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## [The Convention on Biodiversity, GM trees and paper consumption](#)

In March 2006, in Curitiba, Brazil, the parties to the Convention on Biodiversity (CBD) discussed the issue of genetically modified (GM) trees. Some delegates demanded a moratorium on GM trees. Others requested that the CBD produce a report looking at the "potential environmental, cultural, and socio-economic impacts of genetically modified trees".

The CBD produced its report in early December 2007. The report will be discussed during the 13th meeting of the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), in February 2008 in Rome.

The report summarises the arguments for and against GM trees, mainly based on articles published in peer reviewed, scientific journals. "Considerable uncertainty on the use of genetically modified trees exists," the report states. Moreover, "the scientific data needed to assess the potential impacts of these trees is not currently available." This is because the only way to obtain the data needed to determine the impacts of GM trees is by planting them in vast monocultures and monitoring them for several decades. Such an experiment would prove that GM trees have major impacts on ecosystems and local communities. Some GM trees would become weeds and others would spread their genes through outcrossing. Once this happens it will be too late to demand their return to the laboratory. Clearly such an experiment would be dangerous and irresponsible.

The Curitiba meeting agreed a decision which "Recommends Parties to take a precautionary approach when addressing the issue of genetically modified trees." The CBD report notes that many scientists echo this decision, "emphasizing that the precautionary approach should be applied when considering the use of genetically modified trees." But this doesn't go far enough. A ban on GM trees is needed.

While the CBD report points out some of the problems with GM trees, it has little say about the fact that GM trees will exacerbate the problems of industrial tree plantations. The impacts on biodiversity, the impacts on the livelihoods of communities living near the plantations, the impacts on Indigenous Peoples and the gender issues associated with the impacts of industrial tree plantations are dealt with superficially or ignored.

Perhaps the biggest fault of the report is that the CBD regurgitates the paper industry's propaganda that more efficient plantations will lead to reduced old-growth logging, "thereby allowing biodiversity conservation in these areas". This might sound logical, but the reality is that no pulp and paper company has stopped the expansion of its plantations because it can grow the same amount of fibre on a smaller area of land. Brazil's pulp giant Aracruz has conducted decades of research into faster growing tree plantations. Aracruz's eucalyptus trees are among the fastest growing trees in the world. Yet the company's plantation area has steadily increased because it continues to increase its pulp production.

The CBD report argues that GM trees with reduced lignin or faster growth would mean that "fewer trees would need to be harvested to meet consumption needs". It's worth looking in a little more detail

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what these "consumption needs" might be. World production of paper and paperboard has increased dramatically since 1961, when annual production stood at 77 million tons. Production had doubled by 1978. By 1999, it had doubled again, reaching 316 million tons. In 2005, 354 million tons of paper were produced globally. Use of recycled paper has increased at an average of about 12 per cent a year, to reach about 46 per cent of global paper production in 2005. Excluding the use of recycled paper, paper production has steadily increased, at an average of about three million tons a year. Meanwhile, per capita consumption of paper globally has also increased. In 1961, average global per capita paper consumption stood at 25 kilogrammes. In 2005, the figure was 54 kilogrammes.

However, these figures conceal a massive inequity. Consumption in Finland (which has the world's highest per capita paper consumption) increased from about 100 kilogrammes per person in 1961 to 429 kilogrammes in 2000 (since when it has fallen - down to 325 kilogrammes in 2005). In China, consumption per capita was around 4 kilogrammes in the 1960s. Since 1970, it has doubled about every ten years. In 2005, paper consumption in China was about 44 kilogrammes per capita. These figures conceal another inequity, since much of the paper produced in China is used as packaging for goods that are exported to the rest of the world, especially Europe, Japan and North America.

Providing enough paper for China's 1.3 billion people to have the same per capita consumption as Finland would require the additional production of 422 million tons of paper a year, which is more than the current total global production. Of course, low per capita consumption of paper is not confined to China, and we should also add in the rest of world. The world population is currently 6.6 billion. If the rest of the world were to consume the same amount of paper as Finland we would need to produce 2.3 billion tons of paper a year, or more than six times current world production. Obviously, this is ridiculous. But if it's ridiculous for everyone else to consume so much paper, it must be ridiculous for Finland to do so.

The journalist Eric Sevareid once noted that "The chief cause of problems is solutions." Promoting GM trees as solution to "consumption needs" will create a host of new problems without beginning to address the issue of overconsumption in the North.

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The full CBD report (The Potential Environmental, Cultural and Socio-Economic Impacts of Genetically Modified Trees) is available at <http://www.cbd.int/doc/meetings/sbstta/sbstta-13/information/sbstta-13-inf-06-en.pdf>