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**HUMAN
RIGHTS
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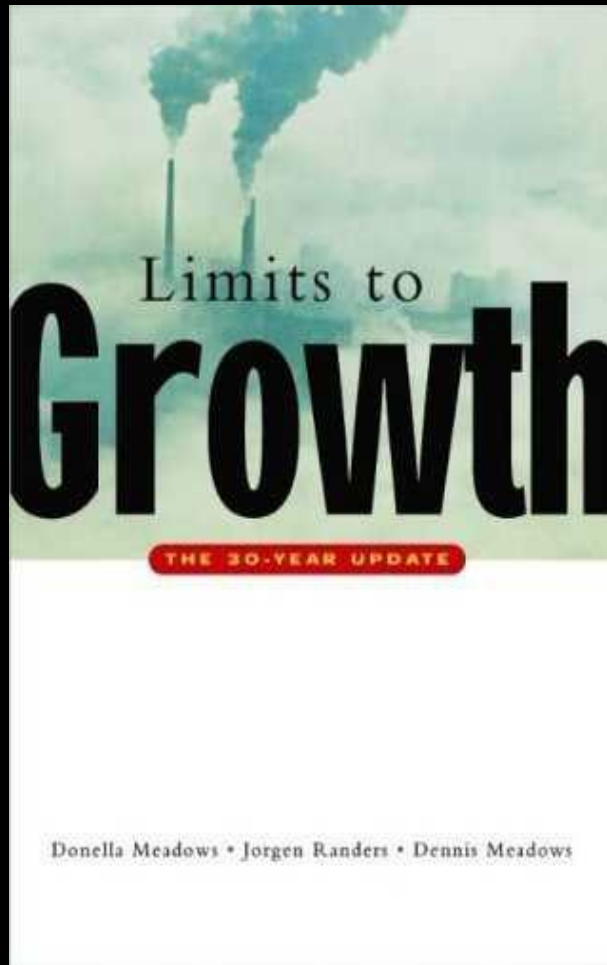
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‘The limits to growth and the ecological crisis:
what role for a crime of ecocide?’



Carbon emissions are not just about fossil fuels

- It is the interaction of the economy +
- Technological change + energy prices that determines growth
- and hence emissions – not just the source of fuel.



- Energy is an essential pre-requisite of economic activity and growth.
- The acute problems envisaged by the 1972 *Limits to Growth* report are occurring roughly as predicted;
- The move from “conventional” to “unconventional” energy and mineral resources is an indication we have hit a major limit.
- BUT, as we know, politicians are ignoring these limits.
- Planning a sustainable future requires acceptance of the 'limits to growth'.

Unconventional Energy

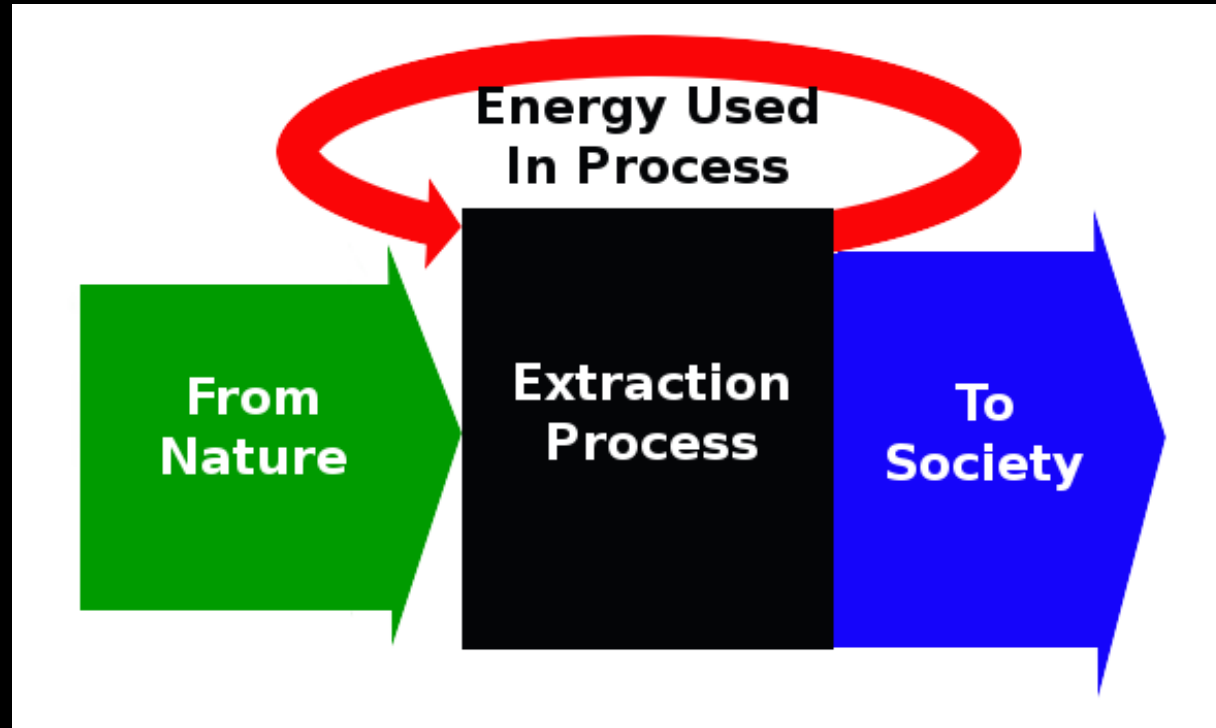
As conventional resource supplies diminish, new, more energy intensive, technologies are allowing Oil and Gas companies move in to new 'frontiers' and gain access to 'unconventional' supplies:

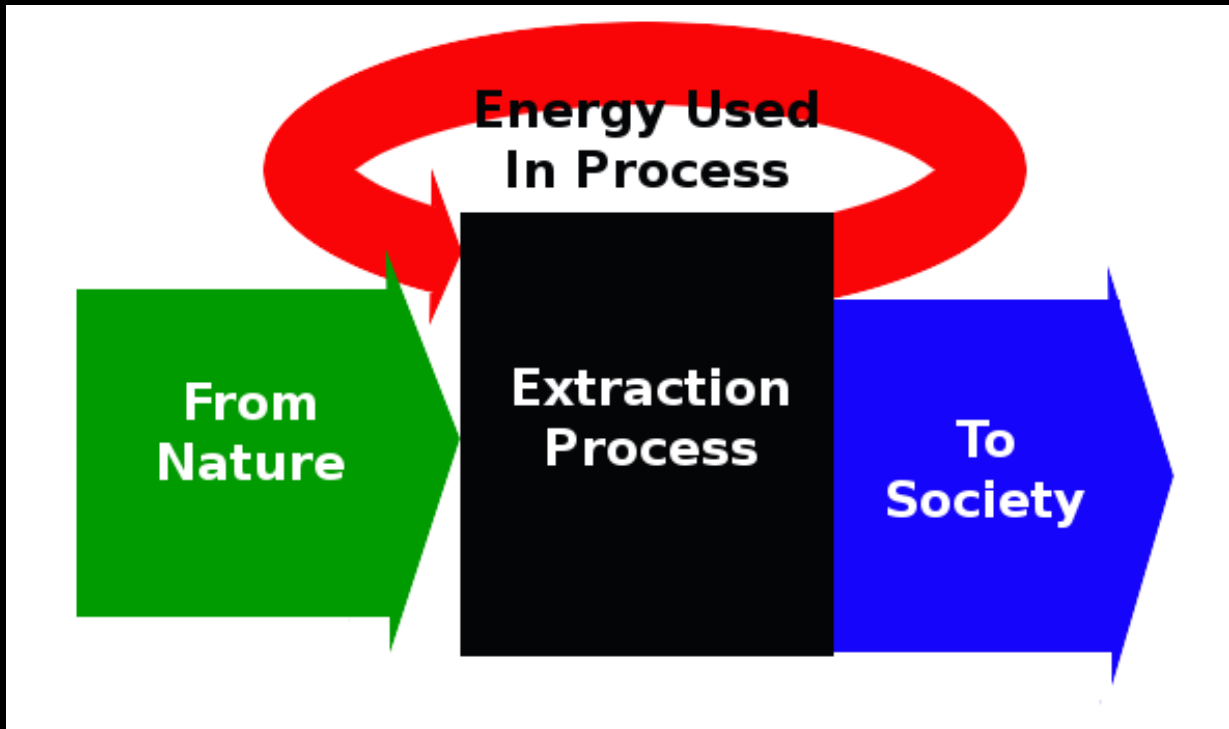
- (even) deeper sea drilling, drilling in the Arctic,
- excavations of the Boreal forests of Alberta,
- mountain top removal,
- and onshore fracking in 'developed' countries.

