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Strengthening of geospatial information management

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Note by the Secretariat

Summary

The present paper contains the report of the Secretariat on strengthening of geospatial information management for consideration by the Committee of Experts on Global Geospatial Information Management.

At its seventh session, held in New York from 2 to 4 August 2017, the Committee of Experts adopted decision 7/101, in which it welcomed the efforts of the Secretariat and the Expanded Bureau of the Committee to take practical and strategic action to implement Economic and Social Council resolution 2016/27 on strengthening institutional arrangements on geospatial information management. The Committee agreed that the 2017–2021 Strategic Framework provided a reference for prioritizing the work of the Committee and a tangible means to communicate its work. It suggested that its implementation be maximized through the support of the regional committees, thematic groups and other relevant stakeholders. This report of the Secretariat, prepared with assistance from the Expanded Bureau of the Committee of Experts, provides information on the efforts made to take practical and strategic action to implement the resolution and strengthen geospatial information management for Member States. An updated Strategic Framework for the 2018–2022 period is presented, along with modalities and efforts to enable the Committee to be better supported by the regional committee architecture and the Regional Commissions. In addition, the report provides details on the convening of the United Nations World Geospatial Information Congress in Deqing, Zhejiang Province, China, from 19 to 21 November 2018. With the overarching theme “The geospatial way to a better world”, the Congress will be a global event bringing together all stakeholders at the highest level to address and ensure that geospatial information reaches its widest and fullest utility in service of social, economic and environmental development.

I. Introduction

1. In July 2016, and following a comprehensive review of the Committee of Experts¹, the United Nations Economic and Social Council (ECOSOC) adopted resolution 2016/27 entitled ‘Strengthening institutional arrangements on geospatial information management’.² This resolution acknowledges the considerable achievements of the Committee over its first five years including: its contribution to the strengthening of geospatial information management capacities and utilization in developing countries; the efforts to streamline the work of the subsidiary bodies of the Council in the field of geospatial information management; and its role in the implementation of the 2030 Agenda for Sustainable Development, the Sendai Framework, and other global development agendas within the purview of the United Nations.

2. Noting the increasing role and relevance of the Committee of Experts and its acknowledged efforts in streamlining the subsidiary bodies of the Council on geospatial information management, the Council has requested that the Committee report back within five years on the implementation of resolution 2016/27, and to examine the strengthening of the institutional arrangements of the Committee.

3. At its seventh session in August 2017, the Committee of Experts adopted decision 7/101, in which it welcomed the efforts of the Secretariat and the Expanded Bureau of the Committee to take practical and strategic action to implement resolution 2016/27 on strengthening institutional arrangements on geospatial information management. The Committee noted and expressed support for progress on the 2017–2021 Strategic Framework, and agreed that it provided a reference for prioritizing the work of the Committee and a tangible means to communicate its work. It suggested that efforts to implement the Framework should be maximized through the support of the regional committees, thematic groups and other relevant stakeholders.

4. The present report informs the Committee of Experts of efforts by the Expanded Bureau and Secretariat to take practical and strategic actions to implement the resolution and strengthen geospatial information management for Member States as follows: Section II – strengthening the global coordination and coherence of geospatial information management; Section III – the High Level Forum’s on UN-GGIM; Section IV – the fourth annual meeting of the UN-GGIM Expanded Bureau in December 2017; Section V - an updated Strategic Framework for the 2018–2022 period; Section VI - a new initiative for a Federated Information System for the Sustainable Development Goals; Section VII – the convening of the first United Nations World Geospatial Information Congress in Deqing, Zhejiang Province, China, in November 2018; Section VIII – the revision of the Future Trends Report; and Section XIV – some considerations going forward for the Committee. The Committee of Experts is invited to take note of the report and to express its views on the way forward for strengthening geospatial information management. Points for discussion and decision are provided in paragraph 47.

¹ Programme review of the work of the Committee of Experts on Global Geospatial Information Management, E/2016/47. <https://undocs.org/E/2016/47>

² Strengthening institutional arrangements on geospatial information management, E/RES/2016/27. <https://undocs.org/E/RES/2016/27>

II. Strengthening the global coordination and coherence of geospatial information management

Funding and Contributions

5. In adopting resolution 2016/27, ECOSOC stressed the need to strengthen the coordination and coherence of global geospatial information management in capacity-building, norm-setting, data collection, data dissemination and data sharing, among others, through appropriate coordination mechanisms. This includes strengthening capacity-building in the area of geospatial information and relevant statistical integration, especially in developing countries. The Council has further recognized that sustainable funding and support, particularly for the operations of the Committee that focus on the Sustainable Development Goals (SDGs), is needed to strengthen and ensure the continued progress and effectiveness of the Committee.

