Chapter 3
What is DMAM (Disaster Management Audio Materials) for Community Radio Broadcasting ?

Disaster Management Audio Materials CD-ROM (DMAM)

Disaster Management Audio Materials for Community Radio Broadcasting CD-ROM (DMAM) contains audio materials in **9 languages** which can be broadcasted easily and speedily on local community radio stations in developing countries when natural disasters such as earthquakes and tsunami occur.

The DMAM was created by **the Disaster Reduction Learning Center (DRLC)** which was jointly established by **JICA** (Japan International Cooperation Agency) and **Hyogo Prefectural Government.** It was developed to be used as an educational material for JICA Learning Programs. And at the same time, through **the AMARC (World Association of Community Radio Broadcasters)** network with over 5,000 member stations worldwide, this tool will help community radio stations and local communities to strengthen their disaster preparedness, providing them with easy access to disaster management audio materials.

The background

In the Asia-Pacific region where there are many disasters such as earthquakes and tsunami, great expectations have been placed on community radio as a powerful tool to foster rescue and rehabilitation activities. The view of "Developing Community Radio for Disaster Management" is prioritized in AMARC Asia-Pacific Action Plan (2007~2010) with the aim of developing its disaster management capacity through development of media contents as well as related training.

The most advanced illustration of this was in **the Great Hanshin-Awaji Earthquake in 1995, and the Sumatra Earthquake and Indian Ocean Tsunami in 2004**. In November 2006 at the workshop "Community Radio and Disaster and Recovery" at the 9th AMARC World Conference, the important role of community radio stations played in these tremendous disasters was reported. This provided the first opportunity to share experiences. The next step was to fulfill the need for development of training and contents based on their experiences. This tool is the answer to that need.

The contents

This tool contains, on a single CD-ROM, **193 audio and text messages in 9 languages (English, Chinese, Thai, Tagalog, Indonesian, Vietnamese, Portuguese, Spanish, Russian)** for broadcasting on community radio stations when **4 types of disasters** (earthquakes, tsunami, landslides and floods) occur.
It offers you easy operation: simply insert the CD-ROM in a computer and start the Web browser. Community radio stations can easily provide disaster related information to their listeners and local communities.

Operating Instructions

(1) After the computer reads the CD, the Top Page will appear. Select a language.

(2) Select one of the following 6 disaster categories; Earthquake Information, Tsunami Information, Landslide Information, Flood Information, Disaster Reduction, Others.

(3) A list of disaster information classified by type will appear. After selecting one of these, the audio material download page (window) will appear.
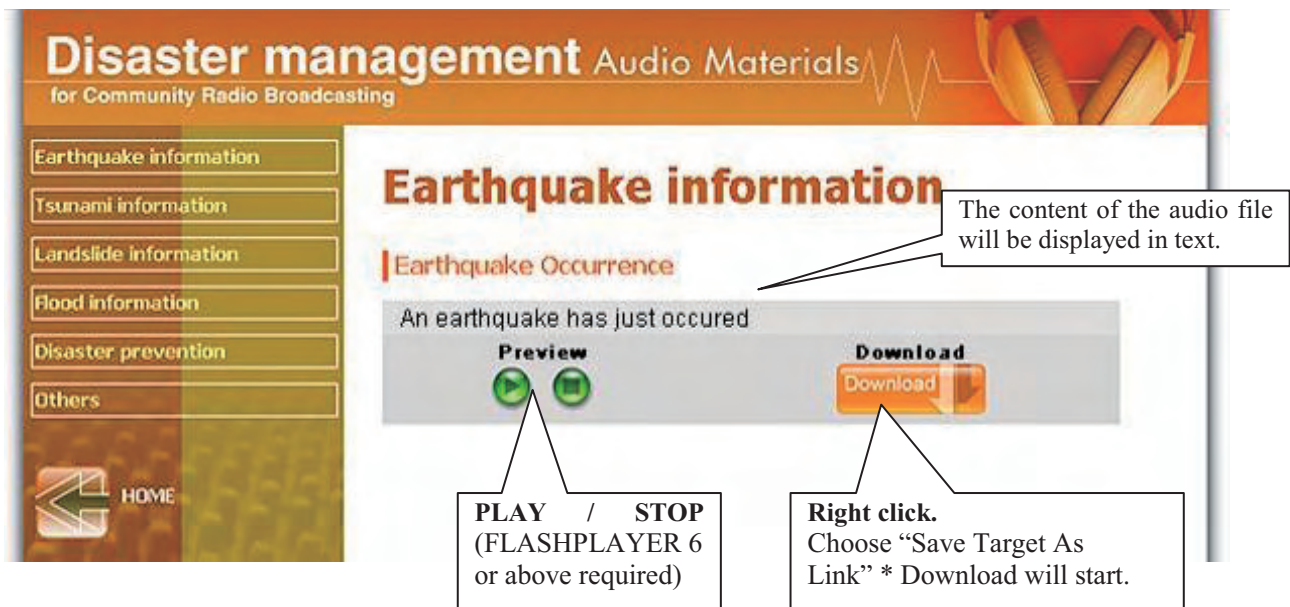
<the Top Page> *select a language*   **<the list of disaster information >**

(4) Below is the page (window) from which the audio files (MP3 files) can be downloaded.

