

02: 02: 07 GRIAN MEDIA RELEASE - "Catastrophic" climate report demands action from government

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Mobile: 086 856 85 20Dublin, Friday 2nd February 2007, 13.30 hrs GMT "CATASTROPHIC" TREND ESTABLISHED IN CLIMATE REPORT DEMANDS ACTION FROM GOVERNMENT Responding in Dublin today to the first tranche of the Intergovernmental Panel on Climate Change (IPCC) fourth assessment report released in Paris this morning (Note 1) Pat Finnegan, Co-ordinator of Grian (Note 2) said today that the "catastrophic" trend established across the four reports published by the IPCC over the last 16 years demanded an unprecedented effort from policy makers to take action immediately, including, according to Grian, a commitment from government to cut Irish emissions by at least 33% by 2025. The expert and peer-reviewed report confirms an unprecedented trend in global warming established over the last 150 years since the industrial revolution triggered widespread burning of fossil fuels. (Note 3) It contains dire predictions of an increasingly deteriorating global climate over the next 100 years unless drastic measures are taken to shift energy systems out of fossil fuels and into the many and manifold renewable energy alternatives available. Confirmed observations in the report include the facts that:

- The atmospheric concentration of carbon dioxide in 2005 exceeds "by far" the natural range over the last 650,000 years;
- The atmospheric concentration of methane in 2005 exceeds "by far" the natural range of the last 650,000 years;
- Warming of the climate system is unequivocal;
- The rate of increase in global warming during the last 150 years of the industrial era is very likely (more than 90% certainty, see Note) to have been "unprecedented in more than 10,000 years";
- Eleven of the last twelve years rank among the 12 warmest years in the instrumental record of global surface temperature since 1850;

- The warming trend over the last 50 years is nearly twice that for the last 100 years

- Average Arctic temperatures have increased at almost twice the global average rate in the past 100 years;

Based on a huge amount of work performed by IPCC experts since the last report issued in 2001, the new report narrows the range of expected global temperature increase over the next century to between 2.4 - 4.0 °C (degrees Centigrade) over pre-industrial levels in 1850 (See Note 3). A rise of more than 2.0 °C is considered by many experts---including Grian--to be the upper limit to the warming that ecosystems can support before impacts begin to seriously degrade nature's capacity to support human societies and human activity as we know it. 2.0 °C is also the limit adopted by the EU as the limit to warming that negotiations in the UN should aim for. Other impacts projected by the report for the next 95 years if emissions remain unabated include:

- Warming is expected to be greatest in high northern latitudes;
- Snow cover is projected to contract. Widespread increases in thaw depth are projected over most permafrost regions;
- Sea ice is projected to shrink in both the Arctic and Antarctic. In some projections, Arctic late-summer sea ice disappears almost entirely by the latter part of the 21st century;
- It is very likely that heat extremes, heat waves and heavy precipitation events will continue to become more frequent; (For statistical explanation of IPCC terms "likely", "very likely" etc., see Note)
- It is likely that future tropical typhoons and hurricanes will become more intense, with larger peak wind speeds, and heavier precipitation;
- Extra-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns;
- Based on current model simulations, it is very likely that the meridional overturning circulation (Gulf Stream pump) of the Atlantic Ocean will slow down during the 21st century.

The report is less certain about some of the more drastic possibilities posed by unmitigated climate change ("large-scale discontinuities") such as complete shutdown of the Gulf Stream, or complete collapse of the West Antarctic Ice Shelf or complete melting of Greenland ice, acknowledging that the models and the literature are not agreed on consensus projections. Responding to the report Pat Finnegan of Grian said in Dublin today: "The catastrophic trend already established across the previous three reports published by the IPCC is re-inforced by today's report" "It demands an unprecedented effort from policy makers to take action immediately, and to respond in kind to the scale of the challenge facing them." "This means committing in far stronger and far more positive terms to a coherent, dedicated and targeted programme of measures as part of a joined-up strategy to tackle Irish emissions."

"Grian has been arguing for this since 1998. We have seen very, very little real action from government on this so far." "Fair words won't reduce emissions any more than they butter parsnips. It's time for real and concerted action, or else we all collectively face a disastrous future in a warmer world." "Grian and our network partners Climate Action Network Europe wrote to government earlier this week requesting clarification on Irish government targets for emissions reductions for 2020." "The EU energy action plan published two weeks ago proposes reductions of -20% by 2020, and -30% conditional on other countries also making similar commitments." "Ireland, as the second wealthiest country in the world, with a huge renewable energy resource both onshore and offshore could easily commit to -33% by 2025." "This report provides further evidence---as if it was really needed---that government must get Ireland on track to a decarbonised economy and contribute to mitigating some of the worst effects predicted by the IPCC today." -----

ENDS ----- Further info, opinion, etc. contact: PAT FINNEGAN, (Co-ordinator, Grian) Mobile: + 353 86 856 85 20
 Note 1: See <http://www.ipcc.ch/SPM2feb2007.pdf> Note 2 (to Irish Editors): Pat Finnegan of Grian is an IPCC expert reviewer since 2005. Note 3: Note 4: Best estimates and likely ranges for globally average surface air warming for six

IPCC standard emissions scenarios are given in the assessment. However, they are displayed in the report as projected temperature increases from 1990 averages. In the table below, Grian has added the 0.6 °C rise already established between 1850 and 1990 to the projections contained in the assessment. Temperature Change °C at 2090-

Scenario	IPCC Best estimate	Best Estimate	relative to 1980-1999	(+ 0.6)
3.0 B2	2.4	3.0 A1B	2.8	3.4

--to be the upper limit to the warming that ecosystems can support before impacts begin to seriously degrade nature's capacity to support human societies and human activity as we know it. 2.0 °C is also the limit adopted by the EU as the limit to warming that negotiations in the UN should aim for. Note 5: IPCC statistical conventions use the following terms to indicate the assessed likelihood of an outcome or a result: probability

"Virtually certain" = > 99% probability
 "Very likely" = > 90% probability
 "Unlikely" = < 33% probability
 "Very unlikely"

Note 5: The IPCC was established jointly by the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP) in 1988 in order to provide an independent and objective assessment of the very best available official literature on climate change in order to assist and inform the international effort against climate change - The IPCC's first assessment report (FAR) was published in 1990 and was largely responsible for generating the momentum for the making of the United Nations Framework Convention on Climate Change (the original UN climate treaty created at the Earth Summit in Rio de Janeiro in June 1992. See UNFCCC, www.unfccc.int)

- The IPCC's second assessment report (SAR) was published in 1995 and was largely responsible for generating momentum for UNFCCC's implementation framework, the Kyoto Protocol, in 1997

- The IPCC's third assessment report (TAR) was published in 2001 and was largely responsible for generating momentum to save the Kyoto Protocol from the negative effects caused by the US withdrawal from the treaty in March 2001. Each report consists of 3 volumes, produced by 3 separate working groups: Science (WG1), Impacts (WG2) and Policy Responses (WG3).

In total, the IPCC is composed of more than 2,500 Expert reviewers, 800+ contributing authors and 450+ lead authors drawn from over 130 countries.