

**Deqing International Workshop and Seminar on United Nations Global Geospatial
Information Management**

“The Data Ecosystem for Sustainable Development”

Fengjihu Hall, Deqing International Convention Centre, Deqing, Zhejiang Province, China

17 – 22 October 2019

SUMMARY REPORT

The Deqing International Workshop and Seminar on United Nations Global Geospatial Information Management, with the theme “*The Data Ecosystem for Sustainable Development*”, provided a forum for participants to discuss and exchange information, experiences and knowledge on available integrative technologies and processes to bring together data from multiple sources, collected for differing uses to deliver information and evidence on interactions and relationships between people, place, events and activities. The workshop and seminar deliberated key motivations, features and considerations for a data ecosystem for sustainable development that delivers the evidence on ‘where’ people interact with their place and environments, events and activities (including economic activities), and to deliver timely and reliable information necessary for citizens, businesses, organizations and governments to build accountable actions and evidenced-based decisions.

The United Nations Global Geospatial Information Management Section, Statistics Division, Department of Economic and Social Affairs, in collaboration with the Government of China through the Ministry of Natural Resources and the Zhejiang Provincial Government, jointly organized the Deqing International Workshop and Seminar with the support of the Regional Committee of United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP).

The International Workshop and Seminar had three components that allowed participants to engage, interact and learn with one another to realize a data ecosystem for sustainable development. It comprised of –

- (a) Technical Learning Event on the Data Ecosystem for Sustainable Development - Integrative Technologies and Processes from 17 - 19 October 2019
- (b) Technical briefing and visit on the Deqing SDGs Profile on 20 October 2019
- (c) Technical Seminar on the Data Ecosystem for Sustainable Development from 21 – 22 October 2019

Technical Learning Event on Data Ecosystem for Sustainable Development - Integrative Technologies and Processes from 17 - 19 October 2019

This learning event attended by fifteen participants from ten Member States, one participant from a Regional Commission and seven resource persons - three from the technology partner, two from within the United Nations Statistics Division in addition to the two facilitators. The learning event was essentially a capacity and capability development component of the Deqing International Workshop and Seminar for invited participants from developing countries (Guyana, Jordan, Kenya, Mongolia, Nepal, Philippines, Rwanda, Senegal, Tajikistan and China) to improve knowledge and understanding on the importance of ‘nationally’ integrated geospatial information management, and the vital and integrative role of

geospatial technologies and processes. The three-day technical learning event included a hands-on interactive or practical component where invited participants worked through a means to federate information as a nexus for delivering evidence-based information for the implementation of national development priorities and for sustainable development.

There were basically three parts to the learning event, the first explained the “why”, consisted of a series of presentations, the second showed participants “how” and allowed opportunities to work through the processes and worked off the technologies made available, supported by the resource persons and facilitators. The last part considered “what” it would take to succeed upon return to their capitals. Participants actively exchanged, interacted and learned from each other.

The technical learning event began with welcome remarks and announcements by the Ministry of Natural Resources followed by a series of presentations to set-the-scene and to provide the context and basis for the three-day learning event including the integrative technologies and processes available to Member States. The presentations included –

- The data ecosystem for sustainable development – the 2030 Agenda, the Sustainable Development Goals and its targets and indicators; the unprecedented data needed for implementation, follow-up and review; the digital transformation and the need to bridge the geospatial digital divide; and the Integrated Geospatial Information Framework as a basis, a reference and a mechanism for national leadership and developing the capacity to take positive steps towards developing and strengthening integrated geospatial information management.
- The Global Statistical Geospatial Framework – the tool for the integration of statistical, administrative, other data and geospatial information for the production of SDGs indicators; the data challenge and need for data integrability; and the five principles of the GSGF.
- Federating information for sustainable development – the global SDGs monitoring is built upon national reporting and national data sources; the vision, a data hub approach to collaborate and report on the SDGs across local, national and global data hubs; and leveraging existing and available geospatial technologies.
- The integrative technologies and processes – existing and available processes and system to address the technological needs of integrating data and federating information for sustainable development; the contributions and support from the technological partner towards the development of national data hubs for SDGs.
- GIS as an intelligent nervous system – geography is the science of our world providing content, context and a common reference system; the science of where, providing the framework and processes; leveraging the web services, data hubs built on ArcGIS platform for collaboration of global data, community engagement to tell stories for SDGs.
- Data modelling – a process focused on clearly and unambiguously identifying things that a dataset aims to capture; developing a data model for exchange and dissemination with a data structure; the SDMX information model and the SDGs data structure definition.
- Statistical data and metadata management – data management and SDGs metadata management; some good practices and also some challenges; and performance considerations.

