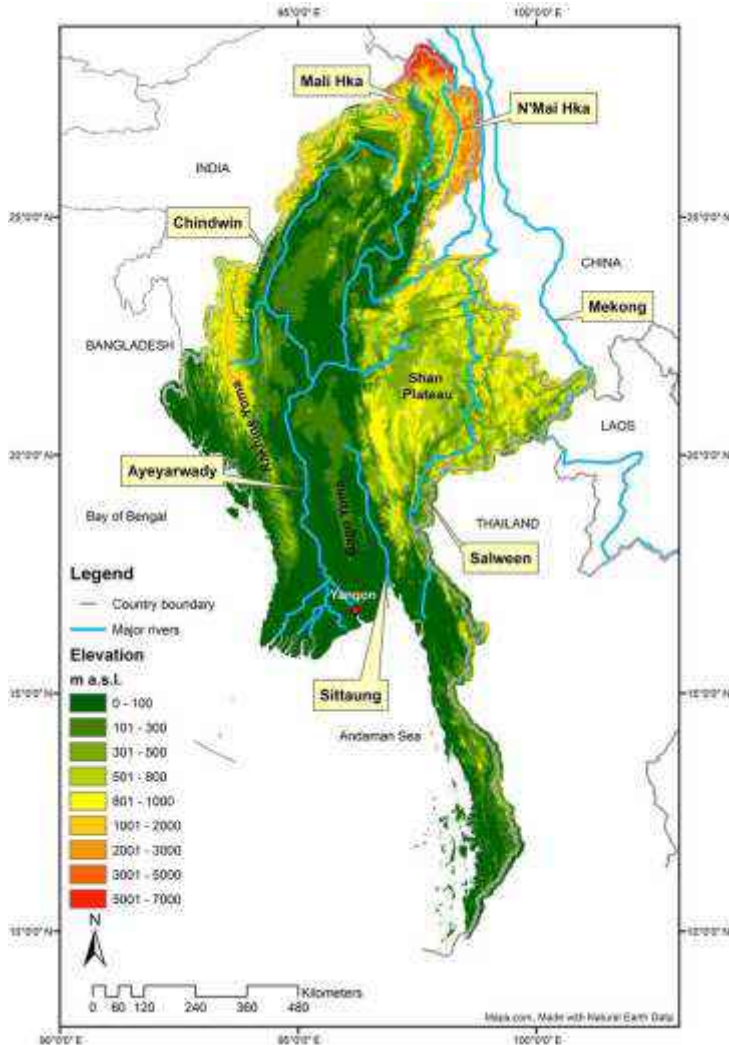
Community-based Approaches to Flood Management in Myanmar

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Common types of floods in Myanmar



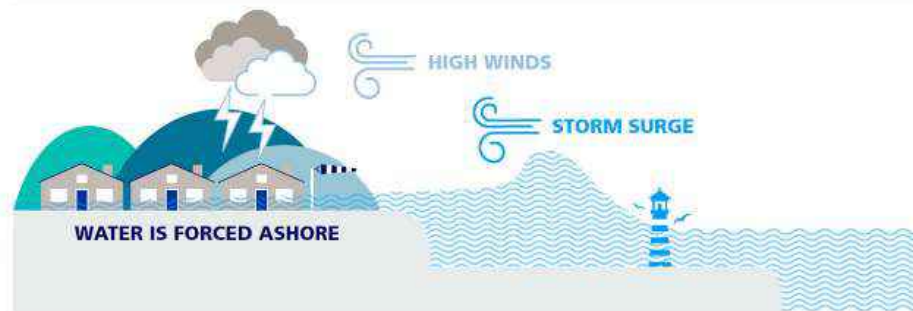
(Ref: Taft, L. and Evers, M., 2016)



River floods



Flash floods
Surface water



Coastal floods
(Strong surge)

(<https://www.zurich.com/en/knowledge/topics/flood-and-water-damage/three-common-types-of-flood>)

Floods in Myanmar



Yangon (Photo: EPA)



