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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 Policy and Legal Frameworks for Geospatial Information Management for consideration by the Committee of Experts on Global Geospatial Information Management.

At its tenth session, held virtually on 26 and 27 August and 4 September 2020, the Committee of Experts adopted decision 10/110, in which it noted that in the conclusions of the white paper it was affirmed that there were no general or one-size-fits-all solutions that would solve the many types of legal and policy issues. In that regard, it supported the Working Group's transition from hypothetical to real-world situations, addressing real-world problems and developing practical solutions by leveraging the Integrated Geospatial Information Framework and its Implementation Guide, while recognizing the national circumstances that prevailed in Member States. The Committee encouraged consideration of additional legal issues, including authority and custodianship, authoritative data, geospatial data for public good, the ethical use of geospatial data, standard licence agreements applicable under diverse liability definitions and legal frameworks in Member States. It also encouraged the Working Group to work with candidate Member States in the implementation of strategic pathway 2: policy and legal of the Integrated Geospatial Information Framework, to consider appropriate mechanisms to promote data sharing and exchange and to improve the availability, accessibility and usability of geospatial information, including across Member States. The Committee endorsed the change of name of the Working Group to the Working Group on Policy and Legal Frameworks for Geospatial Information Management, thereby affirming its emphasis on supporting the implementation of the Integrated Geospatial Information Framework at the country level as a means of addressing real-world and complex policy and legal issues.

In this present report, the Working Group provides information on its progress and activities, including a review of its workplan for the period 2020–2022 and its efforts to address complex policy and legal issues in geospatial information management and to support the implementation of the Integrated Geospatial Information Framework. The Working Group also discusses its initial consideration of the real-world and complex policy and legal issues identified in its updated workplan, including issues relating to authority and custodianship, authoritative data and geospatial data for public good. In addition, it indicates in the report that it has developed a communication plan

* E/C.20/2021/1

highlighting activities designed to encourage dialogue and engagement between the Committee and legal professionals.

The Working Group also provides information on its progress in considering and developing appropriate policy and legal resources to promote data sharing and exchange and to improve the availability, accessibility and usability of geospatial information. In this regard, the report contains the outcomes of the virtual expert and consultative meetings on policy and legal frameworks for geospatial information management convened by the Working Group, the Centre for Spatial Law and Policy and the Secretariat. Meeting participants discussed the preparation and development of these resources, which can be adapted and tailored to national circumstances, for implementation of the Integrated Geospatial Information Framework.

I. Introduction

1. We live in a historical period called the Information Age. Technology and data have shown to be a powerful tool to lift many out of poverty and enrich our lives in many ways. Geospatial information, which is a fundamental element to optimize such development, is often overlooked. The needed information is often not timely, shared, or integrated with necessary data. Meanwhile, the rapid development and systems we currently have in place raise new questions and concerns relating to responsible and effective use of data, and around privacy and cyber security.

2. Appropriate policy and legal frameworks on geospatial information management can assist to solve these problems. Furthermore, policy and legal frameworks can proactively support the development of effective and integrated geospatial information management so that decisions lead to the needed public good in a more efficient way. The goal for any well working policy and legal framework for geospatial information management is to maximize the utility of geospatial information whilst safeguarding a country or agency against potential business and security risks. The United Nations Integrated Geospatial Information Framework (IGIF) includes and advocates for sound and robust policy and legal frameworks, as the second of nine strategic pathways, to achieve the goals around enriched societal value and benefits, effective geospatial information management, and an economic return on investment.

3. The Working Group had concluded and reported to the tenth session of the Committee of Experts that for the period 2020 through to 2022, its activities will: i) 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; ii) support the implementation of the IGIF at country-level as a means to address real-world and complex policy and legal issues; and iii) focus on authoritative data, authority and custodianship, collaboratively explore some sector related challenges, e.g. effective land administration or volunteered bathymetric data.

4. The Committee of Experts, at its tenth session, noted that there are no general or one-size-fits-all solutions that will solve the many types of legal and policy issues that exist, and, in this regard, supported the Working Group's transition from hypothetical to real-world situations; addressing real-world problems and developing practical solutions by leveraging the IGIF and its Implementation Guide, while recognizing the national circumstances that prevail in Member States.

