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Legal and policy frameworks, including issues related to authoritative data

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Note by the Secretariat

Summary

The present paper contains the report of the Working Group on Legal and Policy Frameworks for Geospatial Information Management for consideration by the Committee of Experts on Global Geospatial Information Management.

At its ninth session, held in New York from 7 to 9 August 2019, the Committee of Experts adopted decision 9/110, in which it noted with appreciation the contribution of the Working Group to the development of the Implementation Guide of the Integrated Geospatial Information Framework and in that regard welcomed the document entitled “Guidance and recommended actions aligned with strategic pathway 2: policy and legal”, which underpins the strategic pathway. It also noted the progress of the Working Group’s use case exercise and the preparation of a white paper to address the issues and findings from the use case to develop and provide guidance, in an integrated manner, on the legal and policy considerations for the successful implementation of the Framework. The Working Group was also requested to consider the issue of the custodianship and authority of geospatial data. In this present report, the Working Group provides information on its progress and activities, including the preparation and completion of its white paper on the policy and legal aspects of the availability of geospatial information. The white paper, which is provided as a background document to the report, contains the final results of the use case exercise and demonstrates and validates the application of the approach described in the Implementation Guide with regard to strategic pathway 2, including some of the complex policy and legal issues addressed. The Working Group also provides an overview of its planned activities for 2020 to 2021 to address complex legal and policy issues in geospatial information management and to support the implementation of the Integrated Geospatial Information Framework. In that regard, the Working Group seeks the Committee’s approval to change its name to the Working Group on policy and legal frameworks for geospatial information management, so as to align it with strategic pathway 2.

* E/C.20/2020/20

I. Introduction

1. A sound and enabling policy and legal environment is a critical aspect in integrated geospatial information management. An appropriate policy and legal framework proactively supports the development and role of geospatial information management so that applications lead to the desired benefits and public good in a more efficient manner. Robust policy and legal frameworks are critical to organize or improve geospatial information management arrangements, can maximize the utility of geospatial information and safeguard a country's interests.
2. There is a critical need to continually keep abreast of policy and legal issues relating to geospatial information, as innovative and creative applications, and emerging technologies repeatedly disrupt existing policy and legal frameworks. Examples of disruptive technologies include the acquisition and application of geospatial information from robotic sensors, remotely operated aerial systems, smart infrastructure initiatives, internet of things, autonomous vehicles, pervasive mobile applications, and a digitalized economy. Some of these technologies, devices and applications are perceived as being intrusive, and are challenging existing laws, such as privacy.
3. Geospatial information management cannot operate in a vacuum. It is strongly related to general government information policies, and those related to e-Government, national security, privacy, intellectual property rights, data availability, open data, standards, education, statistical, and administrative data. Further, market regulation and market stimulus policies may address services, transactions, and collaboration with the private sector. There is the need to consider how these policies apply or impact geospatial information management.
4. At its ninth session, held in New York from 7 to 9 August 2019, the Committee of Experts, in adopting decision 9/110, noted with appreciation the contribution of the Working Group to the development of the Implementation Guide of the Integrated Geospatial Information Framework (IGIF) and welcomed the document entitled "Guidance and recommended actions aligned with strategic pathway 2: policy and legal", which underpins the strategic pathway. The Committee also noted the progress of the use case exercise and the preparation of a white paper to address the issues and findings from the use case to further develop and provide guidance, in an integrated manner, the legal and policy considerations for the successful implementation of the IGIF.
5. The Working Group has continued to analyse complex policy and legal issues in geospatial information management, including that which relates to open data, personal data, data privacy, data protection, data licensing and the security and misuse of data. The Working Group embarked on a use case exercise on data availability to methodologically consider and begin to understand some of these complex policy and legal issues, including those related to authoritative data.
6. The Working Group has now prepared a white paper on the legal aspects of the availability of geospatial information. The white paper, which is provided as a background document to this present report, contains the results and findings from the use case exercise, and demonstrates and validates the application of the approach described in the Implementation Guide - Strategic Pathway 2: Policy and Legal of the IGIF. The use case exercise demonstrated that the guidance, options and actions presented in the IGIF Implementation Guide serve well as an approach to address some of the complex policy and legal issues.
7. The Working Group has further aligned its focus and activities to, and supports the implementation of, the IGIF. In that regard, the Working Group seeks the approval of the Committee of Experts to change its name to the Working Group on Policy and Legal

Frameworks for Geospatial Information Management, so as to align with strategic pathway 2 of the IGIF.

