

Blue Sky Mining 1

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“We are aware of the great difference in carbon dioxide that is emitted from biological sources and carbon dioxide emitted from fossil sources. One has sequestered rates measured in thousands of years while the other in millions of years. We question how it is so, that the estimated market cost is still the same? We would request the IPCC to address the relative costs of each”. (Sri Lanka Country Statement COP21*)

The statement above, underscores the importance of differentiating between the biotic compounds and non-biotic compounds that we add to the atmosphere.. We are moving into very dangerous times. Again it is an observation that should have been incorporated into planning and costing the responses to climate change. We should be informed of the emerging data and planning responses. We know that the mean temperature will rise, but the speed of that rise may be much more than the IPCC has computed , because they left out the most significant contributor to keeping our planet warm, water vapor.

On the average water vapour accounts for about 60% of the warming effect and is the largest contributor to the Greenhouse effect. It is the natural blanket that has kept the atmosphere warm enough to sustain life. But the IPCC ignores water vapor as a contributory cause of the warming trends by assuming humans don't change it measurably. They wrote, “Water vapour is the most abundant and important greenhouse gas in the atmosphere. However, human activities have only a small direct influence on the amount of atmospheric water vapour”. This stand is dangerous and must be questioned. They have only focused on the Carbon from fossil fuel, and in doing so , might have done the planet a great disfavor.

First, Water vapor is one of the most important greenhouse gasses. It regulated and is maintained by the atmospheric temperature which limits the amount of water vapor in the air; but if something else that causes the temperature to go up is added, the increased temperature causes more water to evaporate.

Because the temperature of the surrounding atmosphere limits the maximum amount of water vapor the atmosphere can contain, the water vapor cycle has helped maintain an equilibrium of temperatures in the past.

Water vapor is a by-product of [respiration](#) in plants and animals. Its contribution to the pressure, increases as its concentration increases. As The total air pressure must remain constant. The presence of water vapor in the air naturally dilutes or displaces the other components of

air. Thus the output of Water Vapor can have a direct effect on the Oxygen concentration in a local area.

Life on Earth learnt how to maintain gas and material flows, optimum for the evolution of biodiversity. Carbon Dioxide, although essential to the process of life, was being introduced into the atmosphere by volcanic processes at disruptive levels, throughout geologic history. But the gas has not concentrated in the atmosphere, because it was sequestered by living things and put away out of circulation from the biosphere of living carbon. This store of carbon was fossilized and has been slowly accumulating over the last few 2 hundred million years.

Through these processes, which are still active today, Carbon that enters the Lithosphere (rocks) is removed completely from the biological cycle and becomes mineralized into pools with ages of 100's of millions of years.

This is why it is impossible to be carbon neutral by planting trees that live for a few hundred years at best to make up for releasing Carbon that has been locked away for millions of years.

The major exchange of carbon with the atmosphere results from photosynthesis and respiration. During the daytime in the growing season, leaves absorb sunlight and take up carbon dioxide from the atmosphere. In the oceans the planktonic cycle operate a similar photosynthetic cycle. Both create biomass.

In parallel, plants, animals and substrate microbes consume this carbon as organic matter, transform it in the process of respiration and finally return it as carbon dioxide to the atmosphere. When conditions are too cold or too dry, photosynthesis and respiration cease along with the movement of carbon between the atmosphere and the land surface. The amounts of carbon that move from the atmosphere through photosynthesis, respiration, and back to the atmosphere are large and produce oscillations in atmospheric pressure, water vapour and carbon dioxide concentrations. This was the difference in value that Sri Lanka addressed in Paris, yet two years later, we are yet to hold the IPCC or the scientific community responsible for ignoring such a fundamentally important fact. The bureaucrats attending the meeting still seem unaware that the Carbon emitting from burning fossil fuel is 'new' carbon, Fossil Carbon that has entered the atmosphere for the first time.

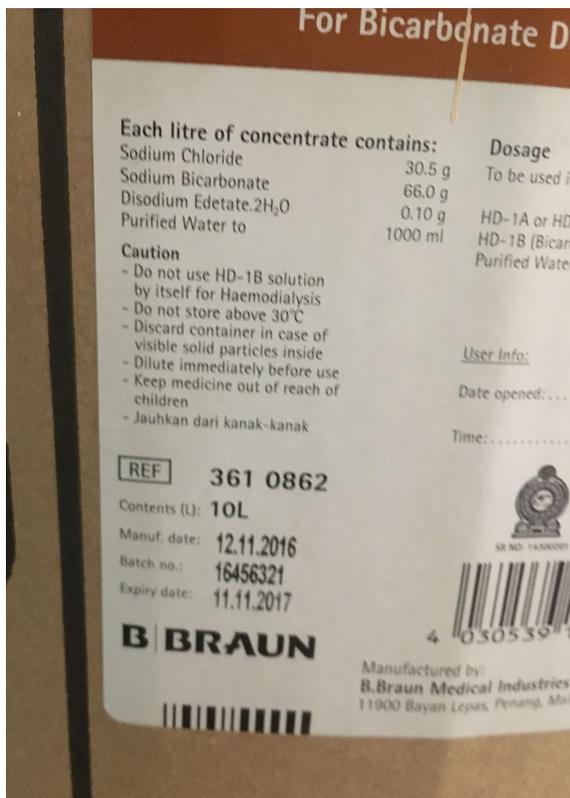
It could be termed Newly Formed Oxides of Carbon (NFOC), this is accompanied by an equal volume of Newly Formed Water (NFW) as the fossil hydrogen atom released joins with oxygen to form water which enters into the atmosphere for the first time. These molecules, because they are chemically the same as those of living water and cycling carbon are not taxed for degrading atmospheric stability.

While fussing with the Carbon Dioxide emitted by burning fossil fuels, the fact that an equal volume of water vapor is emitted into the atmosphere seems to

have been missed in the assumptions. With more water vapor in the air the warming effect will increase. Which in turn reduces the percentage of the other gasses that the atmosphere holds.

A clear distinction between fossil and biotic energy and a placing of differential values on the two sources, will go a long way to expose these addicted economies and assist 'developing nations ' to avoid the pitfalls.

The 'fossil subsidy' extended to fossil fuels, includes the cost of emitting NFOC's and NFW, the fossil cost of steel and cement production required for the creation and operation of future 'development' projects, should become cost criteria for acceptance or rejection of future 'development' projects. The current Government thinking of pinning our development to Oil, Gas and Coal, is dangerous and propels us into a very uncertain future. The inability of the bureaucracy to respond to the changes is seen in the inability to advise on simple issues.



The storage of drugs and medicines with a temperature threshold is a case in point. We all know the misery that the dialysis patients go through, but their medicines that were once stored in hospital stores, now require air conditioned rooms to maintain their effectivity. With current temperatures now rising well above their temperature thresholds , such open storage will make these medicines degrade. Who is there in the government to advise the various arms of government on such issues.

The extreme danger to us all by allowing the burning of fossil fuels as an energy source is not Just the injection of fossil Carbon and Fossil Hydrogen into the atmosphere it is that disturbing fact that it is using a diminishing resource, that all life depends on, Oxygen ...

