This is the print version of the Skeptical Science article 'It's methane', which can be found at http://sks.to/methane.

What is methane's contribution to global warming?

What The Science Says:
While methane is a more potent greenhouse gas than CO_2, there is over 200 times more CO_2 in the atmosphere. Hence the amount of warming methane contributes is 28% of the warming CO_2 contributes.

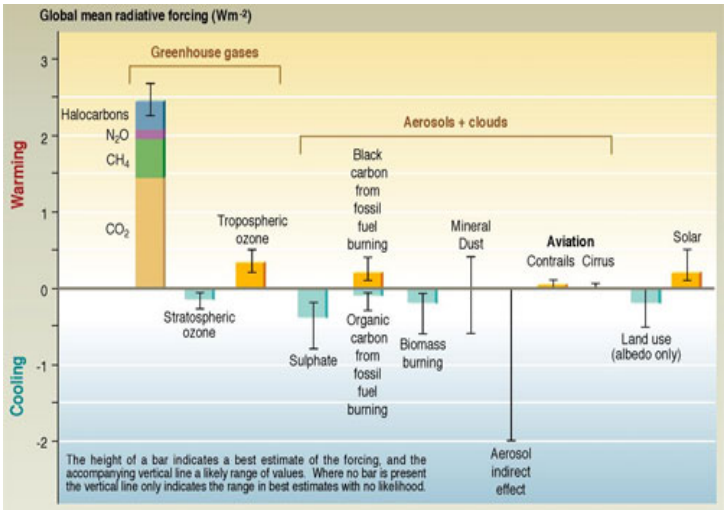
Climate Myth: It's methane

"A United Nations report has identified the world's rapidly growing herds of cattle as the greatest threat to the climate, forests and wildlife. ...

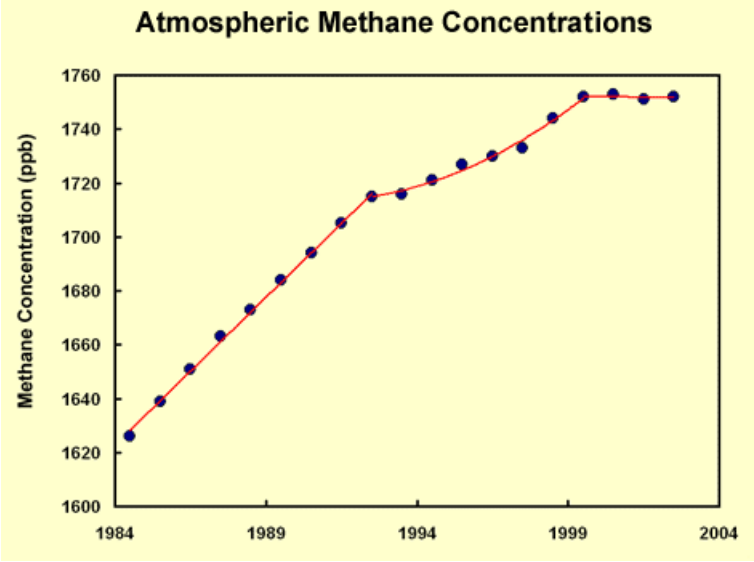
...Livestock are responsible for 18 per cent of the greenhouse gases that cause global warming, more than cars, planes and all other forms of transport put together.

Burning fuel to produce fertiliser to grow feed, to produce meat and to transport it - and clearing vegetation for grazing - produces 9 per cent of all emissions of carbon dioxide, the most common greenhouse gas. And their wind and manure emit more than one third of emissions of another, methane, which warms the world 20 times faster than carbon dioxide." (Geoffrey Lean)

While methane is a more potent greenhouse gas than CO_2, there is over 200 times more CO_2 in the atmosphere. Eg - CO_2 levels are 380 ppm (parts per million) while methane levels are 1.75ppm. Hence the amount of warming methane contributes is calculated at 28% of the warming CO_2 contributes. Here is a graph of the various forcings that influence climate (methane is CH_4, right above CO_2).



This is not to say methane can be ignored - reducing methane levels is definitely a goal to pursue. The good news is since the early 1990's, the trend in increasing methane has slowed down and even leveled off in the last few years (Dlugokencky 2003).



The Skeptical Science website by Skeptical Science is licensed under a Creative Commons Attribution 3.0 Unported License.

Skeptical Science explains the science of global warming and examines climate misinformation through the lens of peer-reviewed research. The website won the Australian Museum 2011 Eureka Prize for the Advancement of Climate Change Knowledge. Members of the Skeptical Science team have authored peer-reviewed papers, a college textbook on climate change and the book Climate Change Denial: Heads in the Sand. Skeptical Science content has been used in university courses, textbooks, government reports on climate change, television documentaries and numerous books.

The Skeptical Science website by Skeptical Science is licensed under a Creative CommonsAttribution 3.0 Unported License.