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Policy and legal 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 eleventh session, held virtually on 23, 24 and 27 August 2021, the Committee of Experts adopted decision 11/110, in which it commended the progress made, under the leadership of Sweden and Australia, in updating the workplan of the Working Group for the period 2020–2022, thereby supporting the Working Group's transition from hypothetical to real-world policy and legal situations. This involved initiating the drafting of one paper on authoritative data, authority and custodianship and another on exploring geospatial data for public good, ethical use and new technologies, including with regard to issues of privacy and confidentiality.

The Committee of Experts expressed its awareness that policy and legal frameworks for geospatial information management within and across Member States were a complex mixture of interlinked issues in which established legal systems and jurisdictions were diverse and at different levels of maturity, presenting a challenging and important area of work for the Committee and for the implementation of the Integrated Geospatial Information Framework, and noted the importance of effectively communicating and raising awareness of these issues to policymakers and decision-makers, relevant stakeholders and the general public.

The Committee of Experts requested that the Working Group continue its consideration of the policy and legal settings impacting privacy, national security, commercial-in-confidence concerns, authority, diversity of geospatial information sources, liability and multiplicity of use, all while recognizing that policymakers and decision-makers seek trust, timeliness and fitness for purpose in geospatial information, and in this regard highlighting the importance of maintaining trust in geospatial information for evidence-based policies and decisions. The Committee encouraged the Working Group to continue its consideration of policy and legal issues related to authoritative data and public good, noting that defining authoritative data could be complex and challenging, with differing national circumstances, and that the production of geospatial information and services were no longer exclusive to nationally mandated agencies owing to the changing digital and technological landscape, diversity and innovative use of geospatial information. The

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Committee also encouraged the Working Group to collaborate with relevant international organizations on these matters.

The Committee of Experts welcomed the progress in developing and preparing a policy and legal resource kit to support Member States in improving data sharing and exchange, noting that these resources were foundational for implementing the Integrated Geospatial Information Framework with appropriate national-level policy and legal frameworks, and encouraged continued collaboration with functional groups and regional committees of the Committee to gain a greater understanding of policy and legal factors and implications and to advance the implementation of the Framework at the country level.

In this report, the Working Group provides information on its progress and activities, including an update of its workplan and its efforts to address complex policy and legal issues in geospatial information management and to support the implementation of the Framework. It also indicates its progress in developing a paper on authoritative data, authority and custodianship. In this regard, the working group has welcomed a diverse range of initial perspectives from geospatial practitioners and policy and legal experts around the world. The Working Group is seeking to develop and establish a framework to enable a better understanding of the various ways in which the “authoritative” designation has been employed.

Furthermore, the Working Group discusses its progress on the paper on geospatial data for public good, ethical use and related issues on privacy, confidentiality and new technologies. The report also contains a discussion of the development of a policy and legal resource kit to support Member States in improving data sharing and exchange, and it is noted that these resources are foundational for implementing the Framework with appropriate national-level policy and legal frameworks. The resource kit comprises three documents intended to serve as a resource for reference or guidance as countries begin to operationalize the Framework with their country-level action plans. The aim was to put the goals and objectives of the Framework into language that is familiar to the policy and legal communities. It is stipulated under the “Strategic pathway 2: policy and legal” of the Framework that a successful policy and legal framework consists of a number of instruments that are necessary to address the wide range of policy and legal issues that affect the collection, use storage and distribution of geospatial information.

Lastly, it is indicated in the report that the Working Group is continuing work to develop a communication plan designed to encourage dialogue and engagement between the Committee of Experts and policy and legal professionals.

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 deliver 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's activities continue to: 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 exploring the different ways in which authoritativeness is understood in different domains and contexts.
4. 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.
5. 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 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 and decision are provided in paragraph 31.

II. Membership, activities, and progress

6. 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.

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

7. The Working Group welcomed Canada as the new co-Chair of the Working Group at the start of 2022. It should be noted that Canada has taken over as co-Chair from Australia and Sweden, the retiring co-Chairs. Members expressed their appreciation and thanked the retiring co-Chairs for their efforts and leadership and welcomed the Canadian leadership team.

8. The Working Group conducted its business virtually during this intersessional period, and convened two meetings, its sixteenth on 18 November 2021 and its seventeenth on 7 July 2022.

9. 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 2021/2022 period 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.

10. The Working Group, guided by the decisions, guidance and views of the Committee of Experts at its eleventh session, has continued to progress on the draft 2020 – 2022 work plan, where the Working Group is transitioning from hypothetical to real-world situations, and is continuing policy and legal discussions 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.

11. In summary, 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 continues to implement 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, now led by Canada (Canada Centre for Mapping and Earth Observation);
- (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 an annotated model or template for agreement/policy/legislation to facilitate data sharing and dissemination, led by the Centre for Spatial Law and Policy; and
- (d) Develop a communication and engagement plan, leveraging guidance under IGIF Strategic Pathway 9, now led by Finland (National Land Surveys).

12. At its virtual sixteenth meeting, the Working Group was briefed by EuroSDR, EuroGeographics and KU Leuven on the European work that led to their 2019 [Authoritative Data in a European Context](#) report. Canada then introduced the work done to date on the proposed paper on authoritative data, authority, and custodianship, and presented the draft outline – including initial considerations – for the proposed paper, which were deemed feasible and welcomed by the Working Group.

