

Mangrove carbon estimator and monitoring guide

Food and Agriculture Organization of the United Nations

Photo-point monitoring exercise

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What is photo point monitoring?

- Taking photos of points of interest at regular intervals from the same location
- For our project, the objective is to monitor the area, height, density and condition of mangrove stands
- Produces regular, reliable information that can be shared among project partners, and complements high-res satellite imagery
- Low-cost and undertaken by the local community



Five steps of photo point monitoring

- 1) Assemble equipment
- 2) Select and mark photo points
- 3) Photograph the scene
- 4) Organise and file information
- 5) Analyse the photos



Required equipment

- Digital camera, GPS unit and a compass (or a smartphone with a digital camera, a GPS app such as GeoTracker and a compass app such as Compass 360 Pro)
- Clipboard, pen and paper for recording information on site
- A meter board (for indicating mangrove height)
- Small whiteboard and washable markers (used as a photo ID board)
- Measuring tape
- Fence posts or stakes with florescent caps for marking photo points

Photographing and image analysis

- Chosen points should cover whole project area
- Point coordinates should be recorded and the points should be marked
- Photo point map can be created in QGIS and saved in MS Paint
- Photos from successive monitoring visits are compared
- Results of analysis recorded in MS Excel spreadsheet and included in the 6-month monitoring report

Next step – field exercise!

- We will go through the process of selecting photo points and taking photographs in the park downstairs
- We will then come back to the room, analyse the images and complete the monitoring spreadsheet
- After that, Jeremy will take you through the next, complimentary component of mangrove monitoring – visual analysis of high-resolution satellite imagery

Monitoring spreadsheet

		GPS coordinates	Compass bearing (°)	Photo height (cm)	Distance to meter board (cm)	Photo analysis
20-12- 2016	001	13.746893, 100.54673	090	140	450	•••
20-12- 2016	002	13.746982 <i>,</i> 100.546715	320	140	450	•••









Further information

 Further detail on photo-point monitoring is available in the 'Mangrove carbon estimator and monitoring guide' (<u>http://www.fao.org/3/a-</u> <u>i6500e.pdf</u>)