5. The Committee encouraged additional legal considerations, including authoritative data, authority and custodianship, geospatial data for public good, the ethical use of geospatial data, standard license agreements, and issues arising from emerging technologies for the collection and use of geospatial data, particularly in times of crisis. The Committee further encouraged the Working Group to work towards the implementation of Strategic Pathway 2: Policy and Legal of the IGIF and consider appropriate mechanisms to promote data sharing and exchange, and to improve the availability, accessibility and usability of geospatial information including across Member States.

6. The Committee of Experts, in its Decision 10/110, changed the name of the Working Group to the Working Group on Policy and Legal Frameworks for Geospatial Information Management and affirmed the Working Group's emphasis on supporting the implementation of the IGIF at the country level as a means of addressing real-world and complex policy and legal issues.

7. This present report informs the Committee of Experts on the progress and work of the Working Group, including on the review and update of its work plan for the period 2020–2022. The present report discusses the complex policy and legal issues being addressed collaboratively. The Committee of Experts is invited to take note of the report and express its views on the Working Group’s activities and considerations. Points for discussion are provided in paragraph 39.

II. Membership, activities and progress

8. The composition of the Working Group remains unchanged during this intersessional period and comprises expert representatives from eighteen Member States¹, the International Bar Association, the Centre for Spatial Law and Policy, Open Geospatial Consortium, EuroGeographics and one organization from the Committee of Experts’ stakeholder community. The co-Chairs of the Expert Group on Land Administration and Management and the Working Group on Marine Geospatial Information are invited to and participated in the activities of the Working Group.

9. The Working Group welcomed Australia as co-Chair of the Working Group at its twelfth meeting (13 November 2020). The Working Group is presently co-Chaired by Australia and Sweden. It should be noted that Sweden is currently serving its second term as co-Chair.

10. The Working Group conducted its business virtually during this intersessional period, and convened four meetings, its twelfth on 13 November 2020, its thirteenth on 17 December 2020, fourteenth on 6 April 2021 and its fifteenth on 29 June 2021.

11. The Working Group embarked on the additional considerations of its goals and activities for its work plan. The overall goal, connected to the elements of IGIF Strategic Pathway 2: Policy and Legal, was for sound and robust legislations, policies, norms and/or guides towards an enabling policy and legal environment. Another goal was improved governance and accountability in geospatial information management. Activities were planned for the period of 2020/2021 and 2021/2022 aimed to explore and identify policy and legal challenges based on several real-world problems, and to explain and develop practical solutions leveraging the IGIF.

12. At its virtual twelfth meeting, the Working Group, guided by the decisions, guidance and views of the Committee of Experts at its tenth session, considered a draft work plan for 2020 – 2022 where the Working Group will transition from hypothetical to real-world situations, and to begin legal considerations on: i) authoritative data, authority and custodianship, ii) geospatial data for public good, the ethical use of geospatial data, and iii) appropriate mechanisms to promote data sharing and exchange, standard license agreement, for the implementation of Strategic Pathway 2: Policy and Legal of the IGIF, all to improve the availability, accessibility and usability of geospatial information.

13. The work plan connects the Working Group’s nine prioritized areas with the four elements of IGIF Strategic Pathway 2 - Policy and Legal. The Working Group agreed on its [work plan for 2020 - 2022](#) together with Activity Leads as follows –

- (a) Explore and identify policy and legal challenges related to authoritative data, authority and custodianship, led by Australia (Geoscience Australia)
- (b) Explore, identify and explain issues related to geospatial data for public good, ethical use and from new technologies, led by the International Bar Association
- (c) Develop annotated model or template for agreement/policy/legislation to facilitate data sharing and dissemination, led by the Centre for Spatial Law and Policy; and

¹ Algeria, Australia, Austria, Belgium, Canada, China, Finland, Guyana, India, Jordan, Libya, Malaysia, Mexico, Morocco, Poland, Sweden, Tonga and United Arab Emirates.

