

EVOLUTION OF THE PROTECTED FOREST OF N'GANDA N'GANDA (ASSINIE, IVORY COAST) OVER THE PERIOD 1987-2018, ACCORDING TO THE COMPARISON OF TWO LANDSAT IMAGES

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ABSTRACT

Evolution of the protected forest of N'Ganda N'Ganda (Assinie, Ivory Coast) over the period 1987-2018, according to the comparison of two Landsat images.

The objective of the study is to quantify spatial changes in the N'Ganda N'Ganda protected forest (Ivory Coast) between 1987 and 2018. To this end, a diachronic study of land use was carried out using LANDSAT satellite images (TM and OLI). These images were subjected to a directed classification with the Random Forest algorithm of the R software and the results obtained were compared. The overall accuracy of the classified images is satisfactory:

85.09% and 89.31% respectively for the 1987 and 2018 images. The comparison of the classified images revealed a regression of forest areas (dense forest, swamp forest) and crop/forest mosaics by 305 ha as well as an extension of degraded forest areas by 699 ha and savannah by 576 ha. This evolution shows that the N'Ganda N'Ganda protected forest is threatened by deforestation and calls for a profound reflection on the efficiency of the management of the State's protected forest heritage.

KEYWORDS

Landsat imagery; supervised classification; Random Forest; protected forest; wetland; Ivory Coast.

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