

# The criminal dimension of climate change

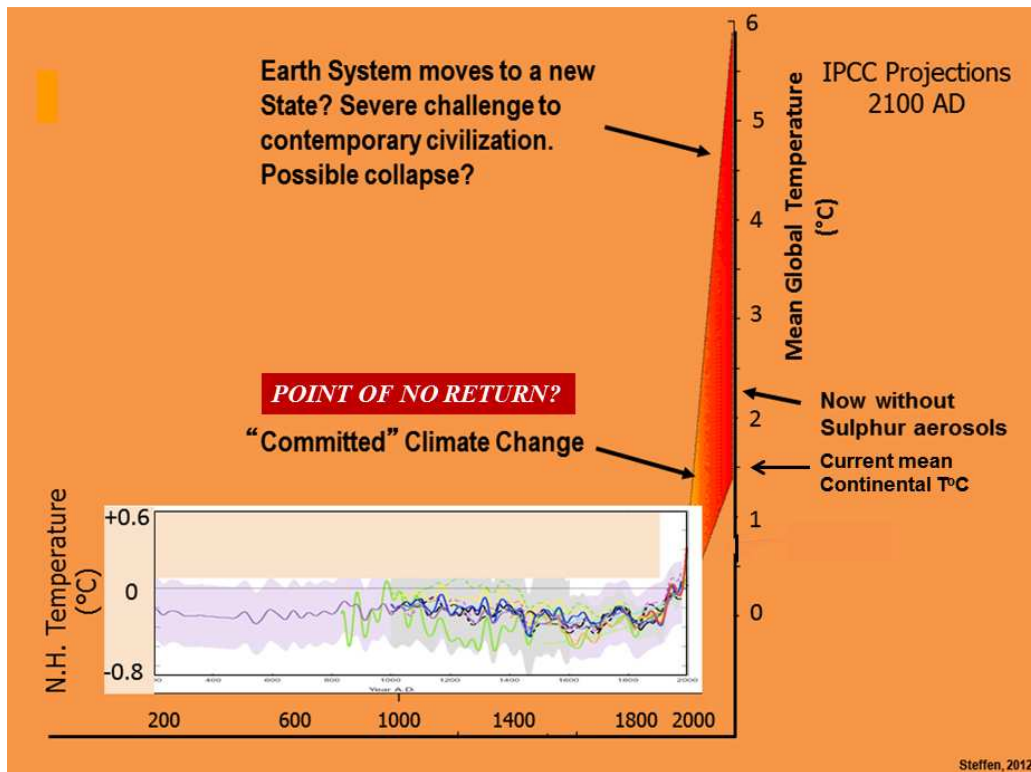
A review of a new book by P. Carter, E. Woodworth and J. Hansen

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*"We're simply talking about the very life support system of this planet."*(Professor Joachim Schellnhuber, Director of the *Potsdam Institute of Climate Impacts*).

The extreme rise in atmospheric carbon dioxide (CO<sub>2</sub>) since the onset of the industrial age, reaching ~403 parts per million in 2017, and the corresponding rise in mean global temperature to +1.3 degrees Celsius above pre-industrial temperature (Figure 1), pose an **existential risk** for the future of civilization and nature.



**Figure 1.** A plot of mean global temperature since vs CO<sub>2</sub> levels since 200 AD (after Steffen, 2012)

A new book titled “*Unprecedented Crime: Climate Science Denial and Game Changers for Survival*“, by Dr Peter Carter and Dr Elizabeth Woodworth, with a forward by the leading climate scientist Professor James Hansen<sup>1</sup> outlines the criminality of those who actively promote the continuing emission of carbon gases into the atmosphere with full knowledge of the consequences, including the breakdown of the large ice sheets, sea level rise and intensification of extreme weather events such as hurricanes, floods and fires around the world<sup>2</sup>.

The book highlights the collusion of large part of the media with climate change denial and cover up, stating: “*There is no benign explanation for a full media blackout of a significant global development that was heralded by the United Nations Secretary-General. This blackout goes far beyond ignorance or negligence. It is a wilful obstruction of public knowledge of the extraordinary extent of global efforts to combat the greatest existential threat of all time by changing business-as-usual. We define this wilful, methodical blocking of vital survival information as an unprecedented crime against life on the planet.*”

The book cites the US writer Tom Engelhardt (*Terracide and the Terrarists: Destroying the Planet for Record Profits*)<sup>3</sup>: “*The fossil-fuel companies are guilty of the ultimate crime, because they are earning their “profits directly off melting the planet, knowing that their extremely profitable acts are destroying the very habitat, the very temperature range that for so long made life comfortable for humanity.” ... “However, Big Carbon could never have been able to continue its polluting ways – long after the scientific community had reached consensus about the connection between fossil-fuel emissions, global warming, and climate change – without the assistance of the media”.*

