
Economic and Social Council

17 July 2018

Committee of Experts on Global Geospatial Information Management

Eighth session

New York, 1-3 August 2018

Item 5 of the provisional agenda*

Global geodetic reference frame

Global geodetic reference frame

Note by the Secretariat

Summary

The present paper contains the report of the Subcommittee on Geodesy for consideration by the Committee of Experts on Global Geospatial Information Management.

At its seventh session, held in New York from 2 to 4 August 2017, the Committee of Experts adopted decision 7/103, in which it endorsed the formal establishment and composition of the Subcommittee on Geodesy, agreed with the proposed terms of reference and transition plan, and encouraged further membership of developing countries with the assistance of the regional committees. The Committee also expressed support for the development of the road map implementation plan, the position paper on appropriate governance arrangements and the building of the web of communication experts, and noted the convening of the inaugural meeting of the Subcommittee. In this report, the Subcommittee provides information on its recent activities, including the main outcomes of its inaugural meeting, held in Mexico City in November 2017, and activities subsequent to the inaugural meeting, including outreach and communication. The Subcommittee also presents the road map implementation plan and the position paper on appropriate governance, for consideration by the Committee of Experts, and the revised terms of reference of the Subcommittee, for endorsement by the Committee.

* E/C.20/2018/1

I. Introduction

1. Geodesy is fundamental to economic prosperity, safety of life and environmental management, although this is not well understood by governments and the public more generally. Geodesy underpins our understanding of the dynamics of planet Earth, including how the planet changes through time. Geodesy is used to develop the spatial reference frames required for supporting the collection, integration and utilization of all other geospatial data. It also supports the coordinate systems transmitted by Global Navigation Satellite Systems (GNSS), which are increasingly being used for providing users the opportunity to access and interface mapping and other geospatial datasets in real time.

2. At its seventh session in August 2017, the Committee of Experts adopted decision 7/103, in which it welcomed the report by the Working Group on the Global Geodetic Reference Frame and commended on its work, broad consultations, and outreach and communication strategies.

3. In making decision 7/103, the Committee of Experts also endorsed the formal establishment and composition of the Subcommittee on Geodesy, inclusive of its terms of reference and transition plan, and encouraged wide memberships across the regions with the assistance of the regional committees of UN-GGIM. The Committee of Experts also expressed its support for the planned activities of the Subcommittee, including development of the road map implementation plan, position paper on governance arrangement, building the web of communication experts and developing its five-year strategic plan.

4. The Committee of Experts also noted the convening of the inaugural meeting of the Subcommittee on the margins of the Fifth High Level Forum on Global Geospatial Information Management, to be held in Mexico City in November 2017.

5. The present report informs the Committee of Experts of the inaugural meeting held by the Subcommittee on Geodesy, the activities by the respective focus groups and the consultation that is ongoing to fortify the Subcommittee membership, along with the development of the implementation plan and position paper on governance. The Committee of Experts is invited to take note of the report and to express its views on the way forward for the global geodetic reference frame. Points for discussion and decision are provided in paragraph 24.

II. First Meeting of the Subcommittee on Geodesy

6. The inaugural meeting of the Subcommittee on Geodesy was convened on the margins of the Fifth High Level Forum on Global Geospatial Information Management in Mexico City, Mexico, 26-27 November 2017¹. Hosted by the Government of Mexico, through the National Institute of Statistics and Geography (INEGI), there were 23 participants of which 13 were from Member States (Argentina, Australia, Burkina Faso, China, France, Germany, Japan, India, Mexico, Norway, the Russian Federation, Saudi Arabia, and the United States of America). Participants from the international professional organisations included the International Association of Geodesy (IAG), the International Federation of Surveyors (FIG), the National Aeronautics and Space Administration (NASA), the University of the West Indies, the Geocentric Reference System for the Americas (SIRGAS), and the United Nations Statistics Division (UNSD).

¹ First meeting of the Subcommittee on Geodesy: http://ggim.un.org/documents/SC-Geodesy_Mexico2017.pdf

7. The meeting was opened and initially co-Chaired by Australia and Norway before the Subcommittee members nominated the Russian Federation as a new co-Chair of the Subcommittee on Geodesy to replace Norway. The efforts of Norway, in establishing the global geodetic reference frame as a key body of work within the purview of the Committee of Experts, was acknowledged by all participants, particularly the efforts towards the development, communication and adoption of the United Nations General Assembly Resolution (69/266) on a global geodetic reference frame for sustainable development, adopted in February 2015².

