

Community-based approaches from Costa Rica and Italy

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Knowledge and Innovation

Online Training Webinar

Urban Flood Management: From Prevention to Adaptation

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1. COMMUNITY-BASED FLOOD MANAGEMENT



Central function of the human factor

- Natural hazards are phenomena external to human activity and are often unavoidable
- However, human activities can transform natural hazards into disasters → people are less and less the helpless victims of acts of "force majeure" and more and more the victims of acts of people themselves
- Induce behavioral changes
- Expanding the role of human groups in risk management
- Strengthening capacities for prevention and risk awareness (and community resilience)
- → CBFM is an opportunity and a need

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Principles for strengthening community participation

- ***Community participation has to match a community's needs***
- ***Community participation retains its effectiveness and efficiency by:***
 - Understanding societal actors and their actions
 - Synergizing effects of limited financial and human resources
 - Connecting individual requirements and government preparedness.
- ***Community participation promotes building social capital through:***
 - Equitable access –ensuring equal opportunity for all community members to participate in decisions
 - Inclusiveness –development of participation strategies for all community members
 - Responsiveness- taking action in relation to the views, concerns and experiences of community
 - Integrity – open, and accountable participation that enhance trust and confidence in the community
- ***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

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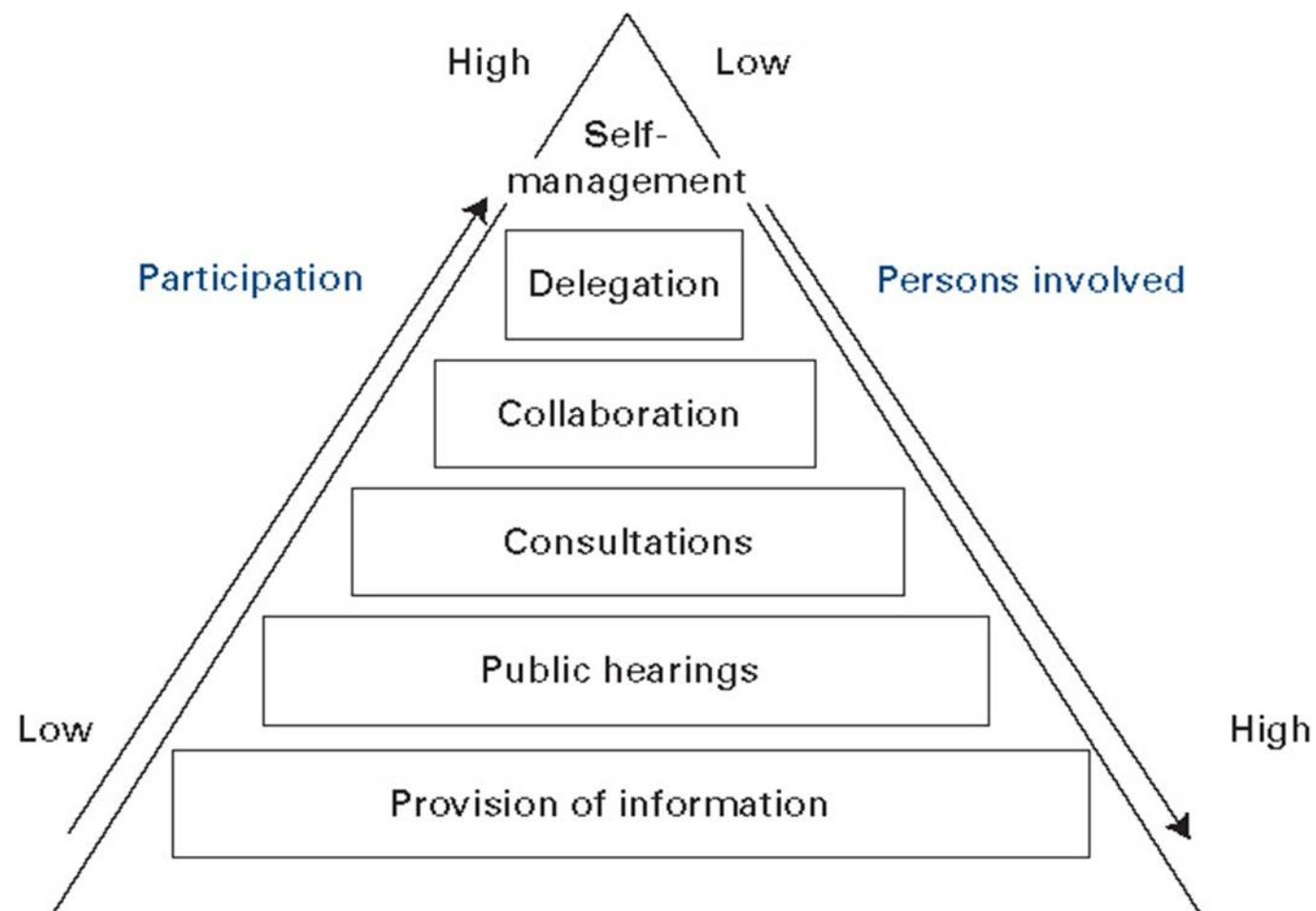
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Levels of stakeholder participation



