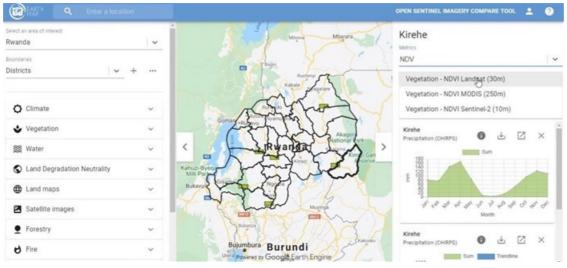
BIZCOMMUNITY

Google and FAO launch new big data tool, Earth Map

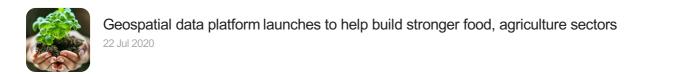
Google and the Food and Agriculture Organization (FAO) of the United Nations has developed a new tool anyone, anywhere can access to obtain multidimensional maps and statistics showing key climate and environmental trends wherever they are.



Screengrab via EarthMap

Earth Map, an innovative and free-to-use web-based tool provides efficient, rapid, inexpensive and analytically cogent insights, drawn from satellites as well as FAO's Hand-in-Hand geospatial platform – which allows anyone with basic Internet access to tap critical climate, environmental and agricultural information – with a few clicks on a computer.

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Its development follows the successful Collect Earth platform jointly developed with Google under FAO's OpenForis suite of tools, which has already proven useful for forest assessments; land cover assessments and project design and implementation.

"I am convinced that transforming our food systems to feed the world will be achieved with a digital agriculture" said QU Dongyu, FAO's director-general. "We need to make digital technologies accessible to everyone."

Earth Map makes available multi-temporal and quasi real-time satellite imagery and geospatial data sets that drive Google Earth Engine and complements them with more planetary-scale analytical capabilities, allowing for detection, quantification and monitoring of changes and trends on the Earth's surface.

It does so in a way that does not require users to master sophisticate coding techniques, thereby mitigating bottlenecks in terms of technical capacities of developing states and ultimately paving the way for smallholders to contribute to as well as access critical knowledge to sustain their livelihoods.

"At a time when environmental and societal challenges are paramount, we strive for Google's products to enable all countries with equal access to the latest technology in support of global climate action and sustainable development," said Rebecca Moore, director, Google Earth. "FAO knows what information is needed, we specialise in information accessibility, and both of us are committed to boosting the resilience of people and communities worldwide."

The partnership

Google and FAO began their partnership in 2015, signing an agreement on the sidelines of the Paris Agreement. Initial efforts focused on forest and crop cover mapping techniques, and they are now rapidly extending to areas such as biodiversity conservation, pest control and water management.

Outputs from Earth Map are tailored to users' needs, and serve as "dashboards" as well as maps, Moore notes. More than 50 countries have already benefited from the FAO-Google tools and FAO already leverages the technology to prepare and monitor projects and help Members apply for grants from entities such as the Green Climate Fund and the World Bank, including projects in Armenia, Georgia, Kazakhstan, Kyrgyzstan, Myanmar, Pakistan, the Philippines and Uzbekistan.

Buoyed by funding from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety's International Climate Initiative, Earth Map offers among else data ranging from temperature to precipitation, population, vegetation, evapotranspiration, elevation and soil.

The real-time capacities and constant updating make them particularly useful for those engaged with Hand-in-Hand, FAO's evidence-based, country-led and country-owned initiative to accelerate agricultural transformation and sustainable rural development.

The new tool also underscores how FAO is transforming its ownership role regarding data into a custodial sharing function to maximize beneficial use. "That's what makes big data big, and why partnerships will have an increasingly central role in pursuing the Sustainable Development Goals," said Maximo Torero, FAO's chief economist.

Using Earth Map

The power of the tool was highlighted recently when, with a few clicks, programme leaders working on a Green Climate Fund project pitch in Kyrgyzstan were able to appreciate how actual precipitation patterns varied notably on a district-bydistrict basis from the broader average measures, thus enabling a more refined project design.

"The breakthrough here is that Earth Map brings the unparalleled power of Google Earth Engine to everyone's fingertips in a matter of seconds, so that basic Internet access enables even those without a background in coding or remote sensing to analyse big data," says Danilo Mollicone, lead technical officer of the FAO's technical team that supports the new tool as well as Collect Earth.

FAO will train and assist users and, while the broad focus is on ease of use - including drop-down menus and aggregated charts- and narrowing the digital divide, the Organization can also help develop more bespoke and specialised Earth Map assessments when needed.

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