

Data Dictionary - Nepal Workshop 2022

List of all relevant data files and scripts with their associated metadata and links

1. All the final data sets: =

users/rajaramaryal/SilvaCarbon_FDT/FinalMapsWorkshop

2. Kailali CCDC SMA Year disturbance =

users/rajaramaryal/SilvaCarbon_FDT/Year1distmap

3. Spreadsheet for sample design:

📁 AreaWeightedTables_AreaEstimationUncertainty

4. Demo sample allocation spreadsheet:

📁 WorkshopDemo Nepal_Calc_SampleSize_SampleDistribution_Template

5. Workshop latitude/longitude points file:

<https://drive.google.com/file/d/1CVoVxLcrmwv3dW9nCWQKZSwwB1t2Vdr/view?usp=sharing>

6. FIXED LAT LONG

<https://drive.google.com/file/d/1H4SRBOJwaLOLu2u7EXWsYemlcCW3keFA/view?usp=sharing>

7. FIXED LAT LONG DUPLICATES REMOVED

<https://drive.google.com/file/d/1mpCerNxadoz07twCI4yALp7qJO9U4ACk/view?usp=sharing>

8. CEO Result

<https://docs.google.com/spreadsheets/d/1m75mRYfy2Ej3d-8JCoJHlwxaHfVZShumXtcEPhe-Jzl/edit?usp=sharing>

CEO VERSION 2

<https://drive.google.com/file/d/1xlmfMh0VbrJdS6qtQbXxaem8fkvg2S8M/view?usp=sharing>

CEO VERSION 3

<https://drive.google.com/file/d/1CAiPritfLYkFM-QHVfbbjwcT5CtMO1go/view?usp=sharing>

9. Pixel count file: 📁 pixelcount_kailali_agreement_cover_type_drive_V2

NOTES ON BUG FIXES

1. Changes due to the Collection 2 Landsat update
2. There were change GEE, disallowed naming variable with a number instead of a letter
3. Training data for MTDD must include at least as far back as 2011

Information to Include

1. Name - descriptive file name and/or product name (including version number if applicable)
 - a. Thumbnail screenshot if available
2. Time period:
3. Developed in: (e.g. script link, CEO project link, name of external model)
4. Alterations:
 - a. Is this an iteration or alteration of an original data source (list original)
 - b. List all alterations made (e.g. clipped, downsampled, reprojected)
5. Location: (e.g. link, path to folder, GEE asset path)
6. Owner/Creator: who owns this data set; was it developed externally or internally; who is the POC producer of these data
7. Creation date: When was this version created?
8. Restrictions: (e.g. licensed, open source, share internally only, cite originator)
9. Description:
 - a. What is included in these data
 - b. How is this relevant to the methods
 - c. Technical specifications (e.g. number of points, projection, parameters used)
 - d. Include parameter table here if needed (CODED example is included, or make a comparable one)
10. Notes: Any other things the user should know, or informal notes on these data
11. Citation: List officially recommended citation for raw data if provided, or link to relevant article or data repository

Templates

COPY THIS EACH TIME YOU ADD DATA

***delete 'if applicable' sections when not relevant**

#. Name:

Description:

Time period:

Developed in (if applicable):

Alterations (if applicable):

Location/Path:

Owner/Creator:

Creation date:

Restrictions:

Notes:

Citation (if applicable):

Links to results from previous analysis which can be used within the GEE workshop tools.

