Swaziland: Large-scale tree plantations which are no exception to the rule

The case study "Swaziland: The myth of sustainable timber plantations" carried out by Wally Menne and Ricardo Carrere and published in March 2007, aims at unveiling the myth of sustainable plantations in Swaziland and showing that large-scale monoculture tree plantations in this country have similar negative impacts as elsewhere and are no exception to the rule.

Before the implementation of large-scale timber plantations in Swaziland, the area that they now occupy was grassland, interspersed with patches of evergreen forest growing in moist, sheltered spots. Domestic crops and animals, hunting, and natural resources from the forest and grassland provided Swazi people all they needed to survive.

Things began to change in the 1870s when Europeans flocked to Swaziland and through different means obtained rights to settle on vast portions of the country. In 1899 the Anglo-Boer war broke out and in 1902 the British took control of Swaziland. The country remained under British colonial rule until September 1968 when Swaziland gained independence.

Many of the timber plantations were established during colonial rule but their continued existence is today a means of "freezing" the unjust distribution of land ordered by the British imperial rulers. At present industrial tree plantations cover an estimated total area of almost 135,000 hectares (8% of the total land area). Even worse, they occupy the land with the most productive potential, at the expense of other agricultural land uses. Most plantations (78%) are composed of pines trees, while an important area has been planted with eucalyptus (20%) and a smaller area with wattles (2%). Additionally, there are some 25,000 hectares of so-called "wattle forests", which are areas invaded by alien acacias (The Swaziland Environment Action Plan, 1997).

Clearly not all of Swaziland's woes can be blamed on industrial tree plantations. But more than fifty years of development by the pulp and paper industry has failed to bring benefits to the majority of Swaziland's population. Instead it has made matters worse.

The most obvious impact is the destruction of natural vegetation when large-scale plantations are first established but also fragmentation of highveld grassland has been identified as a problem, with negative implications for the conservation of biodiversity.

Timber plantations have impacted directly on soils causing soil erosion, nutrient depletion, changes in soil structure, and acidification that have yet to be studied in Swaziland. Also on water: the areas covered by industrial timber plantations in Swaziland are already deprived of water. They consume more than the natural rainfall supply to the area that they occupy, even drawing additional water from surrounding aquifers and streams. The extent to which plantations impact on water resources has had serious consequences for people relying on water from streams and rivers flowing from the highveld catchment area. Some people, born in the area before plantations arrived, can remember waterfalls and deep streams that no longer exist.

Indirect impacts are related to the appropriation of the best land by plantation companies. In a country where the majority of people are landless, nearly 120,000 hectares of the most productive land in the country (the 'High Veld' region in the West) is occupied by timber plantations owned by foreign corporations. As a result, traditional agriculture and cattle grazing were displaced onto drier, steeper areas where shallow soils have higher erosion potential and less capacity for water and nutrient retention. A relatively larger number of people now need to subsist off a smaller area of less arable and productive land. These factors result in downstream impacts such as more severe flooding, soil erosion, soil nutrient depletion, and siltation of streams and wetlands, with consequent food shortages and impacts on health.

Today, two South African pulp and paper companies control most of the industrial tree plantations in Swaziland. Mondi owns 30,000 hectares of eucalyptus and pine trees in the north of the country, while Sappi, leases 70,000 hectares of plantation land in western Swaziland. Mondi exports it eucalyptus wood to its pulp mill at Richards Bay, 400 kilometres away in South Africa. The pine goes to local sawmills. Sappi owns a pulp mill which produces 220,000 tons of pulp each year, most of which is exported to Southeast Asia.

Employment offered by the timber industry is often far more hazardous than conventional agricultural jobs including danger of injury to workers, and exposure to toxic chemicals and dangerous machinery in pulp and saw mills, while the recent trend of outsourcing as a means of increasing profitability and reducing the risk of labour action resulted in even lower wages and worse working conditions.

Air and water pollution from pulp mills, is often the subject of complaints by communities. Although the levels of pollution produced by sawmills are less obvious, the cumulative effect of the use of toxic wood preservatives in an area can be considerable. The disposal of waste materials into nearby streams appears to be a common practice which can have negative implications for aquatic organisms and human communities.

The tree species commonly used in plantations are all highly invasive. For many years, the timber industry has allowed their trees (acacia, pine and eucalyptus) to spread into watercourses, wetlands and steep inaccessible areas. This results in the displacement of natural species mostly through shading or suffocation, and further destruction of habitat through ongoing impacts such as the dehydration of streams and wetland areas.

Large-scale tree plantations in Swaziland have resulted in serious impacts on people and the environment, both at present and in the past. It is difficult to understand how two of them have been certified by the Forest Stewardship Council: Mondi (20,000 hectares) and Shiselweni Forestry Company (17,000 hectares). According to its mandate, "the Forest Stewardship Council (FSC) shall promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests". Apart from the fact that these plantations are obviously not forests, the findings of the research have revealed that they are neither environmentally appropriate nor socially beneficial and that their economic viability depends on the externalization of social and environmental costs.

Large-scale monoculture tree plantations in Swaziland have similar negative impacts as elsewhere and are no exception to the rule.

Excerpted and adapted from: "Swaziland: The myth of sustainable timber plantations", by Wally Menne and Ricardo Carrere, WRM, http://www.wrm.org.uy/countries/Swaziland/Book_Swaziland.pdf)