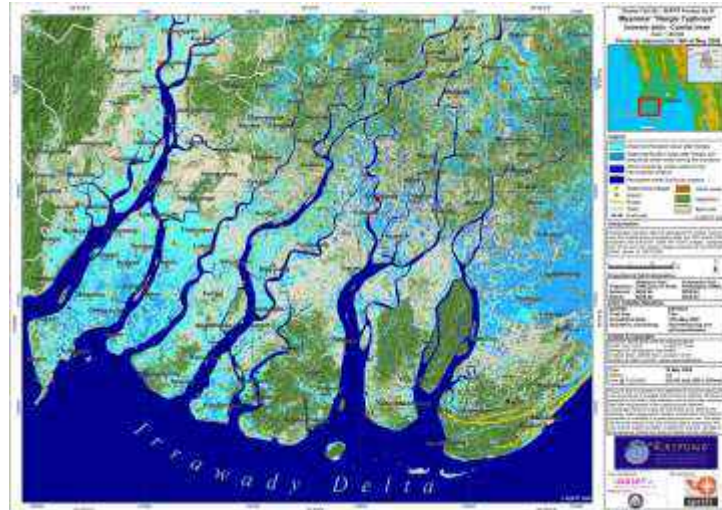
Near Pathine (MIMU)



Sagaing (Photo: BBC)



Hpa-an (Photo: NYT)



Flooding by Cyclone Nargis (UNOSAT)



Kyauktaw (Photo: The Irrawaddy)

Structural and Non-structural Measures

Structural measures are physical constructions to reduce or avoid possible impacts of floods or the application of engineering techniques to achieve hazard-resistance and resilience in structures or systems.

- ❑ Common structural measures for disaster risk reduction include dams, flood levies or ocean wave barriers.

Non-structural measures are measures not involving physical construction that use knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness-raising, training and education.

- ❑ Common non-structural measures include building codes, land-use planning, laws and their enforcement, research and assessment, information resources and public awareness programmes.

Community-based Disaster Management

- ❑ CBDM is an approach of building the capacity of communities to assess their vulnerability to both human induced and natural hazards and develop strategies and resources necessary to prevent and/or mitigate the impact of identified hazards as well as respond, rehabilitate, and reconstruct following its onset.

(Ref: Colorado State University (CSU))

Communities' Participation in the Various Phases of Flood Management

❑ Prevention/Mitigation

- e.g. - Risk assessment
- Protective structures
- Land use planning
- Insurance

❑ Preparedness

- e.g. - Forecast and warning system
- Emergency plan
- Practice drill
- Stockpile aid

❑ Response

- e.g. - Search and rescue
- Medical aid
- Food and shelter

❑ Recovery

- e.g. - Restore public services
- Rebuilding damaged structures
- Improved design



(<https://home.akitabox.com/disaster-management-cycle-infographic>)

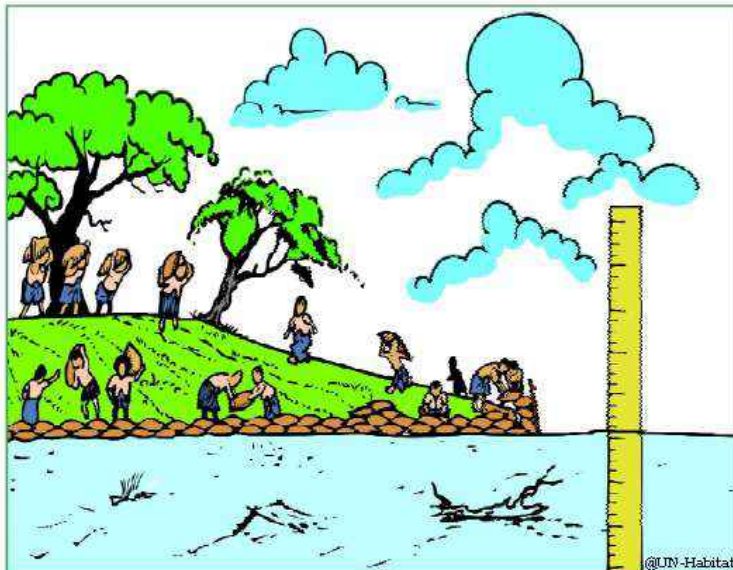
Examples of Community-based Approaches

□ Community-based mitigation

- Sedimentation clearance
- Reforestation programme
- Dike and flood wall construction
- Flood proof buildings
- Flood fighting



