

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 2013-14 Session of the UN General Assembly.

Fundamental for monitoring climate change

Dr. Rajendra Pachauri, Chairman of the Intergovernmental Panel on Climate Change, commented about geodesy at a recent climate symposium in Ny-Ålesund, Svalbard.

PHOTO: IPCC



ARCTIC: IPCC Chairman Dr. Rajendra Pachauri supports the work on a draft UN resolution on global geodesy

“Geodetic Earth observation contributes significantly to strengthen the study of our changing planet and provides valuable information to policy makers who are exploring ways to address climate change,” Dr. Pachauri said.

The geodesists around the globe measure and define the Earth’s shape, rotation and gravitation and changes to these. Geodetic Earth observation provides a coordinate reference frame for the whole planet, which is fundamental for monitoring changes to the Earth.

Dr. Pachauri said UN-GGIM and the Global Geodetic Reference Frame Working Group are making important contributions to scientific understanding.

“I was gratified to learn about their work on a draft UN resolution on global geodesy,” he said. “Their work is making a vital contribution to our understanding of climate change.”

MALAYSIA

- Vital for policy development

The value of geospatial information and the global geodetic reference frame to science and society is becoming well recognised. In a recent speech to the International Federation of Surveyors (FIG) General Assembly the Malaysian Prime Minister announced:

“Spatial information is vital for policy development; it informs our approach to everything from urban planning to emergency service response. It plays a key part in the fight

against environmental degradation and runaway climate change.”

The Prime Minister also referred to the draft resolution on the global geodetic reference frame:

“This resolution seeks to encourage enhanced global cooperation and free and open data access policies. Malaysia welcomes and supports this development.”

FIG supports the resolution

The International Federation of Surveyors (FIG) made a unanimous decision on the global geodetic reference frame at the General Assembly, 21 June. Recognising a growing need for an accurate and stable global geodetic reference frame to support, inter alia, earth observation, including sea level and climate change monitoring, natural hazard and disaster management.

The FIG General Assembly urged Member States and their representatives within UN-GGIM-AP together with all Member States and their representatives at the fourth session of UN-GGIM, to support the approval of a draft resolution on the global geodetic reference frame, and to submit to the 2013-14 session of the UN General Assembly for final adoption.





NEW ZEALAND

Earthquakes emphasise the need for reference frames

New Zealand is at high risk of earthquakes and associated land surface deformations.

- A global geodetic reference frame is therefore important to New Zealand, says Land Information New Zealand Chief Geodesist, Graeme Blick.

The Canterbury earthquakes of 2010 and 2011 in New Zealand caused significant damage to Canterbury, including the Christchurch urban area.

-Having a common reference frame allows geodetic datasets to be combined in order to better understand the nature of these events, Blick says.

It's a view shared by Kelvin Berryman. He is manager of Natural Hazards Research Platform hosted by GNS Science, a New Zealand earth and geoscience research center.

- A common reference frame makes it possible to combine GNSS, geological observations, LiDAR and other datasets to increase our understanding of the earthquakes and their impacts on the land, says Berryman.

In Christchurch, the geodetic reference frame has provided an accurate benchmark for infrastructure recovery projects, allowing adjacent or overlapping work to be carried out as efficiently as possible.

It has also meant that land changes associated with earthquake fault movement and liquefaction can be used to evaluate the risk of river flooding.



NEW ZEALAND: After the Canterbury earthquake 2011, Christchurch Cathedral.

PHOTO: ROSS BECKER/THE CANTERBURY EARTHQUAKE RECOVERY AUTHORITY

JAMAICA

Small islands at risk



PHOTO: NATIONAL SPATIAL DATA MANAGEMENT DIVISION, JAMAICA

JAMAICA: 90 percent of Jamaica's GDP is produced within coastal areas.

Over the years Jamaica and other Caribbean Islands have seen significant loss of life and damage to infrastructure due to weather related catastrophes such as tropical storms and hurricanes.

- It is critical that we have knowledge in the area of weather, climate and sea level change, and that an understanding of a global geodetic reference frame is applied to inform mitigation efforts and decision making for sustainable development, says Rohan Richards, Principal Director in the National Spatial Data Management Division of the Ministry of Water, Land, Environment and Climate Change.

Over 400 of Jamaica's 900 communities are ranked high or moderately high to natural hazards. Between 2004 and 2012 the country experienced eight major hurricane events each bringing with it varying levels of damage to infrastructure and effects on Jamaican economy.

One of every four persons employed in Jamaica is part of the tourism industry, according to Jamaica Tourist Board. 25 percent of Jamaica's population lives within coastal areas and 90 percent of Jamaica's GDP is produced within these areas. This makes this island nation extremely vulnerable.

- We must therefore protect the natural resources on which the economy of small islands such as Jamaica depends, says Rohan Richards.