- (d) Develop a communication and engagement plan, leverage guidance under IGIF Strategic Pathway 9, led by Finland (National Land Surveys) and Sweden (Lantmäteriet).

14. At its virtual thirteenth meeting, the Working Group discussed initial thinking, preparatory work and suggested deliverables for the activities in its agreed work plan. Discussions were supported by each of the four Activity Leads. Initial considerations included –

- (a) Better understanding of issues related to the availability and accessibility of authoritative data; principles that define authority, definition of authoritative data; and the role of public and private sector with regards to authority and custodianship;
- (b) Better understanding of the public good in the context of geospatial data, consider the definition of public good and then the ethical use of geospatial data; and there is the need to understand what is different or unique with geospatial data vis-à-vis data in general when considering its ethical use;
- (c) Preparatory work for the draft communication plan will need to include stakeholder identification, key messages and communication methods;
- (d) Resources to facilitate data sharing and exchange and to support the implementation of the IGIF at the country-level could include: i) annotated licensing agreement building upon the Compendium on Licensing of Geospatial Information; ii) template or guide for policy and legislation on geospatial information management.

The meeting noted that the Compendium on Licensing of Geospatial Information is available online in Dutch, English, French and Spanish and welcomed the International Bar Association's offer to translate the Compendium into Arabic, and Canada's readiness to support further French translation efforts.

15. At its virtual fourteenth meeting, the Working Group thanked the International Bar Association for successfully completing the translation of the Compendium into Arabic and to Saudi Arabia, as the secretariat of the Regional Committee of the United Nations Global Geospatial Information Management for the Arab States (UN-GGIM: Arab States), for its review of the Arabic version of the Compendium. At this fourteenth meeting, the Working Group continued its consideration of its main activities and reviewed a second draft of its proposed communication plan.

16. The Working Group was briefed at its fourteenth meeting on the preparation to convene a series of virtual expert meetings on policy and legal frameworks with invited experts to discuss, consider and provide inputs for the preparation and development of drafts of: i) Annotated Geospatial Data Sharing Agreement; ii) Form Geospatial Information Management Policy; and iii) Model Geospatial Information Management Legislation. The expert meetings were organized in two parts, the first involved a smaller group of experts including representatives of Member States to consider and deliberate on the substantive content of these proposed drafts. The follow-on expert meetings include members of the Working Group and representatives of Member States known to be actively preparing their IGIF country-level Action Plans. The aim of the follow-on meeting was to consult and obtain feedback from participants aimed to further improve the draft documents and its useability.

17. The Working Group continued its deliberation of authoritative data, authority and custodianship and geospatial data for public good and ethical use at its fifteenth meeting. It was agreed that these issues needed further considerations and that, realistically, any deliverables can only be expected at the earliest by the twelfth session of the Committee of Experts. The Working Group also considered its communication plan and began identifying relevant tasks and activities to deliver the plan and improve communication and engagement including with the legal community.

18. The Working Group welcomed the successful convening of the series of [virtual expert meetings on policy and legal frameworks for geospatial information management](#) on 15, 27 and 29 April 2021. The Working Group welcomed the progress in developing a ‘policy and legal resource kit’ to facilitate data sharing and exchange and to support the implementation of the IGIF at the country-level.

19. In all its virtual meetings, the Working Group focused on working with the decisions, guidance and views of the Committee of Experts and its agreed work plan and activities. It concentrated its efforts and expertise on working through i) authoritative data, authority and custodianship; ii) geospatial data for public good and ethical use; iii) resources to facilitate data sharing, exchange and dissemination; iv) communication plan; and v) voluntary translations of the Compendium on Licensing of Geospatial Information.

Communication plan

20. The Working Group’s communication plan informs on the ‘when’ and ‘how’ to demonstrate the value of sound and robust policy and legal frameworks. The plan is tactical, ensures the communication process and methods can be executed. The Working Group agreed that, at the strategic level, its audience are members of the Committee of Experts, the Member States, and include its regional committees, functional groups as well as relevant stakeholders. At the national (local) level, the audience are policy- and law-makers and include their legal offices or staff. However, at the operational level, the audience would be government entities with responsibilities or obligations around geospatial information management and the geospatial community, the users, consumers, providers and producers of geospatial information who are having to deal regularly with policy and legal challenges related to geospatial information. In this latter category, the operational level, will need to include the legal community.