6. The Council has encouraged Member States to provide voluntary contributions, and otherwise requested the Secretary-General to try to mobilize extra budgetary resources, including through the means of trust funds and other sources as appropriate to support the activities of the Committee. It is specifically intended that such additional resources extend to covering the cost of participation in the annual Committee sessions by developing countries, and in order to ensure full and effective participation of countries in special situations.

7. The Committee of Experts is mindful that a number of the achievements and capacity-building outcomes for Member States, including participation in technical forums, workshops, and annual Committee sessions, were initially made possible by an international cooperation project on geospatial information management capacity development (China Trust Fund) provided by the People's Republic of China (2013-2017). The specific objectives of the China Trust Fund were to focus on the enhancement of the institutional and organizational framework of national geospatial information management systems of Member States, and improvement of dissemination of geospatial data to policymakers and other users.

8. As the China Trust Fund reached its conclusion at the end of 2017, and recognizing the considerable achievements and progress made by the Committee of Experts, the People's Republic of China extended the Trust Fund in April 2018 for a further five years, from 2018-2022, to support capacity-building efforts across Member States, and to continue to connect and integrate the global geospatial information community. The main objective of this second China Trust Fund project is to continue to improve and strengthen national geospatial information management, systems and capacities in China and other developing countries, especially to meet the needs of national development priorities and national implementations of the 2030 Agenda for Sustainable Development.

9. UNSD is executing a project under the 11th tranche, 2018 to 2021, of the Development Account with the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic Commission for Africa (ECA), the UN Office for Outer Space Affairs (UNOOSA), and the Regional Committees of UN-GGIM for Africa and Asia and the Pacific (UN-GGIM: Africa and UN-GGIM-AP) as co-operating entities. The Development Account is a capacity development programme of the United Nations Secretariat, aimed at enhancing the capacities of developing

countries in the priority areas of the United Nations Development Agenda.³ This project will focus on improving and strengthening national geospatial information management capacities towards implementing the 2030 Agenda and evidence-based policy and decision-making, will increase awareness and understanding, and will develop and strengthen mechanisms through the implementation of the Integrated Geospatial Information Framework, and other UN-GGIM agreed frameworks, principles and guides. The project aims to support national geospatial agencies from developing countries to adopt and apply internationally agreed frameworks, principles and guides, and develop implementation strategies and plans to improve and strengthen their technical capabilities and capacities to collect, produce and disseminate timely and reliable geospatial information.

10. The UNSD/World Bank Collaborative Agreement, signed at the seventh session of the Committee of Experts, is a tangible mechanism to formulate a joint vision to create an enabling environment for geospatial data, infrastructure and related policies and processes to be embedded more holistically within concessional financing, technical assistance and knowledge-sharing services, and their subsequent implementation in developing countries. The development of the Integrated Geospatial Information Framework, discussed within a separate report at this eighth session, provides an overarching strategic policy guide and reference for countries that are developing, strengthening and modernizing their national geospatial information management, systems and infrastructure, capacities and capabilities, and offers the opportunity for Member States to leverage new funding streams. The Framework intends to support developing countries and regions to establish and enhance geospatial capabilities through the use of appropriate frameworks, methods, guidelines and standards which can be piloted, replicated and delivered within and across countries and regions.

11. Since its constitution in 2004, the Global Spatial Data Infrastructure Association (GSDI) mission and purpose has been to enable society to leverage the power of geospatial information and associated tools to improve decision making relating to, amongst other things, economic, social and environmental challenges that permeate local, regional and international boundaries. Today, many nations around the world have aligned with common SDI principles, practices and standards to facilitate improved collaboration and sharing of geospatial information across multiple domains and thus realized the benefits of doing so.

12. As a member of the UN-GGIM: Geospatial Societies, the GSDI recognizes that through the Committee of Experts, the United Nations now offers its Member States and GSDI professionals from across the public and private sectors the opportunity to advance the very principles and practices that the GSDI has developed and advanced over many years, including the strengthening of national geospatial data and information systems and infrastructures, and to ensure that the contribution of the global geospatial information community to implement the 2030 Agenda for Sustainable Development remained rigorous and relevant.

