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Subject to revision

Advance paper submitted to the IPCC Expert Meeting on Communication, Oslo, 9-10 February 2016

The following reflections were prepared for the IPCC Experts Meeting on Communication

Background

The Quaker United Nations Office (QUNO) is an observer at the UNFCCC, and since 2013 has offered 'quiet diplomacy' with negotiators to help build communication and understanding between diverse groups of countries. In this work we stress the call to act for humanity and the urgency of what science is telling us, since the UNFCCC negotiations are often more influenced by economic competition than by climate science.

In our work outside the UNFCCC we have organized meetings, known as 'quiet conversations', with international organizations, faith and grassroots communities, to engage ethical questions with climate science. Some of the meetings have involved an IPCC scientist, and this collaboration with the IPCC has also enabled us to write accurate yet more 'simplified' summaries of recent climate science findings.

From these experiences we encourage the upcoming 6th Assessment Report to better reach the hearts and minds of the 'average person'. By this, we mean the citizen who is not versed in technical or scientific language and has likely never heard of the IPCC, yet whose understanding of the climate crisis, the root causes and need for transformation, is essential if humanity is to avoid catastrophic global climate change. To do this, we suggest an additional publication which relays technical and scientific information in a clear and relevant way, including most relevant statistics/percentages and language that connects to human emotions. This would more likely inspire personal and collective responsibility to ensure that the poorest and most vulnerable peoples now, and all our future generations, do not suffer profoundly as a consequence of our actions.

IPCC Strengths

- The IPCC seems increasingly successful in collating the latest climate science (etc.) to a level that withstands criticisms of the science.
- The IPCC assessment reports are clearly seen as the most extensive and thorough publication of available climate science findings, critical to organizations like QUNO which engage with anthropogenic climate change.
- The IPCC can address the root causes and drivers of anthropogenic climate change, in a way that moves beyond the political and economic agendas, including the role of fossil fuels (information otherwise easily influenced by financial interests) and objective analysis of other drivers, including land use practices, economic growth and population growth.

IPCC areas to strengthen

- Harsh and personally wounding criticism from climate change deniers has likely had a traumatic effect on climate scientists.
- Authors may feel 'safer' to stand behind lengthy technical language to more effectively cover all aspects of a scientific finding.
- Scientists may become quickly uncomfortable when findings are 'simplified' or put into nontechnical language, yet technical language can mask an emotional connection with the urgency of the situation.
- Without an emotional connection, it is harder for people to relate personally, in turn to act.
- For transparency with the general population, the assessment reports could better clarify how Governments can and cannot influence content in the reports.
- Need for more clear and simple information which can empower the 'average person'/citizen, specifically: what is happening, how bad it is, vision of what urgent action for a healthier future can achieve, and what contributions an individual can offer.

Suggestions for the AR6: A Summary for the Citizen

- Continue with the depth of quality of information, even length where necessary, as the 'rock' of evidence.
- Clarify what States are permitted to do, and not do, in editing the IPCC drafts.
- Create additional, simplified, 'Summary for the Citizen' which will also benefit policy makers, who often need a more concise 'story' with clear statistics to convince their Ministries.
- Do not be afraid state clearly where we are and how bad it is (symptoms of RCP 8.5). Too often scientists and government officials appear reluctant to speak about the threat to human civilization before us.
- Clearly state what is different to natural climate change, including speed of change, and its connection with other crises in biodiversity, oceans, land use, etc.
- Explain in detail relevant to daily life, which human activities drive the rise in GHG emissions.
- Explain in practical language how individual action (when multiplied), can make a difference. Clear and simple information – including percentages/statistics – that can help support discussions 'over the dinner table'.
- Be clear about the urgency and radical action needed (to reach RCP 2.6).
- Engage more in the non-scientific, non-technical 'fixes', that is, more sustainable, healthy lifestyles that do not drive GHG emissions. This would also encourage policy makers to talk about living sustainably as critical to avoiding dangerous climate change. Governments often fear that needed regulation will not be supported.
- Be very wary of emphasizing the role of technologies, such as carbon capture storage, which can justify inaction by those who gain financially from maintaining reliance on fossil fuels (and other significant contributing human activities). Citizens need to hear the message that technology alone cannot fix everything changes in lifestyle (which might also be supported by technology) are needed.
- Empower the citizen
 - This is a challenge we can face.
 - Our actions to stem climate change will help heal other environmental crises, including biodiversity, land use and biogeochemical pollution.
 - Our actions will help save vulnerable communities now and all future generations.
 - Our actions will protect Nature, on which our lives ultimately depend.

Annex 1: QUNO prepared the following paper for distribution at the UUNFCCC COP 21, in Paris.

