

Africa scientists, stakeholders share perspectives on solar geoengineering

By: Godwin NNANNA

(Eds: Alex Hanafi & Andrew Parker)

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A workshop to examine African perspectives on the emerging issue of solar geoengineering research was held Wednesday, June 27 in Dakar, Senegal. Attended by scientists, policymakers, members of academia and the media from at least 14 African countries as well as representatives of UK's Royal Society and the Environmental Defense Fund of the United States, the one day workshop - the first of its kind in Africa - examined among other things the global state of solar radiation management (SRM) research, SRM governance initiatives and capacity building needs for SRM research.

Organised by the African Academy of Sciences (AAS) with support from partner institutions, participants discussed solar geoengineering and its potential impacts and implications for countries across the world, particularly poor and largely vulnerable countries like many in Africa. Solar geoengineering is currently only a theoretical concept: geoengineering technologies are in their infancy and it is unclear whether - if ever- the concept should or would be deployed. Instead, discussions focused on the importance of contributing African voices to ongoing discussions about governance of *research* into solar geoengineering.

Geoengineering proposals essentially aim to intervene in the climate system by deliberately modifying the earth's energy balance to reduce increases of temperature. Methods are diverse and vary greatly in their technological characteristics and possible consequences but fall essentially under two major groups: carbon dioxide removal (CDR) and solar radiation management (SRM).

SRM methods, perhaps the more controversial class of geoengineering techniques, aim to offset greenhouse warming by reducing the incidence and absorption of incoming solar radiation. "Solar radiation management methods propose to do this by making the earth more reflective, that is by increasing the planetary albedo, or by otherwise diverting incoming solar radiation. This provides a cooling affect to counteract the warming influence of increasing greenhouse gases," explains 'Geoengineering the Climate' a publication by The Royal Society of the United Kingdom which has significantly influenced discussions on the issue in recent times. The most prominent proposed SRM technique is stratospheric aerosol injection.

Speakers at the workshop included Andrew Parker (Senior Policy Adviser at The Royal Society) and Cassandra Brunette and attorney Alex Hanafi, both of US-based Environmental Defense Fund. South Africa-based Cameroonian professor George Ekosse, and former Vice President of the Intergovernmental Panel on Climate Change (IPCC) Professor Richard Odingo both opened the discussions on Africa's perspective on SRM research with their presentations.

Given Africa's vulnerability to the impacts of climate change, and therefore the potential impacts of SRM, participants acknowledged the need to upscale discussions and build capacity of relevant stakeholders on the issue of solar radiation management research and research governance. They noted that it is timely that Africa has begun building thoughts on the issue of climate engineering research and acknowledged the need for more scientific investigation into SRM to improve understanding of the method because of the uncertainties and risks associated with it.