

A report examining the types of data available to the AstroTrop project, the potential for data sharing to facilitate new science activities.

1 Associated projects

The process employed for evaluating the available data starts with the list of project participants and followed links from their web pages to find projects they were directly or indirectly associated with, and then then looking at the projects to identify what data they collect, what data is available, and where and how it is stored.

1.1 UN-REDD

<http://www.un-redd.org/AboutUN-REDDProgramme/tabid/102613/Default.aspx>

“The UN-REDD Programme is the United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation (REDD) in developing countries.

1.2 REDD++

<http://www.un-redd.org/AboutREDD/tabid/102614/Default.aspx>

“Reducing Emissions from Deforestation and Forest Degradation (REDD) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. ”REDD+” goes beyond deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The publication section of the REDD++ project website lists a number of useful standards and guides for data collection and dissemination. http://www.un-redd.org/PublicationsResources/tabid/587/Default.aspx?technical_work_areas

Question - Does AstroTrop need to take into account, or be compatible with, any of the standards developed by the REDD and REDD++ projects ?

Question - Should AstroTrop make use of any of the software or procedures developed by the REDD and REDD++ projects ?

For example : *Assessing Forest Governance: A Practical Guide to Data Collection, Analysis and Use* (<http://bit.ly/1qwsAZQ>)

The section on data processing mentions the Open Foris toolkit as an example of toolkits available for collecting and processing survey data.

“For example, the NAFORMA study (see Annex I) used Open Foris, a set of applications under development by FAO through the FAO-Finland Forestry Programme.

1.3 NAFORMA

The *National Forestry Resources Monitoring and Assessment (NAFORMA)* project in Tanzania is also used as a case study to illustrate how to conduct

a forest governance assessment as part of a large-scale data collection process for forest monitoring and assessment.

1.4 NAFORMA case study

“NAFORMA is a large-scale, field-based study of Tanzanias forest re-sources as well as their uses and management. It is the first ground-based inventory of biophysical and socioeconomic data that covers the entirety of mainland Tanzania. NAFORMA is designed to be a multi-source forest inventory, allowing for combining of biophysical field data with remote sensing imagery to produce accurate data for small areas.

1.5 NAFORMA - OpenForis

“This assessment has piloted the FAO-led Open Foris Initiatives open-source soft-ware tools (<http://www.fao.org/forestry/fma/openforis/en/>) and has been planned, funded, and supported by the Tanzanian government, the Finnish government, and FAO.

1.6 NAFORMA - Data access

“The NAFORMA data-sharing guidelines and communication strategy were developed in 2013 through a process of stakeholder consultations and national endorsement.

- Non-sensitive data will be available for free access
- Processed data and .pdf versions of maps will be available in a free and transparent manner
- Raw data will only be shared where written agreements exist between TFS and a collaborating institution and only where the collaboration is contributing to a more sustainable management of the forest resources.

“FAO Finland is supporting the development of a self-service web platform where the public can access and query NAFORMA data and results in Open Foris Calc.

1.7 FAO

<http://www.fao.org/home/en/> “Food and Agriculture Organization of the United Nations

1.8 FAO - Forest monitoring and assessment

<http://www.fao.org/forestry/fma/en/> “FAO’s programme dedicated to assisting countries in developing national forest monitoring systems and assessments with the objective of providing reliable forest resource information for national forest policy development, planning and sustainable management.

1.9 FAO - OpenForis

<http://www.fao.org/forestry/fma/openforis/en/> “Open Foris is an FAO-led initiative to develop, share and support specialized software tools required by countries and institutions to implement multi-purpose forest inventories.

“It is a set of free and open-source software tools that facilitates flexible and efficient data collection, analysis and reporting

1.10 OpenForis

<http://www.openforis.org/home.html> The OpenForis software suite includes

1.11 OpenForis - Geospatial

“Open Foris Geospatial Toolkit is a collection of command-line utilities for processing of geographical data. It aims to simplify the complex process of transforming raw satellite imagery for automatic image processing to produce valuable information. It is particularly useful for processing big amounts of raster data, and provides a wide range of functionalities including image manipulation, statistics, segmentation and classification.

1.12 OpenForis - Collect

“Collect Earth is a tool that enables data collection through Google Earth. “In conjunction with Google Earth, Bing Maps and Google Earth Engine, users can analyze high and very high resolution satellite imagery for a wide variety of purposes, including :

- Land Use, Land Use Change and Forestry (LULUCF) assessments
- Monitoring agricultural land and urban areas
- Validation of existing maps
- Collection of spatially explicit socio-economic data
- Quantifying deforestation, reforestation and desertification
- Support multi-phase National Forest Inventories

1.13 OpenForis - Calc

“Open Foris Calc is a robust tool for data analysis and results calculation. The input data and metadata come from Open Foris Collect and Calc provides a flexible way to produce aggregated results which can be analyzed and visualized through the open source software Saiku.

1.14 Saiku

<http://www.meteorite.bi/> Data analysis and visualization software.

1.15 Another subtitle

More plain text.