13. In early 2018, GSDI's members decided the time is right to wind down the GSDI Association as a legal entity, and to offer their remaining resources to the UN-GGIM program and other initiatives which advance activities consistent with the GSDI purpose and mission. In this regard, GSDI has provided a contribution of US\$39,000.00 to UNSD to support the capacity development initiatives of the

³ Development Account: www.un.org/development/desa/da/

Committee of Experts, specifically to support participation of developing Member States to UN-GGIM workshops, expert meetings and technical capacity-building events. The Committee of Experts is deeply appreciative of this generous contribution to support the strengthening of geospatial information management.

Regional Architecture

14. From the outset, a major objective of the Committee of Experts was to build consensus towards a global regional UN-GGIM architecture that included the five geographic regions of the world and a number of related thematic global networks, and strongly linked to the mandates of the Committee. This global regional architecture will be completed at this eighth session of the Committee of Experts, when the UN-GGIM: United Nations System Network will be formally established in a separate report before the Committee. Each of the five UN-GGIM regional committees, the UN-GGIM: Geospatial Societies, the UN-GGIM: Academic Network, the UN-GGIM: Private Sector Network, and the UN-GGIM: United Nations System Network that report to the Committee of Experts, encapsulates the importance of strengthening coordination, capacity-building and coherence of global geospatial information management, especially in developing countries.

15. In order to effectively strengthen geospatial information management holistically, and through leveraging existing United Nations system mechanisms and structures, ECOSOC resolution 2016/27 requested that the UN Regional Commissions provide relevant support, upon request and as appropriate, to the work of the regional technical geospatial information committees of the Committee of Experts, and that the outcomes and benefits of the activities of those bodies be equally disseminated to all Member States in each region.

16. In making decision 7/101 at its seventh session, the Committee of Experts noted the central importance of strengthening capacity-building in geospatial information management and relevant statistical integration, especially in developing countries, and requested the Bureau to pay special attention to that topic. Further, the Committee encouraged the regional committees of UN-GGIM to continue their outreach to the Regional Commissions, determine possible mechanisms for collaboration and report progress back to the Committee at its next session.

17. Each of the Regional Commissions are now progressing and implementing mechanisms in response to the above decisions and the Council's request for support, as these have a number of mutual national to regional benefits that are then elevated to the global level. Greater coordination and collaboration between the regional committees of UN-GGIM and the Regional Commissions will facilitate an increased involvement of all Member States, regionally and globally, in the work of the Committee of Experts. Moreover, this will be a key communication and implementation mechanism towards achieving the Committee's goals of promoting the global use and delivery of geospatial information and solutions for evidence-based decision making. Such engagements would also build upon the Council's importance of strengthening capacity-building in the area of geospatial information management and relevant statistical integration, especially in developing countries, as well as the Committee's continued efforts to work with the Statistical Commission and with the entire United Nations system.

III. High Level Forum on UN-GGIM

Fifth High Level Forum

18. The Fifth High Level Forum on UN-GGIM was convened in Mexico City, Mexico from 28-30 November 2017. With the overarching theme ‘Implementing the Sustainable Development Goals: The Role of Geospatial Technology and Innovation’, the High Level Forum was organized by UNSD, as the Secretariat for the Committee of Experts, in collaboration with the Government of Mexico through the National Institute of Statistics and Geography (INEGI), and supported by Geospatial Media and Communications. This fifth edition of UN-GGIM's High Level Forum was attended by over 300 participants from 73 countries, and had substantive support from each of the five Regional Committees of UN-GGIM, as well as the UN-GGIM Networks, namely Private Sector Network, Academic Network and Geospatial Societies.

19. The Forum substantively improved and strengthened the national geospatial information management capacities of countries, particularly developing countries, towards implementing the 2030 Agenda and evidence-based policy and decision making. With over sixty presentations, the Forum held in-depth dialogue on the critical role of geospatial technology, innovation, and highlight the importance of public-private partnerships for the enhancement of geospatial knowledge and services to attain the SDGs. The Forum concluded with the adoption of the Mexico City Declaration on Global Geospatial Information Management.⁴ This affirmed the significant contribution of geospatial technologies, processes and innovation in the implementation of the 2030 Agenda for Sustainable Development.

