UN General Assembly Urges the Sharing of Geospatial Data to Benefit People and Planet

The remarkable news came through...

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The science that supports the precise positioning and mapping of people and places should be shared more widely, according to the United Nations General Assembly as it adopted its first resolution recognising the importance of a globally-coordinated approach to Geodesy.

It was acknowledged that Geodesy plays an increasing role in people's lives, from finding disaster victims to finding directions using a smart phone. The General Assembly resolution, A Global Geodetic Reference Frame for Sustainable Development, outlines the value of ground-based observations and satellite remote sensing when tracking changes in populations, land use, ice caps, oceans, the atmosphere, and the environment over time. Such geospatial measurements, when referred to a high quality geodetic reference frame, can support sustainable development policymaking, climate change monitoring and natural disaster management, and also have a wide range of applications for transport, preserving the natural and built environments, supporting agriculture and resource exploitation, and for land use planning, infrastructure provision and construction.

Emphasising that "no one country can do this alone", the General Assembly called for greater multilateral cooperation on Geodesy, including the open sharing of geospatial (including geodetic) data, further capacity-building in developing countries, and the creation of international standards and conventions. Recognition was also given to the ad hoc nature of the establishment and operation of ground-based geodetic infrastructure such as GNSS permanent receivers, radio telescopes supporting baseline interferometry measurements, satellite laser ranging stations, geodetic control networks, and gravity reference stations. Without such infrastructure, the basic data used to maintain the International Terrestrial Reference Frame (ITRF) would not be available. Space-based infrastructure is also important, and the data from a wide range of Earth Observation satellites make crucial contributions to geodetic applications for science and society.

Co-sponsored by 52 Member States, the resolution was originally put forward by Fiji. Ambassador Peter Thomson, Fiji's Permanent Representative to the United Nations, explained that, as a Small Island Developing State, Fiji is vulnerable to increasingly severe natural disasters, sea-level rise and other problems triggered by climate change, but uses geodesy data to plan as best as it can. "We fully realise the importance of critical geospatial infrastructure and information in helping countries and decisionmakers make more informed, evidence-based decisions on mitigation and preparedness", Ambassador Thomson stated. Fiji also highlighted the power of precise positioning for United Nations peacekeeping, for which it contributes troops. "We believe that additional accurate geospatial data will help the blue helmets take decisions in an often volatile operational context, leading to greater effectiveness of UN missions", Ambassador Thomson added.

Wu Hongbo, the United Nations Under-Secretary-General for Economic and Social Affairs, praised Member States' efforts to "discuss, deliberate and decide on issues relevant to geospatial information" and, noting that Geodesy is fundamental for monitoring changes to the Earth, "stressed the significance of the global geodetic reference frame in supporting sustainable development".

"2015 is a crucial year in which world leaders will be called upon to determine the global course of action to improve people's lives and protect the planet. With key finance, sustainable development and climate change conferences approaching, the focus on practical solutions and international cooperation in today's resolution sets the right tone."

In short, what is needed is upgraded geodetic infrastructure, sustained global operations of these facilities, open data sharing policies, the launch of improved geospatial satellite technologies, and greater education and out-reach to less developed countries so that they may be able to take advantage of the products and services of Modern Geodesy.

For more information: Committee of Experts on Global Geospatial Information Management

(http://ggim.un.org) and the Working Group on Global Geodetic Reference Frame (http://ggim.un.org/UN_GGIM_wg1.html)

