In collaboration with more than 40 partners, FAO has conducted the first global assessment of land use and land-use change since 2000.

Preliminary findings provide new insights into the extent and condition of the world’s forests and a comprehensive view of global landscapes.
Monitoring land use and land-use change is a long-established practice in developed countries for understanding what is happening to the world’s forests, cropland, grasslands and wetlands, and it is one of the main reporting components under the United Nations Framework Convention on Climate Change.

FAO and its collaborators are using an innovative software tool called Collect Earth and high-resolution satellite images distributed by Google and others in the first global assessment using “augmented visual interpretation” to assess land-use and forest-cover dynamics. The assessment demonstrates the strength of this new, easy-to-use and scalable technology in providing information on forest resources, which are essential for efforts to mitigate climate change and combat desertification.

The methodology used in the assessment will enable FAO to provide consistent global and regional estimates of forest and woodland areas. Preliminary findings indicate that the area of forest and woodlands in Africa, for example, is about eight percent larger than previously reported, mainly due to improved detection of forests and woodland in dryland areas.

FAO and Google have joined forces to make geospatial technology more accessible. Google Earth Engine’s technical infrastructure, which organizes geospatial information and facilitates analysis, is strengthening FAO’s capacity to support countries in addressing social and environmental challenges.
Experiences from this assessment confirm the great potential of this technology. Land-monitoring experts worldwide can use Collect Earth – which is free and readily accessible on the Internet – to track land-use change over time, leveraging the free geospatial data archives of Google Earth and others. The technology can play an important role in future forest assessments globally by enabling countries to collect and analyse data with considerably greater precision and more cost-effectively than previously possible.

The software enables users to apply very-high-resolution satellite imagery in national forest inventories and land-use-change assessments and to quantify deforestation, reforestation and desertification. It can help countries and others in the design of measures to mitigate the impacts of climate change and to monitor progress towards relevant Sustainable Development Goals.

The Global Pilot Assessment of Land Use and Land-use Trends is an important step in generating a clear understanding of land use – forests, cropland, grasslands and many other uses – at a planetary scale and how these change over time.

The results of this pioneering assessment by FAO and its partners will be fully reported in early 2017.
As a UN institution, we want to be at the forefront of the transparent, accurate and democratic use of data. With this innovative tool, we are a big step closer to accomplishing that, and more.

René Castro, Assistant Director-General, FAO Forestry Department