

### ANNEX III

“Progress Report”

#### **Personal Data**

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Item A: FHM-related situation in your country  
(by using official information/data and your opinions)

(1)-1 Please select current stage of FHM in your country/region/city from the 7 types (Map-A,B,..G) of map shown in Table 1. (Please refer Table 2 as a selection flow.)

<b>Type of FHM</b>	<b>Area/City/Province</b>
B	Entire Philippines (Topographic Map)
C	Quezon City (San Juan River Basin), Taguig City, Bataan
D	Butuan City, Davao City, Iloilo, Surigao Del Norte (San Francisco & Mainit) Surigao Del Sur (Tandag & Tago) Ilocos Sur (Vigan), Zambales (Olongapo City, SBMA), Pampanga (Angeles City), Cavite Cavite (Bacoor, Cawit, Imus, Noveleta, Rosario, Gen. Trias, Tanza) Laguna (Calamba), Iloilo City, Misamis Oriental (Balingasag), Nueva Ecija (Palayan City) Misamis Oriental (Gingog City), Misamis Occidental (Cagayan De Oro City) Northern Samar, Cvagayan Province, Isabelia Province, Quirino Province, Ilocos Norte Province Aurora Province, Zambales Province, Antiqui Province, Surigao Del Sur & Surigao Del Norte Agusan Del Norte Province, Southern Leyte and Leyte Province, Camarines Sur & Norte Laguna Province
E	Tarlac Province, Agno River Basin (Middle and Lower), Camiguin, Cavite Low Land Laoag River Basin, Ormoc City, Bicol River Basin (Middle & Lower), Agusan River Basin Iloilo City, Meycauyan River Basin, Jalaur River Basin, Agus River Basin, Dungcaan River Basin Lake Mainit-Tubay River Basin, Cotabato River Basin, Pampanga Delta, West Pinatubo Area River Basin

**(1)-2 Please describe the outline of current situation of FHM in your country.**

(How many FHMs or related projects do you have in your country? Etc.)

In the Philippines, there are three (3) agencies undertaking Flood Hazard Mapping. PAGASA conducts mapping mainly based on Types C, D and E; MGB-Type B and DPWH-Type E. Before, there was no inter-relation of these agencies when it comes to Hazard Mapping. Mappings were done independently there being no laws mandating which agency should lead. With the launching of the READY Project in mid-2000, mapping has been harmonized and these agencies, with others (such as PAGASA, MGB, PHIVOLCS, NAMRIA, Office of Civil Defence and local government units) had a more harmonious working relationship.

**(1)-3 (If you have FHMs,) Please write maximum 3 good practices.**

(Please make sure Where? Why? When? By Who? To Whom? How?)

a. Ormoc City.

- people became more conscious on their situation and aware of the danger that could happen when there is intense rain in the area.
- after the tragedy in 1991 (wherein about 8,000 people died)
- by the local government, with technical assistance from JICA
- for the residents of the main Ormoc City area

b. Calamba, Laguna

- due to their experience during the passage of Ty. Milenyo in 2006
- by the local government, in coordination with READY agencies (PAGASA, PHIVOLCS, OCD)
- Flood Drill/Dry run was conducted

c. Kawit, Cavite FHM.

- the community became aware of the danger zone area
- because of the community-based training they learned how to read the FHM
- after the Tropical Cyclone Xangsane (Typhoon Milenyo), they have full appreciation of having FHM
- the LGUs are now making efforts to lessen the Flood Hazard
- the Provincial Government has the idea on the adverse effect of massive land conversion

**(1)-4 Please select target/necessary stage of FHM in your country/ region/city from the 7 types (Map-A,B,..G) of map shown in Table 1, and describe the reason.**

(Please refer Table 2 as a selection flow. Which type of FHM do you think is necessary in your country? Which type of FHM is desirable? And why?)

If we think about the urgency of the matter, Type C and D Flood Hazard Map should be prepared for all flood-prone municipalities in the Philippines. As a short-term target, Type G should be prepared for fully-telemetered areas like Agno and Pampanga River Basins. For a long-term target, other telemetered basins (Cagayan and Bicol) and others in the READY-priority provinces should be considered.

