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To Harvest or to Save

Forests and Climate Change

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A forest is a cake that you can both have and eat

A fresh look at forests and climate change:
The authors argue for using forests to combat the climate change and explain how to do it and what can be accomplished.

- Even though international climate policy has not adopted the use of carbon sinks to combat climate change, the carbon sink formed by forests already sequesters a great deal of the fossil carbon dioxide emissions. In the European Union, for example, the carbon sinks in forests correspond to about one tenth of the fossil carbon dioxide emissions in the EU. Thus, the signifi cance of the carbon sinks in forests for the EU carbon balance is already greater than what has been achieved by the EU, through encouraging the use of wind power, direct solarenergy and biofuels.

- The carbon sinks in forests could still be increased. A well-known way of doing this is to reforest areas where forests have been destroyed. Both Europe and other parts of the world have a significant potential for afforestation.

- A less well known means of increasing the carbon sinks in forests is to increase the timber resources of existing forests by causing trees to grow more densely and become stouter. This, too, occurs naturally and continuously in all of the world's forests, but the development could be accelerated by planned loggings and forest management. The increase of carbon sequestered in forest trees also increases the carbon stored in forest soil.

- When harvesting is carried out appropriately, both the volume of timber and the growth of trees are increased. Though this increase has its limits, they have not yet been reached, not even in Sweden and Finland, the two most widely aff orested countries in the world. From the point of view of combating climate change, the volume of timber in the forests should be increased as far as possible, and after that, the high volume should be maintained by means of systematic forest management.

- By these means, it would be possible to achieve about one quarter of the required global reduction of atmospheric greenhouse gases. What is more, this could be done at practically no cost: once the forests have been established, the carbon sinks in the forest can be paid for by timber sales. The demand for timber is guaranteed by the fact that in future years, the world will face an unprecedented shortage of biomass. This is predicted by practically all global trends, such as the growing interest in biofuels.

- Consequently, public authorities would do well to support afforestation and forest management activities in cases where the benefit to the forest owner can only be realised after a long period of time, due to the long cultivation cycle of forests. By selecting the appropriate species and methods of forest management, it is possible to support the growth of dense forests with stout trees, which will eventually yield large-diameter logwood. Such forests function as sizable carbon sinks and stores, and they yield plenty of valuable raw material for the needs of bioproduct industries.