FINAL RESULTS

Name: links to all the fixed final maps

Time period: 2000-2019

Developed in (if applicable): GEE

Alterations (if applicable): clipped to New Nepal AOI, corrected forest mask, CODED using raster of elevation instead of poorly clipped elevation polygons

Location:

LandTrendr strata map: [users/ramblingrek/nepal/LT_dist_anf_tcw3_plusfit](#)

MTDD strata map:

[projects/nepal-degradation/assets/classifications/nepal/ML_p2v8_1_nepal_samples_newnepal](#)

CODED strata map:

[projects/sig-ee/nepal_coded/paper2/coded/FINAL_codedNepal_elevraster_mergedMarch2022_changestrata](#)

CCDC-SMA strata map: [projects/bu-nasacms/others/NEPAL/DEG_DEF/deg_def_v051](#)

All Nepal AOI: ['users/rajaramaryal/NLCMS/Nepal_Newboundary'](#)

Forest mask: [projects/sig-ee/nepal_coded/paper2/FNF_NCLMS_ML_2000-2019_newnepal](#)

CODED (1s place)	
map_value	readable
1	cforest
3	cdeg
4	closs
2	cnonforest

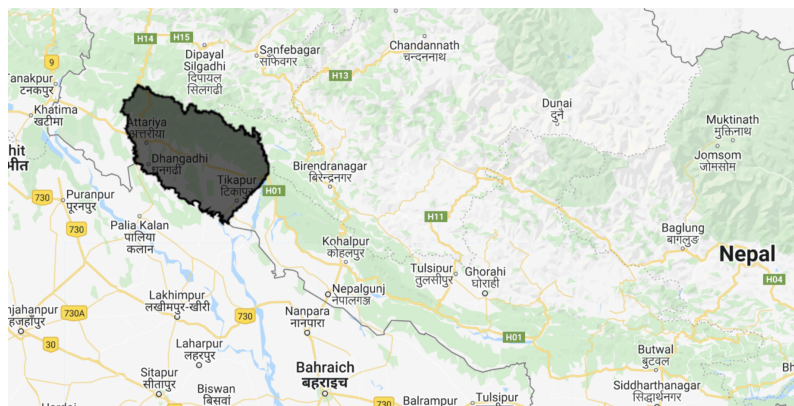
MTDD (10s place)	
map_value	readable
1	mlforest
2	mldeg
3	mlloss

MTDD (10s place)	
map_value	readable
1	mlforest
2	mldeg
4	mlnonforest
5	mlgain

LandTrendr (100s place)	
map_value	readable
1	LTforest
2	LTdeg
3	LTloss
4	LTnonforest

CCDC-SMA (1000s place)	
map_value	readable
1	CSdeg
2	CSloss
3	CSforest
4	CSnonforest

1. Name: Kailali district boundary - AOI for workshop



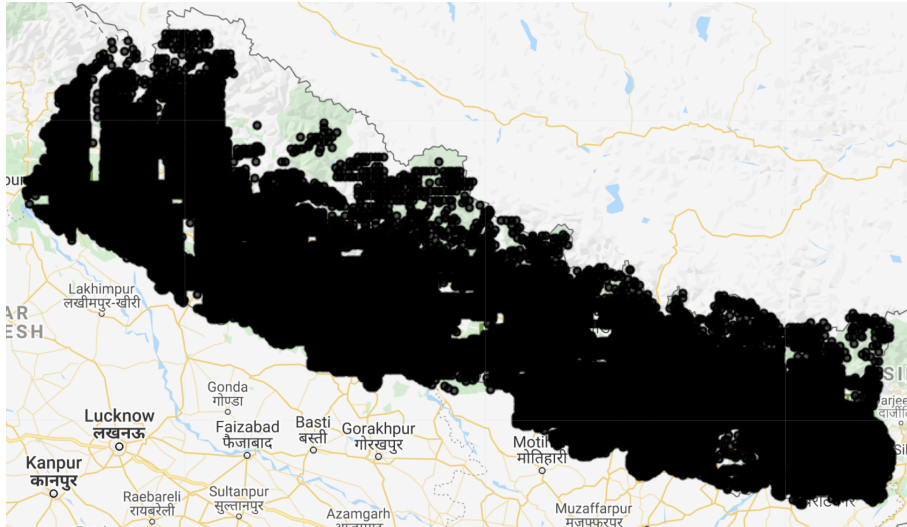
Description: small AOI for the workshop, Kailali district