According to James Hansen, NASA’s former chief climate scientist (2012), “*Burning all fossil fuels would create a different planet than the one that humanity knows. The palaeoclimate record and ongoing climate change make it clear that the climate system would be pushed beyond tipping points, setting in motion irreversible changes,*

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<sup>1</sup> <https://www.amazon.com/Unprecedented-Crime-Climate-Changers-Survival/dp/0998694738/>

<sup>2</sup> <https://www.earth-syst-dynam.net/8/577/2017/esd-8-577-2017.pdf>

<sup>3</sup> [http://www.tomdispatch.com/post/175703/tomgram%3A\\_engelhardt,\\_the\\_biggest\\_criminal\\_enterprise\\_in\\_history/](http://www.tomdispatch.com/post/175703/tomgram%3A_engelhardt,_the_biggest_criminal_enterprise_in_history/)

*including ice sheet disintegration with a continually adjusting shoreline, extermination of a substantial fraction of species on the planet, and increasingly devastating regional climate extremes”<sup>4</sup>*

Following the presentation of definitive evidence of anthropogenic climate change, a plethora of websites has emerged reporting the views of non-scientists or of scientists known to receive funding from the fossil fuel industry. These views, in breach of the basic laws of physics and of direct observations, ignore the peer-reviewed published climate and paleo-climate science, misrepresent observed atmosphere and ocean processes and trends, fabricate evidence and conduct personal attacks against climate scientists<sup>5</sup>.

Examples abound:

- Climate change deniers claim CO<sub>2</sub> is not a factor driving global warming, contrary to the rise of CO<sub>2</sub> by more than 40 percent since the onset of the industrial age and the laws of black body radiation of Stefan-Boltzmann, Planck and Kirchhoff<sup>6</sup>
- Where the average global temperature has been rising sharply since about 1975<sup>7</sup>, a relative lull pertained during 2000–2014 mainly due to (1) albedo increase from heavy sulphur aerosol emission, and (2) lower sun spot numbers, with high warming rates resuming from 2015. Climate change deniers claim this transient period represents a cessation of global warming.
- Where the large Greenland and west Antarctic ice sheets have been melting at a rate of more than 500 billion ton per year, the cold ice melt water flowing off these glaciers cooled adjacent ocean regions<sup>8</sup>, resulting in transient extension of circum-Antarctic sea ice, claimed by climate change deniers to represent global cooling

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<sup>4</sup> <http://pubs.giss.nasa.gov/abs/ha00610m.html>

<sup>5</sup> <http://www.merchantsofdoubt.org/>

<sup>6</sup> <https://history.aip.org/climate/co2.htm>

<sup>7</sup> <https://www.quarterlyessay.com.au/>

<sup>8</sup> <https://www.nature.com/articles/nclimate2554>

Virulent attacks on climate scientists followed, for example, as cited in the book<sup>9</sup>: “*a climate change denier who has argued that the “demonization of CO2 really differs little from the Nazi persecution of the Jews, the Soviet extermination of class enemies or ISIL slaughter of infidels.”*”

Large parts of the conservative press have taken strong exception to the evidence of anthropogenic global warming, as reported in Robert Manne’s essays “*Diabolical*” and “*Bad News*”<sup>10</sup>

The manifest paralysis of the political and media classes in the face of the climate impasse, evidenced by the failure of a succession of UN Framework Conventions on Climate Change to undertake meaningful steps to reduce CO<sub>2</sub> emissions (since 2009: Copenhagen, Cancun, Doha, Durban, Warsaw, Paris)<sup>11</sup> requires a search for alternative avenues to limit the deleterious consequences of continuing carbon emissions on the biosphere, as reported by the IPCC Working Group II (Climate Change 2014: Impacts, Adaptation, and Vulnerability)<sup>12</sup> and the report by Working Group III (WGIII - Climate Change 2014: Mitigation of climate change)<sup>13</sup>

Traditionally political and economic negotiations aim at a compromise.

Unfortunately, **no negotiation** is possible with the basic laws of physics and chemistry and with processes in the atmosphere-ocean-cryosphere system<sup>14</sup>.