The content of the audio file will be displayed in text.

PLAY / STOP
(FLASHPLAYER 6 or above required)

Right click.
Choose "Save Target As Link" * Download will start.

*File name for each language

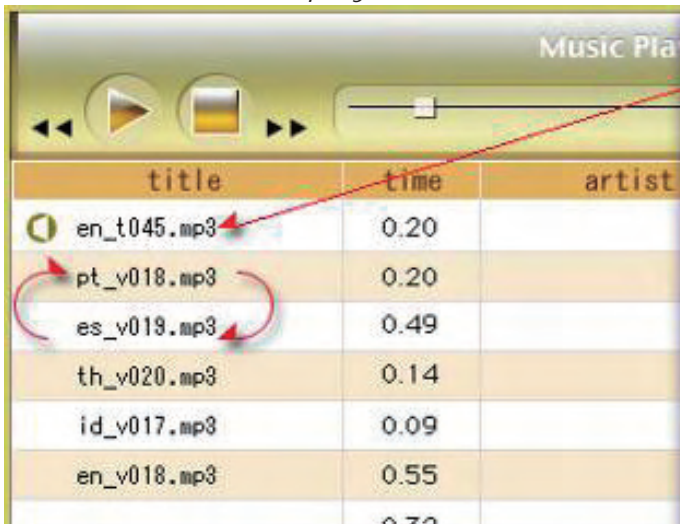|			
English	en_***.mp3	Vietnamese	vn_***.mp3
Chinese	cn_***.mp3	Spanish	es_***.mp3
Tagalog	tg_***.mp3	Russian	ru_***.mp3
Thai	th_***.mp3 Portu-	Indonesian	id_***.mp3
guese	pt_***.mp3		

Application of the materials

Messages can be edited to create an original audio package for broadcasting in times of disasters. Refer to **the text message list** of the audio materials and select or rearrange the needed items with audio editing software or a player (ex. iTunes, Windows Media Player). It is recommended to prepare the audio content package to suit individual need in advance. Through this process your radio station will be prepared and enlightened to put the disaster management concept into practice.

downloaded

Audiosoft player   the text message list

DMAM can be also used **for disaster reduction activities in everyday life**.
For example, the materials can be arranged to create disaster reduction games and activities in your communities.

Examples for application of DMAM in normal times
Basic application

DMAM is not only for community radio activity use. The audio materials can be used by regional resources, such as people involved in disaster risk reduction, the community, NGOs, schools, etc., as well as in workshops and disaster reduction education.

The audio materials are just that, materials. Because they are materials they can be used freely and creatively. They can also be altered in many ways to suit the culture and customs of each country and region.

Below is an example of basic application of DMAM together with examples of development application.

Start up the DMAM CD-ROM and using the Text as a guide, choose a *language* and (*disaster*) *information* category to combine audio materials suited to your needs. Besides those chosen, discuss what kind of information your own region (community) needs and create new original audio materials.

Comment: Through this process, with the community, you will be able to rethink *disasters*, *required information in times of disaster* and *disaster reduction knowledge*. By carrying out this process *together*, solidarity will grow among the people in the community. The process of people getting together and actively exchanging opinions itself becomes a strong *community disaster reduction force*.

If necessary

Change the materials to your local language or dialect.

Comment: Translating the materials into the local language or dialect can help promote DMAM and disaster reduction awareness in the community.

Create text and audio materials for disasters, such as a *volcanic eruption* or *snow avalanche*, which are not included in the DMAM.

Comment: The DMAM contains a limited number of disasters. The materials can be used as a sample plan for the creation of original audio materials suited to the needs of the region. The workshop model on Chapter 2 (page15) can be used to help identify types of disasters in your region.

On the following pages, you can see how audio materials created for the community through basic application can be developed.

Examples for application of DMAM in normal times
Development application
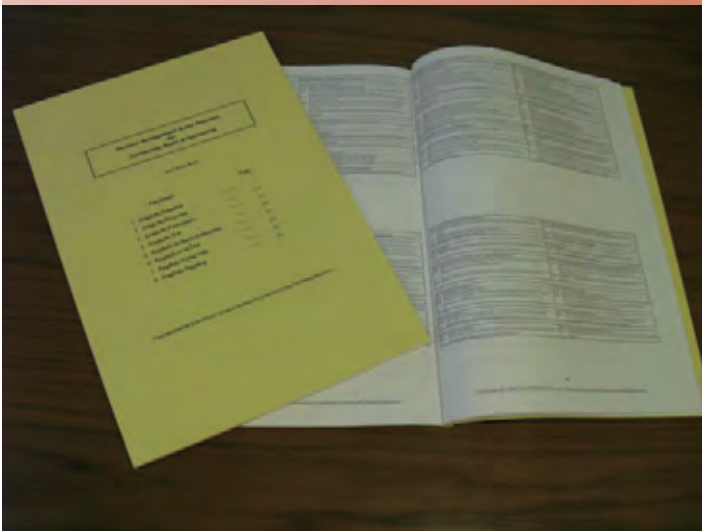
Disaster reduction education application

Using the audio materials compiled from the basic application, disaster reduction quizzes and board games can be created and used in schools.

