

COLLECT EARTH FOR MOUNTAIN LAND MONITORING, A FREE AND OPEN SOURCE APPROACH



2-DAY HANDS-ON TRAINING FOR THE MOUNTAIN PARTNERSHIP

FAO HEADQUARTERS, IRAQ ROOM (A235)

14-15/12/2017, 9:00-17:00

COLLECT EARTH

Collect Earth is a user-friendly Free and Open Source Software, developed by the FAO-Forestry Division. Collect Earth allows for land monitoring through the visual interpretation of freely available satellite images. The system builds on Google technologies such as Google Earth, Earth Engine and the availability of Landsat and other very high resolution images. The 2-day workshop will introduce the tool also through practical case studies, exercises and discussions on its various functions and applications. The sessions are meant to be as interactive as possible and questions are always welcome.

OBJECTIVES

The training aims to illustrate the possible application of the Collect Earth system to the result-based monitoring where the outputs can be visually assessed through high and very high resolution satellite images and derived products such as vegetation trends. Case studies on the assessment of the Mountain Green Cover Index (Sustainable Development Target Target 15.4) in agriculture, forestry and land use from past applications will be described to provide greater detail and reference. The structure of the training can be summarized as follows: review of Collect Earth functionalities and context, hands-on assessment of case studies, data analysis and discussion, possible applications for current or future projects.

REFERENCE LINKS

Open Foris and Collect Earth http://www.openforis.org/tools/collect-earth.html	Science: The extent of forest in dryland biomes http://science.sciencemag.org/content/356/6338/635
Projects supporting Collect Earth http://www.fao.org/forestry/nfms-for-redd http://www.fao.org/in-action/global-forest-survey	Remote Sensing: Collect Earth: Land Use and Land Cover Assessment through Augmented Visual Interpretation http://www.mdpi.com/2072-4292/8/10/807
Video Demo of the software https://www.youtube.com/watch?v=FxOCck_c5CU	Earth Engine https://earthengine.google.com https://earthengine.google.com/case_studies
Trees, forests and land use in drylands: The first global assessment http://www.fao.org/documents/card/en/c/01382d82-6356-478e-9f42-d85ccdfd7a7d/	FAO links http://www.fao.org/news/story/en/item/254098/icode/ http://www.fao.org/news/story/en/item/410307/icode/ http://www.fao.org/news/story/en/item/425931/icode/

IF POSSIBLE, BRING A LAPTOP AND SIGN UP AS EARTH ENGINE TRUSTED TESTER:

- [HTTPS://EARTHENGINE.GOOGLE.COM/SIGNUP](https://earthengine.google.com/signup) (AT LEAST TWO DAYS IN ADVANCE)
- SPECIFY "FAO" AS AFFILIATION AND "COLLECT EARTH TRAINING" IN THE DESCRIPTION

PARTICIPANTS MAY PROVIDE BEFOREHAND DESIRED CASE STUDIES FOR DISCUSSION

PROPOSED AGENDA

DAY 1 20/06	9:00-10:30	INTRODUCTION TO COLLECT EARTH FOR LAND MONITORING <ul style="list-style-type: none"> – Background and methodological context – Remote sensing for land monitoring – Features and interface – Available datasets – Possible outputs – Added value vs. other approaches
	10:30-11:00	(BREAK)
	11:00-13:00	COLLECT EARTH HANDS-ON <ul style="list-style-type: none"> – Installation and set-up – Hands-on exercise with group assessment – Discussion
	13:00-14:00	(LUNCH)
	14:00-15:30	CASE STUDIES PRESENTATION <ul style="list-style-type: none"> – Mountain Green Cover Index – Kyrgyzstan – Cape Verde Land degradation Neutrality LDN – Tamil Nadu agriculture
	15:30-15:45	(BREAK)
	15:45-17:00	IDENTIFICATION OF CASE STUDY FOR ASSESSMENT
DAY 2 21/06	9:00-10:30	CASE STUDY INDIVIDUAL ASSESSMENT <ul style="list-style-type: none"> – Hands-on session
	10:30-11:00	(BREAK)
	11:00-13:00	CASE STUDY INDIVIDUAL ASSESSMENT <ul style="list-style-type: none"> – Hands-on session DATA COLLATION AND SAIKU ANALYSIS <ul style="list-style-type: none"> – Aggregations, filters, charts – Data export and display DATA ANALYSIS AND DISPLAY IN FUSION TABLES
	13:00-14:00	(LUNCH)
	14:00-15:30	COLLECT DATABASE <ul style="list-style-type: none"> – Interface, features, outputs – Applications for Collect Earth and Collect Mobile – Hands-on exercise COLLECT MOBILE ANDROID APP <ul style="list-style-type: none"> – Features and interfac
	15:30-15:45	(BREAK)
	15:45-17:00	OPEN SESSION <ul style="list-style-type: none"> – Areas of interest and current cases for SDG 15.4 – Q&As and open discussion on proposals from the participants – Possible future collaborations

TRAINERS

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