

Why Offset with Trees when Fossil Fuels are to Blame

Written By: **Ron Dembo**
Date: **July, 2007** Original Version

WHY OFFSET WITH TREES WHEN FOSSIL FUELS ARE TO BLAME

→ If climate change is primarily the result of burning fossil fuels, isn't offsetting with trees simply a distraction? Shouldn't we focus on renewable energy projects that can replace the use of fossil fuel?

It's true that burning fossil fuels accounts for the largest proportion of carbon emissions. Nevertheless, the loss of trees plays a significant role. The conversion of forests has contributed around 30% of the total carbon build up in the atmosphere since 1850. And it continues – deforestation still accounts for over 20% of emissions a year.

Not only is the destruction of forests releasing huge volumes of carbon into the atmosphere, but we are losing vast quantities of one of the few mechanisms we know that can take carbon out of the atmosphere – trees.

The Earth has already lost 50% of its natural forest cover. An additional 30% has been converted to managed woodland. Each day, an area of forest twice the size of Paris disappears. Tropical rainforests are logged for their hardwoods, or to clear land for soy, palm oil and other crops. In Africa, people fell trees in search of fuel, while in West we clear land for development. As the old saying goes: a suburb is a place where they cut down the trees and then name streets after them. Even established cities find it difficult to maintain their trees. In the 20 years up to 2003, Vancouver lost half its trees (it is now trying to reverse that trend), while Harrow is typical of London areas in losing 26% of its street trees in the past five years.

We desperately need to not only stop deforestation and tree loss, but to reverse it. And this is not only because of carbon accounting and climate change. Trees play a vital role in the health of the Earth and all its creatures, not least us humans.

Kenyan environmentalist Wangari Maathai won the Nobel Peace prize in 2004 for organizing African women to plant 30 million trees. Her aim was to restore local ecosystems, while providing a multiplicity of other benefits for local people. By planting trees, said Maathai, "the women would get firewood, they would get fencing material, they would get fodder and roughage to put in the sheds of their animals, they would get fruits, they would get [compost], and the trees would hoard and protect their soil." Not only that, but the trees would help reduce the threat of conflicts over natural resources – conflicts that we now see in places such as Darfur - and create an optimism for the future.

"When we plant trees we plant the seeds of peace and the seeds of hope," says Maathai. She has since launched a campaign to plant a billion trees across the

planet, and is looking to offset schemes to help with funding.

Maathai was first alerted to the importance of trees by noticing the damage to rivers in her native Kenya when forests were cleared. This symbiotic relationship between trees and water sources is found everywhere.

Ecologists studying fish stocks in the Pacific Northwest found that the shade provided by trees on riverbanks helps regulate the temperature of spawning grounds, while fallen vegetation creates shelter for incubating embryos and young fish. In turn, the adult salmon help to feed the forests. Bears fishing in coastal streams and rivers drag the salmon up to 100 meters into the trees, where they often eat only part of the fish, leaving the carcass for other animals, insects and birds to feed on. Together, these creatures distribute this rich source of nitrogen throughout the forest. This process is so well established that it is possible to detect signatures of bumper salmon years in the growth rings of redwoods, hemlock and spruce.

The role of trees is essential to the health of the planet's ecosystems, while their benefits are so multifarious that we really cannot have enough of them. Everyone knows of the gifts of the trees in their neighborhoods, whether it is the beauty and shade they afford, the protection from wind or flood, their flowers and fruit, their habitat for wildlife, their wood, their sap, or the playgrounds they provide for children.

Cities are beginning to realize that their trees have a quantifiable value. New York's parks department, for example, has concluded that its street trees provided an annual benefit of about \$122m, or \$5.60 in benefits for every dollar spent, through their ability to combat pollution, reduce noise, prevent flash floods, add value real estate, and so on.

With one fifth of global emissions down to deforestation, we need to do everything we can to protect existing forests, while given the benefits of trees over and above their carbon sequestration, we need to plant as many as possible. Offsetting is a means to this end. There is no downside with trees.

ABOUT ZEROFOOTPRINT

→ Zerofootprint is a socially responsible enterprise whose mission is to apply technology, design and risk management to the massive reduction of our environmental footprint. We operate both in the for-profit and charitable domains through two entities, Zerofootprint Software and Zerofootprint Foundation using shared technology.