Location/Path: users/rajaramaryal/Kailali_District

Owner/Creator: Raja Ram Aryal

Notes: Feature Collection

2. Name: Updated Training Points Data Set - Forest/Nonforest - used for CODED



Description: forest/nonforest training points from 2017, ready to use with CODED, 22,607 points; Column name is "label" instead of "landcover"

Location: projects/sig-ee/nepal_coded/national/training_np_17

Time period: 2017 only

Alterations (if applicable): Filtered to 2017 from a full dataset of 36000 points

Owner/Creator: Raja Ram Arya and John Dilger

Creation date: 2019

Notes: Filtered to 2017, Column name is "label" instead of "landcover". This version is ready for CODED, derived from users/rajaramaryal/Forest_degradation/Training_data_Nepal

3. Forest/NonFores mask

- Period: 2000-2019
- Classifies pixels that were non-forest during whole study period as non-forest, and the rest as forest (forest at least once during study period)
 - Note: Forest as 4 or 11 (IPCC)
 - Uses New Nepal as AOI
- [Script](#) used to export
- Asset path: 'projects/sig-ee/nepal_coded/paper2/FNF_NCLMS_ML_2000-2019_newnepal'

4. AOI of all of Nepal, country boundary

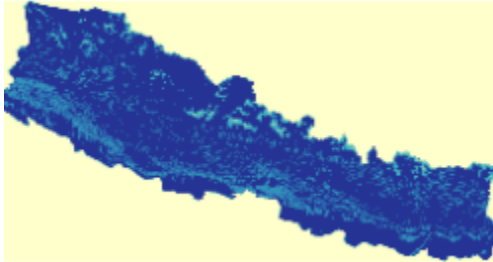
Description: AOI all of Nepal

Location/Path: users/rajaramaryal/NLCMS/Nepal_Newboundary

Owner/Creator: Raja Ram Aryal

Notes: includes often missed northwestern tip of Nepal, previously excluded by GEE's built in country boundaries layer.

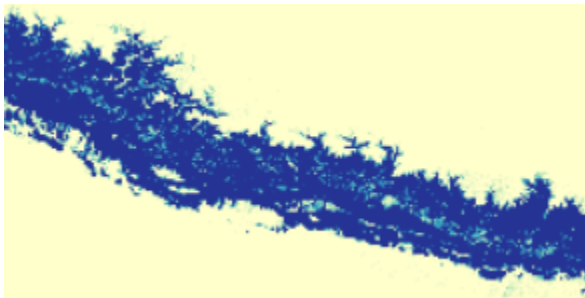
5. Nepal's National Land Cover Management System (NLCMS)



- Annual Land Cover data for Nepal from NLCMS shared by Raja Ram
- 2000-2019 except 2012
- Asset ID (ImageCollection): 'users/anicolau/Nepal/np_landcover'
 - Typology under "Description":
https://code.earthengine.google.com/?asset=users/anicolau/Nepal/np_landcover
 - 1 Water body: Rivers are natural flowing water bodies and typically have elongated shapes. Lakes and ponds are perennial standing water bodies. IPCC classification: Wetlands
 - 2 Glacier: Perennial ice in movement. IPCC Classification: Other.
 - 3 Snow: This class describes perennial snow (persistence > 9 months per year). IPCC classification: Other
 - 4 Forest: Land spanning more than 0.5 ha with trees higher than 5 m and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. IPCC classification: Forest
 - 5 River bed: A tract of land without vegetation surrounded by the waters of an ocean, lake, or stream; it usually includes any accretion in a river course. IPCC classification: Wetlands
 - 6 Built-up area: Built-up areas refer to artificial structures such as towns, villages, industrial areas, airports, etc. IPCC classification: Settlements
 - 7 Crop land: This category includes arable and tillage land, and agroforestry systems where vegetation falls below the thresholds used for the forest land category, consistent with the selection of national definitions. IPCC classification: Crop land

