

Project Update: February 2016

As part of the project objectives and in the line with the implementing agency's (GeoSocial Solutions Consultancy) commitment to providing materials and tools for evidence-based conservation actions, a vegetation analysis has been carried out for the project area.

The vegetation analysis was conducted to determine areas within the project area that have experienced $\geq 10 \text{ m}^2$ increase or decrease in vegetation cover in the last 10 years (2003 - 2014). The critical objective was to determine deforestation hotspots within the projects area for focused monitoring by the Winneba Forest Services and Wildlife Divisions (FSD and WD).

Raw data sets were acquired from USGS Glovis (Landsat archive) and processed with Erdas Imagine Software. The images used for the analysis were obtained for December 2003 and November 2014. Visual comparison between images for 2003 and 2014 shows that, there seems to have been an overall increase in the vegetation and water cover in the Winneba municipality. Further analysis of the actual attributes data revealed that there has actually been a decrease in vegetation cover. We attribute the inflation in vegetation cover in the 2014 map to analysis errors beyond our control. Discussions with the Winneba FSD and WD on the results of the image analysis confirmed that, though there has been extensive reforestation within the last 10 years, there is a net decrease in forest cover.

More interestingly, the results of the deforestation hotspot map showed areas were the officials had suspected illegal activities and frequent fires outbreaks. Moreover, it became apparent that, quite a lot of vegetation removal is going on along the coastline of Winneba. It is very likely that the mangroves forest along the coast are victims of this vegetation removal, and the WD has intensifying efforts to curb such activities.

In the end, the conservation officials have obtained information and resources for prioritising areas for monitoring and conservation actions.

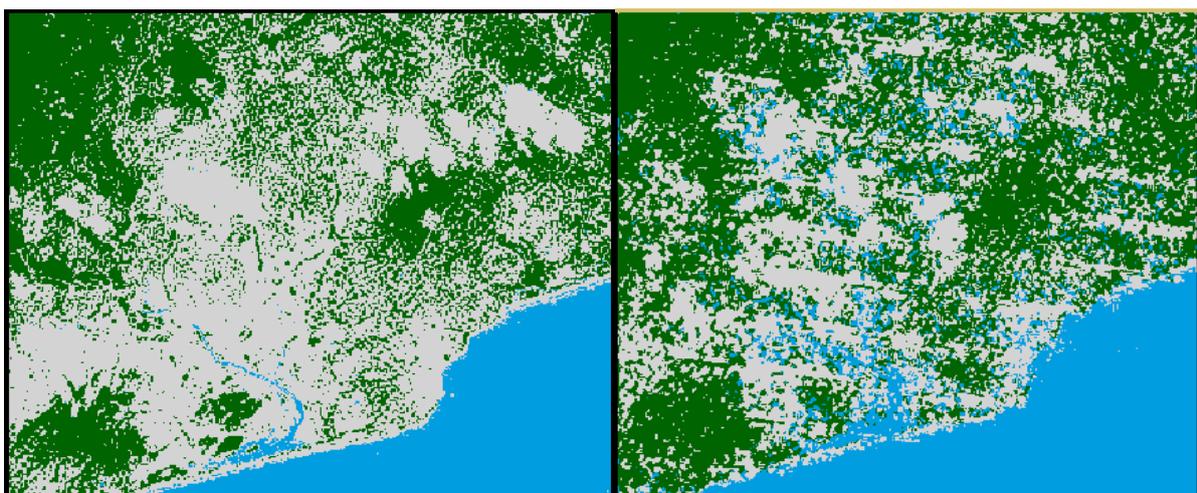


Image 1: Vegetation and water cover for Winneba Municipality (2013). Image 2: Vegetation and water cover for Winneba Municipality (2014)