8. The objective of the inaugural Subcommittee meeting was to collectively work on the road map implementation plan for the Global Geodetic Reference Frame (GGRF), establish its governance position paper, and receive feedback from its respective focus groups: (1) Geodetic Infrastructure; (2) Education, Training and Capacity Building; (3) Outreach and Communications; (4) Policy, Standards and Conventions; and (5) Governance.

9. During the initial discussion session, the Subcommittee members recognized the important milestones they have achieved by having the adoption of General Assembly Resolution 69/266, the Committee of Experts recognizing the importance of the road map, and the endorsement in the creation of the Subcommittee on Geodesy. However, the Subcommittee also recognizes the need to increase government and industry engagement in the field of geodesy through outreach, communication and training. Furthermore, the acknowledgement of improving the representation from Member States in the Subcommittee and its work was also taken up; including the need to engage more with the Regional Committees of UN-GGIM to complete a rigorous nomination and participation process.

10. During the reporting session, the respective focus groups shared their latest status, summarized as follows:

(a) **Geodetic Infrastructure.** The focus group on Geodetic Infrastructure, led by Australia, raised the ongoing concerns of aging infrastructure for geodesy, the bias towards the northern hemisphere, and the challenge of global coordination. The Subcommittee members agreed that there is a need for minimum requirements for infrastructure development to be articulated, ensuring that the technique services under the IAG can continue to produce world class science and products, and be interoperable. The members also emphasized the need for geodetic data-sharing to be increased, whilst respecting national and local legal and policy frameworks.

(b) **Education, Training and Capacity Building.** The Education, Training and Capacity Building (ETCB) focus group, led by Sweden (and FIG), shared the challenges in the geodetic community where there is a lack of fundamental geodetic skills, and the need to develop an educational needs assessment to establish a priority list of short and long-term training needs that may require strong institutional support from national geodetic organizations and international professional organizations such as the IAG and FIG. The ETCB focus group discussed the way forward in implementing a questionnaire on this topic, and the need to engage and leverage communities such as the UN-GGIM: Academic Network.

(c) **Outreach and Communications.** The focus group on Outreach and Communications, led by Norway, shared the importance of ensuring that policy-makers understand the value of geodesy, building a GGRF ambassador programme, and building a web of communication experts across the community. Specific

² A/RES/69/266: http://ggim.un.org/documents/A_RES_69_266_E.pdf

recommendations were to build communication material and streamline the messaging, such as the financial impact to GDP (Gross Domestic Product) of geodesy, and the need to connect the communication experts in the respective national and regional organizations into the field of geodesy.

(d) **Policy, Standards and Conventions and Governance.** The Policy, Standards and Conventions, and Governance focus groups, led by Canada, were not established until after this meeting of the Subcommittee.

11. The Subcommittee discussed the strategies in developing the five-year strategic plan. In this context, the co-Chair recommended the commencement of consultations towards Member States moving away from WGS84 as the reference frame for precise applications, as it is no longer fit-for-purpose; and that the geodetic community consider adopting the International Terrestrial Reference Frame (ITRF), as it is a standard reference for geospatial applications. The Subcommittee members agreed to continue consultation on this issue over the coming year.

12. Members of the Subcommittee proposed to convene its second plenary meeting on the margins of the United Nations World Geospatial Information Congress, which will be convened in Deqing, China, in November 2018.

III. Subcommittee activities

13. During the intersessional period of the Committee of Experts, the Subcommittee has continued to engage with the Regional Committees of UN-GGIM in order to formalise the nomination and membership process of the Subcommittee. The nomination of Subcommittee members has now been consolidated in the regions of Asia-Pacific, the Americas, the Arab States and Europe, and is widely supported by international professional organisations and observers. As observed during the inaugural meeting of the Subcommittee, there is still a lack of representation from the region of Africa, which is an area that may need focused knowledge sharing and capacity building efforts in the future.

14. The Subcommittee took the opportunity to convene an informal meeting at the Vienna International Centre in April 2018, on the margins of the European Geosciences Union General Assembly, to continue the discussions on the development of the road map implementation plan, and the governance position paper.

