UN Environment Technical Assistance

Building capacity for REDD+ planning in Liberia: mapping non-carbon benefits

Work plan for the second working session in Liberia (23 April – 4 May 2018)

The working session will last 9 days spread across two weeks and will include a desk and a field component. Four days (23-26 April) will be spent at the Forestry Training Institute (FTI) in Tubmanburg (Bomi County) and five days (30 April- 4 May) in Monrovia.

The working session has two main objectives:

1. Enable GIS practitioners to use field data to analyse and validate data collected and generated at different spatial scales;
2. Use spatial workflows to identify areas where to implement specific interventions for REDD+.

Learning objectives

1. Understand different types of spatial data (from field to derived datasets, as well as their scale format and resolution), their limitations, use and validation using QGIS tools;
2. Learn how field data related to land cover, biodiversity and deforestation can be collected and analysed using QGIS;
3. Learn how to develop spatial workflows using QGIS graphical modeller, and identify priority areas for the implementation of potential REDD+ interventions;
4. Learn how to generate effective maps for decision makers using different approaches to present the data

Field activities (4 days/3nights)

This training component will be held at the Forestry Training Institute and surrounding areas. During four days the participants will learn how to use field data to analyse and validate datasets using QGIS tools. The field component will be carried out by dividing the trainees in teams, with 4-5 people/team. The data collected in the field will be used to help develop a land cover map using Landsat 8 satellite images and the QGIS tool Dzetsaka. Other field data will be used to validate using the confusion matrix and by calculating accuracy parameters. The canopy cover data collected will also be used to estimate the accuracy of the Geoville dataset for the study area.

An overview of the type of analyses that can be carried out using the other data collected, on biodiversity and disturbance, will be also provided.

Time	**Topic and activity**
23rd April	
14:00 – 14:15	Welcoming remarks
14:15 – 14:30	Introduction and objectives of the training
14:30 – 15:00	Spatial data: scales, limitations and how to validate data using different tools in QGIS
15:00 – 17:30	How to prepare field surveys using QGIS. Using QGIS, *the participants will prepare survey data points data, to be used in the following days during the field exercises, and upload in the GPSs.*
24th April	
08:30 – 17:00	Field exercise. *In the field, the teams will collect the information (forest type, canopy cover, elevation, disturbance, signs of wildlife) in the field datasheets.*
25th April	
08:30 – 13:30	Field exercise. *In the field, the teams will collect the information (forest type, canopy cover, elevation, disturbance, signs of wildlife) in the field datasheets.*
14:00 – 14:30	At FTI Review and Group discussion about the data collected
14:30 – 14:50	Instructions on how to classify land cover using QGIS and field data and on the methods used to validate a dataset using field data.
14:50 – 17:30	The participants will work in teams to prepare a land cover map of the study area and to validate the Geoville forest cover map using the canopy cover data collected in the field.
26th April	
08:30 – 13:30	The participants will work in teams to prepare a land cover map of the study area and to validate the Geoville forest cover map using the canopy cover data collected in the field.

Spatial workflows to identify areas where to implement REDD+ interventions

This component will be held in Monrovia from the 30th of April to the 5th of May. The venue will be Corina Hotel (to be confirmed) located in Tubman Boulevard, Sinkor - Monrovia.

During this working session, the participants by working in teams will learn how to identify priority areas for the implementation of a specific REDD+ intervention by using QGIS graphical modeller. They will also have the opportunity to prepare final maps using effective layouts for communicating with decision-makers and present their results.

Time	Topic and activity
30th April	
09:00 - 09:10	Welcoming remarks
09:10 – 09:30	Recap of the first working session
09:30 - 09:45	Introduction and objectives of the training
09:45 – 10:30	Presentation on Liberia REDD+ strategy and policies and measures (PAMs) by Mr. Saah A. David, Jr.
10:30 – 10:50	Coffee/tea break
10:50 – 12:30	The participants will present the homework from last session and will report any issue encountered
12:30 – 13:00	Presentation by Joel Gamys from WRI on the Forest Atlas project and on the other GIS work carried out in Liberia
13:00 - 14:00	Lunch
14:00 – 14:20	Presentation on spatial workflows
14:20 - 15:30	The participants will be divided in teams and each team will identify a REDD+ intervention (PAM), the GIS data and the technical steps necessary (spatial workflow) to identify potential priority areas for this intervention using QGIS
15:30 – 15:50	Coffee/tea break
15:50 – 17:00	Continue the exercise
1st May	
09:00 – 10:30	Each team will present the REDD+ interventions to the rest of the participants
10:30 – 10:50	Tea/coffee break
10:50 – 11:15	Presentation on Great Apes Survival Partnership – REDD+ Mapping Project, followed by 10 min Q&A
11:00 – 11:20	Presentation and demonstration on the use of QGIS Graphical Modeller to create, edit and manage spatial workflows
11:20 – 13:00	Each team will use the QGIS graphical modeller (using the tutorial "Building spatial workflows to help identify potential areas for undertaking a REDD+ intervention using QGIS Graphical Modeller" as a guide) for identifying priority areas for the REDD+ action previously identified.
13:00 - 14:00	Lunch
14:00 – 15:30	Continue exercise using QGis Graphical Modeller
15:30 – 15:50	Tea/coffee break
15:50 – 17:00	Continue exercise using QGis Graphical Modeller
2nd May	
09:00 – 10:30	Continue exercise using QGis Graphical Modeller

10:30 -10:50	Tea/coffee break
10:50 – 13:00	Continue exercise using QGis Graphical Modeller
13:00 – 14:00	Lunch
14:00 – 15:30	Continue exercise using QGis Graphical Modeller
15:30 – 15:50	Tea/coffee break
15: 50 – 17:00	Continue exercise using QGis Graphical Modeller
3rd May	
09:00 – 10:30	Continue exercise using QGis Graphical Modeller
10:30 – 10:50	Tea/coffee break
10:50 – 13:00	Continue exercise using QGis Graphical Modeller
13:00 – 14:00	Lunch
14:00 – 14:30	Presentation and group discussion on how to present spatial information in an effective way for policy makers
14:30 – 15:30	Each team will start preparing the layout of the maps showing priority areas for their REDD+ action
15:30 – 15:50	Tea/coffee break
15:50 – 17:00	Continue working on the maps layout
4th May	
09:00 – 10:00	The teams will continue working on the maps layout and relative presentation
10:00 - 10:50	Each team will present the final output, explaining the logical workflow followed to the Liberia "GIS working group"
10:50 – 11:00	Tea/coffee break
11:00 – 11:30	Continue the presentation of the teams to the Liberia "GIS working group"
11:30 – 13:00	Final presentation on the GIS work carried out in Liberia: coordination and next steps. The presentation will be followed by an open discussion with Q&A
13:00 – 14:00	Lunch
14:00 – 15:00	Closing remarks