21. The communication plan requires the development of key messages to address the principal challenge on how to benefit from new development, technologies and applications and at the same time safeguard the interests of the country, the entity and the user. Sound and robust policy and legal frameworks are key to solve this challenge. Policy and legal frameworks on geospatial information management need to be strengthened so that they ensure effective, lawful and transparent solutions and create preconditions for trust to new digital structures that are generally underpin by geospatial information and technologies.

22. Its communication activities will have to demonstrate the ‘how’ to approach and address policy and legal issues in a certain use case scenario. In this regard, the Working Group will rely on its suite of guidance and recommendations developed over the years including its [White Paper-Legal Aspects of Availability of Geospatial Information](#)², the [Guidance and Recommended Actions aligned with IGIF Strategic Pathway 2-Policy and Legal](#), the Compendium on Licensing of Geospatial Information³ as well as the IGIF Implementation Guide, in particular, Strategic Pathway 2: Policy and Legal. There is the need to communicate that key to success when approaching and addressing policy and legal issues nationally is to involve legal colleagues and staff at an early stage.

23. The communication plan provides for a range of activities and approaches, from awareness raising and promoting understanding, information sharing and consultation, to participation and collaborative projects. Communication channels and methods will vary depending on the situation, opportunities, time available, skills within the Working Group, and resource constraints. There is no correct communication and engagement method. Each method will have its own benefits, limitations and risks. It is important to select the more feasible and appropriate method for the circumstances.

² E/C.20/2020/32/Add.2

³ E/C.20/2018/9/Add.2

Resource to facilitate data sharing and exchange

24. The Centre for Spatial Law and Policy together with the Working Group and the Secretariat embarked on an initiative to prepare and develop draft legal instruments (agreement, policy, legislation) as resources that Member States can consider, adapt and tailor to their national (or sub-national) circumstances when implementing the IGIF within the context to promote data sharing and exchange, and improve the availability, accessibility and usability of geospatial information.

25. The expert meeting of 15 April 2021 involved a small group of invited experts who discussed and provided inputs and feedbacks for the development and preparation of draft resource materials. The proposed drafts were discussed, further inputs and feedbacks were provided at a second expert meeting and consultation on 29 April where there were twenty-nine participants. Several participants at this second expert meeting welcomed the initiative and the development of such resource which they will be able consider and use within their efforts to implement the IGIF.

26. This resource, a policy and legal resource kit, includes: a) annotated geospatial data sharing agreement; b) form geospatial information management policy; and c) model geospatial information management legislation; as resource materials. The resource kit will be made available to supplement the guidance and recommended actions within the IGIF Implementation Guide – Strategic Pathway 2, support the development of country-level Action Plan, and the implementation of the IGIF.

III. Considerations and issues

27. The initial consideration of the Working Group was to analyze the definitions of authoritative data in different Member States. Further, for data to be available and accessible, the issue of mandate – authority, custodianship, data protection, need to be considered together. It was observed that the coronavirus disease (COVID-19) pandemic had exposed the need to understand issues related to the availability and accessibility of authoritative data.

28. A publication by EuroGeographics was reviewed by the Working Group. The publication outlined initial concepts and thinking in Europe on the notion of authority. This notion was explored in a two-step approach, an online survey with members of EuroGeographics followed by roundtable discussions. In this instance, authoritative data is data provided by or on behalf of a public body (authority) which has an official mandate to provide it, that is based on a set of known criteria to ensure (inter alia) high data quality, and that is required to be used or aimed towards extensive use and reuse within the public sector and society as a whole.

29. For the purpose of the White Paper-Legal Aspects of Availability of Geospatial Information, 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.

