
WWF
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Gold in Green Forests

Executive summary

Over the last 300 years, the global forest area has decreased by 40 percent. Forests have completely disappeared in 25 countries. Another 29 countries are about to meet the same fate, as less than ten percent of their forests remain intact. The widespread decline of the world's forests means that forests today contribute 17 percent of the total global greenhouse gas emissions – equal to the entire global transport sector.

Today, 96 percent of the deforestation is taking place in tropical areas. This is a continuing trend and firm policy action is needed to stop the development. Each year, the world’s forest cover is reduced by 7.3 million hectares. With this pace, a forest cover the size of an entire Sweden disappears every six years, most of this in developing countries. Gross deforestation (afforestation and reforestation not included) is almost twice as large, approximately 13 million hectares per year.

Forests help reduce the risk of severe climate change by capturing and storing carbon in vegetation and soil. When forests are cleared and converted to other uses, much of the stored carbon and other greenhouse gases are released and the forest will instead *contribute* to climate change. In the talks on integrating forests in climate solutions, it is important to focus on conserving already existing forests, as planted forests do not have the same capacity to store carbon as natural forests. As an added value to the climate benefits, the rampant loss of biodiversity can be stemmed.

From a macro-economic perspective it is much more cost effective to conserve a forest for carbon storage than to log it for short-term economic gains. A halving of forest-related emissions could lead to global net benefits worth US$ 3.7 trillion between 2010 and 2200 (as net present value). Although the cost of halving greenhouse gas emissions from forests are significant (an estimated US$ 17-33 billion per year if included in global carbon trading), it would still, from a global economic perspective, be profitable and money well spent. A more ambitious target, corresponding to a 90 percent reduction of emissions, could result in an overall savings of a massive US$ 6.3 trillion over the same period.

WWF's goal is to stop the deforestation of valuable forest areas by 2020. No one has yet calculated the consequences of such an ambitious goal, but just by halving deforestation in tropical latitudes until 2030, more than 13 percent of the total reduction needed to stabilize concentrations of greenhouse gases in the atmosphere could be achieved – at a significantly lower cost than if forests were excluded from climate negotiations.

Forests in tropical latitudes are important not only to reduce greenhouse gas emissions; they also contain about 40 percent of the world's biodiversity and provide us with many other ecosystem services. Examples of important ecosystem services from forests include food, clean water, flood protection, medicine, and protection against diseases such as malaria. The lack of incentives to conserve forests means that much of the world's plant and animal species will disappear and thus the resource base for those millions of indigenous people and forest communities that currently depend on forests for their livelihoods.

The value of the ecosystem services (including climate regulation) that today are disappearing in only one year, is estimated at US$ 2-4.5 trillion. To estimate the net benefit of preserving the world's forests, their ability to store carbon, as well as other ecosystem services, must also be included in the calculation.

The driving forces behind deforestation and forest degradation are complex and occur at many levels. From a legal perspective, it is often a lack of effective regulations (and the enforcement thereof) that allows forestry companies to earn quick money by logging vast areas. From a "ground" perspective, it may be the unfair distribution of wealth and power that drives people to exploit the opportunities available to them to survive.

From a short-term economic perspective, it is often more profitable to log a forest than to preserve it. The reason for this is that the wood harvested does not need to pay the full cost incurred as a result of the logging. This cost also includes external costs such as the loss of the forest's ability to store carbon dioxide. In most cases, the short-term profits of logging the forest and converting the land to other uses (for instance soybean production) are significantly higher than those of running a responsible forestry operation. The combination with weak governance and a lack of monitoring and control measures provide strong driving forces for deforestation.

There is now a broad consensus not to allow the global average temperature to increase by more than 2°C. To reach this target, greenhouse gas emissions must be reduced dramatically. No single technology or measure to save the climate produces large enough reductions to keep climate change below this level, but the conservation of forests is the one single measure that produces the largest emission reductions with the maximum cost effectiveness.

If we do nothing now, forests will continue to contribute to emissions of carbon dioxide. If we instead ensure that forest are maintained, it will help us both slow down climate change *and* preserve biodiversity - even at a cost that is lower than for other climate measures.

It would be presumptuous of rich countries, which usually already exhausted their own forest resources, to require that developing countries, without compensation, preserve their forests. We all share the responsibility for preserving the world's forests – we will all share the benefits of preserving them.