Dear Friends,

In your NSW EPA Guide for Large Emitters, it states on page 6: "In NSW fugitive emissions are mainly from coal and gas extraction activities, which are almost all licensed by the EPA (e.g. coal mines)". A very important Academic Paper (see attachment) that has relevance to a dire forecast for climate change. This is a genuine peer reviewed University Paper. If you just read the Abstract on page 1 and the bottom paragraph on page 2348 and the first paragraph of page 2349 you will get the gist of the paper.

The gist of this paper is that two thirds of our atmospheric oxygen comes from marine plants. This Academic Paper suggests that if climate change kills oxygen producing phytoplankton in the oceans, or if the phytoplankton just stop producing oxygen, which could very well happen if oceanic temperatures keep rising; all life on Earth could become extinct, [within your children's lifetime] which is a reason that all Coal and Gas operations ought to wind down and no knew extraction activities ought to be allowed so as to forestall such an extinction event.

Therefore, as part of your Guidelines for Large Emitters, I would like you to ensure that in your Step 6 Offsets Strategy; concerning Coal and Gas operations that are exporting their products overseas, please clarify the statement in your document that says: "*International carbon offsets will not be accepted*". Does this mean that offsets carried out overseas will not be accepted; that international standards will not be accepted; or that if coal and gas is exported overseas, that it then becomes the problem of the importing country ?

I am hoping it means that even if coal and gas is exported, the company extracting the coal and gas is responsible for ALL future emissions from those extracted resources, regardless of where in the world they are likely to occur.

Please kindly read the abstract on the first page of the attachment and page the last paragraph on page 2348 first paragraph of page 2349 of the attached document Sekerci, Y., & Petrovskii, S. 25 November 2015. *Mathematical Modelling of Plankton – Oxygen Dynamics Under The Climate Change* University of Leicester.

This document could be both a youth suicide and a civil disobedience multiplier, if we don't use it with wisdom.

An article in Science Daily alerted me to this Document. I have reproduced the Science Daily article below in this email.

The situation is comparable to a large Supertanker on the ocean. Once the engine is turned off it may take 25kilometres for the Supertanker to come to a halt. So too, oceans are currently warming faster than previously expected. It's something we need to work toward preventing in the present. I'm not sure why this problem has been kept quiet for so long, it may just be too uncomfortable for most people to handle, especially young people. And yet we keep allowing more coal mines and gas extraction.

https://www.sciencedaily.com/releases/2015/12/151201094120.htm

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Science News

from research organizations

"Failing phytoplankton, failing oxygen: Global warming disaster could suffocate life on planet Earth

"Date:

December 1, 2015

"Source:

University of Leicester

"Summary:

Falling oxygen levels caused by global warming could be a greater threat to the survival of life on planet Earth than flooding, according to new research.

"Falling oxygen levels caused by global warming could be a greater threat to the survival of life on planet Earth than flooding, according to researchers from the University of Leicester.

"A study led by Sergei Petrovskii, Professor in Applied Mathematics from the University of Leicester's Department of Mathematics, has shown that an increase in the water temperature of the world's oceans of around six degrees Celsius -- which some scientists predict could occur as soon as 2100 -- could stop oxygen production by phytoplankton by disrupting the process of photosynthesis.

"Professor Petrovskii explained: "Global warming has been a focus of attention of science and politics for about two decades now. A lot has been said about its expected disastrous consequences; perhaps the most notorious is the global flooding that may result from melting of Antarctic ice if the warming exceeds a few degrees compared to the pre-industrial level. However, it now appears that this is probably not the biggest danger that the warming can cause to the humanity.

"About two-thirds of the planet's total atmospheric oxygen is produced by ocean phytoplankton -- and therefore cessation would result in the depletion of atmospheric oxygen on a global scale. This would likely result in the mass mortality of animals and humans."

"The team developed a new model of oxygen production in the ocean that takes into account basic interactions in the plankton community, such as oxygen production in photosynthesis, oxygen consumption because of plankton breathing and zooplankton feeding on phytoplankton.

"While mainstream research often focuses on the CO_2 cycle, as carbon dioxide is the agent mainly responsible for global warming, few researchers have explored the effects of global warming on oxygen production".