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EXAMPLES OF ACTIVITIES IN CBFM

- Set-up of Community-Based Floods Management Committee
- Flood Participatory Mapping
- Vulnerable Household Mapping and marking
- Awareness-raising activities on flood (and other natural hazards)
- Capacity building activities
 - Basic concepts of floods/flood management at the community level
 - First-aid (and availability of first-aid kits)
 - Risk Management from a Gender and Inclusion Perspective
- EWS (Safety/level markings, meteo station, loudspeakers, community radio, WAP group)
- Community-based flood management plan (design/operationalization)
- Drills/simulations
- Evacuation Centre for vulnerable people

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The functions of a Community Risk Management Committee

- ✓ Identification of risks to communities
- ✓ Assessment of needs and capabilities of the community
- ✓ Provision of equipment and supplies for emergency situations
- ✓ Awareness-raising, information dissemination and capacity-building
- ✓ Networking, monitoring, and reporting
- ✓ Establishment of institutional building and linkages
- ✓ Planning and interface with government institutions for risk management (preparedness, prevention also for trying to moderate its intensity and negative effects, rescue, etc.)
- ✓ Conducting simulations/drills to facilitate effective evacuation (in case of flood)
- ✓ Development of linkages with other communities and external development partners (including the private sector)
- ✓ Monitoring, evaluation, and record-keeping; working groups
- ✓ Management of information for future reference
- ✓ Resource mobilization

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2. SPECIFICITIES OF THE URBAN CONTEXT



People in the urban context (1)

- ✓ Instruction levels are often higher (e.g. no issues of illiteracy)
- ✓ ICT tools are more diffused (OFTEN ALMOST 100% OF PEOPLE)
- ✓ High mobility
- ✓ Social complexity is higher (e.g. high concentration of leaderships, coexistence in a limited area of multiple social groups, including migrants)
- ✓ Greater diffusion of wealth and well-being
- ✓ Greater presence/proximity of decision-making
- ✓ Social protection systems is more important and should address the needs of at risk urban communities

✓

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People in the urban context (2)

- ✓ Local knowledge is lower
- ✓ High concentration of the population + often rapid growth)
- ✓ High density of the built environment and infrastructures (much more concentrated)
- ✓ Participation is generally lower (and sometimes existing governance structure is reluctant to recognize any participatory approaches and at risk communities are excluded in decision-making)
- ✓ High spatial and built infrastructure inequalities (often)
- ✓

Which institutions are relevant?

- Local public authorities (Municipality, district...)
- Civil protection units; decentralized hydro and meteo services
- Disaster management committees/ District Disaster Committee
- Associations, NGOs, CBOs, Civic organization, and their networks
- Private sector: enterprises (not only micro); cooperatives; finance institutions (not only micro)
- Professional learning organizations
- Senior citizen groups / Youth groups / Women groups
- Religious groups, migrant associations,...
- Political organisations, environmentalist movements...
- Academia and research groups

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Community-based approach in urban areas

- ✓ Involve community from the initial stage of risk reduction programs, and preparedness projects
- ✓ Use community focused Information X public awareness programs for a behavioural change and Conduct awareness programs to bridge the gap between community perception and the emerging risk
- ✓ Encourage private sector participation and contribution
- ✓ Reduce dependency (Encourage programs at community level)
- ✓ Advocate for DRR (flood management) to be a part of urban development process
- ✓ Promote good governance practices in DRR and responsiveness within local governance process
- ✓ Develop action plans for short, medium and long term risk reduction
- ✓ Enhance coordination among all stakeholders and mobilize the support for building a safety culture
- ✓ Transferring cost-effective technology and increase the level of acceptability by the community
- ✓ Emphasizing the importance of local capacity, usage of local materials, knowledge, and technology