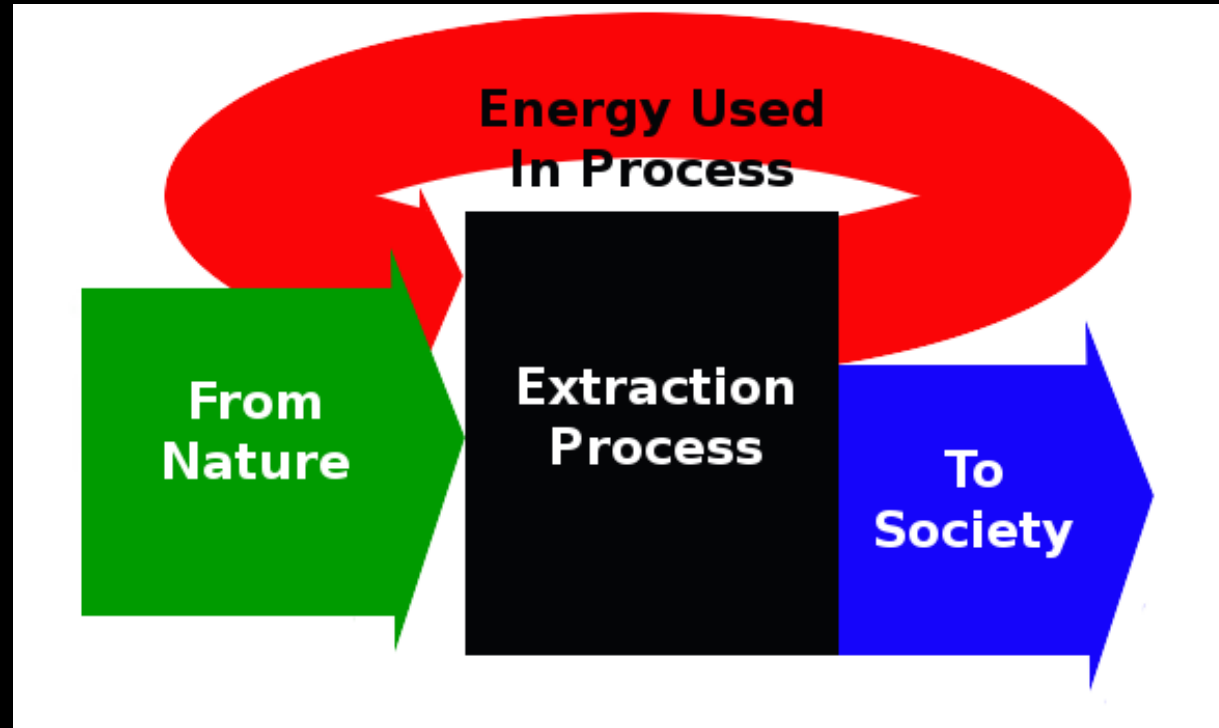
Extreme Energy as a process

'Extreme Energy is the process whereby energy extraction methods grow more intense over time, as easier to extract resources are depleted. The process is driven by unsustainable energy consumption and is important because extraction effort is strongly correlated with damage to both society and the environment'.

Short, D, J Elliot, K Norder, E Lloyd-Davies and J Morley, 'Extreme Energy, Fracking and Human Rights: A New Field for Impact Assessments?' *International Journal of Human Rights*, 11th May, 2015.







Extreme energy and cumulative emissions

'we must rapidly phase out coal emissions, **leave unconventional fossil fuels in the ground**, and not go after the last drops of oil and gas. In other words, we must move as quickly as possible to the post-fossil fuel era of clean energies.'

James Hansen

'the only responsible action with regard to shale gas, or any "new" unconventional fossil fuel, **is to keep it in the ground** — at least until there is a meaningful global emissions cap forcing substitution. In the absence of such an emissions cap, and in our energy hungry world, shale gas will only be combusted in addition to coal — not as a substitution, as many analysts have naively suggested.'

Kevin Anderson: Tyndall Centre

Economic growth and consumption

- The idea of economic growth is that it gives us all more to make us 'happier'.
- Recent studies suggest that this is not the case, and that fifty+ years of growth has not made us significantly happier
- AND has massively increased our ecological problems to crisis levels.

International Law as a solution?

- Current predicament:
 - peaking resources,
 - drive towards extreme energy
 - anthropogenic climate change
 - ecological crisis
- What lessons can we take from the UN history of genocide and ecocide?

