

UN RESOLUTION

In February 2015 the UN General Assembly adopted the resolution “A Global Geodetic Reference Frame for Sustainable Development” – the first resolution recognizing the importance of a globally-coordinated approach to geodesy.

The UN-GGIM Subcommittee on Geodesy was inaugurated in Mexico City in November 2017. The subcommittee is now presenting the position paper defining appropriate governance arrangements for the GGRF, and has finalised the roadmap implementation plan.

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From a UN mandate to commitment for global geodesy

Without commitment by Member States, the Global Geodetic Reference Frame (GGRF) will be in danger of degradation over time and consequently gradually lose its required accuracy and fundamental role in societal and scientific applications. As demonstrated by the GGRF Governance Position Paper a UN GGRF convention could be the long-term solution to this problem.



PHOTO: BJØRN-OWE HOLMBERG

NY-ÅLESUND: Dr. Zuheir Altamimi, France, is responsible for the international terrestrial reference frame. He encourages nations to follow Norway's and Australia's examples.

“The UN General Assembly resolution on the GGRF for sustainable development calls for commitments by Member States to improving national geodetic infrastructure as an essential means to enhance the global geodetic reference frame. Without commitment by Member States, the GGRF will be in danger of degradation over time and consequently will gradually lose its required accuracy and fundamental role in societal and scientific applications. The current developments and investments to enhance the geodetic infrastructure in Australia, and more recently the inauguration of the new geodetic Earth observatory in Ny-Ålesund by Norway are concrete

examples to follow by other nations”, says Zuheir Altamimi, France.

No one country can do this alone

“For the global geodetic reference frame to be sustainable all countries need to play a role, with many of the developed countries providing assistance to the less developed countries where possible, while also continuing



PHOTO: ANDRICK LAL

PACIFIC ISLANDS: GPS for defining territorial sea baseline on the Gilbert Islands of Kiribati.

to upgrade their own contribution to GGRF to enhance its quality,” says Gary Johnston, co-chair of the UN-GGIM Subcommittee on Geodesy, representing Australia.

While many countries have a willingness to cooperate in this way, currently no clear mechanism exists to facilitate cooperation, especially where the sharing of resources is required.

Facilitate commitment

“It is our belief that a UN convention on geodesy will create such a mechanism. Coupled with the possible creation of a UN trust account, which would provide a financial mechanism for donor contribution to this effort, we believe many of the current barriers to success will become far more manageable, therefore improving the outcome for all UN Member States, and the eventual successful and sustainable enhancement of the Global Geodetic Reference Frame”, says Johnston.

“The legal framework allowable by a UN convention should provide a basis for the coordination of joint work of Member States in the field of global geodesy. It will also provide governmental support and attention to the development of the GGRF both at the national and the global level”, says Alexey Trifonov, co-chair of the UN-GGIM Subcommittee on Geodesy, representing the Russian Federation.



The Global Geodetic Reference Frame – towards sustainability

2015: Mandate	2016: Plan	2018: Action	Next step: Commitment
The UN General Assembly adopted the resolution 'A global geodetic reference frame for sustainable development'.	The UN-GGIM Committee of Experts endorsed the Road Map for the Global Geodetic Reference Frame (GGRF) and noted the need for an appropriate governance structure in order to effectively implement the Road Map.	The UN-GGIM Subcommittee on Geodesy presents the GGRF Road Map Implementation plan and the Governance Position Paper to the UN-GGIM Committee of Experts.	UN-GGIM facilitates Member State commitment to the GGRF in accordance with the UN General Assembly Resolution (A/RES/69/266) and the GGRF Road Map recommendations.

"In a formal program evaluation in 2018 the Government of Canada noted significant program integrity concerns about global and (thereby) our national geodetic reference systems, echoing concerns raised at the UN-GGIM level. Canada views the establishment of stronger governance in Geodesy as an important means to ensure integrity of the fundamental systems that support the Global Geodetic Reference Frame (GGRF) and client access to this frame."

Calvin Klatt, Canada

"In order to ensure long-term policies related to the development of the GGRF in developing countries like Argentina, the GGRF UN-convention is an essential governance mechanism that will encourage legislators and stakeholders to invest in a more homogeneously-distributed geodetic infrastructure."

Diego Piñon, Argentina



ARGENTINA: Recent relative-gravity campaign to strengthen the GGRF.

PHOTO: INSTITUTO GEOGRÁFICO NACIONAL ARGENTINA

The GGRF Governance Position Paper

Recommends to:

1. Start an investigation regarding the establishment of a GGRF UN-convention to enable Member States to commit to the development and sustainability of the GGRF
2. Investigate the future need for a professional operations organisation for the GGRF
3. Strengthen the subcommittee on Geodesy as a governance arrangement for the GGRF by revising the subcommittee Terms of Reference.
4. Initiate the establishment of a UN GGRF trust fund to support and promote Member State activities

"The establishment of a GGRF UN-convention will most likely have positive impact outside of the GGRF. Successful establishment of such a convention will clearly demonstrate the importance of UN-GGIM and the UN-GGIM decisiveness and ability to act. It will likely raise the awareness and profile of geospatial data in general."

Laila Løvholden, Norway, lead of the GGRF Governance Focus Group.



PHOTO: BJØRN-OWE HOLMBERG

MALAWI: Towards an accurate, sustainable and accessible global geodetic reference frame.

"A global reference frame is key if you want to be able to compare data from all continents; and to empower scientists from all parts of the world – to really give precise information, to make the planet a better place."

Erik Solheim, Executive Director, United Nations Environment Programme

