

# **Report on the Workshop and the Symposium on "Application of Geospatial Information Technology in Urban Disaster Management"**

### Toru Nagayama Secretary General, ISCGM



The Third United Nations World Conference on Disaster Risk Reduction (WCDRR) was held in Sendai-City, Miyagi-Prefecture, Japan from March 14th to 18th, 2015. As a preevent of the conference, ISCGM and GSI co-organized the symposium and the workshop on Application of Geospatial Information Technology in Urban Disaster Management on March 13th.

At the workshop, Ms. Ofelia Castro, National Mapping and Resource Information Authority (NAMRIA) of the Philippines, and Mr. Anders Sandin, Lantmäteriet (the Swedish mapping, cadastral and land registration authority) were invited. Chaired by Prof. Paul Cheung, Chair of ISCGM, the participants discussed international coordination on and support for disaster risk prevention using geospatial information technology. In the discussion, opinions and requests from each country were received on Urban Hazard Maps Web Portal designed by ISCGM and being released as a prototype version. At the same time, opinions were exchanged on specifications needed for the launch of the Urban Hazard Maps Web Portal, including introductions of the status of the development of hazard maps portal of their respective countries.

In the afternoon, the symposium on "Application of Geospatial Information Technology in Urban Disaster Management" was held by involving Asian Disaster Reduction Center (ADRC), Japan Aerospace Exploration Agency (JAXA), International Cooperation Agency (JICA), Public Works Research Institute (PWRI), Sendai Committee for the UN World Conference on Disaster Risk Reduction, Regional Committee of the United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP), and United Nations Office for Disaster Risk Reduction (UNISDR) as supporting organizations.

At the keynote lectures, Professor Cheung introduced the importance of application of geospatial information on the basis of examples of analytics with socio-economic data, and noted the importance of the development of urban hazard maps by respective countries. Mr. Makoto Ikeda from ADRC likewise introduced that geospatial information strengthens knowledge and capacity of disaster risk prevention by demonstrating efforts of ADRC and its examples of application of geospatial information.

After the keynote lecture, a panel discussion was moderated by Professor Cheung with the participation of Ms. Ofelia Castro, Agus Wibowo from National Disaster Management Authority (BNPB) of Indonesia, Mr. Anders Sandin, Dr. Hiroshi Murakami, Director-General of Planning Department, GSI and Mr. Makoto Ikeda as panelists. Each panelist introduced his/her efforts for application of geospatial information for disaster risk prevention, and exchanged opinions on a way for the betterment of collaboration. Enthusiastic discussion was held including many questions from the floor.

Through the symposium, a common understanding was gained on the importance of listing urban hazard maps of the world and understanding their development. In order to contribute to the efforts, it was agreed that ISCGM advances the work for the launch of the Urban Hazard Maps Web Portal.

The conclusion of the symposium was reported to the Working Session on Earth Observation and High Technology to Reduce Risks of the WCDRR which took place on March 15th, 2015.

Please visit ISCGM web site (http://www.iscgm.org/ sympo2015/) for more details of the symposium.

## **Report on United Nations World Conference on Disaster Risk Reduction**

## Shinichi Sakabe Director, International Affairs Div., Planning Dept. GSI/Secretariat of ISCGM



Mr. Toru Nagayama, Secretary Genearal of ISCGM

United Nations World Conference on Disaster Risk Reduction (WCDRR) was held in Sendai, Japan from March 14th to 18th. The conference aimed to make a new framework on international disaster risk reduction and concluded a document which indicates international commitments following the Hyogo Framework for Action (HFA) made in 2005. In addition to the plenary, it is reported that a ministerial meeting and public fora of more than 350 were organized with a total participation of 156,000 people.

The opening had participation of Emperor and Empress of Japan and Prime Minister and Minister of State for Disaster Management of Japan as well as Secretary General of the United Nations and many ministers from respective countries of the world. This represents that this conference is recognized as a very important meeting not only for disaster risk reduction community, but also for the political purpose.

International Steering Committee for Global Mapping (ISCGM) participated in the conference as a part of the co-organizers of the working session on "Earth Observation and High Technology to Reduce Risks." The session discusses what kinds of contributions could be made to reduce disaster risks by addressing four themes: geospatial information, earth observation, information technology, and robotics. In this session, Mr. Toru Nagayama, Secretary General of ISCGM made a lecture and proposed that "ISCGM will build a hazard map portal site to encourage sharing information on hazards of major cities of the world. This proposal gained a strong support from the conference participants. This effort has already been registered as a voluntary commitment of the United Nations World Conference on Disaster Risk Reduction.

"Sendai Framework for Disaster Risk Reduction 2015-2030" includes the following items in relation to geospatial information.

