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Development of a shared statement of principles on the management of geospatial information

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Note by the Secretariat

Summary

The present paper contains the report of the Working Group on the Development of a Statement of Shared Principles for consideration by the Committee of Experts on Global Geospatial Information Management.

At its third session, held in July 2013, the Committee of Experts, by decision 3/108, took note of the report on the development of a shared statement of principles on the management of geospatial information. The Committee was encouraged by the deeper consideration given to the subject since its second session and, recognizing the importance of shared principles to guide geospatial information management, invited the Secretariat to work with a small group of Member States, which would include members of the statistical community, on a preliminary proposal for a set of shared principles and to report back to the Committee in that regard. The report prepared by the Working Group describes the establishment of the Group and the process of consultation and deliberation undertaken with Member States and geospatial experts to revise and refine the principles, and outlines a preliminary proposal for the statement of shared principles, for consideration by the Committee of Experts.

* E/C.20/2014/1.

I. Introduction

1. The need to prepare overarching principles or codes of conduct to clarify the distinctive social obligations inherent in the professional practices of the geospatial information management community, and to enhance the trust placed by the public on geospatial information, was initiated at the global level during the First High Level Forum on Global Geospatial Information Management in Seoul, Republic of Korea, in October 2011. A statement of ethics was further discussed at the International Symposium on Spatially Enabled Government and Society in Kuala Lumpur, Malaysia in February 2012 and at the United Nations Global Geospatial Information Management (UN-GGIM) Hangzhou Forum in China in May 2012. Additionally, the need for a statement of ethics was raised as a substantive geospatial issue through the Committee of Experts on UN-GGIM working group on the inventory of issues (E/C.20/2012/5/Add.1).

2. These discussions were formalised in August 2012 at the second session of the Committee of Experts when the proposal to develop a statement of ethics and supporting code of conduct for the global geospatial information community (E/C.20/2012/6) was considered. In adopting decision 2/104 (E/2012/46) the Committee noted that a statement of ethics may be too strong a term, and suggested that a 'shared statement of principles' could be a better formulation. The Committee requested the Secretariat to consult further and prepare a document to clarify between a statement of ethics and various rules that exist within the governments and geospatial information communities. During the consultation process, the importance of the topic was reaffirmed when the nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific, held in October 2012 in Bangkok, adopted a resolution requesting the Committee of Experts to promulgate a statement of ethical principles for the geospatial information community (E/CONF.102/8).

3. At its third session, held in July 2013, the Committee of Experts considered the report "Developing a shared statement of principles on the management of geospatial information" (E/C.20/2013/11/Add.1). The report tendered further research on the subject inclusive of issues and challenges that predicated the need for global geospatial guiding principles, the benefits that were achievable should such principles be accepted by the community of users, and most importantly, suggested eight shared guiding principles. The Committee of Experts noted the report and further invited the Secretariat to work with a small group of Member States, including members within the statistical community, to prepare a preliminary proposal for a set of shared principles and to report back to the Committee.

4. The present report describes the creation of the Working Group on the Development of a Statement of Shared Principles; the consultation and the deliberation process undertaken with Member States and geospatial experts since the third session to revise and refine the principles, and outlines the preliminary proposal of the statement of shared principles, for consideration by the Committee of Experts. Points for discussion and decision are provided in paragraph 16.

II. The Importance of Shared Principles for Geospatial Information Management

5. The objective of creating shared guiding principles for geospatial information management is to provide a set of values to guide the choices and actions of geospatial organisations within Member States. Invariably, abiding to guiding principles are paramount to the successful operation and growth of the geospatial industry, the geospatial organization and the geospatial individual/professional.

6. It is important to note that in a constrained environment, most professionals will simply comply with law and the national interest at a minimum (the “compliance” principles). Member States can move on to adopt “best practice” approaches, such as adoption of standards, but still work in isolation (the “governance” principles). The next step is for national organisations and professionals to actively promote the value in what they do, work together to share experiences, reduce cost and improve best practices (the “innovation” principles). These principles, once accepted and integrated within an organization’s systems, practices and protocols, will:

- (a) Encourage, and support stakeholders to achieve their geospatial goals;
- (b) Motivate and empower geospatial organizations to make the right choices;
- (c) Help to avoid or negate legal issues, including liability;
- (d) Foster mutual trust and respect for the organization and the quality of geospatial services and products offered;
- (e) Inspire confidence and loyalty from stakeholders. Users of geospatial data and services will come to know and understand the ideals of geospatial institutions that serve them;
- (f) Attract and reassure potential partners/investors; and
- (g) Provide competitive advantage and support a strong geospatial marketplace.