13. Also at its virtual sixteenth meeting, the Working Group was informed that the Policy and Legal Resource Kit, which was developed to support the implementation of IGIF Strategic Pathway 2 – Policy and Legal, was complete and was awaiting Secretariat resources to finalize, format and ready the resource kit for publishing. The Working Group was also informed that the proposed paper on geospatial data for public good and ethical use was in the process of being drafted, and that the focus of the Working Group's communication and engagement plan

was on the development and implementation of key messages including those related to its outputs and accomplishments.

14. The Working Group, at its virtual seventeenth meeting, discussed, considered, and provided inputs on the development of drafts of: i) the paper on authoritative data, authority and custodianship; ii) the paper on geospatial data for public good and ethical use; iii) resources to facilitate data sharing and exchange; and iv) the communication and engagement plan. The Working Group also discussed initial plans to update the work plan of the working group for 2022–2024, and focused on its preparation for this twelfth session of the Committee of Experts. The Working Group welcomed the finalization of a ‘policy and legal resource kit’ to facilitate data sharing and exchange and to support the implementation of the IGIF at the country-level.

15. 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) the Policy and Legal Resource Kit; iv) communication plan; and continued to welcome v) voluntary translations of the Compendium on Licensing of Geospatial Information.

Communication plan

16. 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 includes 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 regularly deal with policy and legal challenges related to geospatial information. In this latter category, the operational level will need to include the legal community.

17. 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.

18. 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](#), the [Guidance and Recommended Actions aligned with IGIF Strategic Pathway 2-Policy and Legal](#), the [Compendium on Licensing of Geospatial Information](#), most recently a policy and legal resource kit as well as the IGIF Implementation Guide, in particular Strategic Pathway 2: Policy and Legal. There is a need to communicate that the key to success when approaching and addressing policy and legal issues nationally is to involve policy and legal practitioners from an early stage.

19. 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.

Resource to facilitate data sharing and exchange

20. 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. The context being to promote data sharing and exchange, and improve the availability, accessibility, and usability of geospatial information.

21. 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. The Working Group recommends this resource kit for the consideration of Member States who are seeking to implement the IGIF at the country-level.

III. Considerations and issues

22. The initial consideration of the Working Group was to explore and identify policy and legal challenges related to authoritative data, authority and custodianship, including experiences and practices to address crisis and based on one or several real-world problems, as well as explain and develop practical solutions leveraging the IGIF and its implementation guide. As a result, the Working Group was tasked to position a paper on authoritative data, authority, and custodianship, analyzing the policy and legal challenges, and proposing possible solutions to real-world problems.

23. The paper on authoritative data, authority and custodianship will collaboratively explore the different ways in which authoritativeness is understood and used in different domains. Traditionally, many jurisdictions have recognized national geospatial, mapping, cadastral and land registration authorities as official sources of legal and administrative geospatial information. As a result, some domains, including land administration, have well-established legal traditions and robust frameworks governing authoritative data. In other domains, the designation of authoritative data lacks the same rich legal tradition and is thus less entrenched in law.

24. Today, there are a growing number of producers and providers of geospatial data, products and services from the public, private, and civil society sectors entering the market to serve different purposes and to address a variety of needs. This follows other trends in global governance which have seen the traditional separation of public and non-public sectors increasingly blurred. Notably, in many domains, the collection and oversight of geospatial information is no longer restricted to public authorities with a special mandate. In other words, over the years, the concept of authoritativeness has been adopted in many other geospatial domains and contexts and has been interpreted differently by different expert groups.

25. The proposed paper on authoritative data, authority and custodianship will explore the various ways authoritativeness has been described and applied and will highlight some of the challenges of proposing a singular universal definition of ‘authoritative’ that can be applied to all domains. The paper will then analyze the value proposition of authoritative data, as well as

the public sector role vis-à-vis the private and civil society sectors in today's dynamic context. Next it will touch on some domain-specific understandings and applications of authoritative data and will conclude by outlining some policy and legal considerations for developing national authoritative data governance frameworks that respect unique national circumstances.

26. The proposed paper on geospatial data for public good and ethical use explores the many approaches to 'ethical use' of geospatial data, with a view to proposing practical solutions and options that can be tailored to national circumstances. A review of current approaches to 'use for public good' reveals that it is applied case by case; the paper will therefore interpret 'legitimate interest' to identify criteria that can guide countries in their assessment of whether the use of geospatial data can be considered 'public good'.

IV. Summary

27. 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.

28. The policy and legal resource kit must not be a case of 'cut-paste-use'. Importantly, the resource materials 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.

29. The policy and legal resource kit will be made available to functional groups of the Committee of Experts including the Subcommittee on Geodesy, the Expert Group on Land Administration and Management and the Working Group on Marine Geospatial Information. These collaborative efforts also support considerations of the policy and legal implications on authoritative data, authority and public good from a real-world perspective.

30. 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 offers to host such a formal meeting.

V. Points for discussion

31. 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 and its efforts to consider and propose possible solutions to real-world problems;**
- (b) Take note of the policy and legal resource kit to support Member States to implement the IGIF and improve data sharing and exchange with a view towards sharing the resource; and**
- (c) Express its views and provide guidance concerning the real-world policy and legal challenges and considerations related to authoritative data and public good, including via future global consultations amongst Member States and relevant stakeholders.**