IV. Priorities for action

Priority 1. Understanding disaster risk

- 23. Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for the purpose of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters.
- 24. To achieve this, it is important in national and local levels to:
  - (c) Develop, update periodically and disseminate, as appropriate, <u>location based disaster risk</u> <u>information</u>, including <u>risk maps</u>, to decision makers, the general public and communities at risk to disaster in an appropriate format by using, as applicable, <u>geospatial information technology</u>;
  - (f) Promote real-time access to reliable data, make use of space and in situ information, including <u>geographic information systems (GIS</u>), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data;
- 25. To achieve this in in global and regional levels to:
- (c) Promote and enhance, through international cooperation, including technology transfer, access to and the sharing and use of nonsensitive data, information, as appropriate, communications and <u>geospatial</u> and space-based <u>technologies</u> and related services. Maintain and strengthen in situ and remotely-sensed earth and climate observations. Strengthen the utilization of media, including social media, traditional media, big data and mobile phone networks to support national measures for successful disaster risk communication, as appropriate and in accordance with national laws;
- (g) (abbr.) through the coordination of existing networks and scientific research institutions at all levels and all regions with the support of the UNISDR Scientific and Technical Advisory Group in order to: (abbr.) disseminate risk information with the best use of geospatial information technology; (abbr.)

Expectation to geospatial information community to contribute to disaster risk reduction is high. In order to meet the expectation, I felt that we need to coordinate and cooperate from now on.

#### The Importance of Maps, the role of ICA and its efforts for Education and Capacity Building MAPS

INTERNATIONAL MAP YEAR 2015-2016 Georg Gartner President of the International Cartographic Association



Prof. Georg Gartner

Whenever we talk about spatial data or geoinformation and this needs to be presented and communicated to a human user it can very often only be "unleashed" through a map. This is because maps are most efficient in

enabling human users to understand complex situations. Maps can be understood as tools to order information by their spatial context. Maps can be seen as the perfect interface between a human user and all those big data and thus enable human users to answer location-related questions, to support spatial behaviour, to enable spatial problem solving or simply to be able to become aware of space.

What we can expect in the near future is, that information is available anytime and anywhere. In its provision and delivery it is tailored to the user's context and needs. In this the context is a key selector for which and how information is provided. Cartographic services will thus be wide spread and of daily-use in a truly ubiquitous manner. Persons would feel spatially blind without using their map-based services, which enable them to see who or what is near them, get supported and do searches based on the current location, collect data on site accurately and timely. Modern cartography applications are already demonstrating their huge potential and change how we work, how we live and how we interact.

Capacity Building and Education in cartography means to make sure, that the interface between a human user and the data and geoinformation with all the efforts being done to derive, model or analyze it, works, thus the data and information can be used. As the International Cartographic Association (ICA) is a forum of and for those which work with maps, produce maps, have to use maps the organisation is especially interested in not only linking those which deal with maps but also to promote the importance and power of maps as instruments to communicate spatial information to everybody.

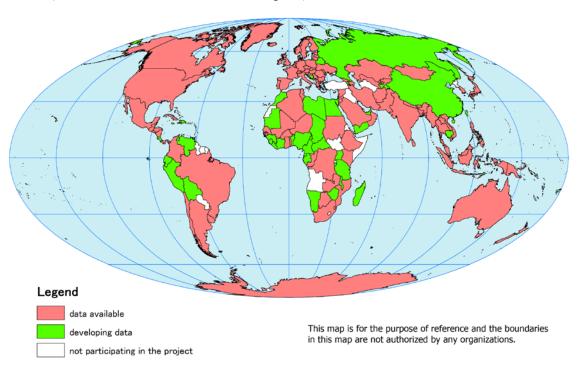
In this sense instruments like the endorsement of Education programmes dedicated to modern Cartography such as the International Master of Science Programme in Cartography (http://www.cartographymaster.eu/), the Barbara-Petchenik-Children Map Drawing Competition (http://icaci.org/tag/barbara-petchenik-competition/) or dedicated Capacity Building Workshops are very popular. Such Workshops are run by ICA on request and usually gives hands-on lessons in topics like WebMapping, OpenSource Technologies, Service-oriented Cartography to name a few. I am proud to be able to report, that as a specific framework the International Map Year 2015/16 has been endorsed by UN-GGIM (internationalmapyear. org). The main purpose of the International Map Year (IMY) is to expose the importance of maps and geographic information in the society. Our ever more complex society would be lost without maps and a proper use of geographic information. Topographic and geological maps as well as aerial photo products are used by the public for information and orientation but also by many professional organisations in fields such as physical planning and defence forces. Socio-economic maps are used to provide better insight in themes ranging from sustainability to the spread of diseases, and help us to mitigate the global differences in the population's access to resources. It is therefore most important that everyone has access to maps and to geographic information, and that maps and geographic information can be easily retrieved and used.

Check out www.icaci.org to find out more!

## From the Secretariat

#### **Global Map Data Release and Participation in the Global Mapping Project**

Currently 167countries/16 regions participate in the Project. Among them, data of 111 countries/8 regions have been released (Version 2 data are for 74 countries/4 regions).



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## **Global Map and Related Meetings**

Followings are Global Map and related meetings. Information on related meetings will be highly appreciated.

#### 2015

• August 23-28, Rio de Janeiro, Brazil 27th International Cartographic Conference • May 17-21, Sofia, Bulgaria FIG Working Week 2015 · October 5-9, Jeju Island, Republic of Korea 20th UN Regional Cartographic Conference for • August 4, New York, USA Asia and the Pacific (UNRCC-AP) The 22nd Meeting of ISCGM · October 9, Jeju Island, Republic of Korea • August 5-7, New York, USA Fourth UN-GGIM-AP Plenary Meeting **UNCE-GGIM** Fifth Session



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