30. From one legal viewpoint, authoritative data, may be used to define a separation between the jurisdiction for the public sector, and the private sector. In this regard, competition law of Member States, may require that such national decisions are made on a government and political level, which in turn implies that this separation will be different from country to country, and also depending on given circumstances around digital development in the country. The development of Big Data, Artificial Intelligence, and other technologies that drive a data based economy pushes the traditional separation between the public and private sector to new levels, where, as an illustration, no longer obvious that geospatial information may only be collected or provided by a public authority with a special mandate.

31. A consideration is whether there should be a new level of authoritative data, where the public sector could provide the rules of the game on how the private sector may be involved to create and provide authoritative data. One possible way could be to provide national data services or platforms and standards, where the process of applying and using them by the private sector, would make the data authoritative on a certain level. There are other terms that could be used to define different aspects of authority, that doesn't necessarily need to address the implications of competition law, like for example, fundamental data.

32. Data governance is considered, for example by the European legislator, to address the barriers to a well-functioning data driven economy. Barriers that for example hinder availability and accessibility of data. While respecting national legislation for access to public sector information, data governance can be used to coordinate a series of data-sharing practices and serve to promote and attain a higher level of trust and help develop an internal market for the exchange of 'protected' data. One such mechanism of data governance is data altruism, which could also be translated as an aspect of public good. Data altruism is a concept of data voluntarily made available by individuals or companies for the common good.

33. There is a consideration for 'protected' data, that need to be more open for certain purposes, but remained locked away, due to data protection frameworks. "Public good" can be understood as one or several policy and legal mechanisms, to unlock protected data. One example of such a mechanism is data altruism, where the individuals give their consent or simply share their data themselves. This, however, requires a high level of digital maturity in the country.

IV. Summary

34. As noted by the Committee of Expert, the Working Group continues to analyze complex policy and legal issues in geospatial information, and to support the implementation of the IGIF. In this regard, the IGIF Implementation Guide assists and provides countries with guidance and recommended actions to establish, strengthen or organize their national (or sub-national) arrangements towards sound and robust policy and legal frameworks for achieving the societal, environmental and economic benefits from geospatial information management. These complex policy and legal issues relate to the availability, accessibility and widest application of geospatial information, authoritative data, authority and custodianship, public good and ethical use together with open data, personal data, data privacy, data protection, data licensing, and the security and misuse of data.

35. In its considerations and progress to-date, the Working Group would benefit from additional guidance from the Committee of Experts as to whether its considerations should be from a broader perspective, where the geospatial information is part of something bigger, that needs to be governed from a legal perspective, or, to consider the details on what information and what purposes are more likely to cause the need of governing geospatial information for public good, ethical use and issues related to authoritative data.

36. The policy and legal resource kit to support the implementation of the IGIF at the country-level and to improve the availability, accessibility and application of geospatial information, have been developed and are being finalized. However, these resource materials, when used, must not be a case of 'cut-paste-use'. Importantly, they are meant to be considered together with national legal experts, adapted and tailored to national circumstances including appropriate national or sub-national policy and legal frameworks.

37. The Working Group has collaborated with the Expert Group on Land Administration and Management and the Working Group on Marine Geospatial Information. These collaborations are mutually beneficial and should be continued. The policy and legal resource kit, when finalized, will also be provided to these groups. These collaborative efforts also support considerations of the policy and legal implications on authoritative data, authority and public good from a real-world perspective.

38. To advance its work, the Working Group will continue with its virtual meetings in the upcoming period. The Working Group recognized the value of in-person exchanges and interactions amongst members and relevant stakeholders, and wish to consider, when global conditions permit, organizing its next formal expert (in-person) meeting. In this regard, the Working Group welcomes offer to host such a formal meeting.

V. Points for discussion

39. The Committee of Experts is invited to:

(a) Take note of the present report, express its views and provide guidance on the work and progress of the Working Group on Policy and Legal Frameworks for Geospatial Information Management;

(b) Take note of the progress in developing and preparing a policy and legal resource kit to support Member States to implement the IGIF and improve data sharing and exchange; and

(c) Express its views and provide guidance on way forward in its consideration of policy and legal implications of authoritative data and public good.