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3. COMMUNITY-BASED FLOOD MANAGEMENT IN ITALY (Emilia Romagna and Toscana)



CBFM in Florence: main activities (1)

- ✓ In Florence, since the terrible floods in 1966, there are many citizens groups that cooperate on a day-to-day basis with the municipal civil defence system. Civil defence volunteering is an expression of active citizenship. There are multiple actors:
 - ✓ Local groups referring to large national organizations (e.g., Italian Red Cross, Legambiente)
 - ✓ Local associations expression of a specific territorial area (e.g. "Brothers of the Misericordia of Florence")
 - ✓ Municipal groups born with the participation or under the impetus of the municipal administration,
 - ✓ Wide range of professionalism (rescue/health care, forest firefighting, telecommunications, setting up reception areas, and cultural heritage protection; from doctors to engineers, carpenters to cooks, electricians and nurses)
 - ✓ Individual volunteers.

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CBFM in Florence: main activities (2)

- ✓ Civil defence volunteers work on a daily basis for forecasting and prevention in order to increase the culture of resilience through information and training sessions with citizens and further awareness raising initiatives (cultural initiatives, leaflets, through the web...)
- ✓ "Emergency Municipal Plan of civil defence" set-up/updated with citizens' participation
- ✓ During each year, in order to verify the plan effectiveness, drills are organized in decentralized locations with strong citizen involvement through the simulation of possible risk scenarios
- ✓ Multi-channel communication system, which includes a telephone voice warning system to fixed/mobile telephone numbers, that reach the "fragile subjects" (disabled, older people). The system identifies and locates the citizens in need and puts them in touch with the emergency response teams.

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Florence experience: a few voices from the field (1)

“I fully experienced the flood of Florence in 1966. It was Sunday, November 4th... Normalcy returned in April 1967. During these six months, there was an excellent spirit of collaboration among all the citizens. We went to help the shops to rearrange what was possible to recover. Also going to the centre where, however, in the shops we were forced to throw away almost everything. We were a large group made up of soldiers and volunteers. There was a special focus on helping weaker people (elderly, disabled people). The solidarity was great. And people helped and housed those who had lost everything” (Older retired woman)

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Florence experience: a few voices from the field (2)

“I started working in a voluntary association... Cards on floods and earthquakes are distributed explaining the behaviours to adopt during and after an event of this kind. We try to differentiate the way of explaining things according to the age groups. The reactions of the people, in the immediate term, are very positive. Some even imagine the precautions they will take on their return home... Through the children, then, the aim is to sensitize parents. Once they have returned home, children are invited to check the situation of their home and the place where they live on the basis of the various precautions, we have told them about” (Young woman working in a volunteers’ association)

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Florence experience: a few voices from the field (3)

"I am a volunteer working in an association cooperating with the Florence civil protection. We are doing a lot of awareness-raising activities and we organize also drills with people, as well as river monitoring... We need to check with our eyes what is the situation, also many times a day... Volunteers' monitoring of the river - that I do - allow us to alarm the hydrology officers. Thanks to the monitoring, I also report situations of clogging of vegetation or others that could cause flooding". (Older man, retired and volunteer)

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CBFM in Imola/Conselice: main activities (1)

- ✓ The civil protection system includes the local authority, the technical services, the Local Health Unit, the Personal services unit (in charge of disadvantaged people), the main volunteerism organisations and citizens' organisations (see below)
- ✓ IMOLA - Set-up of a Citizens' Committee working "daily" with civil protection, born on the experience of a neighborhood WhatsApp group that played a crucial role in managing floods during the emergency in May 2023 (reaching everybody)
- ✓ CONSELICE - Set-up of a Citizens' Committee citizens' committee "to prevent disasters like that of May 2023 from ever happening again" by working with the authorities to restore the area and define the measures to be taken to prevent future floods, born from a Group of about 100 citizens (mainly small and micro entrepreneurs) who volunteered do hydraulic work to drain the water during the May 2023 emergency

