Second expert meeting of the working group on Policy and Legal frameworks for geospatial information management incorporating the workshop on Authoritative fit-for-purpose geospatial data for crisis

Summary Notes
20-22 February 2024

Leuven, Belgium

1. The second expert meeting of the Working Group (WG) on Policy and Legal Frameworks on Geospatial Information Management was hosted by the Nationaal Geografisch Instituut (National Geographic Institute) of Belgium in partnership with the Regional Committee on United Nations Global Geospatial Information Management for Europe (UN-GGIM: Europe) and EuroGeographics. Thirty expert participants from fifteen Member States gathered and worked together over three days, from 20 – 22 February 2024, at Katholieke Universiteit Leuven.

2. The Second expert meeting included a joint meeting and workshop with EuroGeographics's Policy Knowledge Exchange Network that maximized participation and exchange of perspectives and views, information and experience.

3. On Day 1, under Agenda #1, the Secretariat opened the meeting, welcomed participants, and introduced Mr. Ignace Kabayiza from Canada as temporary replacement for the Co-Chair-WG on Policy and Legal Frameworks for Geospatial Information Management, given the absence of Co-Chair (Ms. Kristine Hirschkorn).

4. The brief welcome by the Secretariat was followed by opening remarks from Mr. Ignace Kabayiza, representing the Co-Chair of the WG on Policy and Legal Frameworks of the UN-GGIM, Mr. Frank Tierolff, Co-Chair, UN-GGIM: Europe, and Mr. Johannes Van Geertsom, Attaché Geographe of the National Geographic Institute of Belgium, hosting the meeting.

5. Participants introduced themselves; see List of participants.

6. The Secretariat introduced the new Co-Chair to the WG on Policy and Legal Frameworks of the UN-GGIM, Mr. Asim Al Ghamdi of the General Authority for Survey and Geospatial Information of Saudi Arabia. He expressed his appreciation of his appointment as Co-Chair to the WG and extended an invitation to hold the Third Expert Group meeting of the WG on Policy and Legal Frameworks of the UN-GGIM in Riyadh, Saudi Arabia, in the first or second week of October 2025.

7. The Secretariat presented the Agenda #2 on the agenda and organization of the meeting. The Co-Chair (Canada) further set out the scene and expectations for the meeting by recalling the endorsement of the paper on "Authoritative Data in an Evolving Geospatial Landscape: An Exploration of Policy and Legal challenges" during the Thirteenth Session of UN-GGIM, summarizing key aspects of the workplan for 2023-2025, including socializing key outcomes of the WG, and outlining the expectations for the meeting, which would include discussing the paper on geospatial data for public good, authoritative "fit-for-purpose" geospatial data for crises, and issues arising from an evolving technological landscape and artificial intelligence.

Following the presentation by the Co-Chair (Canada), participants discussed the challenges related to the development of 'fit-for-purpose' frameworks in a rapidly evolving landscape and noted that the frameworks developed should be simple and practical to ensure they can support real world implementation. Participants further noted the importance of delivering and promoting the frameworks developed to a wider audience. The participants discussed the need to reach out and collaborate with other groups that are developing policy and legal frameworks related to geospatial information management, including data specialists, as there are regulations specific to data, policy, the legal community and artificial intelligence.

A participant noted that the paper on authoritative data, Part I (2023) was shared in his country but that his geospatial colleagues found it challenging to translate into practical use. He further suggested to have simplified versions of the paper, which was seconded by another participant who suggested to prepare "factsheets" on the achievements and outputs of the WG Policy and Legal, using simple formats and accessible language.

A participant further suggested strengthening the connection with other communities such as the United Nations Office for Outer Space Affairs and the Group on Earth Observation.

A participant also considered it key to bring in perspectives from the marine domain, in particular the rapidly evolving underwater sector where developments move faster than in the legal domain. The participant added that the WG could engage a broader community to be attentive to existing legal and geospatial gaps.

Participants further discussed the importance of the top-down approach (for authoritative data) and considered the bottom-up approach by pushing user.