8. This present report also provides information and updates the Committee of the Working Group's activities during this reporting period. The Committee of Experts is invited to take note of the report, consider the white paper on the legal aspects of the availability of geospatial information, and express its views on the Working Group's activities, progress and proposed next steps. Points for discussion and decision are provided in paragraph 37.

II. Membership and activities

9. During this reporting period, the Working Group welcomed Algeria, Belgium, Jordan, Libya, Morocco, Poland and United Arab Emirates as members of the Working Group. This represented significant regional participation and representation. The Working Group presently comprises expert representatives from 18 Member States and five relevant organizations from the Committee of Experts' stakeholder community, and is presently chaired by Sweden.

10. The Working Group carried out its work electronically during this reporting period, convening five virtual meetings and one virtual tabletop exercise. The five virtual meetings were held on 20 September 2019 (seventh), 10 December 2019 (eighth), 5 March 2020 (ninth), 23 April 2020 (tenth) and 25 June 2020 (eleventh). In addition, the Working Group supported a virtual tabletop exercise organized by its member, the Centre for Spatial Law and Policy, on 11 June 2020.

11. The Working Group had planned and began preparation to convene its physical (face-to-face) expert meeting from 18 to 19 April 2020 in Windsor on the margins of the Sixth High-level Forum on United Nations Global Geospatial Information Management hosted by the United Kingdom of Great Britain and Northern Ireland. With the growing global health crisis posed by the COVID-19 virus outbreak, and the World Health Organization's declaration of a global pandemic on 11 March, it was decided that the Windsor expert meeting of the Working Group be postponed until the situation globally permits.

12. During the ninth session of the Committee of Experts in August 2019, the Working Group convened a roundtable (6 August) and an open meeting (7 August) for delegates from Member States and relevant observers. The roundtable addressed the availability, accessibility, application, provenance, privacy and protection of geospatial information, and was supported by the Private Sector Network of UN-GGIM, the standards development organizations, and the World Geospatial Industry Council. Within the roundtable, there were four panels addressing: i) privacy of geo-location data; ii) IGIF strategic pathway 2 – policy and legal; iii) enabling regional collaboration and applications; and iv) the sharing of geospatial data across borders.

13. The roundtable was well attended, bringing governments and relevant stakeholders together, including legal experts and professionals, for a valuable dialogue. This resulted in a better understanding of the issues, challenges, opportunities and feasible options towards developing robust, sound and enabling legal and policy frameworks. This included optimizing the application, sharing, re-use and value of geospatial information towards enriched societal, environmental and economic value and benefits. Additionally, the roundtable contributed to the use case exercise and the preparation of a white paper as an outcome document of the use case exercise.

14. The open meeting of the Working Group was interactive and brought better understanding to the Working Group of the need to: i) future-proof the legal and policy frameworks to support and address both present and future needs; ii) consider developing and sharing expertise between legal and data specialists; and iii) implement the IGIF strategic

pathway 2 at the country-level, towards the desired robust, sound and enabling legal and policy framework for integrated geospatial information management.

Virtual meetings of the Working Group

15. The seventh meeting (20 September 2019) of the Working Group reviewed the outcomes of the ninth session of the Committee of Experts, together with those from the roundtable and open meeting. The views expressed and the guidance provided by the Committee were also considered. The Working Group included in its considerations issues of custodianship and authority of geospatial data, the need to have a balance between issues of security and privacy, the open use of geospatial data, and to account for cultural and legal differences and diversity.