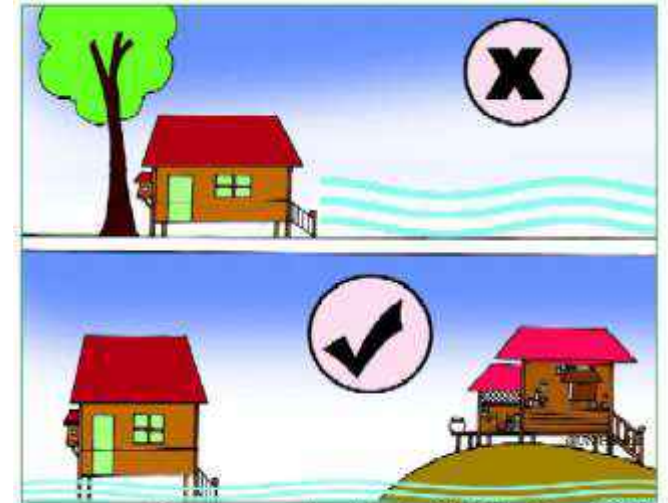
Clearing drainage by the community



Piling sandbags by the community at their own strength to prevent flood.



A monastery elevated on posts, piles above flood level so that the community can use it as a shelter during a flood.



House construction above the High Flood Level (HFL)

Ref: Manual on Flood (UNHABITAT)

Examples of Community-based Approaches

□ Flood Preparedness at the Community Level

- Form a community based organization (CBO)
- Prepare a community-based disaster management plan (CBDMP)
- Designing warning dissemination system
- Planning for evacuation and relocation
- Storing of food and water
- Building temporary shelter
- Conducting drills and simulation exercises



A search and rescue training



A training for carpenters to enhance community-based disaster mitigation



The community working together to develop a community-based disaster management plan

Examples of Community-based Approaches

□ Public Awareness Building

- Increase public knowledge on floods, their nature and possible consequences and impacts.
- Improve public knowledge on practical preparedness measures at the household level that the communities can implement on their own.
- Inform the public about flood early warning systems and various means of communication to receive warning signals and flood information.
- Disseminate information on flood preparedness programs and mobilize support for coordinated flood response activities within local authorities or township disaster management committees and community-based disaster management organizations.

□ Mediums

- Radio, TV, Newspapers, Booklets, Posters, Social media, Workshop, Training, community discussions, Door-to-door campaigns and school programs

Examples of Community-based Approaches

□ Community-based Response and Recovery

- Evacuation operations
- Rapid assessment of damages and needs
- Early recovery
- Reconstruction



<https://www.frontiermyanmar.net/en/the-tide-was-like-a-monster/>



(<https://www.redcross.ca/blog/2015/8/photo-of-the-day-red-cross-responding-to-flooding-in-myanmar>)

Examples of Community-based Approaches

□ Citizen Involvements in Flood Management

- Flood risk assessment
- Flood damage assessment
- Rainfall monitoring
- Flood depth survey
- Water level monitoring

Benefits of the Community-based Disaster Management

- Enhanced capabilities to pursue disaster preparedness and mitigation
- Cost- effective and Sustainable
- Exchange of knowledge, information, skills and techniques between the community
- Supplementing national and local government efforts
- Harmonizing flood-management efforts with other development activities.



Let's work together to build flood-resilient communities.

(<https://kr-asia.com/a-data-led-agritech-revolution-is-transforming-the-lives-of-myanmars-farmers>)

Thank for your kind attention!!!