15. The focus group on Geodetic Infrastructure had various consultations with the Global Geodetic Observing System (GGOS) and IAG services on geodetic infrastructure. While no formal meetings were completed outside the Subcommittee plenary meeting in Mexico, and the informal meeting in Vienna, various ad hoc discussions occurred towards the refinement of materials for the implementation plan.

16. Following the first meeting of the Subcommittee, the ETCB focus group continued its preparation of the educational needs assessment and sent out a global survey questionnaire, titled 'Reference Frame Competency Questionnaire', to Member States in March 2018 to assess competency requirements and educational needs. The closing date of the survey questionnaire is targeted for August 2018, with the anticipation of reporting preliminary results at the United Nations World Geospatial Information Congress in China in November 2018, and to bring the status of geodesy to the wider global geospatial community.

17. The focus group on Outreach and Communications has had several teleconference and face-to-face meetings throughout the year, successfully developing the outreach and communications component of the implementation plan, while continuing to provide outreach services to the Subcommittee throughout the year.

18. The focus group on Policy, Standards and Conventions commenced its activities in February 2018, meeting regularly by teleconference. This focus group utilised considerable existing material and expertise from standards bodies, including the International Standards Organisation (ISO), the International Earth Rotation and Reference System (IERS) Service of IAG, and the Global Geodetic Observing System Bureau of Products and Standards (BPS). The focus group has brought together a catalogue of existing standards and conventions, which will form a useful resource for those wanting to build geodetic capacity within their countries.

19. The focus group on Governance has been very active, having met several times in face-to-face meetings and a number of teleconferences. Furthermore, extensive email exchanges have ensured timely delivery of an outcome for this group. The focus group has prepared a position paper on governance, and revised terms of reference for the Subcommittee of Geodesy. The revision to the terms of reference was necessary to address the more significant role the Subcommittee is now playing in the intergovernmental governance of geodesy globally.

20. The Subcommittee has not yet completed developing its five-year strategic plan. The development of the implementation plan and position paper on governance have dominated member's contributions, and need to be completed before any clarity around a five-year vision can be obtained.

IV. The development of a road map

21. Following the tabling and subsequent endorsement by the Committee of Experts of the 'Road Map for Sustainability and Enhancement of the Global Geodetic Reference Frame', the Subcommittee has been concentrating its efforts on developing a specific Implementation Plan that evolves the Road Map one more step. The 'Road Map for the Global Geodetic Reference Frame for Sustainable Development Implementation Plan' is provided as a separate background document to this present report. The aim of the Implementation Plan is to move towards the development of a work plan, and the appropriate governance mechanism needed to support the work plan.

22. The Implementation Plan includes four sections, each of which concentrate on the findings of the four focus groups. While each section has its own character, there are strong correlations between each of the focus groups and their recommended actions. The following briefly identifies some of the key issues:

(a) Geodetic Infrastructure (Chapter 1 of the Implementation Plan) - here the actions fall into three clear categories:

- i. Actions aimed at Member States;
- ii. Actions aimed at the Subcommittee of Geodesy itself as part of the ongoing work plan; and
- iii. Actions aimed at the International Association of Geodesy (IAG) and its services, including the Global Geodetic Observing System (GGOS).

(b) Policies, Standards and Conventions (Chapter 2 of the Implementation Plan) - In this chapter detailed references to existing standards and conventions form the basis for actions around sharing data and adoption of standards by Member States. The actions described in this chapter have a strong reliance on the convention on geodesy proposed in the position paper on governance.

(c) Education, Training, and Capacity Building (ETCB) (Chapter 3 of Implementation Plan) - This focus group has recognized that while basic ETCB requirements are global in nature, a strong regional dependency exists. Therefore, the work plan resulting from this Implementation Plan should recognize the regional as well as the global requirements. A detailed set of actions has been developed including timing, regional specifics and sensitivities.

(d) Outreach and Communications (Chapter 4 of Implementation Plan) - this focus group has articulated the need for 4 clear actions:

- i. Build a geospatial communications network globally;
- ii. Establish a geospatial communications coordinator role within the Subcommittee on Geodesy membership;
- iii. Develop a geospatial communications collaboration space; and
- iv. Establish a Subcommittee on Geodesy working group for outreach and communication.

