

Showcase National forest inventory in Kyrgyzstan

The second national forest inventory in Kyrgyzstan will serve as the basis for the sustainable development of the sector. UNIQUE was mandated by the World Bank to support the State Agency for Environmental Protection and Forestry in this endeavour. In consortium with CAREC, we implement a digital solution for the inventory and build lasting capacities for a sustainable monitoring structure.

Country
Kyrgyzstan

Period
03/2019 – 07/2021

Client
State Agency of Environmental
Protection and Forestry

Our digital solutions



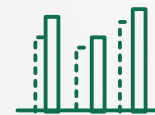
Collect

- Customized data collection software for field data
- Integrated module for navigation, using offline satellite images
- Automatic GPS tracking
- Direct synchronization of the data to the server
- Plausibility checks in the field
- Data management of different teams
- Re-measurement of plots



Analyze

- Open Source Database – Postgresql for storage and management of collected data
- Implementation of SQL, R and Python scripts for automatized processing of data
- Plausibility and error checks
- Creation of reports and tables
- Land Cover Assessment on National level
- Use of satellite imagery – Sentinel2
- Automated processing of the imagery using customized Python scripts
- Linking the field inventory with satellite image analysis



Monitor & Report

- Visualized progress reports on a Web-Dashboard
- Management of work packages from the Web-Dashboard
- Web GIS module displaying thematic maps of the results
- Integration of inventory results and the Land Cover Assessment
- Customized reports that display results on Regions, Strata, Teams
- Detailed reports on standing volume, biomass, tree species, forest area and status