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Using the IPCC for Communicating Both the Full Extent of the Global Climate Emergency and the Required Response

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Since the IPCC (2018) 1.5°C Report, the climate emergency is widely recognized. Then 2019 COP25 statement by IPCC Chair Dr H. Lee, referring to the three recent IPCC Special Reports (2018,2019,2019) is crucial emphasizing that global emissions MUST decline by and from 2020. The Summaries for Policy Makers (SPMs) are convincing for communication as all world governments approve them. Though the IPCC assesses climate change, the environmental health emergency called climate change is climate system disruption from atmospheric greenhouse gas pollution. The IPCC assessments can be used to produce risk assessments. IPCC published climate change science reports are invaluable, especially the FAQs. The most important message in the IPCC (2014) AR5 and 1.5°C Report is that global emissions have to decline rapidly from 2020, via market failure corrections, for a 1.5°C and for a 2°C limit. The greatest impact to humanity is on food security, and from the IPCC we describe regional crop impacts and crop model limitations. We elucidate IPCC reports on confidence, carbon budget, net zero, negative emissions, value judgements, and recommendations. We clarify inertias, commitment, risks, and amplifying feedbacks. Long-term data trends, rather than only model projections, can now be relied on. We relate IPCC scenarios to worst-case, business-as-usual and best case. For risk we use the IPCC upper ranges, because long-term projected temperature increases are underestimated as they do not account for amplifying feedbacks or decline of carbon sinks, and are only based on a single median climate sensitivity (3C). Although the IPCC shows that atmospheric CO₂ is "forever," IPCC SPM projections are all now only to 2100. From the IPCC RCP scenarios the world is tracking closest to the worst case scenario (RCP8.5). On this scenario the IPCC 1.5°C Report projects 1.5°C by 2035 and 2°C by 2047. The greatest risk to the future of humanity and most life is multiple inter-reinforcing amplifying feedbacks that lead to hothouse Earth and on to runaway. The evidence for multiple Arctic feedback emissions and Amazon die-back can be found in the IPCC 2014 5th assessment. This reinforces the imperative requiring immediate and rapid global emissions decline.