

# TRENDS.EARTH

tracking land change

▲TRENDS.EARTH is a free platform for monitoring land change using an innovative desktop and cloud-based system

▲TRENDS.EARTH is a product of the Global Environment Facility (GEF)-funded project “Enabling the use of global data sources to assess and monitor land degradation at multiple scales.”

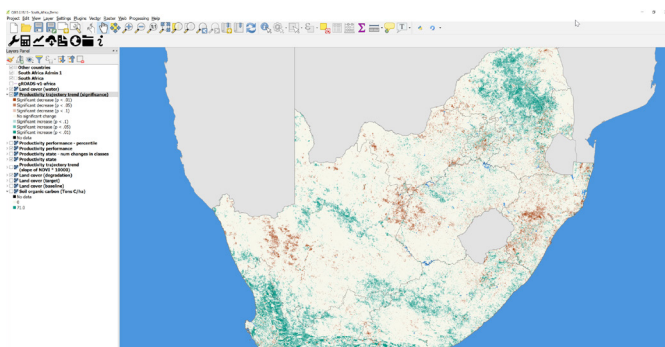
The project’s guidance and the ▲TRENDS.EARTH tool can be employed to inform land management and investment decisions as well as to improve reporting to the United Nations Convention to Combat Desertification (UNCCD) and to the GEF.

The three sub-indicators for monitoring achievement of Sustainable Development Goal (SDG) Target 15.3 (Land Degradation Neutrality) are supported by ▲TRENDS.EARTH:

- Productivity
- Land cover
- Soil organic carbon



Miombo woodland recovering from charcoal production north of Doma Village, Morogoro Region, Tanzania.



Productivity Trajectory Layer

Use ▲TRENDS.EARTH to:

- Monitor degradation and improvement
- Track impacts of sustainable land management (SLM) projects
- Map key indicators of land change
- Support national-level reporting

## SDG Target 15.3:

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

**▲TRENDS.EARTH is a free and open source tool**

▲TRENDS.EARTH allows users to identify areas that may be hotspots of degradation, as well as bright spots of improvement using earth observation datasets via a plugin for QGIS, a free and open-source Geographic Information System (GIS).

Capacity building to monitor and report national-level degradation in Morogoro, Tanzania. Workshop participants visited an agricultural field to demonstrate factors that may contribute to degradation.



Calculate Land Cover Change

Setup Transition Matrix Area

		Land cover in target year						
		Forest	Grassland*	Cropland	Wetland	Artificial area	Bare land	Water body
Land cover in baseline year	Forest	0	-	-	0	-	-	0
	Grassland*	+	0	-	0	-	-	0
	Cropland	+	+	0	+	-	-	0
	Wetland	0	0	-	0	-	-	0
	Artificial area	+	+	+	+	0	0	0
	Bare land	+	+	+	+	0	0	0
	Water body	0	0	0	0	0	0	0

Legend

Degradation      Stable      Improvement

-      0      +

\*The "Grassland" class consists of grassland, shrub, and sparsely vegetated areas (if the default aggregation is used).

Reset table      Load saved table...      Save table to file...

Previous      Next

Calculate

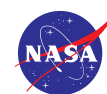
With ▲TRENDS.EARTH, users can select among several methods for assessing productivity trajectory, performance and state, change in land cover, and change in soil organic carbon stocks.

▲TRENDS.EARTH allows users to access the best available open datasets, and to combine this data with locally-available information.

Transition matrix for calculating degradation due to change in land cover

To download the tool, visit: <http://trends.earth>

The Land Degradation Monitoring Project is a partnership of Conservation International, Lund University, and the National Aeronautics and Space Administration (NASA), and is funded by the Global Environment Facility (GEF).



trends.earth@conservation.org <http://trends.earth>