

The Distribution of Mangroves and Land Use of Local People in Saloum Delta, Senegal

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Mangroves are vegetation type in tropical and subtropical coastal areas. There are about 70 plant species in the world and seven are found in West Africa. Each species of mangrove is distributed according to the soil salinity. In coastal areas of Senegal, mangrove adapts in semi-arid areas with higher salinity. Local people have made holes to collect salt in the coastal region.

Study area is a Communauté Rurale de Palmarin located on the estuary of Saloum Delta of Senegal. The purpose of this study is to make clear the relationship between salt pan and distribution of mangrove. I observed salt collecting on salt pans. In plots of 200m × 200m placed in one of three salt pans, I measured the diameter of the hole of salt pan and the salt concentration. I also surveyed mangrove distribution in the plot.

There are five villages in Communauté Rurale de Palmarin. Three villages of Ngallou, Nguethi, and Ngounoumane have salt fields. The salt field with salt pan like round hole of about 10m in diameter and 2m in depth is located in the intertidal zone. Local people take the salt (about 50kg) from a hole and collect them a maximum three times during the dry season. In the salt field, several holes are collapsed by tidal erosion. When the hole collapses, brackish water flows into the hole by the tide. It is then impossible to collect the salt. Mangroves grow in such abandoned holes. In the salt field of Niassam, with one of the three plots, there were no abandoned salt pans. *Conocalpus erectus* only grows there. In the other two salt fields of Nbâk and Guisanda, there were abandoned salt pans. Viviparous seeds of *Avicennia germinans* and *Rhizophora mangle*, in addition to *C. erectus*, entered abandoned holes by the tide, and they were growing

Comparison of the growth stage and composition of mangrove species growing in each salt field are examined to make clear the impact of abandoned salt pan to the distribution of mangroves. I will also analyze the process of salt collecting of local people. I will make detailed maps of land use and distribution of mangroves in Palmarin to promote the conservation of biological diversity.



Photo 1 Collection of salt in a salt pan



Photo 2 Landscape of Niassam



Photo 3 Mangroves is growing in abandoned salt pans