8. The Secretariat introduced Agenda item #3 to hear from participants about their various national and regional experiences regarding the development of policy and legal frameworks for integrated geospatial information management. Updates were provided from Saudi Arabia, the United Arab Emirates, China, Canada, Latvia, Italy, the United Kingdom, Belgium, Finland and Netherlands.

The presentations regarding national laws included considerations on:

- Custodianship and the definition of governance.
- Executive geospatial laws (binding).
- Absence of country wide regulations on geospatial legislation.
- Policy and other non-binding types of National Spatial Data Infrastructure.
- Ongoing status of the development of UN-IGIF Country-level Action Plans.
- Promulgation of policies on value, security, publication, storage of geospatial data (non-binding).
- Management and exchange of agreements including for data sharing, licensing, and security.
- Terms for the licensing of geospatial data.
- Classification of data (public/important/secret) and related risk and impact evaluation.
- Developing frameworks considering government demands vs economic demands.
- Commercialization and valuation of geospatial data including private sector engagement and encouragement of start-ups.
- Challenges associated with national and federal governance, and their respective regions.
- Dispersion of geospatial laws across a variety of domains: land, hydrographic, mapping, geodesy, marine, registries and cadaster.
- Need to identify legal gaps at national, regional and global levels in authoritative domains (land, marine, geodesy).

- The opportunity to either develop national geospatial legislations or contribute to a variety of laws related to data, artificial intelligence, digital transformation to include geospatial information.

9. The Co-Chair (Canada) presented progress to date, ongoing work and next steps related to aauthoritative geospatial data for crises, in accordance with decision 13/112 of UN-GGIM on "exploring fit-for-purpose authoritative geospatial data and applications in crises and disasters." The Co-Chair detailed the status of the development of the paper on "Authoritative fit-for-purpose geospatial data for crisis", slide 38 to 48.

Participants discussed a variety of considerations related to "Authoritative fit-for-purpose geospatial data for crisis," including:

- The potential liability of the data produced and the consequences of its use in the context of crises.
- The importance of timeliness of the data over quality.
- The quality of data could be downgraded to respond to crises (+/- 3m for accuracy).
- The challenges associated with licensing data in an emergency context, and the potential for defining policies related to data for specific disasters and temporary licences.
- The need to have rules and frameworks to make data access mandatory during crisis.
- The jurisdiction (state, region, city) is key for crisis response depending on scale and scope of the crisis.
- A general framework could prove challenging to prepare, as a 'one-size-fit-all' might not be feasible.
- The need to consider combining top-down (mostly government) and bottom-up (community) approaches.
- The preparation of case studies at global, regional and local levels, rather than rules that may not apply depending on the context.
- The preparation of case studies to consider characteristics for frameworks toward a general approach.
- The fact that government data is not necessarily equal to trusted data, particularly in the case of governments of failed states that are not trusted by their own citizens.
- Challenges associated with multi-stakeholder response and variety of sources/integration.
- Defining a framework should start with providing principles and key elements.
- Challenges associated with the currency of the data, access protocols and standards, interoperability of data sources, and metadata standards.
- Added value of the private sector during crises with services of data acquisition or processing during crises on a cost-recovery basis.
- Provisions for acquiring privately held data.
- The challenges related to the speed of technological advancement over policy and legal framework development.
- Reference should be made to existing international reports and frameworks (such as the Closing Climate and Disaster Data Gaps: New challenges, new thinking).
- The need to increase opportunities for awareness and communication regarding challenges and legal gaps (different events, symposiums, fact sheets, joint events…).

10. The Co-Chair (Canada) presented progress to date and ongoing work on the development of the paper on policy and legal considerations for addressing geospatial data for the public good, in accordance with decision 13/112 of the UN-GGIM, slide 50 to 59.

