First expert meeting of the United Nations Working Group on Marine Geospatial Information
Busan, Republic of Korea, 7 – 9 March 2019

Summary Report

Background

At its sixth session, the Committee of Experts recognized the need to consider the marine environment, namely, shorelines, coastal waters, seas and oceans, as a key component of the spatial data infrastructure that underpins the administration and management of land and marine spaces, and the national geospatial resources of many littoral Member States. Marine geospatial information supports the effective administration, management and governance of the marine and ocean environments. The information also plays a vital role in measuring, monitoring and mitigating climate risk in seas and oceans and the implementation of the 2030 Agenda for Sustainable Development.

Human activity on Earth occurs on land, water, and in the atmosphere. Seas and oceans cover approximately 70% of the Earth's surface and it is estimated that more than three billion people depend on the seas and oceans for their primary source of protein. The International Maritime Organization (IMO) estimated that 90% of the world's trade is carried on seas and oceans.

Geospatial information provides the integrative platform for all digital data that has a location dimension to it. All countries and all sectors need geospatial information for national development and decision-making. Geospatial information is forming a new and emerging "data ecosystem" for sustainable development in which collaborative information systems, that are comprehensive and coordinated, able to provide evidence on the state of a place, people, events and activities, and to deliver timely information necessary for citizens, organizations and governments to build accountable actions and make informed and evidenced-based decisions. There is a need to significantly support, particularly developing countries, to work towards nationally integrated geospatial information management, its systems and infrastructures through the formulation of appropriate norms, frameworks, principles, approaches and guides.

Coordinated geospatial information management in the marine environment will foster better comprehension of marine activities to serve and support the wellbeing of billions of inhabitants reliant on sustainable coastal societies, the marine environment and blue economy; and global development agendas notably the 2030 Agenda for Sustainable Development, particularly the aspirations within Goal 14 and its targets as well as the SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway.

In the foreword of the Sustainable Development Goals Report 2018 that reviewed the progress of the implementation of the 2030 in its third year, the Secretary-General of the United Nations noted that "Without evidence of where we stand now we cannot confidently chart our path forward in realizing the Sustainable Development Goals. To that end, this report also reflects on the challenges faced in the collection, processing, analysis and dissemination of reliable, timely, accessible and sufficiently disaggregated data, and calls for better evidence-based policymaking. Today's technology makes it

possible to collate the data we need to keep the promise to leave no one behind. But, we need political leadership, resources and commitment to use the tools now available."

The United Nations Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP) had addressed "administering marine environment" in the last decade. An International Workshop for Administering the Marine Environment was convened in Kuala Lumpur in 2004 and recommended that the marine dimension be added to the national spatial data infrastructure of all littoral states. This development will allow for a seamless spatial data infrastructure that promotes the integration of data from land, coastal zones and marine environment.

The Committee of Experts at its seventh session in August 2017 agreed to move forward and establish a new working group to substantively address marine geospatial information with terms of reference that include issues related to inland water bodies and waterways with an overarching proviso to focus on the 2030 Agenda for Sustainable Development, in particular, Sustainable Development Goal 14 – Life below water and to an extent, Goal 6 – Ensure availability and sustainable management of water and sanitation for all.

Marine Geospatial Information

Marine geospatial information is needed to support the management, administration and governance of the oceans, seas, coastal zones, inland waterways and water bodies to meet the demand for critical analysis when questions arise pertaining to the governance, management and coordination of inland water bodies and waterways, coastal zones, seas, oceans and its resources. The information gathered will play a vital role in measuring, monitoring and mitigating climate risk, resilience and livelihoods of coastal and riverine communities, in supporting national strategic and development priorities, and the implementation of the 2030 Agenda for Sustainable Development.

The Working Group through its functions ensures that marine geospatial information is readily available as part of the reliable, timely and accessible location-based information in helping Member States develop strategic and development priorities, make decisions, and measure and monitor outcomes, recognizing that once these geospatial data are created, they can be used many times to support a multiplicity of applications.

Decision 7/111 (2017)

The Committee of Experts on Global Geospatial Information Management: (a) Welcomed the report of the Secretariat on marine geospatial information, and agreed that strengthening global geospatial information management included addressing marine geospatial information to support Member States in developing national policy, determining strategic priorities, making decisions and measuring and monitoring global development outcomes; (b) Endorsed the terms of reference and establishment of the working group on marine geospatial information, and welcomed the participation and contribution of Member States to the working group, noting the need for appropriate technical expertise and broad geographical representation; (c) Noted that, given the complexity and broad scope of marine geospatial information, it was critical to ensure that the working group engaged with the appropriate subject matter experts to ensure that the working group remained focused, within its scope, not political in nature and connected to the activities of other working groups of the United Nations Global Geospatial Information Management, where and as appropriate; (d) Encouraged the newly formed working group to provide a

forum for dialogue and collaboration between Member States to address issues related to the availability, accessibility and application of marine geospatial information, and linkages to national spatial data infrastructure, to ensure the principle of "build once, use many times".