16. The Working Group agreed to prepare a white paper on the legal aspects of the availability of geospatial information as an outcome document of the use case exercise, and to have the white paper completed and provided to the Committee of Experts at its tenth session. The Working Group interacted with the Working Group on Marine Geospatial Information on the legal issues around the collection, ownership, sharing and dissemination, and other uses around volunteered data, in this instance, ‘crowdsourced’ bathymetric data. Both Groups agreed to work together as the issue is relevant and impacts the availability and accessibility of geospatial data for a multiplicity of purposes.

17. At its eighth meeting (10 December 2019), the Working Group deliberated on the results and findings from its use case exercise and its draft white paper, which was circulated prior to the meeting for initial consideration. The Working Group considered the Swedish contribution on engaging and involving legal and other professionals within the paper’s development process to address legal and policy issues and challenges. The Working Group discussed leveraging the white paper to strengthen the Working Group’s consideration of transboundary data sharing issues and the issue of custodianship.

18. At its ninth meeting (5 March 2020), the Working Group agreed that the white paper should demonstrate how to identify and address gaps and issues with the approach and guidance in the Implementation Guide of the IGIF for strategic pathway 2 – policy and legal. The Working Group discussed and agreed to support a tabletop exercise to be convened by the Centre for Spatial Law and Policy, and to invite additional participants including lawyers. The use case to be considered at the tabletop exercise has a continental, African, focus and outcomes include better understanding of the intersect between national policies and laws and the collection, use, storage and distribution of geospatial information.

19. The Working Group met virtually, its tenth (23 April 2020), after the postponement of its Windsor expert meeting. The meeting included the co-chairs and some members from both the Expert Group on Land Administration and Management and the Working Group on Marine Geospatial Information. The Working Group worked through the draft white paper that documented the results and findings from the use case exercise, and demonstrated the approach to identify and address policy and legal issues and gaps. The Working Group discussed how to define ‘authoritative data’. Participants shared their understanding of ‘authoritative’. Whilst some considered that it must be from a public entity, had a stamp of approval, regulated by laws and regulations, and a legal point of truth, others considered that the definition should include non-public entities. It was agreed that while the scope of the white paper did not require a definition of authoritative data, an understanding of authoritative data would be useful.

20. The Working Group also considered the policy and legal context for harvesting geo-location data, such as from mobile phones, mobile applications, cameras, sensors, etc., as part of a crisis or emergency response and management. An initial understanding indicated that the issue is more about confidentiality and privacy rather than the geo-location data itself, especially when the data harvested may be stored and subsequently shared including within

government. The Working Group noted that, generally, health related data are aggregated into larger geographies to safeguard confidentiality and privacy. The Working Group pondered whether the geospatial community is participating in and providing the needed inputs to revise or formulate policies and laws on the use of geo-location data. The Working Group also discussed the preparedness and readiness to address issues of confidentiality and privacy whilst enhancing the value and utility of geospatial information when the situation requires.

21. The white paper on legal aspects of availability of geospatial information was completed by the Working Group at its eleventh meeting (25 June 2020). The Working Group agreed it was well developed and a useful document, and to be provided to the Committee of Experts as a background document to this present report. The Working Group was also briefed on the virtual tabletop exercise and reviewed its work plan and activities for the upcoming period. The Working Group concurred that the next period will be about transitioning from theory to reality, from addressing hypothetical situations to real-world situations, and support the implementation of the IGIF to focus and address real-world problems.

Virtual tabletop exercise on legal hurdles of open data

22. The virtual tabletop exercise brought together almost fifty technical, operational and legal professionals from across the world to discuss a hypothetical use case with its transnational issues. The goal was to have a multi-disciplinary discussion on the legal and policy challenges associated with using, sharing and storing geospatial data. The discussion focused on issues such as licensing, national security, privacy and liability, had on the collection, use, distribution and storage of geospatial data. The exercise highlighted that the scope and importance of these issues vary, depending upon the type of data, the products and services, and the jurisdiction's laws, regulations and policies. These issues are becoming increasingly important considerations.