23. In addition to the four focus groups described above, and whom have developed the Implementation Plan provided as a background document, the Subcommittee's fifth focus group, on Governance, have developed a 'Position Paper – Appropriate Governance Arrangements' which is also provided as a separate background document to this present report. The key findings within the Position Paper are that the most appropriate actions to enhance the governance arrangements for global geodesy are to:

(a) Initiate an investigation regarding the establishment of a UN convention on the global geodetic reference frame to enable Member States to commit to the development and sustainability of the GGRF in accordance with the UN General Assembly Resolution (A/RES/69/266) and the GGRF Road Map recommendations.

(b) Investigate the future need for a professional operations organization for the GGRF, and if an existing geodetic organization can evolve to become this organization.

(c) Strengthen the Subcommittee on Geodesy as a governance arrangement for the GGRF by revising the Subcommittee's terms of reference (provided as Annex I to this present report).

(d) To initiate the establishment of a UN GGRF trust fund to support and promote Member State activities that contributes to realizing the intention of (A/RES/69/266) and the GGRF Road Map.

V. Points for discussion

24. The Committee of Experts is invited to:

(a) Take note of the present report and the work of the Subcommittee on Geodesy;

(b) Express its views on the revised terms of reference for the Subcommittee on Geodesy, with a view towards their endorsement (Annex I to this present report);

(c) Express its views and provide guidance on the progress of the Road Map Implementation Plan (provided as a separate background document to this present report);

(d) Express views and provide guidance on the Position Paper on Governance (provided as a separate background document to this present report); and

(e) Take note of the next meeting of the Subcommittee on Geodesy, to be convened on the margins of the United Nations World Geospatial Information Congress in Deqing, China in November 2018;

ANNEX I

**Terms of Reference of the Subcommittee on Geodesy (SCoG) of the
United Nations Committee of Experts on Global Geospatial
Information Management
(UN-GGIM)**

Title 1: Recitals, background and context

Whereas:

- (1) The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) aims to address global challenges regarding the use of geospatial information, including in the development agendas, and to serve as a body for global policy-making in the field of geospatial information management.
- (2) At its sixth session, held in New York in August 2016, the Committee of Experts resolved to commence the process of creating a permanent Subcommittee on Geodesy (SCoG)
- (3) At its seventh session, held in New York in August 2017, the Committee of Experts adopted decision 7/103, in which it welcomed the report by the Working Group on the Global Geodetic Reference Frame and endorsed the formal establishment of a Subcommittee on Geodesy to replace the Working Group on the Global Geodetic Reference Frame.
- (4) The Subcommittee on Geodesy comprises representatives of UN Member States with an equitable distribution from all geographic regions.
- (5) The Subcommittee on Geodesy takes into account the global agenda of the Committee of Experts, and that of other UN-GGIM Regional Committees, including their working groups on geodesy.
- (6) There is a long-standing tradition of cooperation on geodesy between Member States, academia (as represented by the International Association of Geodesy), and industry (as represented by the International Federation of Surveyors).
- (7) Formal contact points for the UN are the Ministries of Foreign Affairs or equivalent; nonetheless, effective communications will be required at an expert level.

Title 2: Form, name, purpose and activities of the Subcommittee

Article 1 - Form and Name

- 1.1. The Subcommittee will be called the UN-GGIM Subcommittee on Geodesy, hereinafter abbreviated to the UN-GGIM SCoG.
- 1.2. The UN-GGIM SCoG does not have separate legal personality. The UN-GGIM SCoG will aim to achieve consensus among members as far as possible when taking decisions.
- 1.3. The UN-GGIM SCoG operates within the scope of the United Nations Committee of Experts on Global Geospatial Information Management.

Article 2 - Purpose and Activities

- 2.1. The UN-GGIM SCoG identifies geodetic issues and recommends necessary actions on them for the furtherance of the discussions within the Committee of Experts and the broader UN-GGIM

architecture so that the economic, social and environmental benefits of geospatial information are both utilized and maximized.

2.2. While fully respecting existing national and regional frameworks and capabilities, in the context of geospatial information management, the UN-GGIM SCoG shall aim to achieve the following objectives:

- Provide an intergovernmental forum, with equitable regional representation, for cooperation and exchange of dialogue on issues relating to the maintenance, sustainability and enhancement of, and access to, the Global Geodetic Reference Frame (GGRF);
- Provide governmental strategic leadership and vision on the management and development of geodetic strategy and policies;
- Develop an implementation plan for the GGRF road map;
- Develop, as part of the implementation plan, considerations for additional governance mechanisms in order to effectively enhance the implementation of the road map for the GGRF, particularly with respect to those governance mechanisms being owned and driven by Member States, with the aim of eventually implementing the proposed mechanism;
- Encourage open sharing of geodetic data and information that contribute to the implementation of global, regional and national reference frames, and their inter-relationships;
- Advocate for guidelines and standards to advance the interoperability of geodetic systems and data;
- Address various technical, institutional and policy issues related to the implementation of global geodesy;
- Maintain a dialogue between Member States and the non-government international geodetic community;
- Pursue the implementation of the GGRF road map in cooperation with the International Association of Geodesy (IAG) and the International Federation of Surveyors (FIG);
- Encourage and provide mechanisms for capacity development and knowledge transfer in the field of geodesy among Member States;
- Provide, through outreach, advocacy for the global geodesy as the basis upon which all spatial data and positioning activities should be founded; and
- Continue outreach and communication, particularly with appropriate regional initiatives and activities.

2.3. The UN-GGIM SCoG will build on initiatives being undertaken within the global geodetic community in developing its approach to achieving these objectives.

Title 3: Membership

Article 3 - Members

3.1. Membership is open to Member States nominated by the executive of the UN-GGIM Regional Committees on a pro-rata basis to serve on the Subcommittee and to be reviewed every two years. The review will be based on actual participation and contribution from the members as demonstrated through national activity reports at the UN-GGIM Regional Committee meetings. Membership composition is as follows: Asia Pacific (10 members); America's (7 members); Arab

States (5 members); Europe (9 members); and Africa (9 members); with a total of 40 members. In making the nominations, the Regional Committees should ensure appropriate inclusion of both developing and developed Member States.

- 3.2. In appointing their national delegates (representatives), Member States should seek to designate representatives with specific knowledge of and responsibility for global, regional, continental or national geodetic reference frames for positioning, navigation or timing applications. The Subcommittee will also seek to utilize Member State skills on management, administration and communications in delivering key elements of its work program. Consideration should also be given to how the national representatives coordinate inputs from all interested parties within their national system, including but not limited to national mapping agencies, national and international space agencies, and government research institutes.
- 3.3. The UN-GGIM SCoG Executive Committee may invite additional Member States (limited to 10 additional members), not currently nominated by the UN-GGIM Regional Committees, to become Members of the UN-GGIM SCoG. The selection of these additional members will be based on the need for expertise and contribution to the UN-GGIM SCoG work program.
- 3.4. Members States not nominated under Article 3.1 or 3.3 above, to become formal members of the Subcommittee, will have the right to participate in the UN-GGIM SCoG meetings as Observers without the right to vote.
- 3.5. Representatives from the International Association of Geodesy (IAG), and the International Federation of Surveyors (FIG) will be invited to participate in the UN-GGIM SCoG meetings and activities as Observers.
- 3.6. Additional Observers may be invited to meetings and to contribute to the work of the UN-GGIM SCoG, including from other institutions, professional, research and academic organizations or associations, which have an interest in geodetic programs. A request for Observer status should be made to the co-Chairs prior to participation in UN-GGIM SCoG activities.

Article 4 - Rights and Obligations of the Members

- 4.1. Each UN-GGIM SCoG Member State will be represented by a delegation with one or more representatives. A 'head of delegation' will be identified whom will be responsible for consulting with, and representing, relevant bodies in their country. A number of additional persons may be nominated by this representative as experts to attend meetings of the Subcommittee.
- 4.2. Members will endeavor to attend the UN-GGIM SCoG plenary meetings and take actions necessary and appropriate to develop and promote the aims of the UN-GGIM SCoG, and may, with the approval of the co-Chairs, represent the UN-GGIM SCoG in specific functions or at events.
- 4.3. Members can participate in all the activities of the UN-GGIM SCoG, can be elected as co-Chair, and vote in the plenary meetings of the UN-GGIM SCoG.
- 4.4. Each member will adhere to the Articles of the UN-GGIM SCoG and its Rules of Procedure, and work to their normal high professional standards in an open and transparent manner and in full cooperation with other members.
- 4.5. Each member participating in the UN-GGIM SCoG will have one vote. With the exception of changes to these articles, and Rule 15, decisions of the UN-GGIM SCoG will be taken by a majority of the representatives present and voting.
- 4.6. Each member should consider the recommendations from the UN-GGIM SCoG within the remit of, and as implemented in, the plenary meeting. The members will individually decide on implementation of the recommendations, dependent on circumstances such as a member's national rules, laws or administrative practices. If their national rules, laws and administrative practices permit, the members belonging to the UN-GGIM SCoG should consider promoting the

recommendations from the UN-GGIM SCoG within their Member State.