Comment: Using the information in the materials, true(O)/false(X) quizzes and board games simulating action to be taken when a disaster occurs can be created to encourage children to learn about disaster reduction in a fun way. It is also very effective for children to form groups to create quizzes and compete among themselves. It is important that children do not become *passive*; they should be *actively* involved at all times. With some creativity, audio materials can be used in many new ways.

Community disaster reduction application

Using the audio materials compiled from the basic activities, plans can be formed for disaster reduction drills such as community evacuation and information circulation drills, etc.

Comment: Using the materials compiled from the basic application, plans can be created for evacuation drills and information circulation drills which include various sectors (government [local], local community, etc.) When doing this, it should be decided which sector should pass on which *information* and *to whom* when a disaster occurs. This should be followed by evacuation drills for the whole community using the audio materials.

Local media (community radio, cable television, etc.) application

Using the materials contained in the audio materials as a base, create disaster reduction promotion programs taking into consideration the culture, customs and environment of the country and region.

Comment: The audio materials are just that, materials. They can be used to create dialogs for dramas, lyrics for songs, etc. or for other mediums which are readily and easily accepted by local people to promote disaster reduction. In Indonesia, local people used the DMAM for inspiration to create comical skits, poetry for recitation, etc. Examples of this can be seen in Chapter 4. Please see page 46.

Conducting such activities in normal times contributes to community response in times of disaster.
Keep the following 2 points in mind when applying DMAM

> 1. Apply DMAM in normal times assuming real disaster situations
>   (disaster reduction drills, evacuation drills, etc.)
> 2. Apply DMAM in normal times to promote disaster reduction awareness
>   (disaster reduction education, application by media, etc.)

Chapter 4
How to Utilize DMAM for Community Based Disaster Management
~Let's learn from the experience of Indonesia~

How to Utilize DMAM for Community Based Disaster Management
～*Let's learn from the experience of Indonesia*～

JICA Hyogo/DRLC, AMARC JAPAN Working Group and Combine Resource Institution (CRI) organized two workshops on community based disaster management utilizing community radio (CR) in Central Java, Indonesia. One workshop was held on the 2nd and 3rd of August in Timbulharjo Village, Bantul, Yogyakarta. The village was hit by a big earthquake in May 2006 in which 300 people in the village died. Another workshop was held on the 4th and 5th of August, 2009 in Sidorejo Village, Klaten, Central Java, which is located on the famous volcanic mountain 'Merapi' and always faces the risk of volcanic eruption and landslides. The community radio station, '**Angkringan Community Radio**' in Timbulharjo Village and '**Lintas Merapi FM Community Radio**' in Sidorejo Village, operate in each area. More than 40 participants from local community radio stations, other community radio stations in Indonesia, national /local governments, NGOs, JICA Indonesia and the mass media attended the workshop.

Objective

The workshop was one part of a pilot project to promote and raise community awareness of Disaster Risk Reduction utilizing community radio carried out by JICA Hyogo/DRLC, AMARC Japan Working Group and CRI from June 2009 to January 2010. The aims of the project were as follows:

1. **Developing the disaster management ability of the community.**

2. **Developing the disaster management ability of community radio activists through on-air and off-air activities.**

3. **Evaluation of Disaster Management Audio Materials for Community Radio Broadcasting (DMAM) produced by JICA Hyogo/DRLC and AMARC Japan Working Group, and receive input regarding its contents, wrapping and delivery.**

4. **Developing local audio materials/programs for disaster alert and disaster risk reduction to be broadcast in local community areas.**

Activities

In the community workshop which was held in August, participants shared results from the workshop session on mapping potential community vulnerabilities, and then produced their own audio programs on disaster risk reduction by tailoring DMAM materials to suit their own communities. The programs tried various techniques such as incorporating traditional music, comedy sketches, etc. to attract listeners in the community. The workshop provided an important opportunity to community radio activists to discuss the roles of community radio in raising community awareness of disaster risk reduction together with community members, and not confine disaster management activities to radio broadcasting, but expand them to off-air activities such as holding disaster memorial events, sponsoring a song contest with the theme of disaster, etc.

After finishing the workshop, the participants from community radio stations continued to produced new audio programs to raise community awareness of disaster risk reduction. CRI and the community radio stations are measuring the impact of broadcasting these programs in the community. In addition, they implemented off-air activities such as sponsoring a traditional singing contest with a disaster early-warning system that could be incorporated into their community radio's program content.

The following several activities were promoted to achieve the aims in Indonesia and Japan until March 2010.

1. **Community Workshop (August 2009), including Pre Workshop (July 2009)**
2. **The implementation of a Community Radio Program for disaster alert and disaster risk reduction (from August, 2009 to December, 2009)**
3. **The implementation of off-air activities conducted by community radio activists and community members (from August 2009 to December 2009)**
4. **The publication of a handbook on how to utilize DMAM in community based disaster management (from October 2009 to March 2010)**

The AMARC Japan Working Group introduced an audio product as a step to reduce the risk of disaster at the Asia Pacific community radio meeting in Yogyakarta on 17-20 October 2008. The product was named Disaster Management Audio Material (DMAM). The application of DMAM has been carried out by some community radios in Indonesia even though they do not specifically call it DMAM. To follow up on the meeting, JICA Hyogo/DRLC, AMARC Japan Working Group and Combine Resource Institution (CRI) made an effort to support the real application of the original version of DMAM. It covers:

- Information for Earthquakes
- Information for Tsunami
- Information for Landslides
- Information for Floods
- Prevention of Disasters
- Others, such as how to deal with rumors, sympathy and support, safety, and news on radio.