23. It was observed that some participants preferred to approach these multiple issues with legal mechanisms, while some with ethical considerations. However, it was generally agreed that not all legal issues apply to all technologies or data types. For example, in the tabletop use case, the resolution of the imagery being contemplated was deemed to have minimal impact, if any, on privacy. The discussion pertaining to national security, and the need for localizing the storage of data where it was considered a national resource, raised the need to be mindful of differing legal systems, and importantly, that there is no 'one-size-fit-all' solution.

Implementation Guide of the IGIF

24. The Working Group continued its support and contribution to the development of the implementation approach with recommended actions and interrelated actions contained in the Implementation Guide of the IGIF for Strategic Pathway 2 - Policy and Legal¹. The chair and some members of the Working Group participated in a number of expert consultations and meetings convened by the Secretariat of the Committee of Experts for the development of the Implementation Guide. The implementation approach that leads to a sound and enabling legal and policy environment for effective and efficient geospatial information management, comprise thirteen recommended actions, divided into six categories, which are:

- (a) Providing leadership;
- (b) Assessing needs;
- (c) Addressing opportunities;
- (d) Future proofing;
- (e) Addressing coherence; and

¹ <http://ggim.un.org/IGIF/documents/SP2-Policy-and-Legal-23Feb2020-GLOBAL-CONSULTATION.pdf>

- (f) Delivering compliance.

III. White paper on legal aspects of availability of geospatial information

25. The purpose of the white paper on legal aspects of availability of geospatial information is to document the results and findings from the use case exercise, and to demonstrate the approach described in the Implementation Guide of the IGIF for Strategic Pathway 2 – Policy and Legal, to identify policy and legal issues and gaps together with options to address these issues and gaps. The final aim of the white paper is to support the implementation of the IGIF, whilst recognizing the need to consider national circumstances, the evolving technological landscape, and diversity of policy and legal frameworks.

26. Within the white paper:

- (a) ‘Data availability’ means acquisition, storage, sharing, and application of geospatial data;
- (b) ‘Geospatial data’ and ‘geospatial information’ are used interchangeably, as in the IGIF, in the general contexts. In specific contexts, ‘Geospatial Data’ refers to unprocessed facts and figures, while ‘Geospatial Information’ refers to data that has been processed, organized, structured and presented in a meaningful way; and
- (c) ‘Authoritative data’ are officially recognized data that can be certified and provided by an entity that is authorized by legal authority to develop or manage data for a specific purpose.

27. The results of the use case highlighted two key considerations for the use of geospatial information to address transnational issues. First, that national (and subnational) policy and legal frameworks (or policy and legal uncertainties) have a significant impact on the collection of critical geospatial data. The second is that even if a country has collected the necessary geospatial data, there are often concerns with sharing of this data with parties outside of the country.

28. The use case exercise identified four policy and legal gaps:

- (a) Policies and laws requiring data be collected by ‘authoritative’ data providers can limit the availability of geospatial information to address certain issues;
- (b) Licensing terms of data providers can restrict the use of geospatial information to address key governmental functions;
- (c) Existing policy and legal frameworks may have to be strengthened to address new technologies critical to the collection, use, and sharing of geospatial information; and
- (d) In the absence of multilateral international agreements, national and homeland security concerns may affect the ability of the geospatial community to collect and use certain types of geospatial information.

29. In general, the approach to address policy and legal issues may be different depending on the circumstances. Based on the findings, the Working Group concluded:

- (a) There are many similarities among countries as to concerns/perceived risks associated with the collection and use of geospatial information;
- (b) There are some differences as to how countries address these concerns;
- (c) These differences can impact availability of geospatial information at the local, national and international level; and

(d) Possible approaches to consider addressing risks and minimizing differences are to:
 i) create exceptions in existing policy and legal frameworks catering to specific purposes with data sharing; ii) create or improve transboundary cooperation on data sharing; iii) consider strengthening existing policy and legal frameworks as an initial step, if differences are due to a lack of or weak regulations; and iv) develop a standard license agreement or draft a standard policy for the sharing of certain types of geospatial information for certain uses.