20. The Mexico City Declaration affirmed, inter alia, that to achieve the SDGs, there is an urgent need to accelerate the collaboration, coordination and building of public-private partnerships across government sectors, academia, industry, the private sector, and civil society to create and improve data, tools and methodologies to ensure access to reliable, unbiased, accurate, timely, accessible and disaggregated information to inform decision-making, enable action and measure progress, and ensure that everyone is counted. While the challenges are immense, the geospatial technology, innovation, platforms, data and solutions that are available today, and facilitated by strong and growing public-private partnerships, allow the necessary means to strengthen countries’ geospatial and statistical information capabilities towards integrative national information systems that enable an evolving ‘data ecosystem’ that leverages an accessible and interoperable local to global system-of-systems. However, geospatial technologies and innovation have been unequally adopted. There is an urgent need to effectively democratize and transfer these technologies and associated data through the enabling global mechanism of the 2030 Agenda, in such a way that they are easily reachable and useable by all countries, but especially developing countries, as they not only bring data together but also people, processes and results.

Sixth High Level Forum

21. The UN-GGIM Expanded Bureau has welcomed the United Kingdom’s offer to host the Sixth High Level Forum on UN-GGIM. This is particularly appropriate given that Europe is the only region yet to host a High Level Forum. The Forum will be organised by UNSD, as the Secretariat for UN-GGIM, in collaboration with the Government of United Kingdom through the Ordnance Survey. It will take place

⁴ Mexico City Declaration Implementing the Sustainable Development Goals: The Role of Geospatial Technology and Innovation. http://ggim.un.org/meetings/2017-Mexico/documents/Mexico_City_Declaration_30Nov2017_Final_Agreement.pdf

near London from 20-22 April 2020 and, for mapping and geospatial agency leaders, will immediately be followed by the Cambridge Conference. The High Level Forum will aim to substantively improve and strengthen the national geospatial information management capacities of countries, with the specific theme for the Forum being determined based upon the findings and outcomes arising from the United Nations World Geospatial Information Congress being held in Deqing, China in November 2018.

IV. UN-GGIM Expanded Bureau Meeting

22. The UN-GGIM Expanded Bureau convened its fourth annual meeting immediately following the Fifth High Level Forum on UN-GGIM in Mexico City, Mexico on 1 December 2017. Hosted by INEGI, the meeting had a short agenda that featured: a review of the Fifth High Level Forum; the UNSD/World Bank collaborative project to bridge the geospatial digital divide; a progress review of the decisions from the seventh session of the Committee of Experts; collaborative and coordination activities; and the programme of work for 2018. The agenda and full report of the Expanded Bureau meeting is available on the Bureau's web page.⁵

23. The key elements that were discussed at length by the Expanded Bureau, and which are either captured in detail separately in this report or in other reports before the Committee, included: a review of the Fifth High Level Forum; a status report on progress for the UNSD/World Bank collaborative project, an Integrated Geospatial Framework; and the initial substantive and logistical details for the first United Nations World Geospatial Information Congress in Deqing, China in November 2018.

24. The Expanded Bureau will hold a short informal executive meeting on the margins of this eighth session of the Committee of Experts, and will convene its fifth annual meeting immediately following the United Nations World Geospatial Information Congress in Deqing, China, on 23 November 2018.

V. 2018-2022 Strategic Framework

25. In making decision 7/101 at its seventh session, the Committee noted and expressed support for progress on the 2017–2021 Strategic Framework, and agreed that it provided a reference for prioritizing the work of the Committee and a tangible means to communicate its work. Intended as a living document, updated and revised at regular intervals as the work of the Committee evolves, the Framework provides a high-level one page overview of the Committee's mission, vision, strategic objectives, global policy framework, geospatial challenges and drivers, benefits and efficiencies, operating principles and working activities.

26. The Strategic Framework has since been further refined and updated by the Secretariat over the intersessional period of the Committee, and is presented as the '2018-2022 Strategic Framework' in Annex I to this present report. The Expanded Bureau encourages the global and regional expert and working groups to ensure that their work is aligned with the objectives of the Framework, and that any national action plans are similarly cognizant of these objectives to support and serve the

⁵ Report of the Fourth Meeting of the UN-GGIM Expanded Bureau, 1 December 2017, Mexico City, Mexico.
http://ggim.un.org/meetings/Bureau_Meetings/UN-GGIM_Expanded_Bureau_Meeting_Report_Dec_2017_Final.pdf

national interests, and enable the value of geospatial information to be realized for sustainable development at the regional and global levels.

27. It is proposed that in the coming year the Strategic Framework will be able to link directly to the Integrated Geospatial Information Framework, as discussed in a separate report before the Committee at this eighth session.

