Including additional considerations on gender and diversity, climate, livelihoods, health and urban into Mapping

The following are suggestions elaborated by VCA practitioners from different parts of the world to adapt or improve particular aspects of the EVCA tools. While basic aspects of these sectors have been mainstreamed into the revised tools, we recommend you also look into the following proposed additions related to one or several of the following areas, as well as urban as a cross-cutting theme:

- Gender and diversity
- Climate change adaptation
- Livelihoods
- Health

Many of the hazards, risks and vulnerabilities that communities face in cities and towns cannot be fully mapped or understood without a city-scale perspective. Mapping the essential urban systems (health, energy, water, waste collection, etc.) and analyzing how these systems and the built environment would impact the needs of populations in the event of a disaster or crisis is critical for community resilience. Similarly, the community action plans will not have the desired impact unless they are linked to city-level key stakeholders, most prominently the local governments and city emergency management authorities. New tools providing guidance on how to conduct city-wide risk assessment and Urban Profiling are helpful for national societies planning to do VCA in urban context.

These should be read and used as a complementary note to the steps described in the Mapping.

Gender & diversity[1]

Based on gender, age and diversity factors, information collected through the mapping may differ in relation to:

- The perception of risks and hazards
- The importance and significance of these risks and hazards
- Experience and analysis of solutions to reduce and mitigate risk

[1] Gender and diversity sensitive Vulnerability and Capacity Assessment (VCA). IFRC.

Maps can be useful not only to highlight the physical issues in the community but also to indicate social issues, safety and security risks.

- One map should be made by a group of women and a separate one by men. Male-facilitators should facilitate the male team and female facilitators the female team.
- It is important to ensure a representative approach within the sex-disaggregated groups, including youth, elderly, persons with disabilities, migrants etc. It is also recommended to hold separate mapping discussions with people of different age groups etc.
- Following an analysis/discussion of the data in the single sex groups first, each map can then be presented to both groups in the community e.g. the map developed by the male group should be presented to the female group and vice versa. This will create a discussion around different perceptions and priorities which will support the development of practical solutions in the community.
- Mapping should be conducted at times of day identified in consultation with the community. This will ensure participation of men and women from diverse groups (e.g. persons with disabilities, older people, boys and girls, adolescents, migrants).
- During the mapping process ensure data of participants is recorded, disaggregated by sex, age and disability.
- In urban contexts, keep in mind that there may be a multitude of "communities of identity" that often overlap (people can be part of different networks e.g. religious, professional or family networks). In cities, different kinds of vulnerable groups may also exist e.g. homeless people, unaccompanied children.

Risk and hazard mapping should allow you to:

- Understand gender-specific hazard risks/threats in the community and whether people in the community perceive this difference
- Identify practical and strategic risk reduction measures according to gender and diversity needs and perceived threats
- Understand how and where women/men/diverse groups receive information on hazards and risks including formal and informal communication systems e.g. men may have access to more formal networks but informal women's groups need to be highlighted
- Understand how best to communicate and sensitize community members on risk reduction based on gender and age
- In urban context, understand which public authorities, service providers and civic organizations should be sensitized on gender specific hazards, risk/threats
- Develop adapted risk / hazard related awareness messages for women/girls and men/boys
- Understand and raise awareness of existing coping strategies by gender, age, disability and group
- Where organizations that work on specific issues are in the community (or in the city) and how accessible they are for men and women

- Know areas in the community (or in the city) where men and women feel safe (which will be critical information when developing a community evacuation plan for example)

Disability-inclusive approach

It is recommended to produce one hazard map in collaboration with people with disabilities before the full village hazard map is developed. This allows people with disabilities to identify, in advance, the information specific to their reality before integrating this information into the village map.

EVCA facilitators should invite all people with disabilities who can participate to do so. For people with serious mental, intellectual or physical impairment and children with disabilities, it is recommended to invite their family members to join[2].

