

NZCLIMATE TRUTH NO 188

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TRASHING THE FARMERS

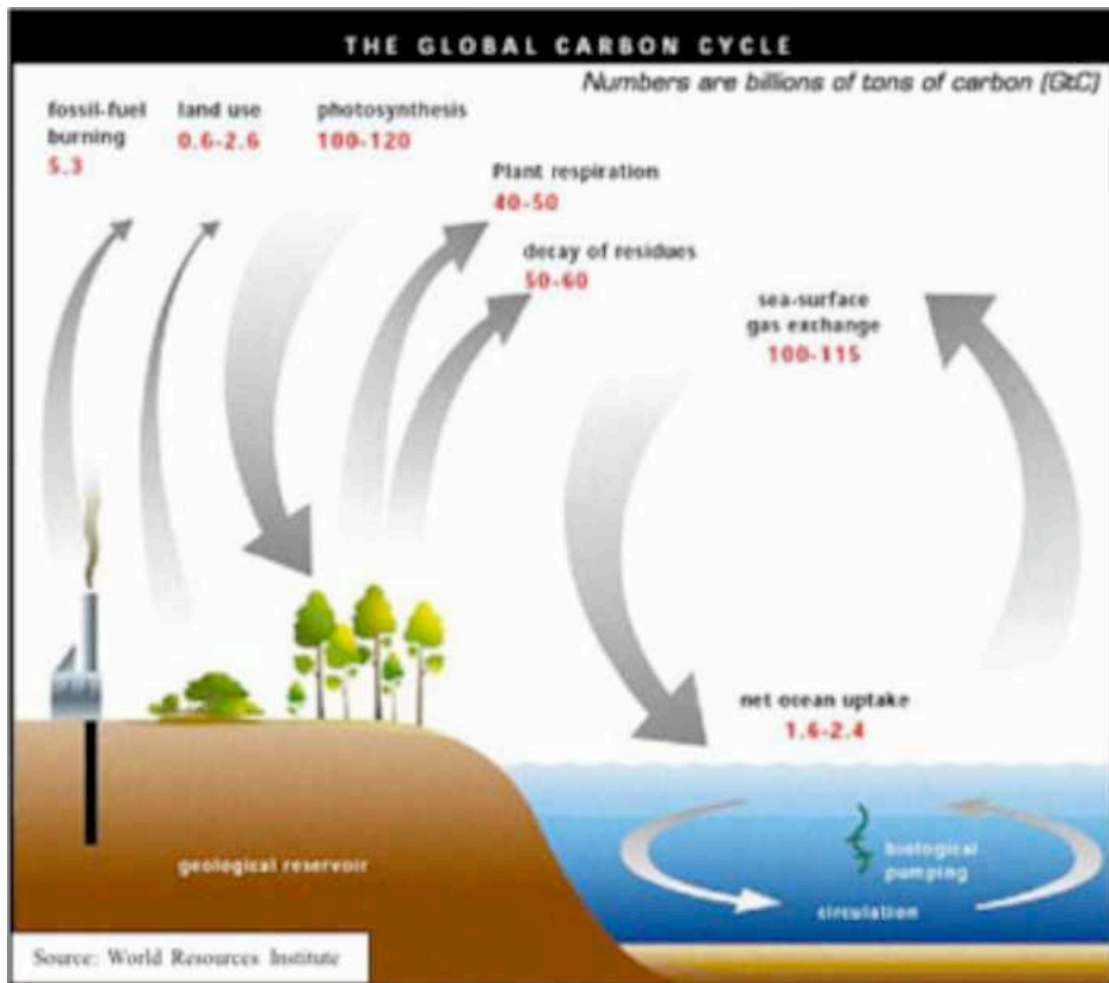
According to the Framework Convention on Climate Change (1992), "Climate Change" was defined as:

“a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”

Now, DIRECT "attribution" is fairly easy. The most obvious is the combustion of fossil fuels. That transfers to the atmosphere the greenhouse gas carbon dioxide which has been locked up in geological deposits for millions of years and would not have been emitted without human activity.

The only other DIRECT human attribution is the carbon dioxide we breathe out. There are those who would like to impose a carbon charge upon each of us for this emission. Some would even favour reducing this emission by reducing world population.

It is with the INDIRECT attribution that trouble and controversy arises. Attached is a diagram of the carbon cycle. Plants, and particularly forests, convert carbon dioxide in the atmosphere to plant material, and this process is massively influenced by human intervention. All agriculture, horticulture and forestry thus qualify as indirect human influence on climate change, and is thus subject to control, either discouragement if it increases greenhouse gases and encouragement if it reduces greenhouse gases.



But where do you start and where do you end? Emissions trading has turned out to be bewilderingly selective. Growing trees gives you a credit. Felling trees causes an increase in carbon dioxide, since grass or pasture remove less from the atmosphere. Burning the wood puts all of it back. Neither of these processes incur a penalty although both are responsible for extra emissions of carbon dioxide,

Then, as the attachment shows, trees emit carbon dioxide as well as store it, Some of this is transpiration, so can be subtracted from the total, but what about the emissions from decay? They are "indirectly attributable" to humans, so there should be a carbon charge for them.

Farm animals eat grass which has stored carbon from the atmosphere and store it as meat, wool and milk, so that the grass can regenerate to store more carbon. Surely this is climate change which is indirectly attributable to human influence. It is exactly the same process as the storage of carbon by forests, yet there is no suggestion that the farmers should also be given a carbon credit.

Instead, they are to be penalized for emitting methane. Now methane is undoubtedly a greenhouse gas, but unlike carbon dioxide it does not survive in the atmosphere, but is fairly rapidly converted back to carbon dioxide. Farm emissions are just like the carbon emissions from forests, just an offset to their carbon credits.

Methane may be a greenhouse gas, but for the past ten years its atmospheric concentration has been stable, and even threatens to fall despite an unconfirmed report that there might have been a recent temporary rise. Farm emissions seem unlikely to be an important influence.

Anyway, trees also emit methane. Everybody seemed surprised when this was recently reported, at Nature 439, 187-191 (12 January 2006)

Some climate scientists have tried to play this down, but they seem reluctant to actually try to measure it.

There can be no doubt that the main global source of methane emissions is wetlands. The draining of wetlands is therefore an important indirect human activity for reducing greenhouse gases in the atmosphere, yet it is discouraged and additional emissions of methane from wetlands are promoted instead.

But, to summarise; the conversion of grass to stored carbon by farm animals is currently one of the most important gaps in the Emissions Trading Scheme. Farmers should receive carbon credits for their service, only slightly mitigated by the relatively small amount of methane emissions which accompany the process.