In the second part of the technical learning event, the participants were walked through the technologies and processes available for the integration of statistical, geospatial and other data from a variety of sources and briefed on the hands-on exercises with ArcGIS online, explored content and groups, created webmaps, shared it to a group and learned configurable web application including preparing story maps. Participants also shown how they can create their ArcGIS hub site, configured its layout and shared contents. Participants readily grasped the concepts and before the day ended, two data hubs were

created by two participants in addition to a number of story maps and webmaps to disseminate statistical data. Participants appreciated that technology is an enabler.

The last part of the three-day learning event reminded participants that technology is an enabler and the aim was to provide solutions with their data and information to address real-world challenges. It was acknowledged that there is a need to integrate statistical, geospatial and other data, to efficiently integrate data from the societal, economic and environmental domains, to effectively disseminate integrated geospatial information, statistics and other data, enabled by technologies that facilitate data sharing, interoperability and collaboration to report on the SDGs across local, national and global data hubs.

Participants shared that the three days had been very valuable, an ‘eye-opener’, a realization of the need to work together, to avoid duplication, to share data and a readiness to apply what they have learned during the event. Some shared that technology and processes provided is no longer daunting and that there is no need to be an ‘IT expert’ to work with and apply the integrative technologies and processes. Many participants agreed that having standards including agreeing on geocodes will be very useful. Others requested that methodologies to produce indicators be shared so that they too can progress. And there were the few that do need to strengthen their legal framework and provisions as well as institutional arrangements and governance to reap the benefits of the integrative technologies and processes available.

Participants shared that it is possible to use the integrative technologies and processes provided as a means to integrate data and federate information for sustainable development. The learning event had strengthened understandings and improved abilities to integrate geospatial, statistical, and other information for national development priorities and national implementation of the 2030 Agenda, leveraging technologies and the system-of-systems approach that delivers the evidence on ‘where’ people interact with their place, events, activities for evidence-based and accountable actions to leave no one behind.

Technical briefing and visit on the Deqing SDGs Profile on 20 October 2019

This event allowed participants from the technical learning event and additional participants attending the technical seminar to understand first-hand local efforts and progress to implement the 2030 Agenda and to leverage the integrative technologies and processes, integrating statistical, geospatial and other data to provide information and knowledge for programmes and plans to improve the sustainability and wellbeing of people, business and environment in the county. Participants were briefed on the development and progress of the Deqing SDGs Profile and the Deqing SDGs Knowledge-oriented Data Hub through a series of presentations by presenters from the National Geomatics Center of China, Hunan University of Science and Technology and Alpha (Guangzhou) Co. Ltd.

The technical briefing was complemented with a study visit in the afternoon to the China Rural Lifestyle Expo Park and the Xiazhu Lake National Wetlands Park, a wetlands and conservation area within the county, further reinforcing the technical briefings delivered in the morning.

