



## **SUMMARY OF PROCEEDINGS**

### **I. Background**

The Department of Social Welfare and Development (DSWD) plays a major role in the Disaster Risk Reduction and Management (DRRM) in the Philippines as the Vice Chair for Disaster Response in the National Disaster Risk Reduction and Management Council (NDRRMC).

To ensure efficient and effective disaster response, it is important for DSWD and other members of the NDRRMC to establish creative collaborations through data sharing, especially geographically referenced information.

To accomplish this end; in its commitment towards increased level of data and information availability, accessibility, and integrity, to support DSWD programs and services facilitating the achievement of the DSWD strategic goals, and establish and sustain creative collaborations with partners, the Information and Communication Technology Management Service (ICTMS) held a one-day roundtable discussion entitled “Forum on Improving the Availability and Accessibility of Relevant Data to Support Disaster Response in View of Disaster Risk Reduction and Management in the Philippines”.

As observed during the Typhoon Yolanda crisis, government and non-government agencies put a lot of efforts in collecting and/or creating data to support their operation in the field during the response and rehabilitation phases. While a large amount of data was needed delivered during this event, data quality, availability and accessibility issues have been encountered.

In view of the above, the need to improve data quality, availability and accessibility among all concerned government agencies that gather, manage and share data/information of importance for emergency management and disaster risk reduction has been identified.

To start addressing these issues, the Department of Health (DOH) organized a first inter-agency spatial data forum among the members of the Human Development and Poverty Reduction Cluster in October 2013. The large number of participants to that workshop (60 participants) confirmed the importance to address the above mentioned issues, initiated the creation of a Memorandum of Understanding among cluster members and called for follow up activities to be organized by DSWD.

### **II. Objectives**

The present forum took place in the continuity of the first forum organized by DOH in October 2013 with the objective to further discuss the data sharing Memorandum of Understanding, learn about the challenges encountered by governmental institutions during the response to Yolanda when it comes to data quality, availability and accessibility, identify areas of collaboration among government and non-government agencies, particularly the OpenStreetMap (OSM), the Strengthening Information Infrastructure for Emergency Management (SIIEM) Project, and the Open Data Philippines program (ODP).



### **III. Participant Profile**

Around 15 participants attended the forum from different government agencies contributing to emergency management and/or disaster risk reduction in the country, namely Department of Health, Mines and Geosciences Bureau, DSWD Office of the Assistant Secretary, DSWD National Household Targeting Office, and DSWD Information and Communication Technology Management Service; along with resource persons from OSM and SIEM.

Other government agencies were also invited to the forum, but were unfortunately not able to attend due to schedule conflicts.

### **IV. Presentations**

After the welcome remarks given by ICTMS Director Ninoy Castro and a round of introduction, few presentations were given to the participants in order to guide the discussions to follow.

The complete presentations and documentations are available for download here:

<http://goo.gl/wCWHXp>

#### **The link with Emergency Management and Disaster Risk Reduction – SIEM Project**

Dr. Steeve Ebener, lead for the SIEM Project and consultant to DHO, started his presentation by highlighting how the information infrastructure should support emergency management and disaster risk reduction in countries.

Such infrastructure should build on data that needs to be:

- Complete, up-to-date and of sufficient quality to support the operations in the field as well as decision making and planning on the long term;
- Compatible among sources (scale, projection,...), provide an official unique ID and is documented (metadata) to ensure a proper use;
- Accessible to and used by all the stakeholders involved in the different phases of the emergency cycle;
- Constantly improved through the integration of the data collected during and/or between crises.

His presentation then went through a set of examples illustrating the current situation in the Philippines when it comes to the quality, availability and accessibility of some of the key layers needed for emergency management and disaster risk reduction (health facility location, administrative boundaries,...) and highlighted the need to look at making the Philippine Standard Geographic Code (PSGC) more information management friendly as well as the benefits that would be gained from a better collaboration among governmental and non-governmental entities including the open data community.

In this context, the SIEM project aims at working with relevant stakeholder to support governments in the implementation of the following principles:



1. Countries should be in a position to generate and maintain the layers of information necessary to support emergency management and disaster risk reduction;
2. The internal community (sensu lato) should support countries in reaching principle 1;
3. An open data policy should be used as much as possible. When this is not possible, agreements allowing access to this data should be signed between the government and all the actors involved in emergency preparedness, disaster risk reduction as well as emergency response, recovery and reconstruction activities;
4. Data collected during the crisis by the international community should be integrated back into the government information system.

For the Philippines, the SIEM project got seed funding (\$17,500) from the Abu Dhabi Global Environmental Data Initiative (AGEDI) to implement the following activities in 2014:

1. Support the government in the application of the SIEM principles as a way to strengthen information management for emergency management and Disaster Risk Reduction in the country;
2. Contribute to the analysis of the maps produced during the response to typhoon Yolanda/Haiyan as a way to assess data usage and potentially influence the redirection of funds towards strengthening the information system;
3. Present the results during the next Eye on Earth Summit (Abu Dhabi, November 2014).

The process and lessons learned in the Philippines would also be transferred to Morocco where the SIEM project is also being implemented.

#### **Dealing with Data Related Issues in a Crisis Context:**

#### **The Experience of DSWD during Response to Super Typhoon Yolanda**

Mr. LA Dimailig, GIS Administrator of DSWD ICTMS shared the department's experience on their disaster response during the Yolanda crisis, as well as other crises during the past years. He discussed how ICTMS integrated GIS technology in the Service's information system framework.

