The 3rd meeting of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) met at the UN Headquarters in New York, USA, from 6-8 August 2014. The first day saw them endorse a draft Resolution on the Global Geodetic Reference Frame (GGRF).

A geodetic reference frame refers to the science of very finely measuring the Earth: its orientation in space, its gravity field and its shape. Since these three aspects of the planet are constantly changing, it is even more imperative that, globally, we have the best data possible in order to respond to everything from climate change to disaster management.

The UN-GGIM recognises that there is a growing requirement for more accurate measuring of the changing planet, down to millimetres. Such data will have enormous economic benefits since the data impacts on countries’ economies as well as their environments. Mr Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (IPCC), gave his support to the work of the UN-GGIM and the GGRF Working Group at a recent climate symposium in Ny-Ålesund, Norway, saying “Their work is making a vital contribution to our understanding of climate change.” (http://ggim.un.org/docs/meetings/GGIM4/UNGGIM%20Newsletter%202%202014.pdf)

There is a growing awareness that no single country can maintain the GGRF alone. Instead, a high-quality GGRF requires global collaboration and contributions, sharing of geodetic data and the maintenance of geodetic infrastructure at the national level. Furthermore, the ‘best efforts’ principle currently in place will not be sufficient for the future.

The IAG makes considerable contributions through its services, especially those that contribute to the International Terrestrial Reference Frame (ITRF), which is the most stable GGRF currently available. However its maintenance is dependent upon the continued support of national mapping departments, space agencies, research organisations and universities. There is a need for coordinated global efforts, working under the umbrella and mandates of overarching structures like the United Nations. Some countries are already collecting data as part of the GGRF and making it freely available, and the UN-GGIM hopes that more Member States can work towards improved open sharing of geodetic data, standards and conventions.

However the GGRF, and geodesy in general, is far more than a valuable geoscience. Geodetic concepts, tools and services underpin a vast range of geospatial activities, being critical for delivering on ‘spatial enablement’ of society, addressing the needs of sustainable development and evidence-based decision-making with respect to land use, resource management, production of clean energy and food for a growing world population, to mention just a few applications.

The IAG wishes to acknowledge the strong support from many Member States whose representatives attended the meeting, as well as sister geospatial organisations organised under the Joint Board of Geospatial Information Societies (JBGIS), including FIG, ISPRS, ICA and GSDI.

The draft Resolution will now pass to the Economic and Social Council (ECOSOC), UN-GGIM’s parent body and the United Nations’ central platform for reflection, debate, and innovative thinking on sustainable development. The intent is for ECOSOC to then refer the Resolution to the General Assembly.

More information:

The 4th meeting of the UN Committee of Experts on GGIM available on UN Web TV: http://webtv.un.org.


Animation about the role of geodesy and the GGRF: https://vimeo.com/89695290