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CBFM in Imola/Conselice: main activities (2)

- ✓ The revision (and updating) of the civil protection plan includes the active participation of citizens in the monitoring of the territory and local knowledge is included, thanks a considerable intensity of interaction with the authorities, albeit the relationship is sometimes conflictual
- ✓ Imola's Civil Protection Plan is now based on the assumption that there is a diversified request for assistance from citizens, based on their possible vulnerability conditions; it includes a tailor-made telephone/SMS alert system that includes various categories of disadvantaged people

Imola/Conselice experience: a few voices from the field (1)

“We, citizens, do not want to take the place of technicians. But they cannot see the whole territory. We are their eyes... Through the WhatsApp group, I provided instructions on how to reactivate the electricity meters. We had a mini-market with donations of the food that arrived and I gave instructions on where to collect it. A small shop where we would go and collect, or we would deliver to the houses” (Young woman, living in the flooded area)

“When the flood occurred, the civil protection plan was under revision. We stopped this work and we took stock of everything we were learning from all stakeholders and people from Citizens’ committees. Then, we 'revamped' the revision with their intensive cooperation”. (Man, leader of the Civil Protection unit)

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Imola/Conselice experience: a few voices from the field (2)

“About 100 people worked and helped: manufacturers, farmers, blacksmiths who provided repairs when something broke, drainage engineers, people who came to bring us food... We, as citizens of the Committee, are working to have all the rivers clean; we make films to highlight where to intervene. We would also need to move the animals, but it is difficult as some are protected species. However, we have already obtained that one of the main rivers was completely cleaned and a second almost completely” (Man, small entrepreneur)

“We have intensified our relationship with the voluntary associations present in the area precisely to have a better knowledge, in its widespread nature, of the vulnerabilities... we try to identify fragilities through citizens’ sentinels in the area who are in contact with us”. (Woman, leader of the Personal services unit)

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4. COMMUNITY-BASED FLOOD MANAGEMENT IN COSTA RICA (Turrialba)



CBFM in Turrialba: main activities (1)

- ✓ Set-up of a Community-Based Flood Management Committee
- ✓ Analyze the current situation of existing vulnerabilities/risks - Vulnerable Household Mapping and marking
- ✓ Workshop to improve knowledge on basic concepts of floods/flood management at the community level
- ✓ Training of volunteers in DRM, EWS and Climate change”
- ✓ Community First Aid training organisation and implementation
- ✓ Training on "Risk Management from a Gender and Inclusion Perspective"
- ✓ Media training

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CBFM in Turrialba: main activities (2)

- ✓ Set-up of End-to-end Early Warning System
- ✓ WhatsApp group to disseminate information
- ✓ Creation of the Community Emergency Plan with the inter-institutional support of partners
- ✓ Simulation to test the Plan
- ✓ Evacuation operations – Identification and selection of safe shelter - Protection of Critical Infrastructure
- ✓ Food security – protection and health care

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Turrialba experience: a few voices from the field (1)

“Before we were obviously aware of the risk of flooding also in relation to past events (e.g., flooded areas). But we weren't organised. Now we are. A WAP group has been created to disseminate information, including warnings, among us. The group has already been active during the (small) flood of June 2023. We will now also start holding neighborhood meetings. Contacts and meetings are also functional for sharing what we have learned” (Woman - teacher, lives one step away from the river that causes the floods)

“We learnt a lot about the importance of inclusion not only from a gender perspective, but also considering all the disadvantaged people; that everyone should participate, including people with disabilities. Each one is prepared. Before we were not aware of these things. Now we have understood that everyone must be valorised; we must involve everyone according to their needs and abilities. They taught us a lot about the role of different actors. Now there is a family emergency plan; and starting from it, a community emergency plan.” (Young woman living in the flooded area)

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Turrialba experience: a few voices from the field (2)

"Now, as demonstrated by today's simulation, in the event of a possible flood, I am taken from my home to a safe place already known by the volunteers of the city emergency management committee. I am helped 100% and in a safe place I am supplied with water to drink. Previously, when floods occurred, it was my family members who had to arrange for my evacuation and we had to go to the homes of relatives who live in a non-floodable area. The frequency of floods is roughly the same twenty years ago as it was more recently. But now there is an organization that wasn't there before". (Older man with a reduced mobility capacity)

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