Is there anything in international and national laws which can avert the ongoing carbon emissions? Do global and national legal systems offer any possibilities in this regard? In exploring potential restrictions on carbon emission, the following international and national laws and conventions are relevant:

- Crimes against humanity, as defined by the Rome Statute of the international Criminal Court Explanatory Memorandum<sup>15</sup>. Such crimes are particularly odious offences in that they constitute a serious attack on human dignity or grave

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<sup>9</sup> <https://www.amazon.com/Unprecedented-Crime-Climate-Changers-Survival/dp/0998694738/>

<sup>10</sup> <https://www.themonthly.com.au/issue/2015/december/1448888400/robert-manne/diabolical>;  
<https://www.quarterlyessay.com.au/essay/2011/09/bad-news>

<sup>11</sup> <http://www.cop19.gov.pl/unfccc>

<sup>12</sup> <http://ipcc-wg2.gov/AR5/>

<sup>13</sup> <http://mitigation2014.org/>.

<sup>14</sup> (<http://www.springer.com/earth+sciences+and+geography/earth+system+sciences/book/978-94-007-7331-8>).

<sup>15</sup> [http://en.wikipedia.org/wiki/Crime\\_against\\_humanity](http://en.wikipedia.org/wiki/Crime_against_humanity)

humiliation or a degradation of one or more human beings. They are not isolated or sporadic events, but are part either of a government policy (although the perpetrators need not identify themselves with this policy) or of a wide practice of atrocities tolerated or condoned by a government or a de facto authority...”

- United Nations International Covenant on Civil and Political Rights Part III Article 6<sup>16</sup>: states, among other: “*Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life. When deprivation of life constitutes the crime of genocide, it is understood that nothing in this article shall authorize any State Party to the present Covenant to derogate in any way from any obligation assumed under the provisions of the Convention on the Prevention and Punishment of the Crime of Genocide.*”
- Rome Statute of the International Criminal Court, 17 July 1998: Article 7 Crimes against humanity “*Extermination*” - includes the intentional infliction of conditions of life, inter alia the deprivation of access to food and medicine, calculated to bring about the destruction of part of a population<sup>17</sup>. Australian Commonwealth and State laws regarding air quality standards: and prohibition of pollution<sup>18</sup>
- Recently a successful challenge has been raised in the US in this regard, as in the statement by Professor James Hansen<sup>19</sup>.

In the following I list some of the consequences of the above<sup>20</sup>:

Since the onset of the industrial age and in particular following WWII an abrupt rise in the temperature levels of the atmosphere was driven by an increase in concentration of greenhouse gases arising from release of >600 billion ton of carbon (GtC) to the atmosphere is leading to an extreme shift in state of the atmosphere-ocean system, such has no precedence in the recorded geological history, with the exception of

<sup>16</sup> <http://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>

<sup>17</sup> <http://www.icrc.org/ihl/WebART/585-07?OpenDocument>

<sup>18</sup> [http://www.aic.gov.au/media\\_library/publications/proceedings/26/norberry.pdf](http://www.aic.gov.au/media_library/publications/proceedings/26/norberry.pdf) ;  
<https://www.qld.gov.au/law/laws-taxes-elections-and-complaints/environment-and-pollution-laws/> ;  
<http://www.environment.gov.au/topics/environment-protection/air-quality/air-quality-standards>

<sup>19</sup> [http://www.columbia.edu/~jeh1/mailings/2015/20150812\\_FINAL\\_HANSEN\\_DEC\\_FOR\\_US\\_DISTRICT\\_OREGON\\_9pm.pdf](http://www.columbia.edu/~jeh1/mailings/2015/20150812_FINAL_HANSEN_DEC_FOR_US_DISTRICT_OREGON_9pm.pdf)

<sup>20</sup> <http://www.springer.com/earth+sciences+and+geography/earth+system+sciences/book/978-94-007-7331-8>:

events which resulted in the mass extinction of species, including massive volcanism, extra-terrestrial impacts and large-scale release of methane<sup>21</sup>.

