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<td>項目</td>
<td>教育啓蒙への利活用を考慮した防災技術情報アーカイブシステムの開発</td>
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<tr>
<td>作成者</td>
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京都大学
### A Workshop Plan to Develop Disaster Mitigation Awareness in Community-level

<table>
<thead>
<tr>
<th>Proposer Information</th>
<th>Takako Sasaki</th>
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<tbody>
<tr>
<td></td>
<td>Rural Planning Laboratory</td>
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<td>Division of Environmental Science &amp; Technology</td>
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<td>Graduate School of Agriculture</td>
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<tr>
<th><strong>Aims of Education/training</strong></th>
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<th><strong>Direct user</strong></th>
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<tr>
<td></td>
<td>Education/training</td>
<td>NGO/NPO staff, Community leaders</td>
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<tr>
<td></td>
<td><strong>Trainee/Indirect User</strong></td>
<td>Students (Elementray school, Junior high school, High school, College/University, Graduate school or higher), Organization staff/Officer, Local regidents, Citizen</td>
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<tr>
<th><strong>Focus of this Information</strong></th>
<th>Process Technology (PT)</th>
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<tr>
<td><strong>Hazards</strong></td>
<td>Earthquake</td>
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<tr>
<td><strong>Type of Education/training</strong></td>
<td>Lecture, Experiment, Group discussion, Field trip</td>
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<td><strong>Media/Material</strong></td>
<td>Articles</td>
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<td><strong>References</strong></td>
<td>DRH19, 22, 28, 48, 49, 53, 61, 63</td>
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<td>1-2-3 of Disaster Education</td>
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A Workshop Plan to Develop Mitigation Awareness at the Community Level

Objections: To develop awareness of disaster mitigation through making a hazard map
Project: A workshop for 3 days (lecture and field trip)

1. Background

(1) References: DRH 19, 22, 28, 48, 49, 53, 61, 63
Before planning, I referred to the above DRH technologies and studied how the proposers made projects fit the community. Actually, their visions have a lot in common although the hazards were different according to the proposers, as shown below.

i ) Why community level? --- Bottom up approach; empowerment; cost-effectiveness
   Unit of family/neighborhood

ii ) What can a community do? --- Raise/enhance/improve awareness,
   Strengthen people’s capability to deal with events

iii ) Who are the targets? --- Community leaders (voluntary base)
   Administrative bodies; specialists (e.g., NGO, university, etc.)

iv ) How do they join? --- Attractive events; demonstration
In short, the point is the community capacity building “of the residents, by the residents, for the residents” and this is just same as the concept of participatory community development (PCD).

(2) Participatory Community Development
Even though the government improves systems and specialists develop technologies, it is difficult to efficiently involve a community if residents do not have a sense of disaster mitigation. Therefore, the priority of disaster mitigation at the community level would be that residents are aware of community disaster mitigation and the role of the government. Here the role of specialists is basically to empower them. In addition, it would be much effective if the project is conducted in the context of PCD, because PCD is a chance for residents to realize the current state of the community and to develop the ability to solve the community’s problems.
The PCD process is roughly illustrated by the following:

![Diagram showing the PCD process]
The project presumes the process and aims to develop residents’ awareness in the early stage of the process, as shown at the left.
2. Contents

The duration of the workshop: 3 days
The purpose: Making a hazard map
The host: Any local organization, but NGO/NPO involved with community development is desirable
Eligible participants: Any residents who are interested in the workshop and may include children and the elderly
Plan: The 1st day Knowing the community: Questionnaire and Discussion
   The 2nd day Observing the community: Excursion and Making a map
   The 3rd day Practicing and Checking the output: Evacuation drill with the map and Enhancing the map

