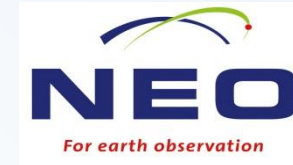


EO services contributing to SDGs

Forest mapping and change detection



- Users: governments (national, provinces, municipalities), forestry organisations
- Challenge/Needs: Forests are an important element of the environment. It is therefore not allowed to cut trees without a permission. The enforcement of this law is difficult however, as areas are enormous and human resources limited. There is a need to monitoring trees and forests in an automated way. The user is however not interested in every single disappeared tree, as not all trees fall under the nature conservation law. It is therefore necessary to make use of smart filtering to only deliver relevant changes to the end user.
- Initiative: Automated monitoring system to detect changes in forests for regulation enforcement.
- Results: The nationwide tree database of the Boomregister that was developed by NEO is used as baseline. LiDAR and satellite data is used as source for the monitoring. We use deep learning algorithms to signal where trees have disappeared, and filter them to only keep the most relevant ones.
- 1) mapping land use land cover maps 2) derive the changes through the years 3) mapping the forest extent 4) detect illegal logging activities
- Service Provider: NEO BV

Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.



In orange the trees that are signaled as disappeared