Polly Higgins: International Law of Ecocide?

- A law of Ecocide can be put in place at the very top as an international crime,
- Would be over and above all other laws to prevent mass damage, destruction to or loss of ecosystems.
- To do this - amend the Rome Statute.
- Requires a Member State to table it at Review Conference

Polly Higgins: ECOCIDE

The extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished.

Consumption?

- But a law prohibiting ecocide may do very little to change our current unsustainable levels of consumption of oil and gas.
- Developed countries are of course most responsible.

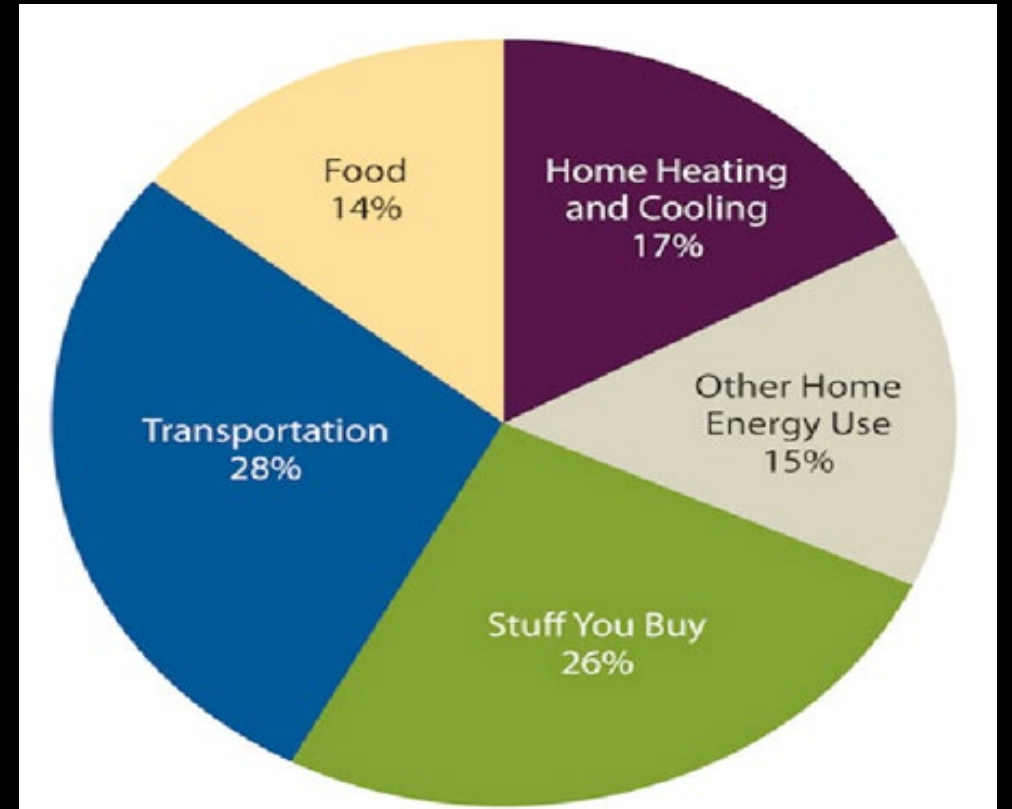
International Energy Agency Data (2018)

2016 total emissions country rank	Country	2016 total carbon dioxide emissions from fuel combustion (million metric tons)	2016 per capita carbon dioxide emissions from fuel combustion (metric tons)
1	China	9056.8	6.4
2	United States	4833.1	15.0
3	India	2076.8	1.6
4	Russian Federation	1438.6	9.9
5	Japan	1147.1	9.0
6	Germany	731.6	8.9
7	South Korea	589.2	11.6
8	Islamic Republic of Iran	563.4	7.1
9	Canada	540.8	14.9
10	Saudi Arabia	527.2	16.3
11	Indonesia	454.9	1.7
12	Mexico	445.5	3.6
13	Brazil	416.7	2.0
14	South Africa	414.4	7.4
15	Australia	392.4	16.2
16	United Kingdom	371.1	5.6
17	Turkey	338.8	4.2
18	Italy	325.7	5.4
19	Poland	293.1	7.7
20	France	292.9	4.5

Consumption: 'stuff'



<https://storyofstuff.org/movies/story-of-stuff/>



Source – MAHB, Stanford University

<https://mahb.stanford.edu/welcome/the-mahb-organization/>