Agenda of DMAM Workshop (held in Indonesia)
implemented by Community Radio Angkringan and Community Radio Lintas Merapi

Workshop participants discussed mapping the degree and scope of community vulnerabilities. With the participation of community representatives and the activists of community radios, this workshop provided feedback regarding the DMAM audio materials.

The feedback from the workshop participants regarding the DMAM audio materials became the basis for discussion on how to modify the audio materials in order to match each community's needs.

Materials	Method
Mapping the potentials of disaster threats: 1. Mapping potential natural disaster threats 2. Mapping potential non-natural disaster threats 3. Mapping potential social disaster threats	Focus Group Discussion (FGD). The participants are divided into three groups. Each group is required to make a map of the area on plain paper for their own group. Each group will then have one issue to deal with. By using the map already drawn, each element of the issue is written on a meta card to attach to the map to present later in front of the plenary session.
Mapping the potential resources of the community: 1. Natural resources 2. Infrastructure 3. Information and communication systems 4. Transportation system 5. Energy resources 6. Human resources	Focus Group Discussion (FGD). The participants are divided into three groups, each of which will have two issues to discuss. The discussion will still be assisted by the area map. The elements of the issues discussed are then written on the meta cards to attach to the map to present later.
Analysis on the vulnerability toward disaster: 1. Analysis on the vulnerability of the community radio 2. Analysis on the vulnerability of the community	Focus Group Discussion (FGD). The participants are divided into two new groups, each of which will have one issue to discuss. The definition and criteria of the vulnerability are presented first by the facilitator. Next, each group will discuss the variables of the vulnerability mentioned and write them on the meta cards to present later in front of the plenary session.
Evaluation on the audio materials in DMAM	The participants are still grouped in two groups as earlier. Each group will listen again to the audio materials focusing on disaster produced by JICA Hyogo/DRLC and AMARC Japan Working Group. An evaluation will then be conducted by responding to the list of guiding questions asked by the facilitator to the participants. The list of the participants' responses will be mapped on the meta cards and discussed in groups and plenary session to formulate recommendations for the development of audio materials.

Materials	Method
On-air activity management 1. Production of the audio materials focusing on disaster relief 2. Broadcasting management of audio materials focusing on disaster relief	Through FGD, the community radio activists will be presented with the evaluation results and input for the audio materials produced by JICA Hyogo/DRLC and AMARC Japan Working Group. Community radio activists are expected to respond to these results by producing community versions of the broadcasting programs.
Off-air activity management 1. Planning field activities to support the broadcast of the audio materials focusing on disaster relief	In the second session, the discussion will be more about the off-air promotion strategies that can be done by community radio activists. Through FGD, it is expected to get ideas from activists that can be integrated into audio programming (on–air and off-air).

How to Utilize DMAM for Community Based Disaster Management

For the application of DMAM, two community radio stations in Indonesia were chosen; Angkringan Community Radio in Timbulharjo, Bantul Yogyakarta and Lintas Merapi Community Radio in Deles, Klaten, Central Java. Both of them are located in areas which were most seriously affected by two different disasters. Angkringan Community Radio is close to where an earthquake struck, while Lintas Merapi Community Radio had to deal with a volcano eruption.

In those two locations, DMAM produced by JICA Hyogo/DRLC and AMARC Japan Working Group was broadcast. At Angkringan Community Radio, the management combined some materials in DMAM which became items, such as;

About Angkringan Community Radio

On May 27, 2006 at 5:53:58 AM local time, an earthquake occurred in Yogyakarta and its surrounding areas. The epicenter of the earthquake was located on S 7,962° and E 110,458°, about 20 km SSW of Yogyakarta or 455 km ESE of Jakarta with a depth of 10 km. The magnitude of this earthquake was 6.3 on the Richter scale. With this quite strong earthquake which occurred inland, severe damage of houses, buildings, and other infrastructure in Yogyakarta, Bantul and the surrounding areas followed, and the disaster also took many lives.

Looking at the history of earthquakes in Yogyakarta, Yogyakarta has suffered from some destructive earthquakes. In 1867, a destructive earthquake also occurred claiming many lives and causing many injuries. It also caused severe damage to buildings and infrastructure over an extensive area. Another earthquake occurred in 1943 and claimed as many as 213 lives (31 of whom died in Yogyakarta), 2,800 houses were damaged, and the most damaged areas were Kebumen and Purworejo. An earthquake also shook Yogyakarta and surrounding areas in 1981, however, it did not result in any deaths or destruction.

According to a survey, in the earthquake that occurred on May 27, 2006, more than 6,000 people died, around 50,000 people were injured, 86,000 houses collapsed and approximately another 283,000 houses suffered damaged ranging from minor, moderate to severe. The most severe damage took place in Klaten, Piyungan, Imogiri and Bantul.