Decision 8/112 (2018)

The Committee of Experts on Global Geospatial Information Management: (a) Welcomed the report of the working group on marine geospatial information (see E/C.20/2018/15), and commended the work and efforts of the working group in developing its work plan for the biennium 2018–2019, in which it addressed issues related to the availability, accessibility and application of marine geospatial information; (b) Noted the activities and progress of the working group, including the preparation of a communication plan that described the benefits and value of marine geospatial information and addressed livelihoods and the well-being of communities, in the context of the 2030 Agenda for Sustainable Development; (c) Encouraged the working group to consider a use-case study on data availability and interoperability, and linkages to national geospatial information infrastructure that relates to inland water bodies and waterways, coastal zones, seas and oceans and to consider good practices and exemplars, including the Arctic spatial data infrastructure project; (d) Requested the working group to take note and consider in its activities the United Nations Decade of Ocean Science for Sustainable Development and related international initiatives, including the Seabed 2030 project; (e) Noted that the working group encouraged and promoted the use of internationally agreed standards, such as the S-100 suite of geographic standards, including the S-121 standard, across all marine activities, and noted also that, in the developing specifications and standards, the working group engaged with standards development organizations; (f) Encouraged the working group to remain focused, actively seek collaboration with other expert groups and working groups of the Committee of Experts, in order to avoid duplication, and ensure that the activities in this regard remained technical in nature; (g) Noted that the working group would convene its first expert meeting, directly after the meeting of the working group on marine spatial data infrastructures of the International Hydrographic Organization, to be held in Busan, Republic of Korea, during the first week of March 2019.

The Busan meeting of the Working Group

The first expert meeting of the Working Group, a physical meeting, was hosted by the Government of the Republic of Korea through its Korea Hydrographic and Oceanographic Agency, Ministry of Oceans and Fisheries. The meeting as participated by 42 expert representatives from Australia, Brazil, Denmark, Germany, Italy, Jamaica, Netherlands, Norway, Republic of Korea, Singapore, United Kingdom, United States of America, International Hydrographic Organization, Open Geospatial Consortium and UN-GGIM: Private Sector Network (Esri and Oceanwise). The expert representatives from Burkina Faso and New Zealand participated via remote connection. The list of participants is available at http://ggim.un.org/meetings/2019/WG-MGI-Busan/Busan_meeting_List_of_Participants.pdf.

The meeting was officially opened by Mr. Kang Yong-seok, Director General of Korea Hydrographic and Oceanographic Agency after the co-Chair of the Working Group, Mr. John Nyberg (United States of America) welcomed all participants and thanked the host for their warm reception and hospitality, the conducive facilities, and professional and efficient support to the meeting. Mr. Kang in its official address expressed KHOA's delight to host the inaugural face-to-face meeting of the Working Group and stressed the need to work together to ensure sustainable development and growth. In this regard, he called for

intensified efforts in the coastal and marine environment, and to comprehensively address issues with the expertise available including with the participants at this Busan meeting of the Working Group. After the safety and housekeeping announcements by Mr. Lee Jun-shik (Korea), the participants at the meeting proceeded to introduce themselves before the first presentation delivered by Mr.Nam Jung-ho from Korea Maritime Institute titled *"ICM to CMSP: Toward more Resilient and Sustainable Society in Korea"*

The annotated agenda for the meeting is available at: http://ggim.un.org/meetings/2019/WG-MGI-Busan/Busan_meeting_Annotated_agenda.pdf. A total of 22 presentations were delivered to set the stage and in support of the substantive agenda of the meeting that addressed the activities and progress of the working group to date, the work plan and additional activities including a proposed use case exercise, new and emerging issues, challenges and opportunities that may merit the Working Group's consideration. Six participants were invited to share their observations and key take-aways to summarize the first two days' discussions and deliberations.

All the presentations provided rich context and content, raise awareness, stimulated thinking, debates and discussions on the value (or the undervaluing) of marine geospatial information, the role and relevance of marine geospatial information not just in nautical charting but into an era where data as a service is becoming dominant, to unlock the wealth of information about the oceans, seas, coastal zones, inland waters and water bodies to address strategic and development challenges, and the evolving role of national hydrographic offices, services or departments. The Working Group was informed of a number of international initiatives including the Decade of Ocean Science for Sustainable Development, Seabed 2030, and standards for the marine domain.

