ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

A tool for understanding environmental decisions related to the pulp and paper industry

GREENHOUSE GASES

EFFECTS OF NON-WOOD FIBER USE ON GREENHOUSE GAS EMISSIONS

Agrifiber for Biofuel vs. Food

Agricultural lands are increasingly being used for more than the traditional roles of food and fiber production. Accommodating the demand for increased production of biofuels, especially ethanol and biodiesel, has diverted food crops grown on existing productive farmland. This has led to the opening up of additional croplands and the clearing of forests, particularly abroad, to compensate for the resulting shortfall in global food supplies. Even forestlands are being increasingly tapped for wood chips and pellets to meet worldwide demands for energy sources thought to be favorable for reducing greenhouse gas emissions. Only recently has public attention been drawn to the prospect that these land use conversions may be counterproductive to their intended purpose.

This situation provides a backdrop for any increased demand for dedicated fiber crops as a source for papermaking fiber. In this case, potential landscape impacts may result from 1) the diminished incentive for the creation and maintenance of productive forestlands, and 2) the expanded use of less productive cropland, pastures and rangeland. The consequences for greenhouse gas emissions are at least twofold:

- an alteration of equilibrium soil carbon stocks that may increase the CO_2 burden on the atmosphere, and
- incentives to boost yields through irrigation and fertilizer use, both of which may lead to higher emissions with greater global warming potential.