Participants discussed a variety of considerations related to "Geospatial data for public good," including:

- Is public good defined, as opposed to private interest?
- What geospatial data is, if not for public good?
- The need to define the terms, scope and approach for public good: government, users of data, everyone?
- The need to consider user requirements as a starting point.
- Users are supportive of services when they know the data aims to serve the 'public good'.
- Users are supportive of sharing data when they have trust in the process and usage.
- The opportunity to develop a case study showcasing community benefits.
- Branding data as a public good is important in the public eye.
- Voluntary Geospatial Information as OpenStreetMap (OSM) can be viewed as a public good.
- Definition of public good can consider the risk-based approach as it provides a multi-dimensional approach.
- Definition of accountability on how the data is going to be used.
- Public consultations should be undertaken to define public good in the national context.
- Public good in the context of crise is an important concept to deliver data for a purpose.
- Public good should not be confused with general interest, such as in the context of preserving and considering minorities and communities.

11. The Secretariat of UN-GGIM: Europe introduced Mr. Kai Zenner, who provided an overview on the developments of European artificial intelligence (AI) regulation: its formulation, implementation and impacts.

12. The Secretariat briefly introduced the collaboration opportunities and inter-linkages of the proceedings of the Working Group with other functional groups, the Integrated Geospatial Information Framework, and with other international organizations. Participants considered it relevant to reach out to the data, policy, legal and artificial intelligence communities to support the elaboration of relevant policy and legal frameworks (see point 4), particularly for the authoritative geospatial data domains. The Co-Chair (Canada) requested alinkage be made to the "climate and resilience" Task Team and invited the United Kingdom as Co-Convenor to present the status of their work, slide 68 to 81.

The convenor of the Task Team on "geospatial information for climate and resilience" expressed the interest of the Task Team to work closely with the WG on Policy and Legal, in particular with regards to the paper on "Authoritative fit-for-purpose geospatial data for crisis". He informed participants that the Task Team would be working on case studies notably on 'how trusted geospatial data can help climate action'. He also informed participants about the upcoming Task Team Side Events from 7-30 May 2024 in Antigua and Barbuda at the upcoming SIDS conference.

Participants of the WG on Policy and Legal had a brief exchange on "geospatial information for climate and resilience" and expressed their willingness to work collaboratively with the Task Team. A participant suggested linking the proposal to the concept of 'public good' and further suggested case studies related to the marine domain, such as the power of geospatial information and mapping for sea-level rise. Another participant expressed their desire to be engaged in the development of showcases particularly on SIDS and land administration, in view of their small island territories.

13. On Day 2, the members of the WG on Policy and Legal participated in the meeting of the Policy Knowledge Exchange Network (PolKEN) of EuroGeographics, where they were briefed on European Union (EU) policy and legal developments, the Stakeholder Engagement of EuroGeographics and the

wider policy arena. The presentation notably highlighted demonstrating the value of trusted geospatial services from official national sources, establishing partnerships to support the public good, and promoting integration of authoritative data within European and international systems.

14. The Joint workshop of PolKEN and UNGGIM WG on Policy and Legal Frameworks started with opening remarks from Mr. Ignace Kabayiza representing the Co-Chair of the WG on Policy and Legal Frameworks of UN-GGIM, Ms. Sallie Payne Snell, Chair of the PolKEN and Secretary General and Executive Director of EuroGeographics, and Mr. James Norris, Co-Chair, UN-GGIM: Europe. In their opening remarks, they expressed appreciation for the collaboration and hosting, and called for fruitful exchanges on the themes of "fit-for-purpose authoritative geospatial data for crisis", geospatial data for public good and issues arising from the evolving technological landscape and AI.

15. The Secretariat of UN-GGIM: Europe introduced Ms. Katerina Yordanova, who provided an overview on the developments of European AI regulation, formulation, implementation and impacts entitled “The EU Artificial Intelligence Act”, see slide 5 to 15.

16. The Co-Chair presented again the progress to date on geospatial data for public good to introduce the subject to all the participants of the PolKEN.