VI. Federated Information System for the SDGs

28. As described in Section II of this present report, in adopting resolution 2016/27 ECOSOC has stressed the need to strengthen the coordination and coherence of global geospatial information management in capacity-building, norm-setting, data collection, data dissemination and data sharing, among others, through appropriate coordination mechanisms, especially for developing countries and for the implementation of the 2030 Agenda for Sustainable Development.

29. The report entitled ‘A World That Counts’, presented in November 2014 by the United Nations Secretary-General's Independent Expert and Advisory Group on a Data Revolution for Sustainable Development, recommended to “develop systems for global data sharing” based on common infrastructures to help solve capacity problems, produce efficiencies and encourage collaboration. It also recommended the creation of “a network of data innovation networks” for leveraging and sharing data and data research to facilitate the use of new technology and new data sources.

30. The Cape Town Global Action Plan for Sustainable Development Data, issued on 15 January 2017 at the conclusion of the first UN World Data Forum, recognizes the need to facilitate the application of modern technologies and new data sources to mainstream statistical activities to support the implementation of the 2030 Agenda, and tracking progress on its 17 SDGs. It calls for the identification and removal of barriers to the use of new data sources, including registries and administrative data, geospatial information systems, and other innovative data sources. To this end, the Action Plan promotes the integration of modern geospatial information management systems within mainstream statistical production programmes, highlighting synergies between the two systems. It also stresses the need to build confidence, trust and capacity through coordinated measures, legal reforms, and better funding, as well as through the development of principles and guidelines, to support the integration of data from traditional and non-traditional data sources.

31. Recognizing the urgent need for countries to be able to provide national reporting on the SDGs, in March 2017, on the margins of the 48th session of the UN Statistical Commission, UNSD and Esri agreed to initiate and conduct a research and learning exercise aimed at strengthening the ability for Member States, UNSD and SDG stakeholders to share data, knowledge, information management and best practices in monitoring the SDGs and their implementation in a more holistic and consolidated manner. Another key driver for this research emanated from the professional statistical community's need, as reflected in the work of the UN Expert Group on the Integration of Statistical and Geospatial Information (EG-ISGI), to integrate geospatial and statistical information in order to support the 2020 Round of Censuses, to apply to other census-related initiatives, and to achieve the SDGs. Using location information as the overarching framework, the aim was to integrate data from different systems using the common denominator of location and to apply maps and geospatial reasoning to explore data in intuitive ways so that

a deeper understanding of the complexities and dependencies inherent in the SDGs can be realized.

32. The research exercise has been conducted in two phases over the past fifteen months. The initial Phase I was launched in May 2017 with 6 participating countries: Ireland, Mexico, the Philippines, Senegal, South Africa and Qatar. On 4 October 2017 the Philippines Statistics Authority launched its National SDG Data Hub at the International Conference on SDGs in Manila. On 2 November 2017 Ordnance Survey Ireland and the Central Statistics Office of Ireland launched their National SDG Data Hub at the European Forum of Geography and Statistics in Dublin. On 28 November 2017, Mexico launched its national SDG Data Hub at the Fifth High Level Forum on UN-GGIM in Mexico City, Mexico.

33. Due to the early success of the Phase I pilot, several countries quickly requested to be included in the research exercise. Rather than do this in an ad hoc manner, a planned Phase II was launched in October 2017. Participating countries included: Brazil, Colombia, Kenya, Morocco, the State of Palestine, United Kingdom, and Tanzania. Since this meeting, the United Arab Emirates and Ghana have expressed very strong interest in also joining. The Phase II process builds on the outcomes and success of Phase I. The advantage of the processes and technologies being used is that many of the methods and templates developed during Phase I are able to be picked up and replicated by the Phase II countries immediately. As an example, the templates and forms for the data structures and Story Maps are being used.

34. The Global SDG Data Hub approach and examples of National SDG Data Hubs were demonstrated at the Fifth High Level Forum on UN-GGIM in Mexico City, Mexico in November 2017 by Ireland, Mexico, the Philippines, the State of Palestine and Esri. The Mexico City Declaration, issued at the conclusion of the Forum, “commended UNSD and Esri on its joint research exercise, and endorsed the concept of a federated system of open SDG Data Hubs as a practical means for enabling technologies and capabilities to strengthen the ability of the national and global statistical systems to manage and share data and good practices for the SDGs, and allow countries to strive for better data interoperability and integration, to enhance relationships between national and global data, and to measure, monitor and report on the SDGs in a geographic context.”