3. The Procedure

Note for staff ① --- Advance preparation*1
Required duties*2: A general manager, Facilitators, Assistants
The necessary number of people: 5-6 at least
Necessary tools: 1 Projector, 1 Whiteboard (including pens and magnets), 1 paper in A1 size,
Pieces of paper in A3 or B4 size, Post-it stickers, Felt tip pens, Name plates etc.
Preparation:
   i) Learning about the workshop process and understanding duties under specialists’ guidance, if possible.
      ► Facilitators’ role is very important to effectively advance the process, because they are supposed to extract participants’ opinions during the discussion. They should realize that they are not leaders but facilitators.
   ii) Making a blank map of A1 size and taking some photocopies in A3 or B4 size
   iii) Collecting historical materials about a disaster which the community experienced
   iv) Finding residents who experienced the disaster in the community and asking a speech about his/her experience
   v) Taking a pre-excursion and collecting information about the community’s topography and current conditions.
*1 Getting any subsidy in advance is desirable
*2 If the organization has never experienced this style of workshop before, involving 1 or 2 specialists as staff is desirable
Note for staff

--- Managing the first program

In this program, staff lead the meeting and let participants speak frankly.

Staff summarize them and report to participants at the end of each step. Then before closing the program, summarize all steps’ results in order for the participants to learn the community’s conditions and issues related to disasters as an outcome of the program.

--- Questionnaire A

--- How much do we know about hazard and risks? → Imagination level
What kinds of disasters do you think can happen here?
Do you know what would happen if a disaster will occur?
Do you know if ○○○○(hazard name) had happened here previously?

--- Learning

--- What actually happened? → Realization level
Using historical materials: Photographs, Videos, Reports, Newspapers, etc.
Listening to the voice of experience*2

--- Questionnaire B → Consideration level

--- Do we know who the residents are and what our living place looks like?
How can you do to reduce damage?

In each step, the participants should write down feelings and opinions on Post-it stickers one by one and the staff will collect and categorize the pieces of Post-it stickers and put them one after the other on the whiteboard.

--- Questionnaire A

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Do you know what would happen if a disaster will occur?
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--- Learning

--- What actually happened? → Realization level
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Listening to the voice of experience*2

--- Questionnaire B → Consideration level

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In each step, the participants should write down feelings and opinions on Post-it stickers one by one and the staff will collect and categorize the pieces of Post-it stickers and put them one after the other on the whiteboard.
(2) The 2nd day: Excursion in the community

i）Excursion
Participants are divided into groups and go out with blank maps and they fill in anything they find on the maps, such as their houses, vulnerable residents’ houses, or dangerous spots when evacuating. They can take photos if they need to.

ii）Discussion and making a hazard map
After the excursion, each group shows the maps and make a presentation to the others, and then they integrate the maps and make a hazard map through group discussion and with the facilitators’ guidance. At the end, they experience to draw evacuation routes.

Note for staff ③ --- Managing the second program
► First of all, staff divide participants into groups according to age or sex in order to collect various perspectives.
► Facilitators are very important throughout this program. A facilitator goes with one group and he or she has to look after his or her group and guides the group members so that participants do not miss anything important. Also in the discussion after the excursion, facilitators have to steer the groups’ opinions. They should not lead each group based on his/her own judgment but allow the groups to come up with their own realizations.
► Staff take some reduced photocopies of the hazard map for the next day’s excursion.
(3) The 3rd day: Excursion again to examine the hazard map

i ) Excursion
This is a kind of evacuation drill to enhance the hazard map. Participants, who are divided into groups, go out with the hazard map and walk according to the evacuation routes they drew. During the excursion, they fill in the maps with anything they notice along the evacuation routes.

ii ) Discussion and Enhancing the Hazard map
The procedure is the same as on the previous day. After the excursion, each group shows the maps and make a presentation to the others and then they integrate the maps and enhance the hazard map based on the discussion and with the facilitators’ guidance.

At the end, participants exchange their feelings on and opinions about the programs. Staff write them down on the whiteboard and summarize and report them when closing the program.