What climate science tells us (briefly):

- 1. Between 1880 and 2012, global mean surface temperature warmed 0.85°C.¹
- Our greenhouse gas (GHG) emissions rate is currently above² RCP 8.5, the highest scenario of the 5th Assessment Report, placing us on track for global mean surface temperature rise of up to 4.8°C by 2100 compared to pre-industrial levels.³
- 3. This rate of global temperature rise would be, to the best of scientific knowledge, unprecedented in our human history. Warming between the last ice age and the current warm period, about 20,000 to 10,000 years ago, was approximately 0.5°C to 1°C rise in global mean surface temperature per 1,000 years.⁴
- 4. The levels of carbon dioxide, methane, and nitrous oxide concentrations in Earth's atmosphere are unprecedented in (at least) the last 800,000 years. CO2 concentrations have increased by 40% since pre-industrial times.⁵
- 5. Since 1951, human activities have been responsible for the majority of warming ⁶. These activities include fossil fuel energy production, forestry and land use, intensive and animal agriculture, industry, transport, and buildings.⁷ These human activities, reflecting our lifestyles and behaviours, are the 'root causes' of anthropogenic climate change.
- 6. **Population growth and, more significantly, economic growth, are the most important drivers** of increases in CO2 emissions⁸. Since 1970, emissions of CO2 from fossil fuel combustion and industrial processes contributed to about 78% of the total GHG emission increase.⁹
- 7. As CO2 lasts for approximately 150 years, we have less than ten years at current GHG emission levels to limit warming to under 1.5°C.¹⁰ A 1.5°C rather than 2°C temperature rise target could significantly influence the survival chances of the most vulnerable communities.¹¹
- 8. About half of the anthropogenic CO2 emissions between 1750 and 2011 have occurred in the last 40 years.¹²

¹ Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, Working Group I, 'The Physical Science Basis', Summary for Policy Makers, page 3, <u>https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WGIAR5_SPM_brochure_en.pdf</u> ² Glen P. Peters, Robbie M. Andrew, Tom Boden, Josep G. Canadell, Philippe Ciais, Corinne Le Quéré, Gregg Marland, Michael R. Raupach and Charlie Wilson (collaboration of the Global Carbon Project) in Nature Climate Change, online publication, 2 December 2012, p.2

³ Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, Working Group III Summary for Policy Makers, p.8 <u>http://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_summary-for-policymakers.pdf</u>

⁴ Jeremy Shakun, et all, *Global Warming Preceded by Increasing Carbon Dioxide Concentrations During the Last Deglaciation*, Nature, 5 April 2015, Volume 484, p. 49-55, and Shaun Marcott et all, *A Reconstruction of Regional and Global Temperature for the Past 11,300 Years*, Science Mag, 8 March 2013, Volume 339, p. 1198-1201.

 ⁵ Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report, Working Group I, 'The Physical Science Basis', Summary for Policy Makers, page 9, <u>https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WGIAR5_SPM_brochure_en.pdf</u>
⁶ Climate Change 2014, The Synthesis Report, p.5 <u>http://www.ipcc.ch/pdf/assessment-</u>

report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf

⁷ Ibid, p.88.

⁸lbid, p.5

⁹ Ibid, p.5 ¹⁰Ibid, p.64

¹¹ http://unfccc.int/resource/docs/2015/sb/eng/inf01.pdf

¹² Climate Change 2014, The Synthesis Report, p.4 <u>http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf</u>

- The oceans have absorbed more than 90% of the energy accumulated between 1971 and 2010, and about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification which compromises marine eco-systems.¹³
- 10. The Arctic is experiencing the fastest rate of warming. This results not only in the melting of ice sheets, which raise sea levels, but also in the melting of permafrost, which releases both CO2 and methane, leading to greater levels of warming.
- 11. Human activities resulting in climate change also contribute to planetary process crises in biodiversity (number of living species), biogeochemical flows (nitrogen in particular), and land use change.¹⁴ We are experiencing the highest species extinction rate in human history. These crises are inter-linked; action to reverse one crisis can positively help other crises.
- 12. Current GHG emission levels, unless substantially reduced, will undermine our water resources and our ability to grow food and work outdoors,¹⁵ threatening the collapse of eco-systems and thus the long term survival of our current human civilization.
- 13. We have a choice. We still have time to ensure warming below 2°C in this century, if we commit up to 70% GHG emission reductions by 2050 (compared to 2010) and near zero or below by 2100.¹⁶
- 14. Near zero anthropogenic GHG emission by 2050 is possible while being socially just and economically prosperous, and includes replacing fossil fuels with renewable energies, reducing energy demand, adapting transport systems and changing land use to produce more plant based diets, and naturally carbon-sequestering landscapes.¹⁷
- 15. Effective climate change responses can be a way to build a richer, more resilient, fundamentally more vibrant world. Access to low-carbon energy can improve health and livelihoods, while also protecting the climate.¹⁸

We call on our leaders to make the courageous decisions needed to create a fair, sufficient and effective international climate change agreement. The goal is achievable but priorities will need to change: currently, the majority of States commit more resources to warfare than to tackling climate change.

The choices we make now, personal and collective, can ensure that the poorest and most vulnerable peoples now, and all our future generations, do not suffer profoundly as a consequence of our actions. Our faith in common humanity gives us hope: love, rather than fear, can lead us through this crisis.¹⁹

This is a call to conscience.

¹³ Ibid. p.4.

¹⁴ The Nine Planetary Boundaries: <u>http://www.stockholmresilience.org/21/research/research-programmes/planetary-boundaries.html</u>

¹⁵ Climate Change 2014, The Synthesis Report, p.15 <u>http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf</u>

¹⁶ Ibid. p 20

¹⁷For example, as outlined in *Whose Getting Ready for Zero?*, Centre for Alternative Technology and Track 0, <u>http://zerocarbonbritain.org/images/pdfs/wgrz-full-report.pdf</u>

¹⁸ Katharine Mach, Director of Science, IPCC Working II Technical Support Unit.

¹⁹ Britain Yearly Meeting, June 2009, <u>http://old.quaker.org.uk/quaker-response-crisis-climate-change</u> and the <u>Quaker Statement on Climate Change</u>, 2014