Through the risk and hazard mapping, people with disabilities and their family members can identify the following information:

(i) risks for people with disabilities which may be not be perceived as risks to people without disabilities;
(ii) capacities and needs of people with disabilities;
(iii) households of people with disabilities who require early warning assistance;
(iv) early evacuation assistance and evacuation routes which are accessible to them;
(v) support provided from within the community – where is it available and who provides this

Mapping is a visual exercise so support should be identified for people with visual impairments in the community to ensure their participation. This could involve having an extra facilitator who speaks the local language to talk through the map. Or using more sensory ways of recording feedback rather than only drawing e.g. the main outline of the village map could also be raised on paper / on the ground so the individual can sense where they are on the map.

Climate change adaptation[3]

[2] For further/step-by-step guidance on disability-inclusive VCAs refer to the manual on 'Disability Inclusive Community-Based Disaster Risk Management' developed by Malteser International and endorsed by the Disability-inclusive DRR network (DiDRRN) in December 2013. http://www.didrrn.net/main/front/files/EN_TL_Disaster_Risk_Management_2page.pdf

[3] Red Cross Red Crescent Climate Centre. How can climate change be considered in Vulnerability and Capacity Assessments? 2012.

While developing the maps, ask people to describe not only the current situation but also how it may be changing. Ask for specific measurements (i.e. what level hazards such as floods come to and at what time of the year? Have these changed over time?).

Try to ensure that the map includes features of major environmental changes such as deforested zones, flood plains, erosion etc. It will be necessary to assess whether changes you are observing are related to climate change versus which may be related to other factors such as deforestation, over-extraction of groundwater etc. In addition, some environmental changes may exacerbate the risks associated with more extreme weather events (for example, increasingly heavy rain (with climate change) on a mountain slope increases risk of landslides, but it is even more of an extreme risk if the slope is also deforested). Simple examples of what to look for include:

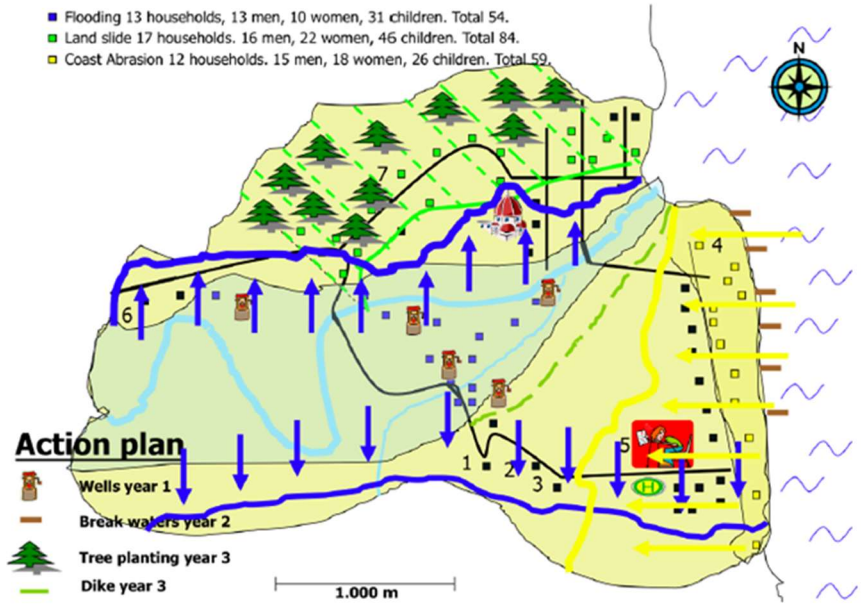
- deforested slopes (locally): increasing risk of landslide
- deforested slopes (upstream): increasing risk of flash flood downstream
- encroached wetland: increasing risk of flooding.

To aid discussion of this, you might find it useful to create a map from a local watershed (runoff area) perspective rather than just within the immediate community. See Annex 4 for further guidance on this analysis.

In an urban context, flood risks may also be caused or exacerbated by developments on the natural waterways, weaknesses in the city's water, sewerage, rain and waste collection systems. In the informal settlement areas, the lack of these infrastructure is often the main root cause of flood risks. When doing an EVCA in an urban context, the upstream and downstream neighborhoods, industrial facilities and their waste treatment systems should be also be taken into account.

