

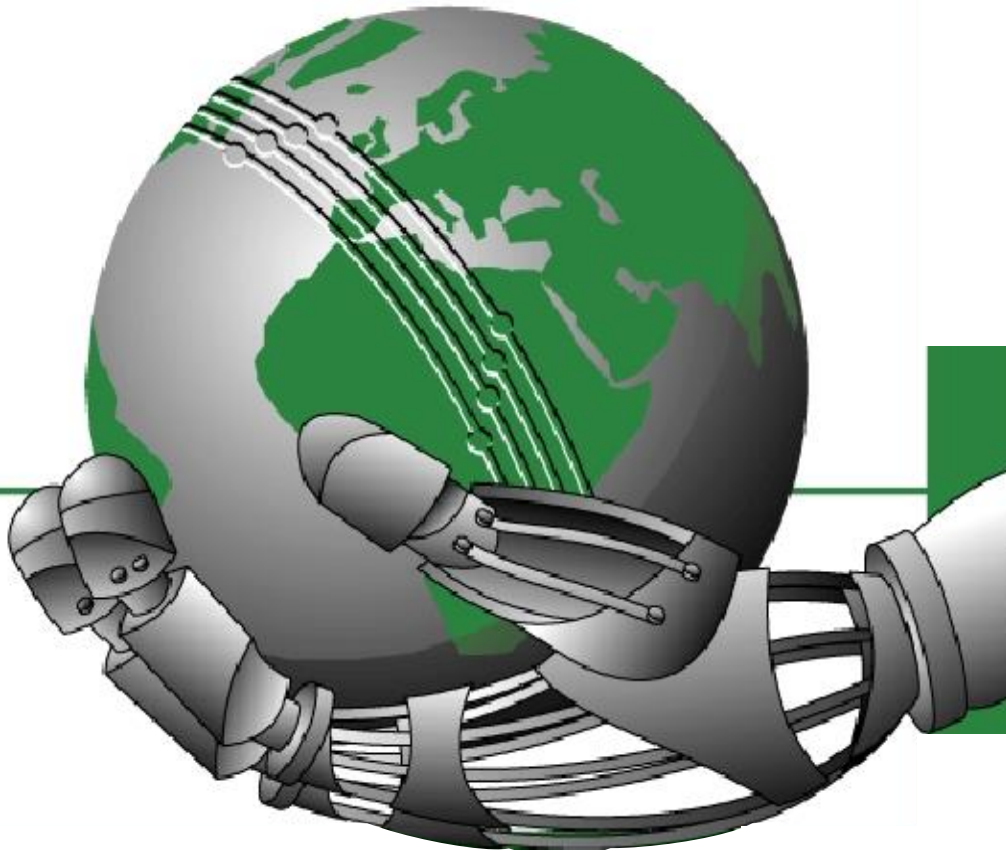
GEOENGINEERING: A Humanitarian Concern



**Climate
Centre**

*by Pablo Suarez, Ph.D.
Associate director for research and innovation*

Exciting Times: The World in our Hands



Exciting Times: The World in our Hands



Exciting Times: The World in our Hands





Two Geoengineering Questions (2010)

1. How will the most vulnerable help make geoengineering decisions?
2. Who will pay for humanitarian work in a geoengineered world?





Earth's Future

RESEARCH ARTICLE

10.1002/2016EF000464

Special Section:

Crutzen +10: Reflecting upon 10 years of geoengineering research

Key Points:

- Geoengineering decisions are a humanitarian concern: the deliberate manipulation of the global climate can impact vulnerable people not included in decisions
- The Paris Agreement aspiration to keep global warming below 2°C did not aim to endorse SRM, but rather ambitious mitigation pathways
- If resources must be directed towards exploring geoengineering options, the needs and role of the most vulnerable should be given full consideration
- In the past 10 years, humanitarian players have been largely absent from discussions on geoengineering research and governance; a more proactive and anticipatory engagement is warranted

Geoengineering: A humanitarian concern

Pablo Suarez^{1,2} and Maarten K. van Aalst^{1,2,3,4}

¹Red Cross Red Crescent Climate Centre, The Hague, The Netherlands, ²Frederic S. Pardee Center for the Study of the Longer-Range Future, Boston University, Boston, Massachusetts, USA, ³Department of Science, Technology, Engineering and Public Policy, University College London, London, UK, ⁴International Research Institute for Climate and Society, Columbia University, New York, New York, USA

Abstract The humanitarian sector is active at the global frontline of climate impacts, and has a track record in influencing the climate change policy agenda. Geoengineering is a humanitarian concern: the potential for deliberate large-scale intervention in the Earth's climate system has major implications in terms of impacts on the most vulnerable. Yet, so far the humanitarian community has largely been absent from geoengineering deliberations. Geoengineering may be perceived as too theoretical, too complex, and not imminent enough to merit attention. However, early engagement by the sector is imperative to ensure that humanitarian considerations are integrated into policy decisions. Those who can suffer the worst outcomes need to be involved; especially given the plausibility of “predatory geoengineering” where recklessly self-concerned actions may result in harmful consequences to others. This paper explores the humanitarian dimensions of geoengineering, specifically relating to solar radiation management (SRM). Drawing from the engagement of the Red Cross Red Crescent Climate Centre in SRM discussions, we discuss how to improve linkages between science, policy and humanitarian practice. We further propose the creation of a geoengineering risk management framework to ensure that the interests of the most vulnerable are considered and addressed - including the voices of all stakeholders.

1. Introduction

Less than two decades ago, science began loudly warning about the potential for climate change to trans-

“The potential for [geoengineering] has major implications in terms of impacts on the most vulnerable”

Special Section:

Crutzen +10: Reflecting upon 10 years of research

...ned Cross-National Climate Centre, The Hague, The Netherlands, ¹Frederic J. O'Rourke Center for the Study of the Longer-Range Future, Boston University, Boston, Massachusetts, USA, ³Department of Science, Technology,

“No one likes to be a rat in someone else’s laboratory”

Key Points

- Geoengineering decisions are a humanitarian concern: the deliberate manipulation of the global climate can include
- The F keep not a ambi
- If res explc the n
- vulnerable should be given full consideration
- In the next 10 years humanitari
- play for rese pro
- engagement is warranted

terms of impacts on the most vulnerable. Yet, so far the humanitarian community has largely been absent from geoengineering deliberations. Geoengineering may be perceived as too theoretical, too complex,

“Potentially delusional assumptions of rationality”

we discuss how to improve linkages between science, policy and humanitarian practice. We further propose the creation of a geoengineering risk management framework to ensure that the interests of the

“Predatory Geoengineering”

Less than two decades ago, science began loudly warning about the potential for climate change to trans-



“In the context of tipping points or runaway climate change scenarios,

RESEARCH ARTICLE *Geoengineering: A humanitarian concern*

SRM could help reduce impacts on some of the most vulnerable, but

Crutzen +10: Reflecting upon *Longer-Range Future*, Boston University, Boston, Massachusetts, USA, ³Department of Science, Technology,

global power dynamics are not set up to ensure that the interests of the most vulnerable are elicited, considered, and addressed.”

manipulation of the global climate can impact vulnerable people not included in decisions

• The Paris Agreement aspiration to

from geoengineering deliberations. Geoengineering may be perceived as too theoretical, too complex, and not imminent enough to merit attention. However, early engagement by the sector is imperative to ensure that humanitarian considerations are integrated into policy decisions. Those who can suffer

Geoengineering is a Humanitarian Concern

• If resources must be directed towards the humanitarian dimensions of geoengineering, specifically relating to solar radiation management