

Decisions are not made by computers, but by people - Myanmar's experts learn to use geospatial data for better decision making

Impact Story

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Officials and staff from different agencies related to disaster management across Myanmar pause for a group photo during a one week workshop on using geospatial information technology (GIT) to inform decisions related to disaster risk reduction.

Nay Pyi Taw, Myanmar – A group of about twenty officials and staff from different agencies related to disaster management from across the country, met with ADPC and UNOSAT¹ in December, 2016. The task at this one-week workshop was to take disaster management a step further using geospatial information technology (GIT) for making decisions related to disaster risk reduction.

It was the second such training where a group of disaster responders and experts gathered to learn how to use geographic information system (GIS) and satellite imagery in their work, and were given an opportunity to test their knowledge in hands-on simulations and exercises

under the same time and conditions they will have when a disaster strikes.

“Transferring technology and available decisions support tools for disaster preparedness as well as for response are important, but the key is how to use those tools for making quick and accurate decisions during emergencies,” says Ms. Anggraini Dewi, Senior GIS/Remote Sensing Specialist and Project Manager, ADPC

¹- the Operational Satellite Applications Programme of the UNITAR - United Nations Institute for Training and Research -



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Providing long-lasting learning that benefits Myanmar

In this capacity building program, the main focus was on providing technical capacity enhancement to the Relief and Resettlement Department (RRD), Myanmar and other relevant technical agencies on the use of satellite technology for disaster risk reduction, and to channel the knowledge of GIT to experts from academia at Mandalay Technological University (MTU).

Everyone involved in the capacity building programme was confident that this approach will ensure long-lasting learning that benefits Myanmar. Mandalay Technological University has been cooperating with ADPC for years. A more long-term impact for this project will be the eventual integration of GIT into the Mandalay Technological University curriculum.

Dr. Kyaw Zaya Htun, a Senior Lecturer at Mandalay Technological University, is also hopeful of integrating GIT and know-how to the academic curriculum one day. “We have done a lot of work together with ADPC – we published a book about Integrating Disaster Risk Information into Urban Land Use Planning in Myanmar with Special Reference to Mandalay City. Part of this book has been in use in classes including the methods of risk assessment, and flood management. So far, we have managed to include all the knowledge from ADPC workshops on GIS and remote sensing into the class content and exercises,” says Mr. Kyaw Zaya Htun.

A combination of remote sensing and GIS technology is immensely helpful in post-disaster damage and needs

analysis. The GIS software helps decision makers visualize and see a broader picture with minute details. It assembles, stores and manipulates data, and then displays geographically referenced information, which is collected from satellite images and therefore enables land analysis in disaster-hit areas.

Mr. Win Htein Kyaw, Director of the RRD, is of the view that without the project and capacity building training, it would be very difficult for the government to prepare for what the future brings. “RRD officials need capacity building because they have no previous experience in satellite technology. I feel that a major transformation is happening. All RRD officials including myself need to learn about new technologies and the technical side of disaster management,” he said.

Accurate information enables officials from different agencies to acquire more reliable data, but the training goes further – it provides the capacity to use the GIS for better decision-making processes. In the long-term, a skillful use of GIS technology contributes not only to a faster and more accurate disaster response and relief, but also to sustainable development in building disaster resilient cities and communities.

“Disasters are multidimensional. It can be hydro-meteorological or geological, so we have a very diverse group of people from different backgrounds – RRD, Mandalay Technological University, the Department of Forestry, people from geology department - this is a community platform, where we host an environment for exchanging different expertise to solve a common problem,” says Mr. Khaled Mashfiq from UNOSAT.



Photo by ADPC

A training participant practices analyzing a flood hazard assessment that uses geographic information system (GIS) and remote sensing data to show which regions are more prone to flooding. This knowledge can help guide more effective disaster mitigation activities.



Photo by ADPC

While many geospatial information technology trainings are dominated by men, it was quite the opposite during ADPC's workshop in Myanmar. Over 80 percent of the participants were women who represented multiple government agencies.

Women as leaders of disaster resilience in Myanmar

The training programme contributed to achieving Sustainable Development Goals 2015 – 2030 by emphasizing the importance of a gender-based approach to mitigate disasters. At workshops on geospatial information technology, one thing stands out regularly – the number of female participants. Unlike other countries similar to Myanmar in terms of development, government agencies and local administrations can at times be dominated by women. At this ADPC-UNOSAT training, with staff from more than four different government agencies, over 80 percent of those trained on GIT were women.

“Myanmar is still a largely poor country and men are often the breadwinners in the family. Since government service comes with rather modest salaries, women often fill these jobs. But if you ask me, women are just more hard working,” says Ms. Aye Mya Thein, a lecturer from the Remote Sensing Department at MTU.

Involving women is pre-requisite to disaster risk management, as not only are they often the first responders in disaster relief, but their experiences and views can also help enhance the expert and scientific capacity in disaster risk management.

Impact Story by: ADPC

Geospatial Technology for Disaster Risk Reduction

October 2015 - December 2017

Donor: Ministry of Foreign Affairs, Norway

Key Activities:

- Introduction to Geospatial information technology: Technical training for RRD on introduction to and the use of GIS software.
- Advanced geospatial information technology: Technical training for RRD on specific multi-hazard risk assessment scenarios and risk informed decision making.
- Selection of a relevant geo-spatial assessment mini project by participants
- Launch of community of practice forum of UNOSAT
- Final week of advanced training and presentation of project: Participants submit their projects and UNOSAT and ADPC design custom tailored final week training workshop to assist participants refine and present their project outcomes.
- Formation of an expert working group by RRD assisted by UNOSAT and ADPC to form an Expert Geospatial Working Group (EGWG) to provide and exchange valuable information and services among participants and their respective agencies.



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