Based on the information you gathered when planning the EVCA, you could use a baseline map to indicate places where changes are likely to take place in the future e.g. higher sea levels. This would indicate which locations are most vulnerable. (See example map from Indonesian Red Cross below).

Annex 3. Risk map highlighting changing risk. Indonesian Red Cross, PMI



RCCC How can climate change be considered in Vulnerability and Capacity Assessments? 2012. p 13.

Tips!

- Visit the mapped area with local people to verify the information (on a transect walk, for example).
- Contrast community inputs with scientific data on land use and the status of ecosystems (and again to validate observations).
- When conducting an EVCA in an urban context, gather secondary information about the climate ahead of time since many of the people in the community might be newcomers to the city and may not possess the historical knowledge.

For more resources on how to incorporate climate change considerations into this tool, see:

- 3CA toolkit developed by CADRIM (page 85-93), which has good recommendations for tool adaptations for climate change and using GIS and GPS for mapping

When analysing the map, ensure that the specific needs, identified risks and solutions from male and female participants and those from different groups that were consulted remain identified as such and not aggregated after data collection.

Livelihoods

At community level

See Livelihood toolkit: Identify livelihood zones

Locate the main elements related to livelihoods for the community, resources and services such as different shops/market, schools, health centres, roads and accesses, housing (types), leisure areas, flora and cultivation types, public buildings, livelihoods infrastructures and irrigation systems. Consider also natural resources, financial services and productive associations/cooperatives. Have a look to the livelihoods assets pentagon to know more about that.

Make sure you will represent these 3 elements:

- Use of the land: areas dedicated to human settling, community warehouses, cultivation (agriculture land and fishing land), commerce, industry and military.
- Economic activities: formal and informal markets and trade routes, small business areas, medium – large industry (if any).
- Social organization: active cooperatives and its location, any other traders or agriculture associations, trade unions, etc.

In urban areas, include public services areas such as health and education, open public spaces, banking, tourism, and professional networks (such as chambers of commerce or engineers) as well as public transportation routes such as metro and buses.

Step 1: Discuss (or do a transect walk) to identify livelihoods assets and activities.

Step 2: Draw the community map, or use an existing one, and represent the elements you've identified as livelihoods assets and activities and where they are placed.

Step 3: Mark the location of the threats and risk areas for the community.

Step 4: Analyze the results: what livelihood assets and activities are threatened where and by which hazards?

At household level

Step 1: Identify household/family assets related to livelihoods next to the houses or where they are placed. Look at threats and risks that might influence these elements.

Step 2: Identify gender access / use of livelihoods assets, and gender roles in livelihoods activities.

Tips:

- ✓ Use a code/symbol to represent each type of element
- ✓ Use as reference existing secondary data sources such as maps, economic reports, etc
- ✓ Use GIS and related tools if possible to ensure accurate information collection

- ✓ Describe accurately access and transport routes to ensure adequate analysis

Health

Information from mapping and transect walks should complement each other and both tools be used in the beginning of the process. Besides physical features of the community and infrastructure (water sources, schools, roads etc), ask men, women, elderly and youth (depending on the context) to map:

Health hazards/risks and vulnerabilities - for example;

- Poor sanitation facilities and garbage dump sites
- Poor housing/shelter with people living close together
- Dangerous roads with high frequency of accidents
- Neighborhoods or areas with high crime rates (social violence, GBV)
- Neighborhoods with previous disease outbreaks or epidemics
- If Non-Communicable Diseases are included, fast food outlets and selling points for tobacco

Health capacity/resource mapping for health - for example;

- Health infrastructure and facilities
- Social care facilities, old people's homes, schools etc.
- NGOs/volunteer organisations working on health
- Sites/places where information on health is communicated (churches, cinemas, associations)
- If Non-Communicable Diseases are included, parks, playgrounds, sports facilities etc.