

THE GROUP ON EARTH OBSERVATIONS (GEO) ARGUES THAT TRANSFORMING INFORMATION TO IMPACT REQUIRES GREATER USER ENGAGEMENT

The data-user decade

The value of Earth observations for decision making is often under-appreciated, perhaps because it seems so obvious. Global calls for evidence-based policies assume the availability of evidence and most of us instinctively know that more information results in more informed action. Despite being a fundamental ingredient for addressing global environmental challenges, many people and organisations that could benefit from Earth observation resources have little understanding of the breadth of data and information available to them or how to use these resources in their work.

The challenge of ensuring the information needed by policymakers, researchers, civil society and companies is open, accessible and easily located is just one piece of the puzzle. Another piece is reaching and educating data users so that they understand what information is available and how it can be applied in their work. These are the challenges being addressed by the Group on Earth Observations (GEO), an intergovernmental partnership of 105 member governments and 118 participating organisations.

Immense potential

The number of possible applications of Earth observations is immense, which tends to complicate promotion to would-be users. These resources offer significant benefits to any sector impacted by our changing environment, including the private sector, public sector agencies ranging from agriculture to oceans to urban planning and beyond, for environmental initiatives, international development agencies, academia and even for individuals.

Closing the gap between data providers and users means that a farmer won't be caught unprepared by the early or late onset of the rainy season; a relief agency can access reliable population grids to speed up crisis response; a forest researcher can find satellite imagery from several space agencies via a single web portal; a company can minimise the use of expensive refrigerated shipping in their supply chain; and a government can support planning for communities facing flood and landslide risks. These are just a few examples of the ways in which Earth observations are used to improve our lives, but there are still many more cases wherein Earth observations could be used to contribute to solutions, but are not being used.

The question for the Earth observation community, then, is how to transform information to impact by reaching a broader pool of potential data users for the resources they are making available.



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GEO Week 2017

GEO's first ten years, 2005 to 2015, focused on developing GEOSS – the Global Earth Observation System of Systems – to make data open and available for all. This was no small feat, as over 400 million resources have already been made accessible (via www.geoportal.org). Building on this and other achievements, the need to move from a data-centric approach to a user-centric approach to provide insights for decisions was the focus of GEO Week 2017. GEO Week, which took place in Washington DC, USA, from 23-27 October 2017 around the GEO-XIV Plenary, emphasised the need for GEO's second decade, 2016-2025, to increase strategic efforts to get information and data into the hands of those who can make use of it to confront global challenges, including climate change, disasters and achieving the globally adopted Sustainable Development Goals.

The plenary, attended by over 500 delegates from around the world, made a significant leap from previous years with a series of data-user panel sessions exploring how Earth observations are being applied in public policy, in the international development sector, in the commercial sector, and in the national context. High-profile speakers including Esri's Jack Dangermond and the World Bank's Haishan Fu, among others, highlighted the significant contribution that open Earth observation data makes in their respective sectors.

The theme of GEO Week 2017 was 'Insight for a Changing World'. GEO's secretariat director, Barbara Ryan, delivered a keynote address that stressed the importance of getting Earth observation information and resources to user communities, ensuring that the GEO community work together to involve diverse sectors in this effort and explore the changing landscape of Earth observations, including greater industry engagement, increased demand for analytics and services, and the continued need for openness and collaboration.

Bigger and more diverse

Welcoming two new member countries, Cambodia and Oman, and 15 new participating organisations, Ryan called for efforts to engage even more new members, especially Small Island Developing States (SIDS) and others disproportionately impacted by climate change and natural disasters. She also called on existing members to diversify their GEO delegations, citing the importance of Earth observations for a variety of national government agencies, including environment, agriculture, space, oceans, mapping, science and technology, and statistics, among others. A leading example for GEO members is the United Kingdom, which attended the plenary with a delegation comprised of representatives from ten different agencies.

The depth and breadth of topics addressed at the plenary and GEO Week 2017 side events covered nearly all topics in the GEO Work Programme, from disaster risk to agriculture and beyond. Emerging successes highlighted during the plenary included GEO initiatives Earth Observations for Ecosystem Accounting (EO4EA), the GEO Human Planet Initiative and Earth Observations for Health (EO4Health).

Other noteworthy outcomes from the week included interventions from the United Nations Convention to Combat Desertification (UNCCD), which proposed the development of a GEO initiative on Land Degradation Neutrality (LDN) and the United Kingdom's commitment of a virtual secondee to support GEO's disaster risk efforts. A new regional GEO initiative, EuroGEOSS, was launched, and China held a 'China Day' to showcase their commitment to GEO's vision, following their recent contribution of over a million data resources to the GEOSS Platform.

Haishan Fu, director of the World Bank's Development Data Group, spoke to the GEO-XIV Plenary on how Earth observations are used by her team in three distinct but related areas: knowledge and research work, guiding operations with countries, and producing public goods



Demonstrations of the GEOSS Platform, the core user-facing data and information portal linking over 5,000 data providers with users, showcased recent upgrades targeting a wide range of users, making the system more flexible and dynamic than ever before, and incorporating a variety of tools and widgets that allow for customisation and mirroring for individual user community groups.

Making the shift: user engagement

The many successes and momentum of GEO has paved the way for the current shift towards greater user engagement, but much work remains to be done. A focus on capturing and communicating user case studies, continuing to improve the GEOSS user interface for greater ease of use, and engaging a wide and diverse group of potential data users are just some of the ways that GEO will drive forward towards this objective.

"We invite governments, research institutions, environmental and development organisations and any other interested groups to connect with GEO to learn how Earth observations or engagement with the GEO community might bolster their efforts," GEO's lead on stakeholder engagement, Steven Ramage, commented while reflecting on the success of GEO Week 2017. "A priority for us moving forward will be continuing to engage with diverse user communities to ensure the Earth observations collected and made available by the GEO community are put to good use, especially in GEO's strategic engagement areas, supporting the Paris Agreement on Climate, the Sendai Framework on Disaster Risk Reduction, and the UN 2030 Sustainable Development Goals."

With mounting environmental pressures impacting populations around the world, it is hoped that GEO's efforts will play a key – even if understated – role in empowering stakeholders around the world to make better-informed decisions that will save lives, enhance livelihoods and ensure a sustainable environment for all.

GEO

secretariat@geosec.org
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