35. On the margins of the 49th session of the UN Statistical Commission, the Friday Seminar on Emerging Issues focused on ‘The Data Revolution in Action: Building a Federated System of SDG Data Hubs and Collaborative Platforms for Innovation’ on 2 March, 2018. The Seminar explored how a global federated system of interoperable data hubs and innovation platforms can improve the way governments, international organizations, and partners from civil society, business and academia share, integrate and use both traditional and new sources of data and information for sustainable development. The Seminar continued the dialogue towards identifying the most promising and feasible approaches to address current challenges in linking and providing access to data for sustainable development across the broader data ecosystem. Through specific country case studies, the Seminar showcased recent advances in bringing sustainable development data and information to where it is needed, when it is needed, and in the formats that are needed for timely and effective decision making and monitoring.

36. As a direct result of the Friday Seminar, in making decision 49/102 ‘Data and indicators for the 2030 Agenda for Sustainable Development’, the Statistical Commission welcomed the efforts to establish a federated system of national and

global data hubs for the Sustainable Development Goals to: facilitate integration of different data sources; promote data interoperability; foster collaboration among partners from different stakeholder groups, including the geospatial community and other data providers; and to improve data flows and global reporting on the SDGs.

37. The Sustainable Development Goals Report 2018, released on 20 June 2018, is the annual United Nations global report that highlights progress being made in many areas of the 2030 Agenda. The 2018 Report noted that tools to gather, present and disseminate SDG data are key to ensuring their extensive and effective use by policymakers. In particular, the 2018 Report noted that “national reporting and dissemination platforms for SDGs are indispensable to policymakers and, indeed, to all stakeholders for understanding where progress is being made and informing future interventions”. In this regard, the UN-GGIM Committee of Experts was specifically referenced, and that “the integration of geospatial information with data and statistics for SDGs is also instrumental in enabling data inter-operability across data ecosystems and linking data sets within and across countries. National statistical offices and national geospatial agencies are now collaborating to establish a Federated Information System for the SDGs. This hub will be a repository for national SDG information and will also transmit this information to a global data hub.” Ireland’s SDG Data Hub is specifically highlighted in the 2018 Report.

VII. UN World Geospatial Information Congress

38. The United Nations Department of Economic and Social Affairs (DESA), through UNSD as the Secretariat for the Committee of Experts, in collaboration with the Government of China, through the Ministry of Natural Resources and the Zhejiang Provincial Government, will be hosting the United Nations World Geospatial Information Congress (UNWGIC)⁶ in Deqing, Zhejiang Province, China, from 19 to 21 November 2018. The convening of the UNWGIC arises out of the mandate from ECOSOC to the Committee of Experts to convene global forums to promote comprehensive dialogue on global geospatial information management with all relevant governments, non-governmental organizations and the private sector. With an overarching theme ‘The Geospatial Way to a Better World’, the UNWGIC will provide a ‘global geospatial stage’ to bring together a diverse group of geospatial leaders and actors from all stakeholder groups, including: national and international geospatial agencies and systems; academia; industry; the business community; the private sector; and civil society; to address and ensure that geospatial information reaches its widest and fullest utility in service of social, economic and environmental development.

39. With the aim towards a more inclusive world in which all are counted, the UNWGIC will focus on enhancing international cooperation among participants from Member States; reflect the importance of geospatial information to support technological development; address the development and strengthening of geospatial information management systems and capacities; and demonstrate the importance of international coordination and cooperation for building a human data and geography community. The format of the UNWGIC seeks to debate technology development, test concepts and thinking, stimulate dialogue, exchange experiences, practices and knowledge, and to guide a path to a better world.

40. The UNWGIC will feature a high-level Opening Session and 4 Plenary Sessions dedicated to: Attaining Sustainable Development; Sharing the Digital Economy;

⁶ United Nations World Geospatial Information Congress. http://ggim.un.org/meetings/2018-1st_Congress_Deqing/

Building Smart Societies; and Growing International Cooperation. Through 6 thematic areas and 36 technical sessions, the UNWGIC will then discuss: Measuring and Monitoring the SDGs; Digital Economy, Location Analytics and Big Data; Smart, Resilient and Sustainable Societies; Growing Global Geospatial Capability and Capacity; Geospatial Innovation, Science and Technology; and Digital Silk Road and International Partnerships.