Title 4: Bodies of the UN-GGIM SCoG: Co-Chairs, Executive Committee and Secretariat

Article 5 - Co-Chairs

- 5.1. The UN-GGIM SCoG will elect two (2) co-Chairs to serve for 4-year periods, with Chair elections occurring bi-annually, such that one new co-Chair is elected every two years in order to secure continuity. The co-Chairs will be selected from the members as defined in Article 3.1, 3.2 and 3.3, such that consideration of the equity between developed and developing countries occurs.

Article 6 - Executive Committee

- 6.1. The UN-GGIM SCoG will be managed by the Executive Committee, which will have full powers to carry out the objectives of the SCoG members in that respect.
- 6.2. The Executive Committee is responsible for exercising the powers of the UN-GGIM SCoG in the management of the business and affairs only to the extent set forth in these Terms of Reference. Any actions are communicated to the UN-GGIM SCoG as soon as possible and reported and validated at the next Committee meeting. The Executive Committee comprises eight persons including the two co-Chairs.
- 6.3. Non-co-Chair Executive Committee members will be elected, by simple majority, for a 3-year term, at a Plenary meeting of the UN-GGIM SCoG, with consideration of the equity between developed and developing countries.
- 6.4. Elections for two non-co-Chair Executive Committee members will occur each year, such that continuity occurs within the Subcommittee. This election cycle will commence after the initial 3-year term of Executive Committee members, meaning that two of the initial Executive Committee members will serve 4 years and two will serve 5 years.
- 6.5. The Executive Committee will:
 - Plan and coordinate a programme of work which the members agree is needed to meet the objectives of the UN-GGIM SCoG;
 - Plan and manage the activities that the UN-GGIM SCoG undertakes for UN-GGIM in consultation with the UN-GGIM Secretariat;
 - Manage the continuing administrative affairs of the UN-GGIM SCoG;
 - Make recommendations to the UN-GGIM SCoG on objectives, activities and a work programme;
 - Prepare and submit reports on activities of the UN-GGIM SCoG to the Plenary meeting, UN-GGIM Secretariat, the Committee of Experts, and relevant international bodies;
 - Represent the interests of UN-GGIM in the world's geodetic community;
 - Promote UN-GGIM guidelines to the members of the UN-GGIM SCoG;
 - Take opportunities to give presentations to related bodies at conferences and other relevant events; and
 - Examine and approve arrangements for all the meetings organized or sponsored in the name of the UN-GGIM SCoG.
- 6.6. The Executive Committee will meet as often as necessary, and at least once a year. The date and

place will be determined by the co-Chairs. Meetings may be virtual in nature. A majority of the Executive Committee must attend to form a quorum.

- 6.7. Depending on the meeting agenda, the co-Chairs may, at their discretion, invite third parties such as Observers or topic experts, to an Executive Committee meeting or appropriate part of it.
- 6.8. The Executive Committee will be assisted to carry out its function by a Secretariat.

Article 7 - SCoG Secretariat

- 7.1. A member of the UN-GGIM SCoG will be granted responsibility for providing Secretariat support to the UN-GGIM SCoG by a majority vote of the members at a Plenary meeting of the UN-GGIM SCoG.
- 7.2. The responsibility for providing the Secretariat will not be tied to the position of Executive Committee membership.
- 7.3. The Secretariat will be responsible for secretarial, clerical, and administrative duties, maintaining records etc. including arranging meetings, taking minutes and collecting and circulating documents to support the effective and smooth operation of the UN-GGIM SCoG.
- 7.4. A member offering to fulfil the role of Secretariat will provide the UN-GGIM SCoG members with a proposal detailing how the service will be provided and its costs paid for.
- 7.5. The Secretariat will report to the Executive Committee as the Committee requires.
- 7.6. The Secretariat will adhere to the guidance provided by the UN-GGIM Secretariat.

