The IPCC Fourth Assessment Report. (AR4)

What is the IPCC.

The Inter-Governmental Panel on Climate Change is a UN committee with representatives drawn from members of the World Meteorological Organisation. It is tasked to provide a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences. Government representatives participate in the process and in the plenary sessions where the work programme is established and reports are accepted. This can lead to tensions and conflicts between the scientists involved and the political representatives.

It works by reviewing all the peer reviewed research published and submitted concerning climate change. Scientific lead authors produce draft reports, which are then accepted or modified by the full panel.

It produces a report at about 5 or 6 yearly intervals. (1990, 1995, 2001, 2007) and is currently working towards the next report.

Where You Can Read it for yourself.

The report can be found on the IPCC web-site. www.ipcc.ch/ or google "IPCC". It comprises several volumes:-

"The Working Group Reports" - big and detailed reports from each of the 3 "Working Groups. 100s of pages. For specialists only

"The Synthesis Report" - a medium sized report pulling together all the most significant findings from the working groups. About 70 pages. Produced by the scientists.

"A Summary for Policy Makers" – (the SPM) this report is more heavily influenced by the political representatives on the IPCC.

We recommend "the Synthesis Report" unless you want to delve very deeply into the subject.

Reading this Article.

Most of our comments on the IPCC report are based on the Synthesis Report. Obviously you can simply read this for yourself and make up your own mind. But if you want to follow our argument we suggest that you call up the Synthesis report in another window and use it to check our interpretation concerning what it says.

The report has to be read with intelligence because of the tensions which exist between the political and scientific assessments. These can be seen between the lines. Examples. i) The report gives a table of maximum sea level rise by 2100. Qualified by a footnote "the maximum should not be taken as a maximum because the contribution of ice sheet melting is still not accurately predictable." (Table 5.1 footnote f.)

ii) One of the most important statements of the Synthesis Report (see 5 below) is almost lost in the SPM (written by the political representatives) It is there but watered down and hard to find (SPM section 5 page 19 bottom right col) .

The TGWS Reading of the AR4.

You need to read the whole of the 4 IPCC reports to understand the evidence on which the IPCC claims are based. We claim that a correct reading of the IPCC reports says the following five things, these appear in the most recent report:-

1) There is now no reasonable doubt that there is a significant rise in the global average temperature. (Section 1.1 – heavy type lines 19 onwards.).
2) There is no reasonable doubt that this temperature rise has been caused by mankind. All other suggested causes have been subject to scientific evaluation and found to be either non-existent or insufficient. (Section 2.2 – heavy type at lines 14 onwards and lines 46 onwards [very high confidence at least 9 out of 10. Introduction explains probability treatment])
3) Global Warming will have lots of undesirable consequences, which increase in seriousness with increasing temperature rises. (Whole of section 3.3)

The next 2 items are those which TGWS believes are the most significant statements from the AR4. They are denied or ignored by our politicians and some others.

4) It is highly unlikely that **whatever the world does** the temperature rise from pre-industrial temperatures (say 1750) can be kept below the 2^0C rise that is widely accepted as the danger limit and which governments are repeatedly pledging to stay below.

   Our reading is based on various data tables in the report. See the following:-

   Table 5.1 this shows that the CO_2 level for a temp rise of 2.0-2.4 is estimated to lie in the range 350-450 ppm. CO_2 levels already at 389 ppm and are rising at 2 or 3 ppms per year. World emissions are expected to go on rising until 2015 at the very best and thereafter even the most optimistic scenarios do not envisage the world reducing its emissions to a level where CO_2 starts reducing before about 2050 and even that depends on the feedback effects not proving to be too large. There does not seem to be any prospect of keeping the CO_2 level below 400+ ppm.

   Figure 5.1 Shows a similar picture. Stabilisation level of CO_2 equivalent of 445-490 requires a reduction of world emissions to about 50% of present world emissions by 2050 and to about 0% or negative by 2080. This is a very tall order and even then the predicted temperature rise is in the range 1.5-3.5^0C (mid point about 2.8^0C).

   Table 3.1 Gives details of the possible scenarios for the world's addressing of climate change. Even the most optimistic of these the B1 scenario predicts a temperature rise in the range 1.7 –3.5^0C (mid point 2.6^0C) (Note 0.6^0C has to be added to the figures given to allow for the temperature rise from 1750 cf 1985)
5) It is necessary to make **big** reductions in world emissions in the period from now to **2025.** If we fail to do so the temperature rise will be much more than the 2^0C which we already regard as serious. (Note. The 2 to 3 decades should be measured from about 2005 when the statement was written.)

   We point you to the following AR4 statement:-

   Section 5.4. heavy type lines 11 onwards – together with its references Table 5.1 and Figure 5.1.

These set the scope of the problems which we (humanity) faces.