41. While the actual UNWGIC plenary program covers three days (19-21 November), the overall event will be a week long (19-23 November), and will include global and regional meetings, workshops and learning events, side events and meetings, including the annual (2018) plenary meeting of national representatives from Member States to the Regional Committee of United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP), as well as the annual UN-GGIM Expanded Bureau meeting.

VIII. Future trends in geospatial information management

42. At the first meeting of the Committee of Experts, held in the Republic of Korea in October 2011, the Committee decided that there was a need to document the thoughts of leaders in the geospatial world as to the future of the industry over the next five years and, looking further out, its development over the next ten years. As a result, two editions of 'Future trends in geospatial information management: the five to ten year vision' have been produced by the Committee of Experts with the support of the United Kingdom, through the Ordnance Survey; the first edition in July 2013⁷, and the second edition in December 2015.⁸ These two Future Trends reports have proved to be an important reference document for the global geospatial community. They have been appreciated by many different users and have provided a consensus view for the professional geospatial community to keep abreast of new trends in geospatial information; particularly with the impact of the many emerging geospatial technologies.

43. The Future Trends reports are considered an important output for the Committee of Experts, covering emerging trends across topics from policy to technology, data collection to service consumption. Therefore, the United Kingdom, again through the Ordnance Survey, has kindly offered to lead and coordinate the next revision of the Future Trends report, commencing in the last quarter of 2018. It is anticipated that it will be considered in 5 stages and will take up to eighteen months to complete. The Regional Committee of United Nations Global Geospatial Information Management for Europe (UN-GGIM: Europe) has offered to support the revision. Support from other regions and UN-GGIM expert, working and thematic groups will be welcome and sought. The 5 stages of development include: Wide consultation to build a scope and identify key themes that meet the needs of Member States and observers; Write the document through wide consultation and support from the UN-GGIM community; Circulate a draft report to gain feedback and consensus; UN-GGIM adoption; and Dissemination. It will complement the Integrated Geospatial Information Framework, helping to ensure that the Framework remains a living document.

XIV. Considerations going forward

⁷ Future Trends First Edition: <http://ggim.un.org/documents/Future-trends.pdf>

⁸ Future Trends Second Edition: http://ggim.un.org/documents/UN-GGIM-Future-trends_Second%20edition.pdf

44. A key consideration for the Committee going forward is its role in supporting and informing the 2030 Agenda for Sustainable Development. The 2030 Agenda has recognized the need for new data acquisition and integration approaches to improve the availability, quality, timeliness and disaggregation of data to support the implementation of the new development agenda at all levels, benefiting from the contribution to be made by a wide range of data, including Earth observations and geospatial information, while ensuring national ownership in supporting and tracking progress. The efforts to establish a Federated Information System for the SDGs, inclusive of global and national data hubs, will be instrumental in enabling data interoperability across data ecosystems and linking datasets within and across countries. While national statistical offices and national geospatial information agencies are now collaborating on this initiative, the Committee of Experts may wish to take a more prominent and strategic leadership role in guiding the process and messaging the geospatial aspects of the initiative in supporting and informing the 2030 Agenda.

45. As described in this present report, the Expanded Bureau and the Secretariat, and within existing resources, is continuously looking at means to facilitate the strengthening and capacity-building of global geospatial information management in support of the implementation of the 2030 Agenda. Many of the efforts being reported to the Committee at this eighth session, as in past sessions, are aligned to providing the required frameworks, methods, standards and guides to assist strengthening national geospatial information capacity-building in developing countries. However, implementation often requires extra-budgetary resources be made available. Whilst some funds have been realized thus far, much more needs to be done to support and sustain real long-term capacity and capability development.

46. With the Committee's global-regional architecture and thematic groups now in place and well anchored, it will be important to ensure that each of the regional efforts are as aligned as much as possible to the global efforts, ensuring that they are collectively working together in a coordinated way to strengthen geospatial information at all levels – from local to global – and ensuring the best use of limited resources. Therefore, the regional committees and thematic groups should seek to link and align their priorities and activities with the mandates and Strategic Framework adopted by the Committee, and to further strengthen and enhance inter and intra-regional coordination and coherence of geospatial information management. This synergistic relationship should also be extended to the respective UN Regional Commissions.