**(2)-1 Institutional situation for making FHM**

**(Is there any FHM-related law? Or governmental system? If yes, which organizations do take responsibilities for making FHM?)**

Yes, there is a specific law that mandates agencies to prepare Flood Hazard Maps. The urgency of the matter is based on the Four-point Agenda of the current national leader (President Arroyo) which was issued after the series of big floods in Luzon in 2004.

## **(2)-2 Hydrological/topographical data situation for making FHM**

(If the situation is different by a basin and a river, please clarify the data source.)

In the Philippines, the main source of topographic data is the National Mapping and Resource Information Agency (NAMRIA). It is an agency under the Department of Environment and Natural Resources (DENR) responsible for providing the public with map-making services and acting as the central mapping agency, depository, and distribution facility of natural resources data in the form of maps, charts, texts, and statistics. As one of the collaborating agencies in the READY PROJECT, NAMRIA is responsible in the provision of topographic maps (in different scales) which serve as basemaps in the preparation of Flood Hazard Maps.

Hydrological data and information are extracted from different literatures and databases gathered from different agencies such as DPWH, PAGASA, NIA, NWRB, PAGASA, MGB as well as from the concerned local government units (LGUs).

## **(2)-3 Problems for making FHM in your country**

The problem in making Flood Hazard Map lies on the very wide array of aspects. It usually starts from data availability and institutional matters from the national down to the municipal/town level. Availability of technical persons is also a problem. With the big number of areas to be mapped, number of mappers, engineers, GIS experts and other professionals needed are not sufficient to finish in due time.

## **(3)-1 Institutional situation for disseminating/use of FHM**

**(Is there any FHM-related law? Or governmental system? If yes, which organizations do take responsibilities for disseminating FHM?)**

There is no FHM-related law yet but it is being urged that local governments should include in their agenda the passing of local laws or ordinances that would assist and mandate in their office to coordinate and work hand in hand with the national agencies in dealing with multi-hazards.

At present, the dissemination of FHM is dependent on which agencies are involved in the production, or under what project it was developed.

## **(3)-2 Problems for disseminating/use of FHM in your country**

1. Reception by the community (how to clearly explain to them in layman's language the meaning/use of FHM)
2. There are still some areas which are not accessible by any means of transportation and communication.

## **(3)-3 Other how to use FHM in your country**

(If you have any idea for use of FHM except for types of Table 1, please describe your ideas.)

- for disaster management, zoning, land use planning by cities/municipalities/provinces
- for evacuation purposes
- for the people to create awareness on the location of hazardous areas
- for construction of flood control structures

- for insurance purposes

**Item B: For improvement of FHM research by ICHARM  
(This item is not included in the presentation)**

**(1)-1 Saturation level of TV, Radio, Internet and Newspaper in your country  
(by using official information/data)**

TV- about 70%

Radio-about 90%

Internet-about 10%

Newspaper-about 60%

**(1)-2 The flow of information related to evacuation in flood  
(Who issues the flood alert and evacuation order in your country? For example in Japan,  
in flood time the Japan Meteorological Agency (governmental agency) issues forecast of  
heavy rain and municipalities (city/town) issue evacuation recommendation / order.  
Please see Fig.1.)**

PAGASA through its Weather and Flood Forecasting and Warning Centers issues the flood Warnings, Alerts and Advisories when there is an inclement weather. Such information are disseminated to the disaster managers through the Office of Civil Defense (OCD) and eventually to the communities at risk. Based on these info, the disaster managers order the evacuation order to the community.

However, the National Government through the PAGASA has started the implementation of community based flood early warning system which capacitates the community to observe and analyze rainfall and water level data, issue the appropriate warnings i.e. Ready, Get Set and Go which means Awareness, Preparedness and Response, respectively.

**(1)-3 Please describe how high the “awareness level for disaster prevention by residents” in your country is. (For example in Japan, some communities organize “Voluntary Disaster Prevention Organization” and act for awareness for disaster such as evacuation drills.)**

Generally, the level of awareness for disaster of prevention by the residents is high. However, the degree or level of awareness depends on the occurrence of hazards in the area. For instance, communities who have experienced a big disaster have higher awareness compared to those communities that have experienced minor flooding.

B-(2) “Flood Hazard Map Manual” made by ICHARM  
**Please suggest improving the “Flood Hazard Map Manual” to become useful in your country. Is the manual applicable in your country or not? (Please see Reference 1.)**

(TO BE REPLIED BY E-MAIL)