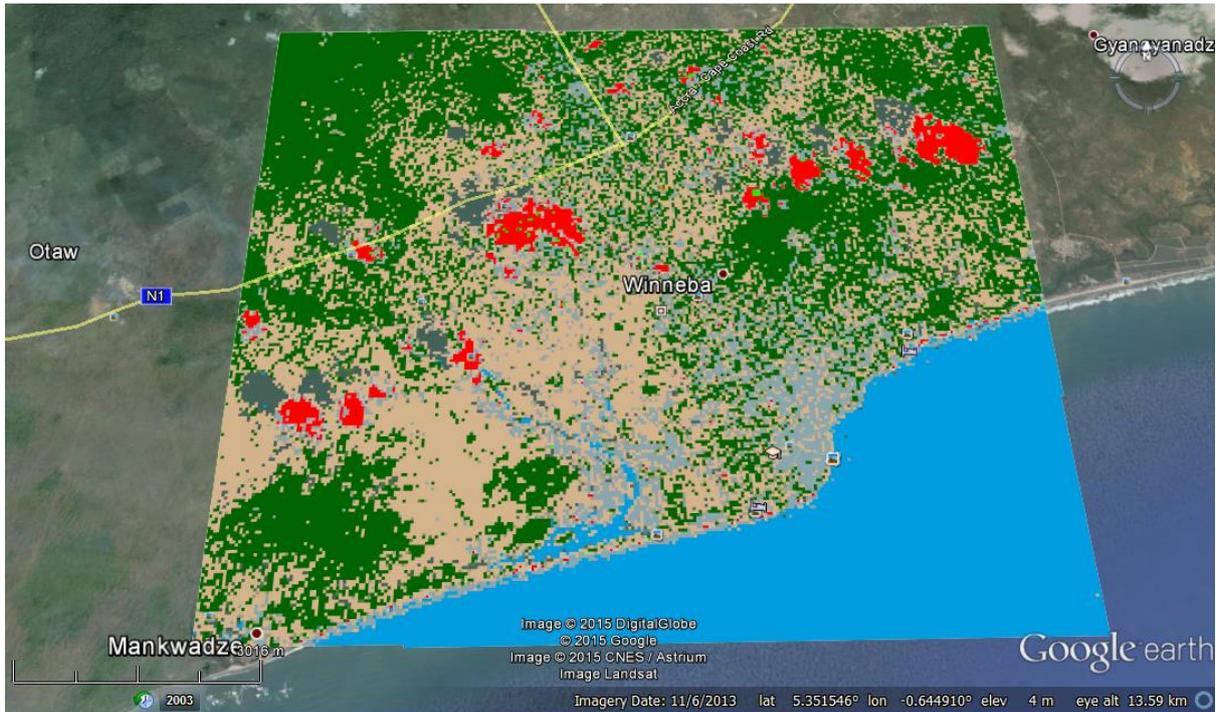


Image 3: Map showing areas of vegetation loss of ≥ 1 ha in the Winneba Municipality

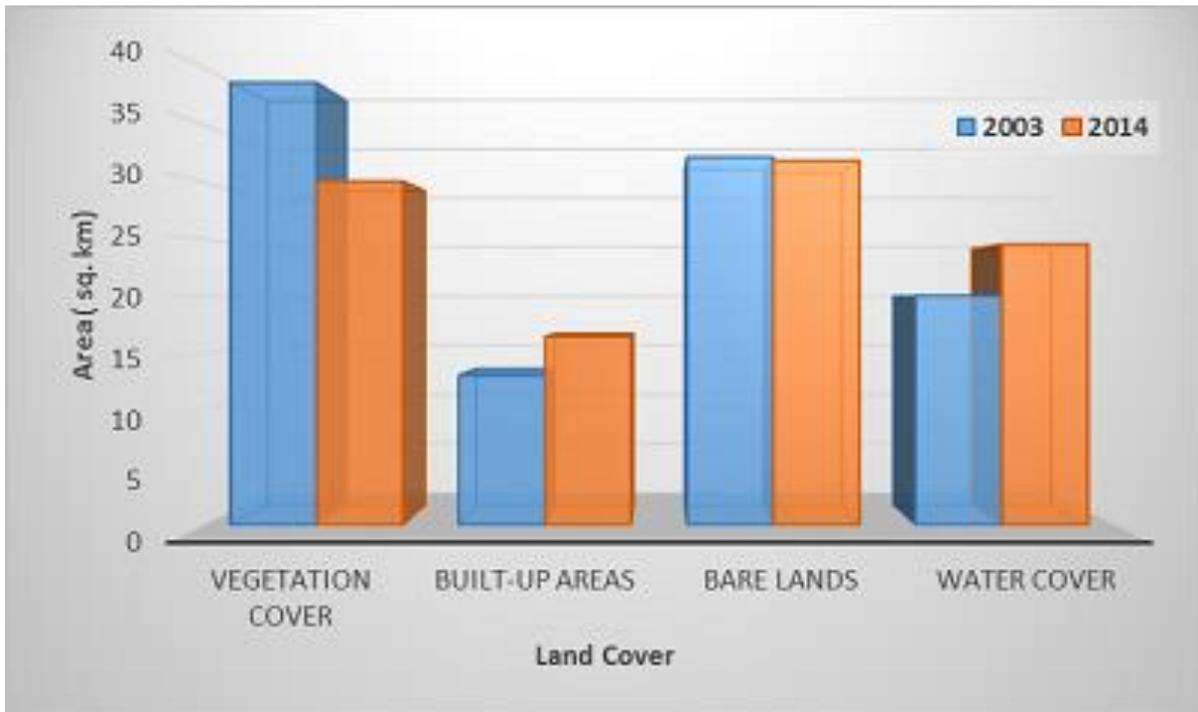


Image 4: Attributes change from vegetation analysis of Winneba Municipality between 2003 and 2014.