One of the community radio stations that was hit by the earthquake of May 27, 2006 was Angkringan Radio situated in Timbulharjo village, sub-district of Sewon, Bantul, 6 km from the epicenter (Sesar Opak) or 9.5 km from Yogyakarta downtown. The earthquake caused Angkringan Radio to have to broadcast its programs from a temporary studio in an evacuation camp (refugee shelter) in Kepek, Timbulharjo. The former studio in the Timbulharjo village meeting hall complex was badly damaged, and the station's antennae tower shook because its bolts had been pulled out of the ground. The equipment for broadcasting was also damaged. The mixer was shorted because it had fallen from shelves, and the computer needed reinstalling. The radio station which broadcasts on frequency 107.9 has already returned to its former studio which has been renovated.

About Lintas Merapi FM Community Radio

Merapi volcano is one of the most active volcanoes in the world and has a high potential for disaster including eruption, volcanic mudflow, drought, and tornadoes. This volcano is located in the northern part of Yogyakarta Province and most of the Central Java area. From 1006 until February 2001, this volcano erupted 82 times in volcano eruption cycles. They are classified into: short cycle (2-5 years), medium cycle (5-7 years) and long cycle (more than 30 years).

The intensive activity of Merapi brings threats to the people living on its slope. The dangers of its eruption consist of primary danger and secondary danger. Primary danger is direct danger to the residents when an eruption happens. For example, rock and materials thrown by the force of the eruption. Secondary dangers are indirectly experienced by the residents and usually occur after the eruption, such as lava flow, damage to plantation/farmland and houses. In other words, secondary danger is the side-effects of the primary danger. Based on the collected data, since the 15th century, every time Merapi erupts, it always takes lives, even though the number tends to decrease.

One of the community radio stations which operate on Merapi is Lintas Merapi. It is located in Deles, Klaten, Central Java. It lies 4.5 km on the southern part of the mountain, under the top of Merapi. The radio whose frequency is 107.9 Mhz is utilized by people as an information media for Merapi disasters. For example, it is the media that provides alerts on mudflows and information about Merapi volcanic activities. When Merapi is safe, it is used as a media for disaster reduction education using own their version of disaster reduction materials.

Angkringan Community Radio

Alerts in Earthquake Area:

> V054 Wear shoes or sandals at all times
> V055 Do not enter collapsed buildings
> V056 Do not stay in narrow alleys or beside a wall to avoid being injured by falling roof-tiles and collapsing walls.
> V057 Do not stay on mountain sides or riverbanks, where landslides easily happen.
> V059 Do not touch broken cables.
> V060 Protect your head with a helmet, hat, mattress, etc.

The compilation was then broadcast between 7-9 pm. Further, the management of Angkringan made a program soliciting input from listeners about DMAM. This was carried out by using survey questionnaires. As a result, listeners judged that DMAM materials were very important and relevant. However, they felt that the narrator spoke too fast and they hoped the local language would be used in the DMAM materials.

Lintas Merapi FM Community Radio

In contrast, on Lintas Merapi Community radio, DMAM did not have materials for volcano eruptions. The presentation of DMAM at Lintas Merapi gained a positive response. The DMAM by JICA Hyogo/DRLC and AMARC Japan Working Group was the inspiration to create a new DMAM Lintas Merapi version on volcano eruptions.
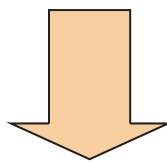
In general, the result of playing the original DMAM version provided some inspiration to both Angkringan and Lintas Merapi to reduce disaster risk. How, then, did they turn this inspiration into reality? In order to underatnt the application of DMAM by Angkringan and Lintas Merapi, we first have to know a little about both of them.

How to Utilize DMAM for Community Based Disaster Management
The Application of DMAM (in Community Workshop)

Following are the set of activities carried out by Angkringan and Lintas Merapi in order to create their own version of DMAM after they had tested the original DMAM. The activities were as follows:

Workshop
Materials which should be presented by community radio in the workshop:
The history and development of disaster threat potential.
A map of disaster-threatened locations and resources
A calendar of daily activities and schedules as a guide for both on-air and off-air programs
Audio materials on disaster management by JICA Hyogo/DRLC and AMARC Japan Working Group.

Angkringan Community Radio

The series on DMAM application continued. It was not merely a workshop resulting in a few important notes for the people of Timbulharjo, but also for Angkringan Community Radio activists. The workshop was an event for meeting as well as presenting the results of activities preceding the workshop to other parties including the village government, district government, academics, and community radio observers. In Timbulharjo, the workshop was carried out for two days. It was represented by Mr. Sarjiman as the head Angkringan community radio management. He described the results of pre-workshop activities to the people and guests. Documents presented included those on threat potential and resources mapping in Timbulharjo. In the workshop, some responses emerged regarding DMAM by JICA Hyogo/DRLC and AMARC Japan Working Group, such as the opinion that the narrator delivered the materials very quickly and in Bahasa which cannot be understood by all people. A recommendation for DMAM production for Timbulharjo was the use of the local language, Javanese. Moreover, the first day's discussion also resulted in a recommendation to use the local culture in delivering messages about disaster risk reduction. Specifically, it was suggested that *macapat* (Javanese song) be used as a medium for both conveying messages and preserving local culture.