X. Points for discussion

47. The Committee of Experts is invited to:

(a) Take note of the present report and express its views on the Expanded Bureau's efforts to take practical and strategic actions to implement the Council's resolution and strengthen geospatial information management for Member States;

(b) Take note of the efforts to improve and strengthen national geospatial information capacity-building in developing countries, and the extra-budgetary resources made available via a number of funding options and mechanisms;

(c) Take note of the updated 2018-2022 Strategic Framework as a tangible means to continue to communicate and reference the work of the Committee;

- (d) Express its views on the progress and practical means for greater coordination and collaboration between the Committee of Experts, the regional committees, the UN Regional Commissions, and regional statistical bodies;**
- (e) Express its views on the further mobilization of extra budgetary resources for the Committee's operations and to cover the cost of participation in the annual Committee sessions by developing countries;**
- (f) Provide guidance on the efforts to establish a federated information system for the SDGs to facilitate collaborative data integration and interoperability, and to improve national to global data flows and reporting on the SDGs;**
- (g) Take note of and contribute towards the forthcoming United Nations World Geospatial Information Congress in Deqing, China in November 2018; the revision of the Future Trends report over the coming 18 months; and the Sixth High Level Forum on UN-GGIM in the United Kingdom in April 2020;**
- (h) Provide guidance on further strategies and pathways the Committee may need to consider in its preparations to report back to ECOSOC within the next 2-3 years.**

ANNEX I: UN-GGIM Strategic Framework 2018 – 2022

CONTEXT	VISION	<i>Positioning geospatial information to effectively address global challenges</i>						
	MISSION	<i>Operating within agreed policies and institutional arrangements, and as an interconnected global community of practice, provide leadership to ensure that geospatial information and resources are coordinated, maintained, accessible, and able to be leveraged by Member States and society to find sustainable solutions for social, economic and environmental development</i>						
	MANDATED STRATEGIC OBJECTIVES	Provide leadership in setting the agenda for the development of global geospatial information and to promote its use to address key global challenges	Provide a forum for coordination and dialogue with and among Member States and relevant international organizations on enhanced cooperation	Provide a platform for the development of effective strategies to build and strengthen national capacity and capability concerning geospatial information, especially in developing countries	Propose work-plans, frameworks and guidelines to promote common principles, policies, methods, standards and mechanisms for the interoperability and use of geospatial data and services	Make joint decisions and set the direction for the production and use of geospatial information within and across national, regional and global policy frameworks		
REQUIREMENTS	GLOBAL POLICY FRAMEWORK	Transforming our World: The 2030 Agenda for Sustainable Development						
	GEOSPATIAL CHALLENGES & DRIVERS	Environmental management Urban planning Land management Legal & policy	Disaster management Humanitarian assistance Climate change Health & welfare	Sustainable development Food security Oceans & marine Sustainable cities	Education National security Institutional governance Socio-economic metrics	Population National security Institutional governance Socio-economic metrics	Our Ocean, Our Future: Call for Action	
	DIRECT NATIONAL BENEFITS & EFFICIENCIES	<ul style="list-style-type: none"> Effective geospatial information management Reduced duplication of effort in the capture, management, and delivery of fundamental geospatial information Authoritative, reliable and maintained geospatial data available nationally, regionally, and globally Increased return on investment through better coordination, use and reuse of data, information and systems Better evidence-based decision making, supported by good data, science and policy More open, accountable, responsive and efficient governments Presentation and delivery of timely and 'fit for purpose' data in times of need Integration of national information systems and services across all levels of government Best practices and use cases for enriching national processes on geospatial information management Enhanced stakeholder engagement and communication 						
	OPERATING PRINCIPLES	Sound Nat. Policies, Legal Frameworks & Institutional Arrangements	Provision of Fundamental Authoritative Data and Information	Agreed Standards, Methods, Guides and Frameworks	Principles on Geospatial Information and Open Data	Integration and Interoperability of National Information Systems	Information Sharing and Knowledge Transfer	Building Local to Global Capacity & Capability
	DELIVERABLES	WORKING ACTIVITIES AND OUTPUTS	<ul style="list-style-type: none"> Geospatial Information for Sustainable Development: 2030 Agenda, Sendai Framework, etc. Integration of Geospatial & Statistical Information: Implement the Global Statistical Geospatial Framework Geospatial Information and Services for Disasters: Implement Strategic Framework Global Geodetic Reference Frame: Roadmap to Implementation Global Fundamental Geospatial Data Themes: Implementation Marine geospatial information Land administration and management Legal and policy frameworks National institutional arrangements Implementation and adoption of standards for the global geospatial information community National geospatial data and information systems 					