17. Participants discussed further their considerations related to geospatial data for public good, including:

- The need to clearly define what is meant by ‘public good’.
- The necessity to consider the ‘public good’ can be used as a concept and argument to develop a narrative for sharing data more widely.
- The challenges associated with new technologies and sharing data.
- The opportunity that sharing data provides to general users.
- Governmental approaches to mitigating risks tend to be very restrictive on data sharing for fear of consequences, yet in parallel new technologies such as AI are promoted.
- The opportunities to develop use cases could be useful for demonstrating how geospatial data serves the ‘public good’.
- Geospatial data may serve the ‘public good’, yet this may be interpreted differently by public users or governments.
- The importance of identifying people’s needs and requirements, including through public consultations.
- The possibility to share new regulations for public consultations.
- The apparent obvious fact that geospatial data is in essence a ‘public good’.
- Develop the counter argument when data is not a public good to support the drafting of the position paper.
- Amongst the three presented approaches (risk – market – rights), the risk seems the more obvious approach to frame the ‘public good’.

18. On Day 3, the Co-Chair (Canada) introduced again the ongoing work on authoritative geospatial data for crises, in accordance with decision 13/112 of the UN-GGIM on “exploring fit-for-purpose authoritative geospatial data and applications in crises and disasters,” to ensure all the participants of the PolKEN were apprised of the topic.

19. The Co-Chair, supported by the Secretariat, organized three breakout groups to discuss in detail authoritative data for crises including data characteristics, and policy and user requirements.

Breakout Room 1 on data characteristics and considerations was asked to respond to key questions such as:

• When thinking about geospatial data for crises, what are the most important considerations?
• What are the key trade-offs in terms of data characteristics? For example, timeliness vs. security/privacy considerations (e.g. VGI – OSM, social media)

Breakout Room 1 identified the following considerations:

- Develop an overarching framework for accessing data during disasters.
- Define the crisis, including in time and space.
- Define data access for a time-bound and specific purpose.
- Define the roles and responsibilities of actors during the crisis.
- Evaluate trade-offs for 'fit-for-purpose' (official/unofficial data; regulated/open; quality/availability)
- Ensure public awareness and data access to increase preparedness to gain time during crises.
- Design a platform with generic data for long term use, and emergency response data which is time-bound.
- Address considerations on infrastructure and interoperability to ensure access at all times (connected/disconnected).
- Assign focal points for managing the data based on scope (small area, wide area, multi-scale emergency?)
- Define the various legal provisions for data availability (before and) during crises.

Breakout Room 2 on policy was asked to respond to key questions such as:

• What are some examples of policy/legal instruments that have supported the timely delivery of geospatial data, fit for purpose for that crisis? Where/when have you seen these examples used effectively – real-life use cases?
• What are the key elements of these instruments that enable them to be effective?
• What policy/legal barriers may reduce the effectiveness of this data during a crisis?

Breakout Room 2 identified the following considerations:

- Establish the official decision to qualify events as crises (time, scope, magnitude, intensity).
- Establish cooperation and coordination mechanisms during downtime.
- Establish protocols for Open Data during crises as a way of operating.
- Evaluate risk management to support the organization of crisis response.
- Define responsibilities of organizations for crisis response (local crisis: mayor, global: ministers).
- Define cooperation and coordination beforehand.
- Consider jurisdiction and scaling of crisis response.
- Define data: trusted, reviewed, volunteered.
- Define provisions and cases for temporary licensing, including waivers.
- Leverage regional (European Global Network Management System) and global mechanisms (UN Space Charter).
- Resolve ahead of a crisis the barriers to sharing data.
- Define all the types of data to be made available for the crisis.
- Define cross/trans-boundary sharing of data, and responsibilities.

Breakout Room 3 on user points of view was asked to respond to key questions such as:

• Who is the end user during a crisis?
• What types of data would they need the most?
• What current challenges might they face in accessing fit for purpose data during a crisis?
• How do they decide what data is "fit for purpose" during a crisis? What elements apply the most, and to whom/when – quality, trust, privacy/security, sources/providers and roles?