Technical Seminar on Data Ecosystem for Sustainable Development from 21 – 22 October 2019

This was an open event within the Deqing International Workshop and Seminar where 173 participated including 139 national participants from all over the country. In addition to China, participants included representatives from Armenia, Bangladesh, Dominican Republic, Fiji, Guyana, Indonesia, Jordan, Kenya, Kyrgyzstan, Lao PDR, Mongolia, Nepal, Rwanda, Senegal, Sri Lanka and Tonga. The seminar began with an official opening session moderated by Mr. Stefan Schweinfest, Director of the United Nations Statistics Division. The welcome remarks from Mr. Kurexi Maihesuti, Vice Minister, Ministry of Natural Resources was delivered by Mr. Wang Qian who is the Deputy Director General, Department of International Cooperation in the Ministry. The opening statement was provided by Mr. Liu Zhenmin, Under-Secretary-General, Economic and Social Affairs of the United Nations, who added his welcome to all participants and appreciation to the Government of China for the hospitality and contributions toward United Nations efforts to strengthen the data ecosystem for sustainable development. Ms. Wang Qinying, Secretary of the Deqing County Party Committee also welcomed the participants to Deqing and presented the Deqing SDGs Knowledge-oriented Data Hub to the participants. The official opening session was followed by two thematic sessions and four panel sessions.

The first of the two thematic sessions considered integrative geospatial technologies and processes recognizing that digital transformation of society and economy is truly underway and there is a need to reap the benefits of digital transformation for people, planet, prosperity and peace. Three presentations were delivered that stressed on the need to: integrate and interoperate, coordinate and collaborate; leverage the digital geospatial infrastructure to evolve an ‘intelligent nervous system’ where geography provides the connection, the context and the content; and collaborative and coordinated cloud services with global footprints allowing data-on-demand and in quasi real-time. Technological enterprises with global footprints are ready to partner, and to support, catalyze and enable effective geospatially integrative infrastructure for collaboration and integration, allowing countries to reap the dividends of digital transformation.

The second thematic session centered on the Deqing SDGs Profile and its Knowledge-oriented Data Hub and was followed by the first of four panel sessions. The first panel considered leveraging integrative technologies, processes and services to deliver timely and reliable information necessary for governments, enterprises and communities to make informed decisions. The following three panels focused on nationally integrated geospatial information management, the rationale and drivers to progress and strengthen nationally integrated geospatial information management, the importance of stakeholder engagement and partnerships, and importance of education and capacity development.

Many panelists spoke with emotions and passion, from first-person encounters and experiences, stressed the importance to strengthen nationally integrated information systems. In this regard, to share timely, reliable and quality information, to provide the “what”, the “who”, the “how”, the “when” and the “where” to address challenges facing their communities and country today including that from climate change (small islands developing states), the opportunities and benefits of digital transformation (least developed countries), and improving the wellbeing of communities.

The six-days reinforced the need to work together, to coordinate and collaborate locally, nationally and globally to evolve the data ecosystem for sustainable development. A data ecosystem that is the nexus for delivering timely, reliable and quality information necessary for citizens, organizations and governments to make evidence-based decisions and accountable actions for sustainable development and to leave no one behind.

Integrative and collaborative technologies, processes and systems are available and coupled with the globally agreed and adopted Integrated Geospatial Information Framework, provide the means to effectively collect, produce, share and integrate data. The system-of-systems approach, federating information with data hubs is beginning to meet the demand for information and insights to attend to local needs, as demonstrated by the Deqing SDGs Knowledge-oriented Data Hub, and also that at the national and global levels. The broad and transformative nature of the 2030 Agenda for Sustainable Development provides opportunities for the geospatial information community to meet the unprecedented need for more and new sources of data to cover all aspects of sustainable development, and to leverage the integrative capacities of geospatial information.

Participants, particularly those from outside China, all expressed their appreciation to the hosts, the Ministry of Natural Resources, the Zhejiang Provincial Government and the Deqing County Government, and also the team of able staff and volunteers including from the Deqing County Government and the Deqing International Convention Centre for all their arrangements, efforts, hospitality and warm reception that enriched their participation in the Deqing International Workshop and Seminar and their stay in Deqing. The contributions of participants, panelists, presenters, moderators and facilitators that added to the lively, engaging and enriching six days were also acknowledged.

*23 October 2019
Deqing, China*