Lintas Merapi FM Community Radio

It was time for the activists and the community to design activities involving more parties such as village government, district government and even the regency government. A rare event also happened at the workshop performed by Lintas Merapi community radio. It was attended by Prof. Ir. Sarwidi, of The Commission of National Disaster Prevention Division Director (BNPB) of Indonesia and a representative from the national media-TEMPO. At the workshop Prof. Sarwidi said that the existence of community radios in the efforts to reduce disaster risk was very important. Community radio has a role to play at each stage of disaster prevention, such as before the disaster, during the disaster, and after the disaster.
The event began with a report on pre-workshop activities and, the mapping of threat potential and village resources, which was followed by a discussion on the important role of the community radio in disaster. The regency government party noted the importance of the workshop. According to Prof. Sarwidi, pre-workshop activities and the findings became a kind of social fund for the people and Lintas Merapi community radio to take steps in reducing disaster risk.

How to Utilize DMAM for Community Based Disaster Management
Producing Localized Audio Program (in Community Workshop)

Audio Materials for Disaster Prevention with a local version were produced by individuals of community radio stations.

Angkringan Community Radio

Based on recommendations from the first day , Angkringan Community Radio activists together with the people made audio material scripts on disaster prevention for the Timbulharjo version. The discussion process was very interesting. Angkringan Community Radio activists, who were mostly young, blended well with the old people. They learned about each other in order to make the message understandable, and then developed new ideas such as comical skits and traditional poetry for recitation in a local language which have messages of disaster risk reduction. Having this step done, production continued with the presentation of the production results in the workshop forum. Assessments, input and positive criticism emerged. At the end of the workshop, a follow-up plan was arranged by the activists and the people on the application of DMAM for the Timbulharjo version. The resulting agreement was the creation of off-air activities in the form of a *macapat* (Javanese song) competition on the theme of disaster risk reduction, with special reference to earthquake disaster reduction, and playing the result of the Macapat Competition on Angkringan Community Radio in its on-air program.

Lintas Merapi FM Community Radio

On the second day of the workshop, Lintas Merapi Community Radio activists and the people made audio material scripts on the disaster prevention in a Merapi version. Lintas Merapi Community Radio became a unique place for the DMAM by JICA Hyogo/DRLC and AMARC Japan Working Group and because they contained no material suited to volcano eruptions. Having completed the script, the making of audio material for Merapi eruption prevention continued. The activists and people worked together to produce Merapi Volcano eruption audio materials such as comic chats and songs talking about early warnings. The results of the production were then presented in a forum to gain public responses. Various input emerged, such as unclear pronunciation, the background sound volume was higher than the narrator's voice, and the use of local dialects.

The last series of the workshop was the arrangement of follow-up action to produce audio material in for the Merapi version after consulting with the Institute of Volcano Technology Development and Research (BPPTK). It was also arranged to have a public program on the local community radio either on-air or off-air by the end of 2009.

The last agreement at the workshop was to continue DMAM dissemination and propagation at each radio station based on the two core activities (i.e. on air and off air.)

Angkringan Community Radio

Traditional Javanese poetry recitation contest

One of disaster risk reduction activities which were implemented by Angkringan Community Radio was the holding of a traditional Javanese poetry recitation contest. Poetry recitation is an integral part of everyday life of the village community, and so having a poetry recitation program on the radio was essential. Program content, including poems that would raise the village people's awareness on disaster risk reduction, was created in the DMAM workshop.

For the poetry recitation contest, a village poetry recitation teacher was invited to create a poem that contained the essence of disaster prevention. 40 men and women dressed in traditional Javanese costumes recited the poem. The contest to find who was best began. The participants, including those from the local village government office, numbered about 60 altogether. The event began at 9:30am and after a lunchtime break the awards presentation ceremony was held. The event finished at 4:00pm. Although the event was held in hot, humid weather, the village people were delighted to have the poetry recitation event revived after a lapse of 5 years. Having the essence of disaster prevention included in the village's culture of traditional poetry recitation will make sure it will be passed on through generations.

Angkringan Community Radio is constantly broadcasting the top 3 men and women's poems.

Program activities which were aired either live or recorded. The on-air programs played DMAM, performed a DMAM quiz and talk show which uncovered disaster materials. The steps of arranging this program were based on the findings of both pre-workshop and workshop activities.

Lintas Merapi FM Community Radio

Talk Show with BPPTK

Lintas Merapi Community Radio held an open discussion with the public on disaster potential in Deles, Kemalang Klaten featuring the Division of Volcano Technology Development and Research (BPPTK) and Social Department of Klaten Regency. Some questions emerged at the talk show, such as who was responsible for determining Merapi's status, and who was responsible for determining when the people should evacuate to a safe place. Furthermore, at the talk show there also emerged criticism towards the Merapi eruption response simulation. The talk show has become a bridge to connect the people and the agency that deals with Merapi volcano eruptions.

Quiz program

The quiz was carried out to measure the understanding of the people about the possibility of a Merapi eruption. Besides measuring their understanding, it was also feedback on the audio material made. The quiz presented questions such as, "What is EWS (Early Warning System) ?," "How far is the safe distance to avoid an eruption?," "What is BPPTK?," and various questions related to a Merapi eruption.

Playing DMAM in the Lintas Merapi version

To follow up on the workshop recommendation, Lintas Merapi Community Radio activists made a Lintasi Merapi version of DMAM. The process passed with consultation with BPPTK as the policy-maker related to the volcano situation in Merapi.

