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USING EARTH OBSERVATION DATA TO HELP ACHIEVE THE UNITED NATIONS SUSTAINABLE
DEVELOPMENT GOALS

Abstract

In September 2015, more than 150 world leaders met at the United Nations Sustainable Development Summit to adopt the 2030 Agenda for Sustainable Development which included a set of goals to end poverty, fight inequality and injustice, and tackle climate change. Building on the successes of the 8 Millennium Development Goals, the 17 Sustainable Development Goals officially came into force on 1 January 2016. They include provisions on: poverty, hunger, health, gender equality, clean water and sanitation, energy, livelihood and economic growth, industry and infrastructure, inequality, cities and communities, responsible consumption and production, climate action, sustainable water resources, sustainable land resources, governance and justice, and global partnerships. Each goal has specific, integrated targets to ensure measurable, transparent progress by 2030.

Though the SDGs are not legally binding, all countries agreed to build out national frameworks for achievement of the goals. According to the United Nations, each country has the “primary responsibility for follow-up and review of the progress made in implementing the Goals, which will require quality, accessible and timely data collection.” Geospatial technologies (GIS, remote sensing) are a cost-effective way of collecting information about large, sparsely populated areas and has already been integrated successfully in many programs on agriculture, land use planning, disaster management, climate change, and other SDG areas.

This paper will explore how earth observation technology can be used to address some of challenges faced in achieving the SDGs, particularly in less-traditional areas such as health, governance, gender, and small-scale infrastructure. It will inventory implemented and proposed case studies, identify categories of earth observation data most useful to those working on the SDGs, and analyze barriers to expanding the use of remote sensing and GIS data at all program stages including planning, implementation, monitoring, and evaluation.