



Activity: Mapping Community Vulnerability and Capacity

Purpose: Exploring the physical environment of the local community and critically examining vulnerability and risk-related community information; also, developing insights into community capacity to mitigate disaster.

Age level: 14-18

Time needed: 100-130 minutes (30-40 minutes for *Stage 1*; 40-50 minutes for community transect walk, *Stage 2*; 30-40 minutes for *Stage 3*). *Note: the activity is best spread over three or four different class sessions.*

Resources:

- ✓ Flip chart paper and different colored markers for each group of 4 or 5 pupils (for both *Stage 1* and *Stage 3*)
- ✓ A copy of the *Community Investigation Sheet* per group (for *Stage 2*)

Procedure

Stage 1

Students form groups of four or five. Each group is given a sheet of flip chart paper and different colored markers. The teacher explains to the students that they are to draw a community hazard vulnerability map. Their first task is to include: (1) geographical information, e.g. rivers, ponds, mountains/hills, woods, beaches, crop fields; (2) key buildings and infrastructures, e.g. bridges, schools, hospitals/ health centers, roads, religious buildings, water facilities, shops, houses; and (3) the four compass directions (north, south, west, east).

Once groups have finished their map, they are asked to discuss and mark on their map the areas where, to their knowledge, natural hazards (e.g. earthquakes, flooding, hurricanes, droughts, etc.) have caused damage in the past or might in the future. They should also mark features they know of that have been put in place to build capacity in the face of hazard.



Each group is invited to present their map and share the vulnerabilities they have identified. Constructive feedback from other groups is encouraged. Whole class discussion follows.

Stage 2

The teacher explains to groups that they are to each walk different transects through the area represented on their maps in order to learn more about local vulnerability to hazard, and things that have been done and not done to address hazard. Students are to remain in the same groups as for *Stage 1*.

Each group is given a copy of the *Community Investigation Sheet*. The teacher makes sure that students are clear about what they will be looking for during the community walk by asking and inviting questions.

Students groups join professionals and adult community members for the community walk, discussing items on the *Investigation Sheet* questions as they go around.

Stage 3

Back in class, the teacher asks groups to add new information gathered during the community walk to the map they created during *Stage 1*.

Each group presents the new information they have added to their map. The class is encouraged to raise further questions to which they would still like answers, the teacher keeping a record.

Extension

Additional, previously un-walked transects can be arranged and undertaken. Groups are also encouraged to engage adults in discussion of underlying causes of vulnerability, and what has been done and still should be done to mitigate natural hazard impacts on the community. Each group presents and reports on what it has learnt in class (and subsequently, perhaps, to the whole school).

Potential/Facilitation Guidance

Recommended adults for participation in the transect walks include local scientists (e.g. academics, officers from meteorological stations, agricultural, forestry and marine



scientists), local government officers, environmental officers, members of environmental, development and sustainability NGOs, community leaders, youth leaders, religious leaders, emergency workers, health workers, older people, farmers, fishermen, women's groups, members of indigenous groups, members of ethnic minority groups. It is vital to the success of the activity that adult participation in transect walks is pre-arranged in good time.

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Handout: Community Investigation Sheet

- What are the land and road conditions like in the area (e.g. dry, muddy, slippery, low-lying, flat, steep, clean, messy, safe, dangerous, crowded and overpopulated, treed, treeless)?
- How close is the area to large bodies of water and what are the implications for safety? What is the ground level of the area? How high above sea level is the area?
- Has the area been visited by any natural hazard or disaster before? If so, what happened? What did the area look like afterwards? What effects were there on people, communities and the environment?
- What has so far been done in the area to adapt and protect the community against natural hazard and to mitigate the effects of any hazard?
- What would the likely effect be of a specific natural hazard (such as a hurricane, tornado, earthquake, landslides, floods, wild fires, drought) happening in the future? Where are the vulnerable points in the locality? What would be the likely damage and problems arising from the onset of specific hazards?
- Where would be the nearest safe places in the event of specific natural hazards? How best would people get there in an emergency? Are hazard escape routes in place, clearly marked and known?
- What still needs to be done in the locality to build resilience to possible hazard? What are existing opportunities for child and youth participation in such initiatives?