7. The statement of shared guiding principles for geospatial information management is intended to provide good, overarching, common global guidelines to support geospatial information organisations to efficiently and effectively innovate, govern and comply on geospatial information management practices among its stakeholders. These guidelines are drafted with the objective of engendering a superior level of professionalism, and enriching the operations of geospatial information organisations. While it is expected that the principles will be integrated within the organisation’s operations and respected at all tiers, they are not binding or obligatory. It is expected that geospatial information organisations will recognise the value of these principles, and will voluntarily abide and self-regulate, thus negating the need for monitoring.

III. Activities of the Working Group on the Development of a Statement of Shared Principles

8. Based on the deliberations, supportive interventions and direction provided from Member States and one qualified observer during the third session of the Committee of Experts, the Secretariat was invited to work with a small group of Member States to prepare a preliminary proposal for a set of shared principles and report back to the Committee of Experts. The “*UN-GGIM Working Group on Development of a Statement of Shared Principles for the Management of Geospatial Information*” was created consisting of an initial three Member States, Australia, France and New Zealand. Subsequently Mexico and the International Federation of Surveyors (FIG) also expressed their interest to contribute to the work item and become members. The Working Group was tasked to provide simple, but clear statements, principles/common values that would help to guide the behaviour of, and serve all national and global geospatial information organisations engaged in, the collection, production, management, and dissemination of geospatial information.

9. The Working Group’s Terms of Reference inclusive of action items were prepared and accepted after a number of consultations among its members (see Annex I for the Terms of Reference). In addition, research was conducted, a body of documents collected and reviewed, and a preliminary set of guiding principles prepared. The principles were based on the initial concepts articulated in the 2013 report on the subject (E/C.20/2013/11/Add.1). Further, the principles were organised into three groups, *innovation, governance and compliance*, which captures essential aspects of geospatial information management.

10. In April 2014 Member States and international geospatial information organisations were invited to review and provide comments on the statement of shared principles document. A total of 29 responses were received; 23 were from Member States, five from international organisations and regional bodies, and one observer. A range of responses were received, with 25% of the respondents providing very detailed amendments, and the same number fully endorsing the principles without amendments. A number of respondents commended the work done by the Working Group and indicated that the principles covered most relevant geospatial information management issues. Based on the comments received and reviewed, the Working Group agreed to add two additional principles, one under Innovation to address open data access, and the other under Governance on the issue of institutional framework. Both inclusions have increased the scope of the document.

11. Based on the comments received, it was found that there was mixed understanding as to the intention and the scope of the principles. Some questions and suggestions included monitoring of compliance to the principles on implementation, an issue outside the scope and intent of the document, and also making data freely available, an issue that should be addressed under another UN-GGIM work item. There were also requests to insert greater technical details, a list of definitions to bound the scope of data sets and add clarity, and to clearly define who should follow and/or regulate the principles. There were many further recommendations to strengthen the language of the document for clarity and readability throughout. For example, under Innovation the link to sustainable development was strengthened with the insertion of economic growth, peace and security.

12. All comments were consolidated, reviewed and discussed by the Working Group and the principles amended accordingly. It should be noted that, based on the feedback received, the title of the document was amended from “*Shared Statement of Principles on the Management of Geospatial Information*” to “*Statement of Shared Guiding Principles for Geospatial Information Management*.” The principles were prepared such that Member States and national organisations should be able to understand, recognise the importance, implement and use them.

IV. Proposal for the Statement of Shared Principles

13. The provisional version of the “*Statement of Shared Fundamental Principles for Geospatial Information Management*” is now offered to the Committee of Experts and the global geospatial community. It provides a comprehensive body of thirteen principles grouped under three broad themes *innovation, governance and compliance*, with the order being of significance. The document should be considered to be a living one, as dynamic as the environment for which it seeks to provide overarching guidance. Further, the principles were prepared to be in line with what is required to ensure that the development of authoritative global geospatial information supports global challenges, and the sustainable development agenda.

Preamble

The United Nations Committee of Experts on Global Geospatial Information Management acknowledges:

- (a) High quality geospatial information is critical for evidence-based analysis and informed policy decision-making in support of sustainable development, economic growth, peace and security;
- (b) The opportunity to use geospatial information to foster mutual knowledge and trade among the Member States and peoples of an increasingly connected world, demanding openness and transparency;
- (c) The essential trust of the public in the reliability of authoritative geospatial information is essential and depends on recognition of and adherence to fundamental values and principles that are the basis of any society. In this context, professional independence and accountability of geospatial organizations are crucial;
- (d) The need for precepts, values and beliefs that clarify the distinctive social responsibilities of geospatial information authorities, encourage and support stakeholders at all levels to make the right choices that foster public trust and inspire confidence in geospatial data, and to attract partners and investment;
- (e) In order to be effective, guiding principles have to be enshrined in the institutional frameworks that govern geospatial information organizations and understood at all political levels and by all stakeholders in national agencies.

