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## [European Forest Institute chooses to ignore the "overwhelmingly negative" social effects of GM trees](#)

The European Forest Institute recently announced a statement in favour of research into genetically modified trees. Several of EFI's 131 member organisations (consisting of research institutes, universities and companies) are involved in research into GM trees. EFI's chairman from 2004 to 2006 was François Houllier, a scientific director at the French National Institute for Agricultural Research (INRA) which is carrying out research into GM trees. Other EFI members involved in GM tree research include the Finnish Forest Research Institute (METLA) and the Federal Research Centre for Forestry and Forest Products (BFH) in Germany.

EFI's pro-GM statement starts with the claim that the research on GM trees is needed, "In order to provide the relevant public authorities with sound and unbiased scientific data and information." This might make sense, except that the GM tree research that is being carried out is not "neutral" science aimed at providing information for public

authorities. GM tree research is carried out on behalf of industry, mainly the pulp and paper industry, but increasingly the biofuels industry.

EFI's statement was produced after a two year discussion within the organisation. In 2005, EFI commissioned a discussion paper titled "Biotechnology in the Forest? Policy Options on Research on GM Trees". The lead author of the paper was David Humphreys, a senior lecturer in Environmental Policy at the Open University and the author of "Logjam: Deforestation and the Crisis of Global Governance".

While the discussion paper states that "No clear, unambiguous arguments emerge either for or against GM trees," it does put forward several strong arguments against the commercial planting of GM trees and therefore against continued research into GM trees.

"Trees live longer than agricultural crops," the discussion paper states, "which means that changes in their metabolism might occur many years after they are planted. At the same time, trees are different from crops in that they are largely undomesticated, and scientists' knowledge about forest ecosystems is poor compared to their knowledge of agricultural ecosystems. The ecological and other potential risks associated with GM trees could be greater than those of GM crops."

The paper notes the threat that GM trees pose to forests (although the concern seems to be the impact on the forestry industry rather than forests and people): "The use of GM trees could, over the long term, seriously damage the forestry sector itself due to genetic contamination that results in weaker forests that are increasingly unable to fend off natural stresses, such as attacks from pests that have become resistant to the insecticides produced by GM trees."

The patents involved in scientific research will make GM trees expensive. The production and commercialisation of GM trees is an expensive and highly specialised process. The paper points out that "If the use of GM trees becomes popular and widespread the forestry sector itself is likely to

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become increasingly dependent on biotechnology companies and GM seed companies."

The introduction of new technologies generates winners and losers. With the introduction of GMOs in the agricultural sector, the winners "include large GM and seed corporations, while the losers include many small farmers", notes the paper. Sterile GM crops mean that farmers have to buy new seeds each year. The seeds are more expensive because they include royalties to the corporations that developed the GM species. "The net result is a revenue flow from poor Southern farmers to rich Northern corporations, with many small agricultural producers going out of business."

Many of the research organisations and companies promoting GM tree technology are based in the North. But the GM tree plantations, if they are ever established, will be predominantly in the Global South. "The result is likely to be a social inequality", notes EFI's discussion paper, "both in the division of risk, which will fall mainly on developing countries, and in the division of the financial benefits, which will accrue primarily to the developed world."

Humphreys and his colleagues point out that the impacts of GM tree plantations would be similar to those of the large-scale industrial tree plantations that have already been established in the South: "Pulp tree plantations in the South have tended to overuse available land and water resources, and to pollute the surrounding environment with fertiliser and pesticides. GM tree plantations can be expected to place even greater demands on the environment, since GM varieties are engineered for faster growth."

The discussion paper concludes that "There are considerable economic and environmental benefits to GM trees, but also potentially serious economic and environmental disadvantages. The anticipated social effects of introducing GM trees are overwhelmingly negative. The legal situation on GM trees is unclear. The whole question of introducing GM trees raises serious ethical questions to which there are no obvious answers."

The explanation for EFI's decision to support GM tree research may be found in EFI's 2005 discussion paper. "Most scientists with expertise in GMOs are employed by research institutes and industrial corporations," notes the paper. "These scientists, it can be argued, have a vested interest in emphasising the benefits of biotechnology, and in minimising the associated risks."

One sentence from the conclusion to the discussion paper provides a clear, unambiguous argument against GM trees: "The anticipated social effects of introducing GM trees are overwhelmingly negative." In supporting GM tree research, EFI is ignoring these overwhelmingly negative social effects.

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