The open discussion segments were energetic and robust, aided in improving awareness and appreciation of differing national contexts, challenges, experiences and practices. The sharing of experiences is an important component of the Working Group activities as there are good practices to be identified, to be shared, that can be adapted and adopted. Some participants shared unique circumstances, sought to sensitize other participants on their unique challenges and circumstances, noting that Working Group has representations across a range of development situations and circumstances. However, the Working Group could benefit from broader geographic representations and across developmental context. The Working Group dwelled and deliberated on a number of new and emerging issues including its role in the blue economy, volunteered bathymetry, and considerations for marine geospatial information to be readily available and accessible.

Participants shared the need to work together, for shared ambition as a Working Group, and the usefulness of corporate buy-in at the national level, whilst some observed that there still is a focus on products (nautical charts), others considered the cruciality of continuing access to water for survival with its accompanying need for reliable, timely and quality geospatial information. There is a need for dialogue between the producers and users of marine geospatial information, and a need for effective communication across the spectrum of beneficiaries and users including policy makers and political masters. There is also a need to avoid duplication and to work with and ensure that standards development organizations, the International Hydrographic Organization and this United Nations Working Group work together cohesively and coherently. Some highlighted constraints they have to work to, principally the lack of capacity and capability, and for some, insufficient resourcing.

There is a recognition of the need for hydrographic offices, services or departments to move with the times, to ensure that marine geospatial information is reliable, timely, available and accessible as part of the comprehensive location-based information to contribute to governments in implementing its strategic and development priorities, make decisions, deliver accountable actions, measure and monitor outcomes. There appears a need to continue to raise awareness that once marine geospatial data are created, they can be used many times to support a multiplicity of applications. Participants generally recognized the value of marine geospatial information particularly within national development context including coastal zone management, administration of water and water bodies, and marine spatial planning.

The United Nations Integrated Geospatial Information Framework was presented to the participants. It is an overarching strategic framework that was adopted at the eighth session of the United Nations Committee of Experts on Global Geospatial Information Management and provides a basis, a reference and a mechanism for Member States when developing and strengthening their national and sub-national arrangements in geospatial information management and related infrastructures. This applies to the management of marine geospatial information. The Framework translates high level policy concepts into practical implementation guidance for use by Member States, and does this by leveraging seven underpinning principles, eight goals and nine strategic pathways as a means for governments to establish more effective geospatial information management arrangements.

The meeting –

1) Agreed that marine geospatial information must be made available, accessible and discoverable for a multiplicity of purposes within collaborative information systems nationally to deliver reliable, timely, quality and accessible information necessary for citizens, organizations and governments to build accountable actions, make informed and evidenced-based policies and decisions;

2) Requested Open Geospatial Consortium to continue its participation in the Working Group and to coordinate with the International Hydrographic Organization and International Organization for Standardization Technical Committee 211 to prepare a guide on the role of standards for marine geospatial information management in plain language;

3) Acknowledged that a use case exercise is helpful to explore the issues, challenges, good practices and develop solutions in the collection and application of marine geospatial information, that the current proposed use case scenarios be simplified, the questions refined, and that the Working Group discuss and agree on the use case exercise at its next online meeting;

4) An ad hoc task group was established, coordinated by United States together with Australia, Denmark, Jamaica, Italy, Netherlands and Norway to review, suggest desired outcomes and milestones, and to ready the propose use case in time for the next online meeting of the Working Group;

5) That the use case exercise, when agreed, will seek contributions, initially from members of the Working Group as a practical starting point and as a means for further refinement, and subsequently expanded to include additional contributions from other Member States not represented on the Working Group;

6) Agreed the current work plan be updated to reflect completed activities and revised to include additional agreed activities and that the draft revised work plan for 2019 – 2020 be discussed and agreed upon at the next online meeting;

7) Acknowledged the value and necessity of face-to-face meetings at this present stage of the Working Group and agreed that the second expert meeting be convened in the first quarter of 2020 and that the Working Group decides on the dates and venue at its next online meeting; and

8) The Working Group to further discuss the modalities of engaging and contributing to the Decade of Ocean Science for Sustainable Development and Seabed 2030 during its future online meetings.

Participants felt most welcomed by the Government and people of the Republic of Korea, expressed their appreciation to each other and their countries for contributing to a productive first expert meeting of the Working Group. The opportunity for an excursion and visits together with a memorable Korean cuisine dinner further developed friendships, collegiality and camaraderie amongst participants that greatly aided the Working Group in its meeting.

The Working Group expressed its heartfelt thanks and deep appreciation to the Government of the Republic of Korea, the Ministry of Oceans and Fisheries, and Korea Hydrographic and Oceanographic Agency for a very comfortable and conducive environment to discuss and deliberate, interact and exchange views, ideas, experiences and knowledge amongst one another, and for the generosity and warm hospitality. All participants expressed their gratitude and thanks to colleagues and staff from Korea Hydrographic and Oceanographic Agency for their most professional and tireless efforts to deliver this inaugural face-to-face meeting of the Working Group.

Busan,
Republic of Korea
9 March 2019