

## Mini Series: Sand Fixation and Tree Planting in Mauritania

### Part 1: Issues surrounding Sand Fixation and Tree Planting in Mauritania

In Mauritania, an arid nation located in West Africa, a large amount of sand is blown in by prevailing winds from the Sahara Desert. Much of the country, except for areas along the Senegal River, is desert. In the oasis settlements that occur sporadically in the deserts, it is essential to protect farmyards and houses from the shifting dunes and advancing sands, therefore a lot of tree planting activities are seen in these areas. In this mini-series, focusing on information from the Tagant and Adrar regions, we would like to first introduce issues surrounding sand fixation and tree planting in Mauritania, then follow up in Part 2 by introducing tree planting techniques.

In Mauritania, people started becoming aware of the needs for sand fixation after major droughts between 1968 and 1973. Shifting sands and their accumulation brought a lot of problems to peoples' livelihoods, and seriously impacted on people's daily lives and farming activities. Therefore, various measures are taken by government supported initiatives and by residents themselves, such as tree planting to prevent, mitigate and reduce wind and sand damage. The main damages from shifting and accumulating sands are: 1) Farmlands submerged by sand; 2) Crop growth impediment; 3) Houses buried under sands; 4) Road breakage; and 5) Deteriorating livelihoods.

Initial tree planting projects aimed at fostering peoples' support for tree planting activities and at demonstrating the effectiveness of wind and sand prevention as a means to improve livelihoods. Major settlements in regions with good transport facilities were chosen as project sites, with a view to creating obvious demonstration effects. However, later on, people's awareness on tree planting activities became

Protection Targets	Damages
Residential areas	Houses buried under sands Increase in illness due to sand getting into respiratory organs and eyes Impure substances such as feces getting into food items
Farms	Reduction in crop production and deteriorating quality Un-arable land due to farmlands buried under sands Degraded soil fertility
Roads	Transport hazards and shut down Causes of traffic accidents Road breakage
Entire area	Compound damage of the above three types of damage Threats to the existence of residential areas and villages as a whole Threats to local industries such as agriculture and tourism activities

high and participatory tree planting projects were implemented. In these participatory projects, tree planting areas were selected with the full consideration of the pro-active opinions of the concerned residents. In addition, recent projects include not only tree planting elements, but also incorporate rangelands and farmlands management elements with an aim to increase benefits to local people.

Since the 1970s until 1997, tree planting activities conducted by the Government of Mauritania with cooperation from bilateral donor countries and agencies were implemented at 765 sites covering a total of 6,144 ha. However, many of the activities were targeting the southern parts of the country, and only around 9%<sup>1</sup> took place in Tagant (222 ha) and Adrar (464 ha). Continuation of sand fixation and tree planting activities are necessary in these areas. At present, tree planting and sand fixation projects are implemented with residents' participation through the oasis cooperatives based in each oasis. However, in areas without oasis cooperatives, tree planting projects continue to be implemented by the Ministry of Regional Development and Environment. In Mauritania, the cutting of natural trees is basically prohibited. Therefore, trees planted around an oasis to prevent winds and also the sand are utilized as resources for local industries and livelihoods; building materials, fuel, livestock fodder and resting areas for tourists.



Date Palms buried in Sand Dunes



Trees Planted to Protect Houses from Sand



Trees Planted to Protect Roads

<sup>1</sup> The tree planting areas in the two regions were calculated with data gathered up to the year 2,000.