Title 5: Plenary Meetings

Article 8 - Timing, format, organization and key elements of the meeting

- 8.1. The Plenary meeting of the UN-GGIM SCoG will be convened at a time and place convenient to the members. A Plenary meeting will normally be held each calendar year.
- 8.2. The co-Chairs, depending on availability, will Chair the UN-GGIM SCoG meetings. During meetings their primary responsibility is the role of Chair. To ensure that they are able to remain impartial, but to enable their Member State to still vote, the Chair may designate another from their national delegation to participate and vote in Plenary meetings in their place.
- 8.3. The Executive Committee, along with the member from the host Member State, will be responsible for organizing the Plenary meeting, including the agenda and identification of any invited speakers. The UN-GGIM Secretariat may provide administrative support, such as issuing invitations and publication of proceedings.
- 8.4. Key elements of the Plenary meeting include:
 - Receiving reports from:
 - the UN-GGIM SCoG members;
 - the Committee of Experts on UN-GGIM;
 - other UN-GGIM Regional bodies;
 - the Executive Committee on activities since the previous meeting; and
 - observers including Member States not currently included in the SCoG membership, IAG, FIG and other interested organizations, notified in advance of the Plenary meeting to the co-Chairs.
 - Considering proposals for future work by the UN-GGIM SCoG;

- Electing members of the Executive Committee and the co-Chair as appropriate;
- Voting on an annual work plan and proposals:
 - for amendment of the Articles and Rules of Procedure;
 - for providing a Secretariat to the UN-GGIM SCoG; and
 - to grant Observer status for organizations not representing a Member State.

Article 9 - Working Groups

- 9.1. Working Groups may be established by the Executive Committee to meet specific objectives of the UN-GGIM SCoG.
- 9.2. Each Working Group will, where possible, be chaired by a member of the Executive Committee.
- 9.3. Working Groups will report to the Executive Committee on their activities, together with recommendations for consideration by the UN-GGIM SCoG.
- 9.4. Working Group Chairs are able to appoint coordinators for key activities within their work programme, and these coordinators will report to the Working Group Chair.
- 9.5. Procedures covering the day-to-day running of the Working Groups will be set out from time to time by the Executive Committee of the UN-GGIM SCoG.

Title 6: Financing, Funds and Expenses

Article 10 - Costs

- 10.1. Delegations and other representatives will bear all of their own costs for participating in all activities of UN-GGIM.
- 10.2. Expenses for arranging the UN-GGIM SCoG Plenary, Executive Committee and Working Group meetings will be borne by the host Member State where the meeting is held, except where a financial contribution is approved by the UN-GGIM SCoG Plenary meeting, including the identification of the proposed donor.
- 10.3. Arrangements for meeting the costs of the administration of the UN-GGIM SCoG will be approved by a Plenary meeting of the UN-GGIM SCoG on the basis of a proposal, or proposals, made by one or more member.
- 10.4. The Executive Committee will be responsible for the allocation of all and any funds of the UN-GGIM SCoG and its Working Groups.

Title 7: Supplementary

Article 11 - Revision of the Articles

- 11.1. The Articles may only be amended at a UN-GGIM SCoG Plenary meeting by a two-thirds majority of the Members present.

Article 12 - Dissolution of the UN-GGIM SCoG

- 12.1. The UN-GGIM SCoG may be dissolved by the UN-GGIM Committee of Experts.
- 12.2. In the event of dissolution of the UN-GGIM SCoG, any funds remaining after settlement of liabilities of the UN-GGIM SCoG will be transferred to the UN-GGIM in such manner and amount

as may be approved by the members.

Article 13 - Effective Date of Articles

- 13.1. The Articles shall take effect from the date they are approved by the UN-GGIM Committee of Experts.

Done at {place} on {dd/mm/2018}

UN-GGIM: SCoG RULES OF PROCEDURE

I. OFFICERS

Rule 1

The co-Chairs will preside over the meetings of the UN-GGIM SCoG and its Executive Committee as agreed between them.

Rule 2

If one of the Chairs is absent from a meeting or any part thereof, the other co-Chair shall preside.

II. SECRETARIAT

Rule 3

The Secretariat will act in the capacity of secretary in all plenary meetings of the UN-GGIM SCoG.

Rule 4

The Secretariat will be responsible for making all necessary arrangements for meetings and generally will perform all other work that the Executive Committee and the UN-GGIM SCoG may require.

Rule 5

If the member granted responsibility for providing the Secretariat is no longer able to fulfil their responsibility, they should give the Executive Committee a minimum of six months' notice of their withdrawal.