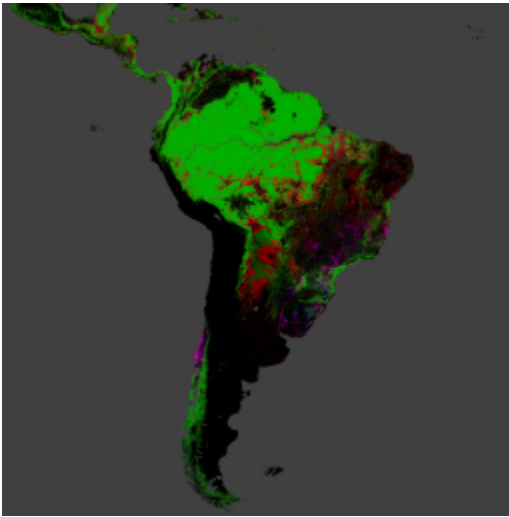
- 8 Bare soil: A soil surface devoid of any plant material. IPCC classification: Other
 - 9 Bare rock: Non-vegetated areas with a rock surface. IPCC classification: Other
 - 10 Grass land: Areas covered by herbaceous vegetation with cover ranging from Closed to Open (15–100%). This category includes rangeland and pasture that is not considered cropland. IPCC classification: Grassland
 - 11 Other wooded land (OWL): Land not classified as forest spanning more than 0.5 ha, having at least 20 m width and a tree canopy cover of trees between 5% and 10%. IPCC classification: Forest
- Raja Ram Aryal / Forest Research and Training Centre, Nepal
 - Creation date: 03/19/2021

6. Nepal's Tree Cover Percentage dataset



- Annual Tree Cover percentage data for Nepal from UMD shared by Raja Ram
- 2000-2019 except 2012
- Asset ID (ImageCollection): 'users/rajaramaryal/NLCMS/UMD_TCC'
- UMD; Raja Ram Aryal / Forest Research and Training Centre, Nepal
- Creation date: 06/15/2020?
- Nepal's Definition of forest Degradation
 - [ERPD](#) document defines forest degradation on the basis of TCC.
 - “ The assessment of tree canopy cover across the entire time series is used to establish changes observed between 2004 and 2014 as well as to incorporate elements of permanence of change per Nepal's definition of deforestation and forest degradation. Changes observed to tree canopy cover are used to inform emissions estimates for deforestation and forest degradation.”
 - 10-30%: degradation
 - <10%: deforestation

7. Hansen Global Forest Change v1.8 - used by MTDD



- GEE data description:
https://developers.google.com/earth-engine/datasets/catalog/UMD_hansen_global_forest_change_2020_v1_8?hl=en
- Results from time-series analysis of Landsat images in characterizing global forest extent and change
- Bands used: 'loss_year', 'tree_cover2000' (in MTDD tool)
- Provider: Hansen/UMD/Google/USGS/NASA
- Asset id: "UMD/hansen/global_forest_change_2020_v1_8"
- Raster 30 m

8. Global Forest Cover Change (GFCC) Tree Cover Multi-Year Global - Used by MTDD



- GEE data description:
https://developers.google.com/earth-engine/datasets/catalog/NASA_MEASURES_GFCC_TC_v3?hl=en
- The Landsat Vegetation Continuous Fields (VCF) tree cover layers contain estimates of the percentage of horizontal ground in each 30-m pixel covered by woody vegetation greater than 5 meters in height. The dataset is available for four epochs centered on the years 2000, 2005, 2010 and 2015
- Band used: 'tree_canopy_cover'(in MTDD tool)
- Provider: NASA LP DAAC
- Asset id: "NASA/MEASURES/GFCC/TC/v3"
- Raster 30 m

Updates

The above information was used for the original workshop. For an updated data dictionary that is continually added to as work continues, please refer to

 TAL Data Dictionary - Nepal - 2024Copy .