30. The use case exercise showed that the approach presented in the Implementation Guide of the IGIF for Strategic Pathway 2 – Policy and Legal serves well to address some of the complex policy and legal issues. However, there are no general solutions that will solve all types of policy and legal issues. The solutions will be different depending on the nature of the policy and legal gaps in every specific situation. Learning more about these potential solutions to provide recommendations requires comparison of these solutions and proven practices.

IV. Next steps and considerations

31. At its eleventh meeting (25 June 2020) the Working Group, in its review of its work plan and activities for 2020 through to 2022, concurred that the next period will be about transitioning from theory to reality, from addressing hypothetical situations to real-world situations, and additionally considered:

- (a) The issue of authority and custodianship including that of authoritative data;
- (b) Operationalizing the policy and legal implementation approach with the guidance, options and actions in the Implementation Guide at the country-level;
- (c) Standard license agreement/data sharing policy applicable to the use of geospatial information for specific domain/use;
- (d) Legal issues around geo-location data for public good (and in crisis and emergencies); and,
- (e) Identifying and addressing policy and legal gaps together with other Expert and Working Groups of the Committee of Experts.

32. The Working Group recalled that its objectives require it to address complex legal and policy issues and, in this regard, to be up-to-date and practical, cognizant of circumstances and realities, and its work and activities aided by ‘real-world’ problem statement(s). The Working Group noted that there are unique legal issues related to authoritative data, and hence required better appreciation of the extent of these issues, including that on custodianship.

33. The Working Group concluded that for the period 2020 through to 2022, its activities will:

- (a) Focus on real-world situations, address real-world problems, develop practical solutions, and apply the approaches and exercises piloted and developed to arrive at solutions;
- (b) Support the implementation of the IGIF at country-level as a means to address real-world and complex policy and legal issues; and
- (c) Focus on authority and custodianship and the issue of authoritative data, explore emerging challenges – geo-location data and privacy, and domain specific issues, e.g. effective land administration or volunteered or crowdsourced bathymetric data.

34. Given the emphasis on supporting the implementation of the IGIF, the Working Group agreed, at its eleventh meeting, to request the Committee of Experts for approval to change its name to the Working Group on Policy and Legal Frameworks for Geospatial Information Management, so as to align with the IGIF Strategic Pathway 2 – Policy and Legal.

COVID-19 global pandemic

35. The COVID-19 global pandemic highlighted the need for the geospatial community to be prepared to support the national response to an emerging public health crisis with its geospatial data, technologies and processes in a timely manner with an enabling policy and legal framework. It also highlighted the importance of data sharing and data integration, in this instance, for public health and safety. COVID-19, in many ways, is a virus that is all about location with spatial-temporal aspects. The impacts on, for example, communities and residents, healthcare and basic services, and the accompanying economic effects, are categorized using location. There are policy and legal considerations for applying geo-location data including that which may be harvested as part of the public health measures including for testing, tracking and treating.

36. It can be reasonably expected that the COVID-19 global pandemic will have a significant impact worldwide on governments' budgets for geospatial information management over the next several years. This may make it difficult to afford new data collection projects, develop new platforms or procure new solutions. Governments may be looking to maximize the value of the geospatial information already collected, or currently collects in its normal course. One cost-effective means to increase the value of geospatial information is to strengthen the policy and legal framework for geospatial information management, in particular data sharing and data integration. While not as exciting as a new data collection project, robust policy and legal frameworks are essential for instituting effective, efficient and secure management and exchange of geospatial data – nationally and sub-nationally.

V. Points for discussion

37. **The Committee of Experts is invited to:**

(a) Take note of the present report, express its views and provide guidance to the Working Group on its focus and next steps towards sound and enabling policy and legal frameworks for integrated geospatial information management;

(b) Express its views and take note of the white paper on legal aspects of availability of geospatial information provided as a background document to this present report; and

(c) Endorse the name change of the Working Group to the Working Group on Policy and Legal Frameworks for Geospatial Information Management.