

UN RESOLUTION

The UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) decided in July 2013 to formulate and facilitate a draft resolution for a Global Geodetic Reference Frame.

UN-GGIM recognises the growing demand for more precise positioning services, the economic importance of a Global Geodetic Reference Frame and the need to improve the global cooperation within geodesy. The resolution will be tabled at the 2014-15 Session of the UN General Assembly.

ECOSOC recommends resolution to the UN General Assembly

The United Nations Economic and Social Council (ECOSOC) recently adopted a resolution to strengthen the development of the Global Geodetic Reference Frame.

– This is excellent news, says Dr Vanessa Lawrence CB, co-Chair of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM).

A draft of this resolution was ratified in August 2014 in New York at the fourth session of the UN-GGIM and will now be referred to the United Nations General Assembly.

Fundamental to sustainable development

– The extent and value of the Global Geodetic Reference Frame is often little known, but it is fundamental to sustainable development around the world, says Dr Lawrence.

Everything from land tenure to environmental monitoring, location-based services and urban planning, are reliant on a precise Global Geodetic Reference Frame (GGRF).

From best effort to a UN mandate

– Currently though, the GGRF is managed and advanced on a best efforts basis, but something so important requires more all-embracing international cooperation. A UN mandate will enable this to happen, strengthening existing achievements, facilitating the sharing of geodetic positioning data,

and helping to underpin and promote new location-based investments across the globe, says Dr Lawrence.

“I wish the UN-GGIM GGRF Working Group success as this important global resolution progresses to the General Assembly in the coming months.”

Dr Vanessa Lawrence CB,
Co-Chair, UN-GGIM



PHOTO: UN/MARK GARTEN

NEW YORK: The General Assembly Hall, United Nations.

Global Geodetic Reference Frame – the road to a UN mandate

2012, NEW YORK:

Asia-Pacific Geodesy Working Group (PCGIAP) brought the report on Global Geodetic Reference System to the second session of UN-GGIM. Decision was made by the Committee to progress the issue.

2013, DOHA:

UN-GGIM's second High Level Forum committed to working together as an international community, under the coordination of the UN, to work with all stakeholders to improve a sustainable operational Global Geodetic Reference Frame and infrastructure, to support the increasing demand for positioning and monitoring applications with associated societal and economic benefits.

2013, CAMBRIDGE:

UN-GGIM's third session decided to formulate and facilitate a resolution for a

Global Geodetic Reference Frame (GGRF). A GGRF Working Group was established, co-chaired by Australia and Norway. 26 countries and the International Association of Geodesy (IAG) are members.

2014, NEW YORK:

UN-GGIM's fourth session endorsed the draft resolution on a GGRF and passed it to ECOSOC, UN-GGIM's parent body. During the UN-GGIM's fourth session, where the GGRF Working Group presented the drafted resolution, there were 40 interventions, all positive. 34 of the interventions came from Member States, six from organizations like GEO, IHO and FIG.

2014, NEW YORK:

ECOSOC's Coordination and Management Meeting adopted the draft resolution and the report from UN-GGIM's fourth session on 17th November.





FIJI

Will reduce flood losses

The Global Geodetic Reference Frame is key element in a project aiming to develop integrated flood management for the Pacific.

– Fiji is highly susceptible to flooding, with severe floods and cyclones the key natural disasters facing the country, says Andrick Lal, Senior Surveyor, Secretariat of the Pacific Community.

Mountainous Pacific countries are particularly susceptible to flood impacts. Aside from the obvious humanitarian impact of flooding, flooding also has an economic dimension. In the Pacific, cyclones account for nearly 80 percent of all reported disasters.

Flood preparedness

The Surveyor explains that until recently, despite the immense social and economic costs, Pacific Island countries have been reactive rather than proactive in dealing with flood preparedness and response. However, this is changing.

– A project addressing flooding of Fiji’s river Nadi, is aiming to strengthen flood forecasting and warning systems, flood risk assessment and address institutional strengthening for integrated flood management, Lal says.

The Nadi Integrated Flood Management is a pilot project aiming to develop integrated flood management for the Pacific using Nadi as a case study.

PHOTO: RAJENDRA PRASAD



FIJI: In the Pacific, cyclones account for nearly 80 percent of all reported disasters.



PHOTO: ANDRICK LAL, SPC

PRECISE OBSERVATIONS: Having a global geodetic reference frame is key.

Topography model

Among the deliveries are operating procedures for flood warning services and a high-resolution topography model for the low-lying areas of Nadi using Light and Detection Ranging (LiDAR) survey. LiDAR is a remote sensing method used to examine the surface of the Earth.

Another delivery is use of a 2D flood inundation model and flood hazard and risk maps to recommend flood mitigation measures and dissemination of the methodology to the Pacific region.

The models will also be important for decision making and can provide guidance on land-use practices and whether to avoid development in particular areas.

Seamlessly with a Reference Frame

– Having a Global Geodetic Reference Frame is key for precise observations. The reference frame will allow the future work to be seamlessly combined with the Nadi project’s dataset, says Lal.

The Global Geodetic Reference Frame is accessed by the nearby existing Global Navigation Satellite System (GNSS) and Continuous Operating Reference Stations (CORS) and enables more precise observations of height.

Key stakeholders in the Nadi project include the National Disaster Management Office, Town and Country Planning, Water Authority of Fiji, Fiji Meteorological Services and Land & Water Resources Management.