Shared Principles

Innovation

1. **Geospatial advocacy:** A strong and successful geospatial information organization is reinforced by steadfast advocates. Geospatial information organizations

will promote applications of geospatial information that support sustainable development, economic growth, peace and security.

2. **Collaboration and coordination:** Geospatial information organizations will encourage national, regional and global collaborations fundamental to the facilitation of improvements in the development, management and use of geospatial data.

3. **Continuous development and recognition of work:** Geospatial information organizations are committed to policies and practices that ensure the continuous development, professional competence and ethical practices of geospatial information practitioners.

4. **Agile and adaptive:** Geospatial information organizations must position themselves to address and take advantage of institutional, technological and other advancements in support of their development and delivery of products and services.

5. **Open data access:** Geospatial information organizations are encouraged to adopt access policies which maximize the use of geospatial information, and promote efficiency and effectiveness of decision making.

Governance

6. **Use of and adherence to geospatial standards:** Geospatial information organizations shall as far as possible embrace the development of, adherence to, and use of nationally and internationally recognized geospatial standards. Utilization of standards will facilitate the effective and efficient creation, sharing, exchange and use of geospatial data, the open transfer of data among organizations, platforms and applications, and encourage innovation, reduce transaction costs, increase transparency and allow international compatibility within the marketplace.

7. **Ownership and accountability:** Geospatial data creators and providers will facilitate trust, a clear understanding and use of geospatial data through the publication of metadata, including ownership information and technical specifications (i.e. in particular currency, data models, quality and accuracy definitions). This will support informed and fit-for-purpose use and interpretation of data. Data creators and providers are accountable for compliance to the specifications of data sets made available for consumption and use.

8. **Transparency:** Geospatial information organizations should identify sources and the processes that are used to create and provide official geospatial data.

9. **Respect and confidentiality:** Geospatial information organizations are to exhibit high levels of regard and consideration to their stakeholders in the execution of their daily operations. Particular care is to be exercised to protect the confidentiality of geospatial information that may adversely impact an individual, community and/or nations. Personal data is to be especially respected and protected.

10. **Standards of service:** Geospatial information organizations are to employ geospatial information management best practices and solutions, and to pursue excellence in the delivery of geospatial data and services. Appropriate access, fairness (value for money) and equity are to be accorded to all stakeholders.

11. **Institutional framework:** National geospatial information organizations are encouraged to create inclusive and participatory legal, policy and administrative

frameworks to manage data ownership, data quality, intellectual property and confidentiality issues.

Compliance

12. **Sovereignty of Member States:** The availability of authoritative geospatial data, that is, official and accurate data, used to support public policies and administrative procedures, is an essential requirement of Member States' autonomy, sovereignty and economic development. These data should be considered and treated as a base infrastructure for each country, to be created and maintained as other base infrastructures.

13. **Adherence to law:** Geospatial information organizations must observe the laws, regulations and administrative practices of the Member States, within which they operate, as well as international laws and conventions, and their stakeholders made aware of those laws and conventions which govern and are related to their operations. The intellectual property of geospatial data creators are to be protected and geospatial data received from non-primary sources must be acknowledged.

V. Recommendations

14. Based on the feedback from the second and third sessions of the Committee of Experts, it is recognized that agreeing on and endorsing global principles for geospatial information management will not be an easy task. Many Member States and international geospatial organizations are still to be made aware of this initiative, and some are still to be convinced of the importance and benefits accruable from the principles in advancing and strengthening geospatial information management nationally, regionally and globally. Notwithstanding the level of responses to the April 2014 request for comments, 15% overall feedback from Member States (29 of 193 Member States), sufficient impetus has been provided to proceed with the refinement and finalization of the principles given its importance and the quality of the comments received.

15. The Working Group therefore recommends that the Committee of Experts adopts the following actions to finalize and endorse the shared guiding principles, and to sensitize and educate the geospatial community on its importance and relevance. The Working Group in collaboration with the UN-GGIM Secretariat:

- a. Encourages Member States to provide comments on the principles during the fourth session of the Committee of Experts in August 2014 in New York;
- b. Conducts another round of global consultations after the fourth session, to review and receive feedback on the statement of shared guiding principles to refine and create a robust and acceptable document;
- c. Pursues the required procedures necessary to have the principles agreed by the Committee of Experts, the final version endorsed by the Bureau of the Committee of Experts before its fifth session, and endorsed by the Economic and Social Council then approved by the United Nations General Assembly by the end of 2015 and;

- d. Prepares and executes a communication/promotion plan that informs, educates and wins the support of Member States and the others within the geospatial community, to adopt and implement the shared guiding principles on the management of geospatial information.

