



The missing ingredient for a better world: data

Unless governments establish competent monitoring systems, the world will not reach the UN Sustainable Development Goals, says Jessica Espey.

In 2013, I worked in Liberia's Ministry of Finance and Development Planning. My office was in a run-down beachside building with intermittent electricity and water. One day, the generator surged. Within seconds, we smelt singed plastic. Our computers, and other equipment the government could ill afford to replace, were ruined. The damage at the national statistics office next door was devastating. Reams of survey data typed in from paper reports were lost, along with tens of other data sets about educational outcomes, poverty rates and access to services. They had all been saved on just one computer.

Cash-strapped, infrastructure-limited national data systems run by staff who lack training and authority are common among poor countries. They are the biggest barrier to achieving the Sustainable Development Goals (SDGs) — covering everything from cleaner water to fairer societies — set by 193 countries and the United Nations in 2015, meant to put the world on a path to a sustainable future by 2030. As a forum to consider progress on SDGs meets this week, it must consider this fact: none of these goals can be met without a data revolution.

Many national statistics are compiled on paper, manually inputted to old computers, and unavailable or inconsistently accessible online. Thus, government statistics are not referred to for day-to-day (or even week-to-week) decisions. Those data that are available are usually out of date: only 35% of sub-Saharan countries have poverty data that were updated since 2015.

The creation of fit-for-purpose systems will require a massive, coordinated commitment from governments and the international community. The research group I lead in the UN Sustainable Development Solutions Network outlines the needs in a forthcoming report (see www.sdsntrends.org). Four building blocks are crucial: strong governance; appropriate policies and standards; a culture of innovation; and a case that can convince global donors and national governments to make sufficient investments.

Skilled staff working on innovative, transparent data systems could provide high-quality, timely data to show environmental changes, social conditions and economic fluctuations. In pilot programmes in West Africa in 2014, telecommunications companies and governments teamed up to track population movement and disease spread. These data could then be used to set up countermeasures, such as community education and washing stations, in areas where they would be most effective.

With daily Earth observation data, governments could monitor erosion, sand mining and illegal development and then act to stabilize fragile coastlines. Interconnected administrative systems could help to give vulnerable people access to health facilities, social services and entitlements. Data systems are the mortar with which a sustainable planet and society will be built.

Governments first need to appoint and empower the right people. Particularly important is a chief statistician mandated to work across government agencies to promote data availability, and advocate for the use of data. The Philippines and New Zealand are leading the way by consolidating relevant functions under a central authority and appointing coordinators to negotiate data-sharing agreements across and beyond government departments.

The UN Statistical Commission, founded in 1947, needs reform to support such efforts. It could start by being more inclusive, recruiting new data providers and building trust and common cause among them. For example, civil society groups, scientists and private data providers should be invited to the formal commission proceedings.

Data collectors need clear standards, policies and terminology.

These can make or break governments' and private companies' will to collaborate and support a shared mission. For example, the lack of consensus on definitions for natural and human-made hazards means that governments, the UN, researchers, insurance companies and other private entities struggle to share information, despite having committed to doing so under the SDGs, the Paris climate agreement and other international pacts, such as the Sendai Framework for Disaster Risk Reduction. Thus, governments cannot accurately measure how many people have been affected by a hurricane or a tsunami, and the UN does not know how much assistance to send.

We need to move towards a 'digital ecosystem' that encourages contributions — from citizen science, national institutions and transnational

corporations — and collaboration. The goal should be counting everyone and proving everyone counts.

Investing in data generates huge economic, social and environmental returns. Earth observation data from the NASA and US Geological Survey Landsat satellites produce an estimated benefit of US\$2.19 billion a year from applications such as smarter land-use planning and more timely responses to natural disasters.

Governments and international donors must boost their investments and make better use of existing resources, in part by establishing ways to coordinate resources that leave no country or region behind.

Four years have elapsed since leaders committed to achieving the SDGs in their countries by 2030. Eleven years remain. Sustainable development will falter without data. We must put national data systems in place, or the SDGs will be little more than feel-good aspirations. ■

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