Trees – The Only Known Carbon Scrubbers

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Date: **July, 2007** Original Version

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TREES – THE ONLY KNOWN CARBON SCRUBBERS

→ One thing that many critics of offsetting lose sight of is that while we are continuing to pump massive amounts of carbon into the atmosphere, we know of only one way to take it out again – trees.

A recent report outlining how Britain could cut its carbon footprint to nil by 2027 noted that all of the various technologies that it proposed to help achieve the goal were either low or, at best, zero carbon emitters. "Forests are the only net-negative technology currently available," says Zero Carbon Britain, a report by the Centre for Alternative Technology (CAT), based in Snowdonia, Wales. Given this, it is hard to understand the hostility in some quarters towards tree-based offset schemes.

Most strategies for tackling climate change focus, rightly, on reducing the use of fossil fuels through energy conservation and replacement with renewable sources. This tackles the primary cause of global warming. But it needs repeating that roughly a fifth of carbon emissions are due to deforestation, and that preventing more trees being cut down should form a significant part of any overall climate change strategy.

Saving forests helps reduce the emissions load pouring into the atmosphere. But when it comes to a threat as overwhelming as climate change, we need to respond on every level we can. We cannot afford to ignore the only mechanism we know that can remove some of the carbon already accumulated above our heads. If we were dealing with an oil spill, while we dealt with the leak we would welcome something that would mop up the pollution. Trees can play this role with carbon emissions, but there is a curious negativity about using them.

Part of the problem is the apparent limitation of what trees can sequester. The Zero Carbon Britain report notes that "the potential of carbon sequestration is modest but important, representing about 5 percent of Britain's current emissions." Five percent is modest from one perspective, but very important when you consider the heated debate currently under way over flying, which is responsible for no more than 2 percent of global emissions.

A small, densely populated country like Britain – roughly 60 million people share 60 million acres - can only accommodate a certain amount of extra trees. Nevertheless, the country has only 12 percent forest cover – the fourth lowest in Europe and less than half that of France, Germany and Italy – so there is room for considerable expansion, just as there is in large swathes of the rest of the world. In fact, many areas devastated by deforestation, such as parts of Africa, are desperate for more tree cover. This has nothing to do with carbon sequestration.

These areas, such as the Sahel region bordering the Sahara Desert, need trees for the wealth of other benefits they bring, like preventing soil erosion, protecting water sources, providing food and fodder, etc. In today's world, the carbon sequestration bonus that comes with reforesting these areas is a godsend, while to deny the funds that offsetting can bring to such projects is perverse.

The Zero Carbon Britain report highlights how trees can, in fact, play a number of roles in helping combat climate change. "One industrial material that will be strongly favored by higher carbon costs is wood for permanent applications such as buildings. Wood is not only a low embodied-energy material in itself, but is a form of sequestered CO2. Sustainable harvesting and replanting of wood is likely to be an increasingly important mitigating strategy," says the report.

Wood is also a sustainable energy source. Research by the UK's Forestry Commission has shown that when all associated greenhouse gas emissions from harvesting, processing, transport, etc., are taken into account, wood is comparable to wind or solar power in terms of environmental impact.

Many species have a symbiotic relationship with trees. In Africa, cocktail ants live inside the swollen bases of the thorns on certain types of acacias and feed off the sweet sap that oozes from their leaves. In return for food and shelter, the ants patrol the branches and drive off any marauding herbivores, not only grasshoppers and other insects, but even giraffe and rhino, although they leave pollinating bees alone. In the Pacific North West, salmon, bears and trees co-exist in a cycle of food and shelter, with bears feeding on salmon whose carcasses provide nutrients for the forests, which in turn protect the salmon's breeding grounds.

Trees don't need us humans. Over the course of history, we have been the enemy, destroying 50 percent of the Earth's original forest, and converting a further 30 percent to managed woodland. But we need trees. People in many regions have suffered the consequences of the destruction of forests, through the loss of topsoil, damage to water sources, loss of food and fuel, etc. In some cases, this has led to famine and conflict for resources. But it is only now that we are beginning to count the global cost of our massacre of the forests.

However present the risk of fire, pests or disease to forests may be, however imprecise our accounting of their carbon sequestration, the world is better off with more trees. Trees are robust and regenerative. Their greatest risk is from man, not natural causes. Meanwhile, we may struggle to get the numbers exactly right, but there is no question that trees absorb carbon – that is largely what they

are made of. While we wrestle to find the political will and effective strategies to reign in our carbon emissions, let's cultivate and nurture our only ally in this battle against global warming. Let's plant trees.

ABOUT ZEROFOOTPRINT

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