VI. Points for discussion

16. The Committee is invited to:

(a) Take note of the report and to express its views on the recommendation that the name, *A shared statement of principles on the management of geospatial information* be changed to *A Statement of Shared Guiding Principles for Geospatial Information Management*;

(b) Endorse the Working Group's Terms of Reference;

(c) Consider the recommended principles and provide comments for refinement and finalization; and

(d) Approve the approach to have the guiding principles:

- Endorsed by the UN-GGIM Bureau after being amended and finalized by the Working Group;**
- Endorsed by the United Nations Economic and Social Council; and**
- Approved by the United Nations General Assembly by November 2015;**

ANNEX I

TERMS OF REFERENCE UN-GGIM Working Group on Development of a Statement of Shared Principles for the Management of Geospatial Information

1. Mandate

1.1. The establishment of a working group was requested by the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) at its third Session in July 2013 as per decision 3/108, “development of a shared statement of principles on the management of geospatial information”.

2. Objective

2.1. The overall objective of the UN-GGIM Working Group on Development of a Statement of Shared Principles (Working Group on SSP) is to prepare a preliminary proposal for a set of shared principles on the management of geospatial information. The proposal should provide simple, but clear statements, principles/common values that would help to guide the behavior of, and serve all national and global geospatial entities engaged in, the collection, production, management, and dissemination of geospatial information.

3. Expected Results

- 3.1. The following are the expected outcomes of the deliberations and work of the UN-GGIM Working Group on SSP.
- i. The Working Group will prepare a proposal outlining a set of shared principles using an inclusive process with consultation across relevant professional groups.
 - ii. The proposal outlining the guiding principles will be presented to the UN-GGIM Committee of Experts at its fourth session in 2014 for information, discussion and direction for further refinement. The final document should be presented at the Committee’s fifth Session in 2015 for information and adoption.
 - iii. It is expected that by August 2015 an appreciable number of Member States across all geographic regions (Americas, Europe, Middle East, Africa and Asia and the Pacific) will have been sensitized and be in a position to support the adoption of the statement of shared principles for the management of geospatial information.

4. Specific Activities

- 4.1. To achieve the results as stated in section 3, the Working Group on SSP will undertake the following activities:
- i. Identify and enlist two additional country members from the geospatial community and two from the statistical community, to join the Working Group. This action will increase the total number of members to nine (9) and also ensure that the contribution and experience of the statistical community are captured.

- ii. Review existing works and literature and decide on the structure and elements of the proposal for the statement of shared principles.
- iii. Prepare the statement of shared principles document.
- iv. Prepare and execute a communication/promotion plan that informs, educates and wins the support of Member States for the need of a set of principles on the management of geospatial information.
- v. Circulate for review and comments/feedback the statement of shared principles document, to Member States and international geospatial information organizations.
- vi. Prepare Technical Papers in support of the Statement of Shared Principles for submission and presentation at the fourth and fifth Sessions of the UN-GGIM Committee of Experts.

5. Membership, Composition and Term of Office

- 5.1. The Working Group on SSP will comprise representatives from national governments and international organizations from the geospatial and statistical communities.
- 5.2. The Working Group on SSP will elect a Chair and any other position as deemed necessary to support the work of the group. Each will serve for 2 years at which time the work of the group should have been completed. Should the work continue beyond 2 years, the Working Group may elect a new Chair for the new period of work.
- 5.3. Should the need arise; the Working Group on SSP may establish sub-groups to work on particular aspects of its work programme.
- 5.4. The Working Group on SSP will liaise as required with other international groups that may have an interest in the preparation of the Statement of Shared Principles on the management of geospatial information, including: the UN-GGIM Committee of Experts, the United Nations Statistical Commission, the Global Spatial Data Infrastructure Association and the GIS Certification Institute.

6. Reporting Procedure

- 6.1. The Working Group on SSP will report to the UN-GGIM Committee of Experts.

7. Frequency of Meetings

- 7.1. The Working Group on SSP will operate virtually and meet when the opportunity arises in concurrence with related global geospatial meetings.

8. Secretariat

- 8.1. The United Nations Statistics Division of the Department of Economic and Social Affairs will serve as the permanent Secretariat of the Working Group on SSP. It will provide the day-to-day management and coordination, and undertake internal and external communication on behalf of the Working Group on SSP. In co-operation with the Chair, the Secretariat will coordinate, monitor and report on the activities of any sub-groups, assist with the organization and preparation of the agenda for the Working Group on SSP meetings, issue notices and any other support activities deemed necessary.