1. As a direct consequence of the above mean global temperatures have risen since by about 1.3 degrees Celsius and, had it not been for emitted sulphur the aerosols, by near-2 degrees Celsius, reaching levels similar to those of the Pliocene period (~2.6 – 5.3 million years ago).
2. The shift is occurring at the fastest rate recorded by paleoclimate studies. Whereas many species can adapt to gradual environmental changes, the current temperature rise rate resulting from ~2-3 parts per million (ppm) CO<sub>2</sub>/year may not be sustained<sup>22</sup>.
3. The current change is manifested by an increase in the rate of melting of the major ice sheets, accelerating sea level rise and a rise in the frequency and intensity of extreme weather events, reflecting elevated energy level of the atmosphere-ocean system<sup>23</sup>.
4. The consequences of continuing carbon emissions and consequent rise of mean global temperatures would render large parts of the Earth's land surfaces uninhabitable, due to extreme temperatures, droughts, storms and flooding of coastal, deltas and lower river regions by sea level rise – estimated as about 25+/- 12 meters under Pliocene-like conditions, constituting an existential calamity for civilization and nature<sup>24</sup>
5. Excepting injection of transient short residence-time sulphur aerosols, the arrest of current climate trend would require (A) a meaningful reduction in current rate of carbon emission (~9 GtC/year) and (B) application of CO<sub>2</sub> draw-down technologies such as large-scale sea grass farming, biochar, CO<sub>2</sub> capture by air streaming through basalt and serpentine etc., aimed at reducing atmospheric greenhouse gas by at least 50 ppm.
6. Enough reserves of conventional and unconventional (oil shale, tar sands, coal seam gas) fossil fuel exist whose combustion would raise the temperature of the

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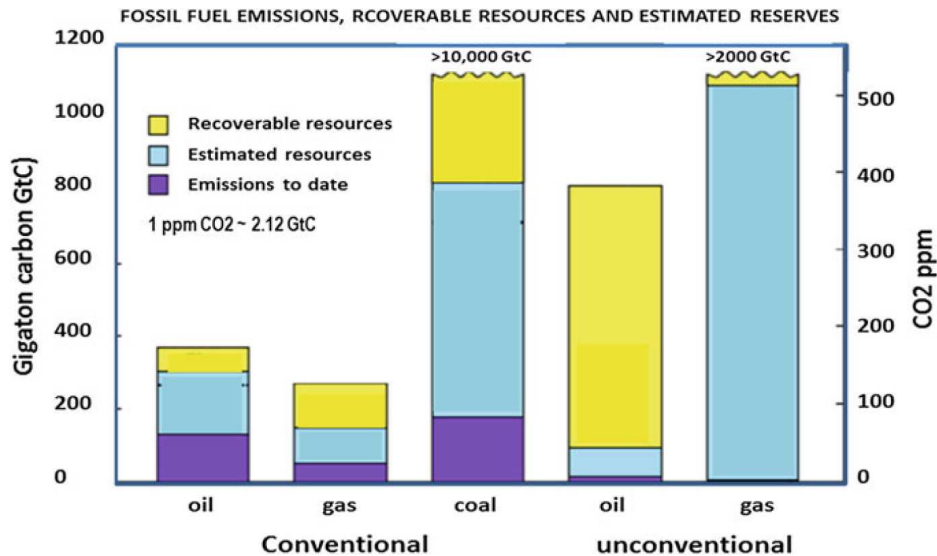
<sup>21</sup> <http://www.springer.com/gp/book/9783319225111>

<sup>22</sup> <http://onlinelibrary.wiley.com/doi/10.1111/gcb.13342/abstract>

<sup>23</sup> <http://www.climatecentral.org/news/hansen-study-extreme-weather-tied-to-climate-change-14760>

<sup>24</sup> <http://www.aspistrategist.org.au/homo-sapiens-and-the-sixth-mass-extinction-of-species/> .

atmosphere and oceans to levels which existed during the early Eocene and the Cretaceous<sup>25</sup>, excluding most current forms of advanced life on Earth (Figure 2).



**Figure 2.** Fossil fuel reserves and equivalent CO<sub>2</sub> emissions. 1 Gigaton carbon = 0.5ppm CO<sub>2</sub><sup>26</sup>

As stated by Robert Manne<sup>27</sup>: “Unless by some miracle almost every climate scientist is wrong, future generations will look upon ours with puzzlement and anger – as the people who might have prevented the Earth from becoming a habitat unfriendly to humans and other species but nonetheless failed to act” and “Our conscious destruction of a planet friendly to humans and other species is the most significant development in history”.

The carbon-oxygen cycle of the atmosphere-ocean-land constitutes the lungs of the biosphere. The consequences of burning the vast carbon reserves buried in sediments can only result in a demise rivalling the five great mass extinctions of species in the history of the Earth. Survivors of the Sixth mass extinction of species may hold responsible those who promoted carbon emissions, turning a blind eye to the unfolding tragedy: the fossil fuel barons, the political classes and their media mouthpieces.

<sup>25</sup> <http://www.springer.com/gp/book/9783319225111>

<sup>26</sup> [http://www.foreign.senate.gov/imo/media/doc/Hansen\\_Testimony.pdf](http://www.foreign.senate.gov/imo/media/doc/Hansen_Testimony.pdf)

<sup>27</sup> <https://www.themonthly.com.au/issue/2015/december/1448888400/robert-manne/diabolical>