III. CHANGES TO THE ARTICLES

Rule 6

Any proposal for amendment of the Articles shall be submitted to the co-Chairs in time for inclusion in the notice of meeting and agenda, which should be sent to members not later than 4 weeks prior to a plenary meeting.

IV. CONDUCT OF BUSINESS

Rule 7

To be recognized as such the UN-GGIM SCoG meeting will comprise of at least half of its active membership.

Rule 8

In addition to exercising the powers conferred upon them elsewhere by these rules, the co-Chairs will declare the opening and closing of each meeting of the UN-GGIM SCoG, direct the discussion at such meetings, ensure observance of these Rules, grant the right to speak, put questions to the vote and announce decisions. They will rule on points of order and, subject to these rules of procedure, will have complete control over the proceedings.

Rule 9

The co-Chairs may, in the course of the discussions, propose to the meeting closure of the list of speakers or the close of the debate. They may also propose the suspension or the adjournment of the meeting or the adjournment of the debate on the item under discussion. They may also call a

speaker to order if their remarks are not relevant to the matter under discussion.

Rule 10

The co-Chairs, in the exercise of their functions, remain under the authority of the UN-GGIM SCoG.

Rule 11

No one may address the UN-GGIM SCoG Plenary meeting without having previously obtained the permission of the co-Chairs. The co-Chairs will call upon speakers in the order in which they have signified their desire to speak.

Rule 12

Debates will be confined to the topic before the UN-GGIM SCoG, and the co-Chairs may call a speaker to order if their remarks are not relevant to the subject under discussion.

Rule 13

Proposals and amendments will normally be introduced in writing and submitted to the Secretariat of the UN-GGIM SCoG, who will circulate copies to the Representatives not later than 4 weeks prior to a Plenary.

Rule 14

A proposal, amendment or motion may be withdrawn by its sponsor at any time before voting has commenced, provided that it has not been amended. A proposal or a motion thus withdrawn may be re-introduced by any Representative.

Rule 15

When a proposal or amendment has been adopted or rejected, it may not be reconsidered unless the UN-GGIM SCoG, by a two-thirds majority of the Representatives present and voting, so decides. Permission to speak on the motion to reconsider will be accorded only to two speakers opposing the motion, after which it will be put to the vote immediately.

V. VOTING

Rule 16

The UN-GGIM SCoG will make best endeavours to ensure that its work is accomplished by general agreement and consensus.

Rule 17

Each Member participating in the official UN-GGIM SCoG meeting will have one vote, and the decisions of the meeting will be made by a majority of the representatives present and voting. The UN-GGIM SCoG will normally vote by show of hands. All elections will be held by secret ballot, unless otherwise decided by the UN-GGIM SCoG.

Rule 18

When an amendment is moved to a proposal, the amendment will be voted on first. When two or more amendments are moved to a proposal, the UN-GGIM SCoG will first vote on the

amendment furthest removed in substance from the original proposal and then on the amendment next furthest removed therefrom, and so on until all the amendments have been put to the vote. Where, however, the adoption of one amendment necessarily implies the rejection of another amendment, the latter amendment will not be put to the vote, if one or more amendments are adopted the amended proposal will then be voted on. A proposal is considered an amendment to another proposal if it merely adds to, deletes from or revises part of that proposal.

Rule 19

In the case when two or more proposals relate to the same question, the UN-GGIM SCoG will, unless it decided otherwise, vote on the proposals in the order in which they were submitted. The UN-GGIM SCoG may, after each vote on a proposal, decide whether to vote on the next proposal.

Rule 20

In the case when one person or one delegation is to be elected and no candidate obtained the required majority in the first ballot, a second ballot will be taken, which will be restricted to the two candidates obtaining the largest number of votes in the first ballot.

Rule 21

In the case when a vote is equally divided on matters other than elections, a second vote will be taken. If this vote is also equally divided, the proposal will be regarded as rejected.

VI. LANGUAGE

Rule 22

English will be the working language of the UN-GGIM SCoG.

Rule 23

A speaker may use a language other than English if they provide for interpretation into English.

VII. MEETINGS

Rule 24

Attendance at meetings of the UN-GGIM SCoG will be by invitation. The UN-GGIM SCoG Plenary and Executive Committee meetings and those of the Working Groups will be open to members of all UN-GGIM regions and to others by invitation.

VIII. PARTICIPATION OF ADVISORS AND OBSERVERS

Rule 25

The co-Chairs may seek the opinions of Observers members and invited topic experts.