C-Commerce:
The Shady World of Carbon Laundering

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How much would you pay to be allowed to go on using fossil fuels, yet be reassured that by doing so you were not increasing the dangers of global warming?

This is the question being asked by a new breed of entrepreneurs who are telling worried western corporations and consumers that the need for a liveable climate does not, after all, require that they retool their inefficient power plants or give up their off-road vehicles and holiday flights. Like advertisers for fat-free yoghurt, their message to heavy users of oil and coal is: 'Go ahead. You can indulge.'

One key is forestry. As everyone knows, plants convert carbon dioxide created by the burning of fossil fuels back into carbon through photosynthesis. Plant enough trees, the reasoning goes, and you can wipe away any sign of combustion.

Consider the following 'carbon equations' from a promotional video by The Carbon Neutral Company, a British firm:

7 trees= 5 London-New York airline flights for one person

5 trees= 1 year's driving of an ordinary car

2 trees= 4 pots of tea per day for 6 years

These calculations are part of the firm's invitation to you or your company to become 'carbon-neutral'. It doesn't matter how much fossil fuel you use. Simply write out a cheque and the carbon professionals will punch numbers into their computers to calculate your carbon-dioxide emissions, plant the requisite number of trees to compensate, and watch over them for you.

Welcome to the world of 'negative CO_2' and 'carbon offsets'. You've heard of e-commerce; here comes C-commerce.

In theory, an entire country's carbon-dioxide emissions could be absorbed, at least temporarily, by planting trees. One visionary has already calculated that compensating

for the UK's emissions would be nothing more than a matter of finding an area 50% larger than the UK somewhere in the world and covering it with trees. Merely by hogging a disproportionate amount of the world's land, in other words, the UK could 'fix' the problems engendered by its hogging a disproportionate amount of the atmosphere as a CO2 dump.

This is the sort of idea that industrialised-nation governments tend to find irresistible. In 1997, the US made it a condition of agreeing to some minor cuts in its greenhouse gas emissions that the way be left open to substitute trees for some of the reductions. A specialist advisory panel of the Intergovernmental Panel on Climate Change (IPCC), peopled partly by C-business executives, has now reassured climate negotiators that carbon-absorbing forestry projects are technically feasible. Anticipating a bonanza,plantation consultants are fanning out across the world looking for 'degraded lands' to plant trees on to soak up carbon dioxide.

Unfortunately there's a catch: the theory behind C-commerce is scientifically fraudulent.

Take a close look at the 'carbon equations' which underpin the concept. Suppose a swidden farmer emits to the atmosphere 1 tonne of carbon per year in the form of carbon dioxide, largely from agricultural activities. Suppose this farmer also, through tree-planting and the preservation of fallow cycles, ensures that the vegetation for which she is steward absorbs 1 tonne of carbon per year from the atmosphere. She is, in the approved jargon, 'carbon-neutral':

1 t C/y emitted through agriculture
- 1 t C/y absorbed through agriculture and forestry
= 0

Now take a giant corporation which emits to the atmosphere 1 million tonnes of carbon per year in the form of CO2 from fossil fuel combustion. Suppose this corporation, through intensive tree-planting on hundreds of thousands of hectares of cheap land far from its factories, claims to be absorbing 1 million tonnes of carbon per year. In the theory of C-commerce, this corporation is also 'carbon-neutral':

1,000,000 t C/y emitted through fossil fuel combustion
- 1,000,000 t C/y absorbed through industrial plantation forestry
= 0

As the sums in both equations are zero, the two systems that they represent are, the theory tells us, climatically equivalent.

But no one who has any feeling for biology, geology or social dynamics can possibly believe this. The corporation unearths coal and oil that would otherwise remain unexposed to the atmosphere and feeds it through industrial processes with multiple

impacts. The company's gigantic plantations, meanwhile, are almost certainly established on land which was previously used by local people in other ways. The resulting displacement of the residents onto new lands has incalculable effects all of which bear on CO_2 emissions and thus on climate change: clearance of forests, changes in agricultural techniques, shifts in consumption, loss of conservation knowledge, even political resentment. Plantations also alter soil regimes and increase the risks of large-scale fires. Meanwhile, the establishment of these plantations may also discourage investors from investing immediately in new energy-saving technologies. All this will have further unpredictable effects on climate.

Such complex, large-scale, and uncertain effects are impossible to compare quantitatively with those of the swidden farmer's activities on a single hectare. Structurally unable to recognize these differences, global C-commerce, as currently conceived, cannot but fail in the end.

But so what if C-commerce is an unconstructive approach to climate change? Will that keep it in check, given the huge sums of carbon money already sloshing around?

A lot depends on how well-intentioned NGOs and conservationists respond to invitations to take part in seemingly-beneficial carbon forestry projects, such as those aimed at supporting existing grassroots conservation efforts.

'Help us to make our projects succeed,' carbon professionals will beg activists. 'You understand local areas. You can help mitigate social effects. You can help make real forest conservation, participation and sustainable development part of the enterprise. Help us to achieve our goals and perhaps you can achieve yours as well.'

The subtext hardly needs to be spelled out: forget the fraud, feel the cash.

A first response by democratic-minded NGOs must be to remind themselves that all carbon forestry projects, even those engineered to have some local benefits, will also have effects on other communities over a very far-flung area. All 'offset' projects are designed to license faraway factories or vehicles to continue to use a disproportionate amount of the atmosphere as a CO_2 dump, and to license the operations of the coal mines or oil wells needed to feed them. Yet these factories and oil wells are all situated in their own 'affected communities'. Activists should consult each of these communities, and not just those in the neighbourhood of the 'offset' forestry project itself, before deciding whether to take the carbon dollar.

Because global C-commerce, as currently envisaged, will inevitably contribute to climatic instability, NGOs might also want to hold off banking any carbon cheques until they consult with a few of the people who will be most affected by the coming storms, droughts, and floods. Some 96 per cent of deaths from natural disasters happen in the South, in precisely those underprivileged communities whose livelihoods and

environments have been a traditional NGO concern.

Will NGOs be able to put a credible face on accepting carbon money for a local forest project if it contributes to such destruction elsewhere?