

3, Passage Montriond
1006 Lausanne, Switzerland
+41.21.616-5000
iwmc@iwmc.org
www.iwmc.org

The CO₂ Conundrum : To Store or Ignore

Carbon dioxide is a greenhouse gas approximately 430 ppm atmospherically that is essential to life on Earth. The concentration is expected to increase with continued use of wood, coal, oil and natural gas that is also essential to life: our daily lives. This increase presumes a threat to the planet because CO₂ is considered a causative factor in Global Warming (GW) and Climate Change (CC). Moreover, because some is derived anthropogenically, governments globally insist that this production be controlled or stopped altogether. It has taken more than a half century of research and endless public argument for the UN to finally declare that, “The science is settled” to introduce measures, real or imaginary, of containing it.

A runaway Greenhouse Effect has generated a phobia that prevails and pervades the policy discussions in fora that continues unabated. The improbability of this occurring has been explained by physicists and meteorologists who have presented data and analysis to explain Earth’s cooling by radiation that maintains a temperature equilibrium. Greenhouse gases, CO₂, CH₄, N₂O, O₂, O₃ and water vapour are absorbed at different (specific) wavelengths between 1 and 30 microns. At their wavelengths, heat is radiated to the upper atmosphere as infra-red radiation, while at frequencies where they are not absorbed, it is radiated back to Earth. The net effect of radiation and absorption maintains a thermal balance, the greenhouse effect that enables our existence.

Demonization of CO₂ began decades ago when it could be measured accurately. Repeated often enough, it revealed an upward trend that was correlated with extremes in weather, particularly temperature. Cold temperatures of the early 1970s evoked fears of an Ice-Age. When higher than usual temperatures occurred a decade later, Global Warming (GW) arose as an even greater fear. It has intensified since and is beyond control, for according to UN Secretary-General, Antonio Guterres, unless CO₂ is contained, Earth will “boil over”! It is also a reminder that climate is determined by changes in weather over long periods of time that are beyond control. Nevertheless, extreme anxiety has motivated Western governments to invoke “Net–Zero Emissions”, a policy to be achieved 2050–2060, curtailing the use of carbon. Measures recommended for containment include Carbon-Capture and Storage (CCS) and financial disincentives or penalties for present carbon use. Despite urgings of the UN and Western democracies, Asian governments are not overly enthusiastic in accepting these measures.

Fear has overcome fact, at least momentarily as European farmers protest recent EU environmental regulation policy that is an endorsement of the UN's objective, "Transforming our World: the 2030 Agenda for Sustainable Development". CO2 emission from machinery and equipment used in agriculture is the EU's primary regulatory concern, but two other Greenhouse Gasses (GGs), methane (NH₄) produced by farting livestock and nitrous oxide (N₂O) from fertilizers are also included because they are assumed to contribute to GW and CC. Additional regulatory constraints include removing 20% of their lands from agricultural production: 10% for re-wilding and ecosystem restoration; another 10% for tree plantations to sequester CO₂. These draconian measures are de facto expropriations of their private lands inflicted by a tyrannous authoritarian administration whose decisions are arbitrary and lacking moral objectivity and science. Presently, the policy is being fiercely resisted by thousands of protesting farmers whose livelihoods that will be destroyed.

Understandably, fishers have also joined EU farmers in their protest. Moreover, it also assures disruption of an orderly well established food supply system. The argument over temperature controlling factors continues, but Earth's thermal equilibrium will not change significantly no matter if CO₂, NH₄ and the remaining GHGs increase beyond their present levels.

Ken Sumanik, MSc.
20 May 2024