

**MONITORING MANGROVES EVOLUTION OF BOANAMARY USING LANDSAT
DATA
(NORTH WEST OF MADAGASCAR)**

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ABSTRACT

In Madagascar, as everywhere in tropical world, the importance of mangroves is recognized in economic and coastal protection against marine erosion. But they are often degraded or destroyed by human activities (collection of firewood, wood for house building, shrimp farming). A study of their evolution in the rural commune of Boanamary was done using Landsat images acquired in 1989, 2000 and 2005. Geometrical corrections were initially applied to these images using 2005 image as reference. Maximum likelihood and neural network method were used to perform classification. The results obtained from GIS (Geography Information System (GIS) and RS (Remote Sensing) indicate that 12.36% mangroves has disappeared in 2005. Between 1989 and 2000; 360 ha were degraded. From 2000 to 2005, the surface occupied by mangroves decreased of 307 ha. On the other hand, we notice an increase of dense mangrove area due to reforestation.