How to Utilize DMAM for Community Based Disaster Management
Performing Off-Air Activities (After Community Workshop)

Off-air activities were carried out by the community radio management and community members in the field and were indirectly connected with on-air activities. The activities were in the form of a painting and drawing competition, a culture competition, a disaster simulation, and other activities involving the people. Off-air activities were also a way to strengthen the relationship between the community radio station and the people in the community.

Lintas Merapi FM Community Radio

The Formation of KANCING (Children Love Environment Group)

Children are a fragile group in every disaster. However, this group's needs are sometime neglected when tackling a disaster. Having learnt from community radio FMYY in Japan, Lintas Merapi Community Radio organized a children's group named KANCING (Children Love Environment Group).

KANCING and the activists conducted activities dealing with an introduction to disaster and disaster risk reduction in Merapi. Some activities carried out were:

PPGD (First aid for emergency situation) Training

Training was for children from elementary schools in the Merapi area. They were introduced to the conditions of Merapi when an eruption happens and how to face it. The children were very enthusiastic. They had fun while doing disaster simulation. They helped their friends who became victims of the disaster, and then wore masks and went to simulated refugee camps.

Lintas Merapi FM Community Radio

PPGD Exhibition

The results of PPGD training were performed beautifully at the "Pasag Merapi Program," "Syawalan Pasag Merapi," which was held and participated in by the people of Merapi in four regencies, Sleman, Klaten, Magelang, and Boyolali. Incidentally, the host of this annual event was Klaten. The event was very merry and different from the usual ones because it had many attractions and entertainment. Furthermore, it also had some exhibition stands belonging to the people who live on the slopes of Merapi and non-government organizations focusing on environmental subjects. They exhibited their excellent products.

KANCING also participated. They presented their PPGD simulation. Led by the head of KANCING, they shouted their cry with great enthusiasm and were welcomed by other children. This was their cry: "Lintas Merapi!" "OK!", "Tanam Pohon (Growing Trees)!," "OK!," "Merusak Lingkungan (Damaging Environment)!," "Ya enggak lah yow (No)!!"

Children's Painting Competition on "Merapi Volcano Threat"

To develop children's love of Merapi as well as to build their awareness of potential disasters, Lintas Merapi Community Radio held a drawing competition "Merapi di Mataku." Children gathered at the studio in the afternoon after school activities. KANCIL led the shout on the environment theme. The number of participants was far beyond expectations and was so many that they had to use the drawing tools in turn because the supply was limited. They were asked to draw Merapi when it is active. They drew what they felt. Having done with the painting, they were asked to describe the picture in front of their friends. "This is Merapi volcano, this is lava, this is ash going in a west direction, this ash goes to Tegalmulyo (east), these birds are scared, this forest is burnt, this lava goes to Gendol River, and a little goes to Woro river." There was laughing and joking when telling their stories. Their growing awareness of potential volcano disasters made them feel at ease and erased their fears.

Lintas Merapi FM Community Radio

Playing a children's movie on the theme of the environment

The results of the drawing competition were announced at the children's school. This was done to create synergy between activities at school and those at Lintas Merapi Community Radio. After the drawing, the children read comics and watched movies together. The theme of the movie was disaster and environment.

DMAM is the trigger of Community Based Disaster Management

The DMAM workshop at Lintas Merapi Community Radio station triggered the setting up of a monthly disaster prevention study program for over 40 children. The following is what happened on one day the program was held.

The children assembled in the assembly hall next to the radio station and began reading comic books about volcanic eruptions. Next, the children made a short presentation about Mt. Merapi (volcano) using the pictures they had drawn. After that, they moved outside and practiced rescue drills to be carried out when a disaster occurs. Everything was conducted promptly and efficiently. After all the activities were completed, a review was conducted which was followed by everyone having a meal together.

Other activities were held at Lintas Merapi Community Radio. These included learning about the village by taking walks through it, planting trees, etc. for protection against volcanic ash, conducting disaster prevention classes for parents and children, as well as activities to pass on knowledge and information about disaster prevention and the environment were carried out. Lecturers from local environmental NGOs were invited to participate. Since it was not desirable to depend on NGOs for funds for these activities, the community collected funds by selling T-shirts and bamboo craftwork, etc.

Of course, radio programs where the focus of these activities with children also involved in creating them. These were not just announcements about workshops. They let each household know about what activities were conducted at each workshop, and from this about 100 SMS responses were received.

These community disaster prevention and management activities were initiated as a result of the DMAM workshop.

Shortly after the 7.6-magnitude earthquake that shook Padang at the end of September 2009, people who were stressed due to the deaths of their relatives and friends, as well as damage to their houses, became more anxious because there was a rumor that an even bigger earthquake would occur. The panic got more intense because the information and communications system had broken down. The public could not get satisfactory or reliable information. Often what they got were just rumors that worsened the situation. Rumors about a greater earthquake that could split a region often appeared and made the disaster victims more psychologically insecure.

In such a situation, there is a need for information and communications technology that can readily be used to disseminate information from the outside to the communities and vice versa. In this respect, community media, like community radio stations situated close to the disaster zone, can be optimized as an information and communication channel. In Indonesia, there are 600 community radio stations spread throughout the different provinces. All parties, especially local governments, can make use of them as the forefront for their community-based information and communications system.

