Dear stove scientists and climatologists,

I accessed this article in its pre-publication form at no cost from the following URL

<[ehs.sph.berkeley.edu/krsmith/publications/.../lam\_est\_2012.pd](http://ehs.sph.berkeley.edu/krsmith/publications/.../lam_est_2012.pd).>

The article is hard going for me, let's say a bit opaque, as a person who last studied physics in high school.

I am once again reminded of the risks of doing 'hard' science where there are so many unknowns and so many assumptions have to be made by researchers to construct a model about the relationship between the black carbon emitted by the wicks of illuminating lamps and something as gigantic as the average temperature balance of the planet.

Unlike the cultural and social sciences (I am an anthropologist), where informants can and eventually do talk back and rebuke researchers when they stray too far off course and begin making ridiculous claims about the culturally and socially constructed worlds that particular informants are reputed to inhabit, Black Carbon does not have its own consciousness and voice.  Therefore BC cannot censure errant climatologists when they deviate too much from reality in their efforts - as researchers – to understand the role of BC in the climate system .... so it is indeed possible for honest researchers to fall victim to their own mad hatter assumptions about a devilish complex planetary climate system.

Unfortunately, the climate system does not have consciousness, agency and voice in spite of what Kirkpatrick Sale says about Gaia.  The climate scientists presume to speaks for Gaia. When they succumbs to the temptation of playing science politics with the world climate system they run the risk of losing their way in the forest of their self created symbolic representations of the how the planet's energy balances are maintained, and how such a 'fragile' system is possibly threatened by the careless actions of humans who create too much BC to light up the night.

We know what a world of trouble Michael Mann, Lord Stern and their colleagues have gotten themselves into by hyper-interpreting their climate data.  In the end their assumptions overpowered their common sense and their data. They permitted climate politics to contaminate climate science. Gratuitous and still unproved assumptions were inserted into climate science about the causal mechanisms by which us ‘anthropods’ are destabilizing and forcing the climate of the planet toward a hotter equilibrium.  Hotter than what? Hotter than the climate present we have known for the last hundred years?

I see there are 90% uncertainty ranges for all of the figures used in this article.  I do not feel very confident with such a big range of variation.  How would climatologists like it if I predicted that +/- 50% of a particular stove using group – after demonstration of the superior performance of an improved or advanced cookstove - can be expected to purchase such a stove within the next 12 months with **+/- 90% uncertainty**.  If there were 1 million households in this group, that statistic indicates that 500 000 households can be expected to buy the better stove on offer with a range of variation around this figure of a (+) high of 950 000 households and a low (-) of a low of 50 000 households.

Maybe I have misunderstood what 90% uncertainty bounds mean.  Have I?  I do not know the usefulness of numbers that vary from 50 000 households and 950 000 households.  That is not much of a prediction in my part of the scientific enterprise. What is being measured? Whose uncertainty is at issue here?  Is it a measure of the ambiguity of the researcher or the methods used for measuring BC and its forcing effects, or what?

Lastly, I would like a climatologist who is well informed about the role of BC to explain why there is not more BC over South Africa.  Is it possible to differentiate the signals of BC from illuminating kerosene from the BC signals emitted from the much greater combustion of kerosene in 'Panda' stoves and space heaters which have round wicks that are about 30 cm in circumference and burn kerosene at a rate of 1 liter a day for cooking and space heating during the cold months (or up to 30 liters a month at $1.20 a day or $36 a month).  The use of these Panda heaters, although outlawed by the SA Bureau of Standards, is still prevalent because the stoves are so cheap (under $10) and they can space heat and cook at the same time.  The collection of firewood has become a class indicator so women in most townships do not like being seen carrying head loads of firewood.

I would estimate there are 10 to 15 million kerosene stoves in the townships and villages of SA each of which uses a minimum of 30 liters of kerosene a month during the winter and perhaps 15 liters a month during the summer months for cooking.  Should not the burning of 30 litres a month X - let’s be conservative here and say - 7 500 000 kerosene burning stoves in South Africa (=) or some 225 000 000 litres a month of kerosene a month in South Africa produce a significant Black Carbon signal in the atmosphere over our fair country? I don’t see it on the map of BC forcing? Should it not be there or are other household uses of kerosene being excluded from the map?

This is not my field so I am ignorant enough not to be embarrassed by my ignorance.

In search of answers,

Cecil Cook

Sundance Farm

South Africa