To date, ICTMS has created the following WebGIS:

- Typhoon Pablo Crowdmap (<https://pablo.crowdmap.com/>)
- Disaster Risk Map for Disaster Risk Reduction and Management in Compostela Valley and Davao Oriental (<https://mangomap.com/maps/9786>)
- Philippine Evacuation Centers (<https://saantatakbo.crowdmap.com/>)
- DSWD Disaster Response Situation Map (<http://disaster.dswd.gov.ph/maps.php>)

DSWD's Disaster Response Situation Map shows the reports generated by the Disaster Response, Operations Monitoring and Information Center (DROMIC). It utilizes creative collaborations, crowd-sourcing, and supports the open data program. To date, collaborations have been made with University of the Philippines National Institute for Geological Sciences (UP NIGS) through Project NOAH, OSM Philippines, Western Mindanao State University, Rappler, Google Map Philippines, and anonymous volunteers.



### OpenStreetMap (OSM)

OSM Maptivist/Volunteer Mapper Mr. Maning Sambale introduced OSM, its goals and initiatives.

OpenStreetMap – a project to map the whole world (<http://osm.org>).

OSM is a free map of the world built by a large community of mappers that contribute and maintain data about roads, trails, etc. It is open data, which means users may use their data for any purpose as long as they respect the open data license.

Being one of the active volunteer mappers in OSM Philippines, Mr. Sambale also shared his and their organization's challenges during their volunteer mapping projects, particularly during disasters which are as follow:

- Need for building data before a crisis
- Consistency of data coverage
- Classification and categories
- Completeness and gaps
- Non-ground verifiable data is difficult to collect (i.e. administrative boundaries)
- License compatibility from other sources



## **V. Open Discussion – Challenges and Experiences from Other Institutions**

After the presentations, Mr. Sambale opened the forum to a discussion among participants for them to react to the presentations as well as share the challenges faced by their own institutions regarding the provision and use of data, especially in the case of the response to typhoon Yolanda.

During this discussion, four main challenges to data quality, availability and accessibility were identified, namely:

1. Organizational behavior
2. Personal behavior
3. Technical capacity and Other Resources (Finance)
4. Legal Framework

While the question of organizational behavior was not really discussed during the forum, the other three points were covered by the participants.

When it comes to personal behavior, the lack of clear guidance on which data should/could be shared and not shared as well as a belief that people are not interested in the data being produced have been mentioned as major bottlenecks.

On the technical capacity side, governmental institutions are not only lacking financial and technical resources in order to produce and maintain high quality level data but also data standards and guidelines that would allow for their data not only to be of higher quality and compatible with other sources but also appropriately documented (metadata).

The existence and use of different coding schemes as well as the difficulties in using the PSGC for reporting were highlighted one more time as major challenge towards a rapid use of the information needed and/or collected during a crisis.

On the legal framework, one major issue is to know how different data licenses could be accommodated not only to facilitate the access and use of the data being produced by different stakeholders but also improve coordination and collaboration between the government and the open data community.

For example, the section 176 of the Republic Act No. 8293 prescribing the Intellectual Property Code states<sup>1</sup> that: "*No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit.*" which makes it difficult for data collected by the government to be integrated into the OSM dataset because OSM data policy follows the Open Database License (ODbL) which allows for commercial use. At the same time, the Open Data Philippines program promotes the use of the creative commons attribution 3.0 Philippines<sup>2</sup> which does itself also allow for commercial use.

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<sup>1</sup> [http://www.ipophil.gov.ph/images%5Cipenforcement%5CRA8293-Intellectual\\_Property\\_Code\\_of\\_the\\_Philippines.pdf](http://www.ipophil.gov.ph/images%5Cipenforcement%5CRA8293-Intellectual_Property_Code_of_the_Philippines.pdf)

<sup>2</sup> <http://creativecommons.org/licenses/by/3.0/ph/>



The other important issue is the protection of personal data/information and privacy. In other words, how to ensure access to relevant information for emergency preparedness and disaster risk reduction without impairing confidentiality and privacy?

There is therefore a need to clearly define which information/data should be accessible to all, including the private sector, and which information should be more protected and limited in terms of access.

## **VI. Conclusion and Next Steps**

Despite the limited number of participants, this new forum highlighted and discussed several important issues pertaining to improving the quality, availability and accessibility of data for emergency management and disaster risk reduction.

Based on these discussions, there would now be a need to:

- Involve a larger group of governmental institutions in the discussion to complete picture before expanding the group to also include other stakeholders (donors, United Nations, academic and private sector,...) to look at potential solutions aiming at addressing the identified challenges;
- Have a better understanding on how the Open Data Philippines programs will facilitate this process and help solving some of these challenges;
- Continue working on establishing a Memorandum of Understanding among stakeholders involved in emergency management and/or disaster risk reduction to facilitated exchange of data.

These three activities, as well as others aiming at improving the connection between the government and the open data community, could take place in the context of a three to four days workshop to be sponsored by the SIEM project at the end of April.

In the meantime, the general feeling is that these discussions should continue directly under the umbrella of the NDRRMC as part of the activities of its information management working group. DSWD, as Vice Chair for Disaster Response, will therefore directly liaise with the Chair, Office of Civil Defense, in this regards.



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