Breakout Room 3 identified the following considerations:

- Assess the viewpoints of various user groups:
  - Civil protection
  - Citizens/public
  - Emergency/Help agencies
  - Decision-makers
- Assess based on the type of crisis and impacts on infrastructure:
  - Natural disasters (no infrastructure)
  - Socials crisis (infrastructure ok)
  - Then consequence on data access: radio, analogue data, existing data
- Acquire data:
  - In situ backups (local offices) as prevention
  - Drones/UAVs
  - Satellite imagery
  - Basic info capture POI
  - Where are the people (affected lives)
- Assess the challenges depending on the type of disaster (covid, natural, unrest):
  - Data could belong to different organizations
  - Legal provisions on use of data
  - Interoperability issues
  - Timeliness
  - License\ing issues
  - Charters and policy frameworks are needed. Are we sure these frameworks include geospatial data?
- Develop foresight:
  - Need for digital twins for scenarios
  - Consider frameworks that should apply to all domains and integrate them, with specific protocols
  - Consider the completeness of the Sendai Framework for Disaster Risk Reduction.

20. The Co-Chair (Canada) introduced a video recording to provide additional perspectives on policy and legal frameworks for disaster risk reduction and crises. The video was provided by Nathaniel Newlands from the Group on Earth Observation (GEO) Disaster Risk Reduction WG.

Participants further discussed considerations on authoritative data including in the context of crises, public good, and AI.

A participant considered that international lawyers' perspectives would provide additional perspectives on overarching frameworks or conventions parallel to implementing national legislations.

A participant considered the importance of not duplicating legal instruments and highlighted the importance of bridging the multiple frameworks where geospatial data can be associated and ensure better data sharing.

A participant considered it key to bring a wide array of agencies and partnerships to the forefront in the context of a crisis.

21. Finally, the Co-Chair (Canada) highlighted the main points from the discussions and decisions of the WG on Policy and Legal:

- Recommended to focus on frameworks that can be implemented.
- Noted the need for better communication on policy and legal frameworks developed in simple, clear and intelligible language.
- Decided to engage further with the wider community (data, AI, legal, technology and innovation) to consider how ongoing policy developments could benefit from and incorporate the geospatial component.
- Recommended to engage further the functional groups of the UN-GGIM to strengthen interlinkages, joint activities, interactions, seminars, and meetings, for example in the land, marine, and names domains.
- Welcomed the development of use cases by the WG on Climate and Resilience and the invitation to bring perspectives on authoritative data and 'fit for purpose data for crisis'.
- Noted the need to collect relevant frameworks, agreements and materials that can support advancing the paper on authoritative geospatial data for crises, and annex them to the paper.
- Noted the need to consider policy and legal gaps related to geospatial information management at national and regional levels, and to resolve them with the wider community.
- Called for the overall consideration of diversity, equity and inclusion principles in developing policy and legal frameworks.

Further, on Authoritative data for crisis:

- Noted the absence of perfect policy and legal frameworks and further noted the importance of the frameworks to be simple, intelligible, and implementable.
- Informed that research would continue with the intention to present initial findings at the next annual session in 2024.
- Reiterated the plan for an upcoming global consultation for the paper with the view to have the final version presented in 2025.

On Geospatial data for public good:

- Noted the importance to clarify key concepts: public, policy considerations, case law….
- Noted on the three approaches the risk-based approach is preferred.
- Noted the need to consider people, meaning users.
- Noted the importance of transparency and trust in the data.
- Reiterated the upcoming timeline for the delivery of a concept paper.
- Noted the need to provide better clarity on the term and definition of the public good, and intention to deliver a concept paper at 14th Session; and,
- Seek guidance from the Committee of Experts.

On Artificial Intelligence:

- Noted the criticality of the definition of AI in law.
- Agreed to add AI updates and developments at upcoming proceedings.
- Considered a holistic approach to also include human resources.
- Noted the importance to mobilize the wider community to be informed of latest updates in the development of laws on AI in national and regional contexts.
- Noted the impact of AI on the Future Geospatial Information Ecosystem.

22. The Co-Chair (Canada) thanked the Secretariat for its support throughout the Expert Group meeting, the host (Belgium) for welcoming the WG, and EuroGeographics for sponsoring the event and participation.