Note for staff ④ --- Managing the third program

► First of all, staff divide participants into groups with different categories from the previous day in order to improve the map using a different perspective.
► Facilitators are very important throughout this program, as in the previous day.
4. A Secret for the Sustainability of the Disaster Mitigation Activity

One of the issues of this kind of activity is how the host organization can make activities sustainable. A secret for the sustainability could be by being frugal and simple. Regarding this workshop plan, for example, the organization can divide these programs into weekly, monthly, or annual according to the community’s conditions. It will be OK because participants should improve their awareness of disaster mitigation to a certain extent in each program. Besides, if residents can review and enhance the map once a year, it would be a chance to consider the community and to hold an evacuation drill, as long as the organization can continue to hold activities.

5. Limitations

There are two issues. The first is to make activities sustainable as mentioned above. Currently, it is said that word-of-mouth is the best way to spread information. The second is that the organization cannot always get subsidy. However, they can do something even if they lack budget as long as they have a clear goal and resolve, because one of the advantages of this proposal is its being cost effective. Currently, it is said that word-of-mouth is the best way to spread information. The second is that the organization cannot always get subsidy. However, they can do something even if they lack budget as long as they have a clear goal and resolve, because one of the advantages of this proposal is its being cost effective.

6. An Example: A Plan for an Agricultural Village in Taiwan

The following is an example and yellow balloons show how to apply the above procedure in this particular case.

(1) Hazard: Earthquake
(2) Location: B village in southern Taiwan
   The number of households 117  Population 892
(3) The community’s issue: Aging
   Its aging ratio of 24% is higher than in neighboring villages.
(4) The host organization: B village community development association, which is the PCD body provided by law
   This has an advantage of getting subsidy from the Government

Occasional Lecture on Health for the Elderly  CDA center  (Photos by Sasaki)
(5) Background: The community experienced a great earthquake in 1964. The earthquake caused serious damage all over B village. Of course the community was completely reconstructed and they seem to already forget the disaster. So a former head of CDA recognizes the necessity for an activity to raise residents’ awareness of disaster mitigation because Taiwan is a land prone to earthquakes, like Japan.


(6) Plan

<table>
<thead>
<tr>
<th>Time</th>
<th>1st day</th>
<th>2nd day</th>
<th>3rd day</th>
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<tbody>
<tr>
<td>10:00 – 12:00</td>
<td>Introduction</td>
<td>Excursion in B village</td>
<td>Reporting</td>
</tr>
<tr>
<td>12:00 -</td>
<td>Lunch</td>
<td>Making a map</td>
<td>Evacuation drill with the map to examine its quality</td>
</tr>
<tr>
<td>10:00 – 11:00</td>
<td>Excursion in B village</td>
<td>Lunch</td>
<td>Reporting</td>
</tr>
<tr>
<td>11:00 – 12:00</td>
<td>Making a map</td>
<td>Reporting</td>
<td>Evacuation drill with the map to examine its quality</td>
</tr>
<tr>
<td>12:00 – 13:00</td>
<td>Lunch</td>
<td>Evacuation drill with the map to examine its quality</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:00 – 14:00</td>
<td>Reporting</td>
<td>Enhancing the map</td>
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</tr>
<tr>
<td>10:00 – 11:00</td>
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<tr>
<td>11:00 – 12:00</td>
<td>Evacuation drill with the map to examine its quality</td>
<td>Enhancing the map</td>
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</tr>
<tr>
<td>12:00 –</td>
<td>Lunch</td>
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This is the original feature in this community
Half a day work can help reduce the emotional burden to the residents
A concept related to the elderly should be included. e.g.) What can we do for the elderly when an earthquake occurs? In how many houses do elderly persons live alone? Where are the elderly’s houses?
To include meals in the program is attractive to residents. Moreover, this is a really helpful form of icebreaker for the participants.

Staff can arrange the schedule into weekly, monthly, and annual so as to fit the village’s