



Remote Sensing Applications for Forested Wetlands Inventory and Assessment

Coastal wetland forests, especially mangroves, provide significant economic, societal and ecological values. These systems are highly sensitive to disturbances caused by development and agricultural conversion, as well as changes in salinity and hydrology that are brought upon by sea level rise. Remote sensing (RS) is an effective tool to monitor changes to wetland ecosystem attributes, and to provide information needed to model ecosystem structural and functional parameters. A number of reports exist that demonstrated considerable disparities in mangrove cover estimates both within and between countries attributed to variations in methodological approaches that warrant a strong focus on capacity development to generate practical knowledge, skills and technical expertise on tools, methods and approaches in the application of RS in managing wetland forest resources.

As an icebreaker, the workshop will benefit from Tanzania Forest Services experiences in the applications of RS in forest assessment (inventory, demarcations and mapping, decision

making on forest utilization categories and management) in Tanzania before moving on to exchange information about the specific opportunities and challenges associated with the use of remote sensing applications for forested wetlands to:

- (i) Delineate wetland areas (e.g., mangroves) and land cover, and demonstrate application of drones in detecting change and degradation,
- (ii) Estimate mangrove forest canopy height and terrain modeling,
- (iii) Provide a basis for wetland (mangroves) inventory design to establish stand age and growth rates,
- (iv) Estimate biomass and carbon modeling.

The workshop will focus on how emerging high-resolution radar and optical techniques can accurately be used to estimate forest height and be applied in stratified sampling protocols, using case studies from Rufiji River Delta in Tanzania and Zambezi River Delta in Mozambique.



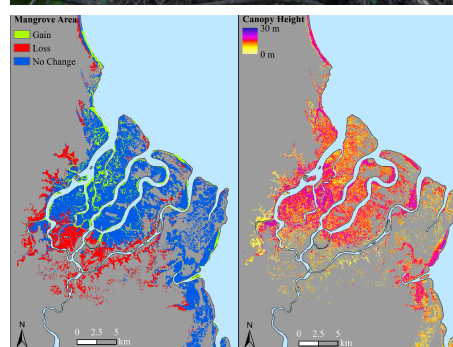
This workshop is organized by the Institute of Marine Sciences of the University of Dar es Salaam, USDA Forest Service, NASA, WWF Germany and WIOMSA with support from USAID and hosted by Tanzania Forest Services under the partnership framework for Development of the Mangrove Research and Training Forest in Rufiji Delta, targeting interested delegates of the 10th WIOMSA Scientific Symposium.

Participation is free. The organizers welcome individuals, especially students to express interest to participate. A maximum of 30 participants will be accommodated on first come, first listed.

Venue: Tanzania Forest Services Conference Room, Mpingo House, Nyerere Road, Dar es Salaam

Date and Time: Saturday 4th November 2017; 09:30 – 15:30 hrs (Lunch will be provided)

Transport will be provided to and from Mpingo House and WIOMSA Symposium main venue



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