## Pulping the South . . . of the USA

Destruction of forests to make place to tree monocultures is a well documented fact in many Southern countries. A similar but less known process is also happening in the southeastern region of the USA. The states of Alabama, Louisiana, Tennessee and North Carolina have been and continue to be invaded by huge loblolly pine (Pinus taeda) plantations. This species is native to the region, but specifically to the moist piedmont between highlands and the sea, and a stranger to the hills where plantations are mostly being installed. But these aren't just any loblollies. They are cloned "supertrees," selected for swiftness of growth, straightness of trunk, and resistance to drought, disease, and insects.

Ted Williams, author of an excellent article published in "Mother Jones" magazine (see details below), begins his analysis with the following question: "What's green, full of trees, and worse than a clearcut?" The answer is: "Vast pine farms, which are rapidly replacing the woods with a new kind of Southern plantation."

Williams describes the process in this manner: "Before planting their superseedlings, the companies clearcut and bulldoze the site to get rid of all native trees, shrubs, vines, ferns, mosses, fungi, grasses, sedges, and wildflowers. Woody debris is burned off. Then they plant loblolly. As the pines mature, they are thinned and pruned. Native trees that return from roots or seeds are cut or killed with herbicides. Frequently the plantation is bombed with fertilizer pellets. Then, 15 to 20 years after they were planted, the pines are clearcut, and the process begins anew."

Some figures show the alarming dynamics of the conversion of forests to plantations. Nowadays there are 156 chip mills in the region, being 110 of them less than 10-year old. Some can grind up to 3,000 acres of woods per year, clearing the way for vast tree farms. Between 1989 and 1995, exports of Southern hardwood chips grew 500 percent. The US Forest Service estimates that plantations, which today are 36% of all pine stands in the South, will make up 70% within 20 years.

The system used to promote pine monocultures in the Southern US is very similar to that used in Southern countries. Big companies -such as Champion and Weyerhaeuser- receive tax exemptions and soft loans, not to talk of the positive externalities -such as the construction of waterways- that support the development of the pulpwood industry. In Alabama, for example, the state bestowed a tax exemption and other benefits to plantation companies, which deprives the public school system of an estimated U\$S 50 million per year. The Tennessee-Tombigbee Waterway construction and dredging works cost the State citizens many million dollars a year. As happens everywhere, a study carried out by the Auburn University shows that rural counties most dependent on this type of forestry industry experiment the highest levels of unemployment and poverty.

One of the reasons there are no meaningful controls on pine conversion -explains Williams- is that forest-products companies have convinced the media and the public that "replanting" a forest once it has been removed is not only possible but admirable. Weyerhaeuser, which according to Business Week does "better than Mother Nature," boasts that it "promptly replants" its clearcuts with "vigorous, young seedlings." The company reports that in 1998 it planted more than 51 million seedlings in its

U.S. "forests." Georgia-Pacific, which manages 4 million acres in the South, plants 125 million seedlings each year and proudly proclaims that its "forest is a factory." They are in fact factories, but certainly not forests. As a biology teacher at the University of the South in Sewanee, Tennessee says, the industry needs to quit pushing the fantasy that replacing all these trees with loblolly is reforestation: "Corn is a species of grass. Yet Midwestern farmers don't go around pretending they're restoring the tallgrass prairie."

What the companies neglect to mention -adds Williams- "is that pine farming, like other large-scale, industrial agriculture, harms the environment and the economy. Pine plantations require enormous amounts of fertilizer and herbicide, much of which winds up in streams and drinking water. They impoverish soil and destroy habitat, including wetlands. And they rob communities of valuable sawtimber for lumber and of real forests that produce clean water and provide recreation. Few of the profits end up in local communities, and many of the companies are multinational."

But the impacts are certainly local. As studies performed at Clemson University show, the soil used to grow successive crops of pine looses nutrients present at the topsoil, and the shorter rotations are -as is the present trend- the more destructive the process is. Clear-cutting prior to plantations is having even more dramatic consequences. Some time ago at Moore Hill a big rain provoked a torrent of mud, silt and debris coming from a 100-acre plot recently clearcut by Champion, which ended at the Mississippi River. Frequently plantations are bombed with fertilizer pellets. This practise not only pollutes fish and wildlife habitats but also affects human settlements. Last year residents of Sequatchi County in Tennessee and their animals were hit by urea pellets intended for a pine plantation belonging to Bowater. There is scant information on the long-term effects of herbicides used in plantations on fish, wildlife and human beings. Plantation companies generally use Garlon, a risky product which can remain in the soil for two years and be easily washed out into water courses.

Additionally, monocultures are themselves facing an important sanitary problem generated by the destruction of the forest ecosystem and the food web associated to it: pine beetles are becoming a menace to the trees in plantations, and they cannot be controlled by their natural predators (such as checkered beetles), which have disappeared from this new artificial environment.

In sum, monoculture tree plantations in the Southern US show the same pattern as plantations in Southern countries: the process is promoted by the state, it benefits large corporations, it generates few benefits to local communities, who have to bear the social and environmental impacts generated by this forestry model and constitutes a major cause of deforestation.

Article based on information from: Ted Williams, "False Forests", Mother Jones magazine.