

The role of geospatial information for improving long term integrated urban and territorial planning, and the need for a shared knowledge base using globally comparable and locally generated data is central to the Sustainable Urban Development, one of the eight GEO SBAs.

Current activities of the GEO Work Programme include the Human Planet Initiative, which is developing Global Human Settlement Layers for provision of information that can support all the spatial metrics and indicators related to population and settlements and thus contributes to several goals and targets under discussion in the post 2015 frameworks.

The Global Urban Observation and Information Initiative has as its goals: (1) Improving the coordination of urban observations, monitoring, forecasting, and assessment initiatives worldwide; (2) Supporting the development of a global urban observation and analysis system; (3) Producing up-to-date information on the status and development of the urban system - from local to global scale; (4) Filling existing gaps in the integration of global urban observation with data that characterize urban ecosystems, environment, air quality and carbon emission, indicators of population density, environmental quality, quality of life, and the patterns of human environmental and infectious diseases; and (5) Developing essential urban variables and indicators for sustainable cities for the SDG 11.

The GEO Secretariat recently participated in two major international events dedicated to Earth observations and urban resilience. The goal of the sessions was to raise awareness regarding the role of EO, the availability of data and possible links to the United Nations New Urban Agenda: <http://habitat3.org/the-new-urban-agenda/>

The challenge that most, if not every country, is experiencing relates to coordination between global, national and city-level observations for monitoring, reporting, policy, governance and action.

The **first event** was the World Urban Forum in Kuala Lumpur supported by Resilience Brokers, the Joint Research Centre and UN-Habitat with thousands of participants attending from around the World. <http://wuf9.org/programme/urban-library/earth-observations-resilience-and-the-new-urban-agenda/>

Key outcomes include:

- 1) Linking UN-Habitat to EO4SDG for work relating to SDG 11 indicators; and
- 2) Other policy work relating to Earth observations language to support the New Urban Agenda, in particular supporting urban policies and urban governance through Earth observations.

A major observation is how little engagement or overlap there is between the 'cities' community, notably urban planners and the EO community. Several GEO POs and partners could help bridge that gap, for example ESA, JRC,

Resilience Brokers, SDG Compacts, World Research Institute (WRI) and UN-Habitat (and many others).

Resilience provides a strong link between the Sendai Framework, the Paris Agreement and the New Urban Agenda, not just the ability to resist and cope with shocks, but also the need to prepare or adapt to climate change. This also links closely to a number of the sustainable development goals. To this end the work on SDG 11 is particularly relevant for the New Urban Agenda, including the work of EO4SDG assessing land use change against population growth. The GEO Work Programme also has a strategic focus on climate mitigation and adaptation, using Earth observations to monitor and report on long-term climate change, the resulting implications and how to tackle them. The GEO Human Planet Initiative also plays a significant role in informing cities and regions on human settlements.

Other highlights also included meeting some of the Cities Alliance team supporting the IPCC Cities activities, as well as meeting the hosts for WUF10 in the United Arab Emirates (UAE). The GEO Principal for Malaysia was not able to meet at the event, however Statistics Malaysia was there and they work closely with Department of Surveying and Mapping Malaysia on the SDGs and the New Urban Agenda. UNESCO also invited the GEO Secretariat to participate in a project that could potentially be linked to some water activities in the GEO Work Programme.

The **second event** was the 9<sup>th</sup> Global Forum on Urban Resilience and Adaptation in Bonn, Germany, which was organised by International Council for Local Environmental Initiatives (ICLEI) and supported by several UN agencies, including UN Office for Disaster Risk Reduction (UNISDR) and UN Framework Convention for Climate Change (UNFCCC).

[https://resilientcities2018.iclei.org/wp-content/uploads/RC2018\\_Session\\_Description\\_B5\\_Earth\\_Observations.pdf](https://resilientcities2018.iclei.org/wp-content/uploads/RC2018_Session_Description_B5_Earth_Observations.pdf)

Key outcomes include:

- 1) There is a need for greater awareness and understanding of the value and usefulness of Earth observations for urban resilience; and
- 2) There are several areas across the GEO Work Programme that have relevance for urban resilience, a mapping may be useful for communications purposes (for GEO community and wider audience).

This was the first ever Earth observations session at the event and again it was co-organised by the GEO Secretariat and Resilience Brokers. It also included ESA, the JRC, Rezatec Geospatial Analytics, UNISDR and USAID. It brought together a range of speakers to address how Earth observations (EO) data and information can play a role in research, policy and decision making for cities, notably in the areas of resilience and adaptation.

It was highlighted that there are numerous application areas for EO, which support the monitoring, reporting and development of plans to tackle environmental issues, such as air pollution, heat islands, flood risk monitoring and water resources management. All of these topics and numerous others

are key for urban resilience and adaptation because they provide insights for past, present and future situations in cities. The audience was very interested in these topics, which align with several ongoing activities in the GEO Work Programme, such as the GEO Health Community of Practice, GEO Wetlands, GEO Vener and other water and disaster related activities.