Without much publicity, community radios in disaster-affected areas have actually played an important role in both the emergency response and rehabilitation periods. In early September, a 7.4-magnitude earthquake occurred in Tasikmalaya, West Java. The Community Radio Network of West Java promptly coordinated with its members to check the damage and seek help to make them able to function as community information and communication channels. The earthquake in West Sumatra was also responded to quickly by community radio stations in the region, like Stallon FM and Taratak Kuban Payakumbuh in West Sumatra. These two community radio stations were not severely damaged. With their available transmitting power, they promptly relayed broadcasts of television and satellite radio programs so that people could get adequate information about the earthquake that hit their areas. The Community Radio Network of West Sumatra directly coordinated in the determination of which community radio stations were able to be optimized to support the emergency response. They got together in the Agam Regency, Lubukbasung, to designate roles in assisting the earthquake victims both as information and communication channels and by distributing logistical aid.

Much earlier, community radio stations in South Sulawesi also played a role in dealing with a flood disaster that struck 4 regencies of this province, namely Jeneponto Regency, Bantaeng Regency, Bulukumba Regency, and Sinjai Regency. At that time, two community radio stations in two of these four regencies, Bantaeng and Bulukumba, transmitted information to several other community radio stations scattered in several areas outside the flood zone, including Makassar, Takalar, Bone, Pangkep, Pare, Tana Toraja, Mamuju, and Palopo. Information was obtained through various means, for example, through live reports, SMS, websites, and quotes from the media. The same thing happened when the earthquake struck Yogyakarta and Klaten on May 27, 2006, community radio stations also played an important role in providing information to communities. Community Radio Pamor, for example, broadcast information about the government-promised subsidy to finance the reconstruction of houses. Menara Siar Community Radio in Terong, Pathuk gave information about the aid given to the communities. This community radio in particular honored the women who had become the backbone of logistic aid during the post-disaster rehabilitation period.

The role of community radio does not stop at emergency response and rehabilitation. In safe times, it is important that the role of community radio be a channel for disaster mitigation education for the communities. It is very important that this process is done in disaster-prone areas in various regions of Indonesia. Therefore, when a disaster occurs, people will be better

prepared to deal with it. Realizing the importance of disaster mitigation education for the community, JICA Hyogo/Disaster Reduction Learning Center (DRLC), Combine Resource Institution, and AMARC JAPAN Working Group held a workshop entitled "Community Based Disaster Management Utilizing Community Radio" on 2-5 August 2009, in two community radio stations around Yogyakarta, namely Radio Lintas Merapi on volcano disaster and Radio Angkringan on earthquakes and floods.

Prior to this, JICA Hyogo/DRLC and AMARC Japan Working Group had produced audio materials containing practical guidelines in dealing with disasters, like earthquakes, tsunami, landslides and floods. These two community radio stations were asked to listen to the audio product and then later adapt it to the needs of the local communities. This workshop was very important to both stations because it was the first time they could hold a special gathering with residents to discuss the roles of community radio in disaster education for the community. Sukiman, leader of Lintas Merapi Community Radio, said that, although the audio materials produced by JICA Hyogo/DLRC and AMARC Japan Working Group does not include volcano disasters, it has inspired them to produce the same thing. They are very eager to make an audio product concerning the signs of volcanic eruption. In order to get correct information, volcanologists will be consulted for the product. Eventually such information will be packaged using the local language and a style that the people can understand.

In this workshop the community radio personnel and the people also developed some new ideas. For example, the *macapatan* (traditional singing) group that has a special program on Radio Angkringan was encouraged to compose songs talking about early warnings for dealing with any earthquake. In the workshop, local idioms became the primary choice in stirring up public awareness of disaster mitigation. This workshop also encouraged community radio to expand its roles not only in radio broadcasting but also in off-air activities like children's painting contests with the theme of disaster, workshops in schools, etc. Unexpectedly, a community radio from Central Kalimantan, supported by the CARE organization, also attended this workshop. Central Kalimantan is susceptible to disasters related to forest fires, so they joined the workshop to develop an audio product concerning a warning system for the communities there, informing them of the signs of forest fires and many other things they have to do to prepare to cope with them.

Considering that most regions in Indonesia are vulnerable to various forms of natural disasters, such as earthquakes, volcanic eruptions, landslides, hurricanes, floods, tsunamis, etc., the model that has been developed in this workshop should be applied in all community radio stations in Indonesia. Hence, community radio can be the spearhead of disaster reduction education through both on-air and off-air programs. Mainstream media cannot continuously run programs to the public. The closeness of a community radio station to its supporting communities can provide the power to play a role in reducing the risks of disasters in the future.

Sadness, suffering and bitterness often make a community shorten its memory of an event. The people want to forget their beloved families and relatives who died in a disaster. Such a struggle is certainly very understandable in their effort to survive the past and go on to the future. But the process of forgetting is also critical, because it can cause them to become unaware of a disaster that someday may strike again. This is where a community radio station can contribute in most a delicate and elegant way to notify them that past disasters shall not be forgotten, but will be accepted, learned and remembered, so that the same misfortune will not happen again in the future.

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