SRMGI Jamaica workshop: meeting report

Summary

SRMGI, in partnership with the Caribbean Academy of Sciences Jamaica Chapter (CAS-J), University of West Indies (UWI), and Build Better Jamaica, hosted a one-day SRM discussion workshop on July 7, 2016, in Kingston. The meeting was attended by approximately 50 people, including local academics, policymakers, and NGO representatives. Featuring presentations from climate and solar radiation management (SRM) experts, a keynote speech from Minister Horace Chang, and group discussions on the ethics and governance of SRM research, the workshop was the first of its kind in the Caribbean, opening up discussions of SRM in Jamaica and encouraging further engagement in the region.

Meeting speakers, moderators and discussants

- Ms Holly Buck, PhD Candidate, Cornell University
- Dr the Honourable Horace Chang, Minister without Portfolio, Ministry of Job Creation and Economic Growth
- Professor Tara Dasgupta, President of CAS-J
- Professor Ishenkumba Kahwa, Deputy Principal, UWI
- Mr Dwight Lewis, Senior Advisor to the Jamaican Minister of Science, Energy and Technology
- Dr Nicolas McMorris, Professor, UWI
- Dr Juan Moreno-Cruz, Assistant Professor, Georgia Institute of Technology
- Mr Andy Parker, Research Fellow, IASS Potsdam, and Project Director, SRMGI
- Dr Anna Perkins, Senior Programme Officer, UWI
- Professor Paul Reese, Dean of Science and Technology, UWI
- Professor Michael Taylor, Senior Lecturer, UWI

Review

The workshop took place in the Physics department at the University of the West Indies, Mona campus, on a day that was sweltering even for Jamaica in July. Around 50 participants gathered for an opening ceremony that featured a number of distinguished speakers who opened proceedings and gave context to the SRM discussions by reflecting on the climate challenges faced by Jamaica.

Dr the Honourable Horace Chang, Minister without Portfolio in the Ministry of Job Creation and Economic Growth, gave the keynote opening address. Noting the climate threats Jamaica faces, the Minister expressed a hope that the workshop would represent a kick-off meeting for future collaboration between the University of West Indies (UWI), the Caribbean Academy of Sciences Jamaica (CAS-J) and SRMGI.

Following on from the Minister’s comments, Professor Paul Reese, Dean of Science and Technology at UWI, discussed Jamaica’s susceptibility to the impacts of climate change, while Professor Ishenkumba Kahwa, Deputy Principal at UWI, agreed with the Minister that broadening discussions on SRM in
Jamaica would be important. Dwight Lewis, Senior Adviser to the Minister of Science, Energy and Technology, pointed out that action on climate change is already under way in Jamaica, highlighting efforts to increase the implementation of renewable energy around the country.

Following the opening ceremony, the main SRMGI meeting began with a comprehensive presentation from Professor Michael Taylor, on the climate threats faced by the small-island states of the Caribbean.

He emphasized three key messages

1) Take note: the climate is changing and humans are responsible
2) Take account: the climate will keep changing thanks to inertia in the climate system
3) Take action: climate change demands a comprehensive response.

Professor Taylor emphasized the vulnerability of the Caribbean Islands to the projected effects of global warming, including temperature increases, longer and more severe droughts, intense hurricanes and sea level rise, before concluding that policies to combat climate change are needed at all levels, from community to country to regional to worldwide.

Introducing SRM as a proposed response to some of the risks of climate change, Andy Parker presented on the scientific and socio-political dimensions of SRM. The presentation reinforced the common message from the geoengineering research community – that SRM cannot be an alternative to emissions reductions or adaptation, but modelling studies have indicated that it might be able to reduce some of the risks of climate change. Andy also drew attention to the large uncertainties around the impacts of SRM, and the governance challenges that many experts think would accompany the development of a global technology in our imperfect international system.

Reflecting on the presentations, Dr Juan Moreno-Cruz, Holly Buck, and Dr Anna Perkins gave short talks on different dimensions of SRM.

Addressing the economics of SRM and other climate policies, Juan spoke about the regional implications of SRM and its impacts on geopolitics. For instance, SRM will not affect all countries equally. While research shows that SRM works well on average, some countries will benefit more than others. Juan concluded with a segment on the inter-generational impacts of SRM and our responsibility to future generations.

Holly challenged participants to consider the range of the ethical issues that SRM raises, such as distributive, intergenerational, and interspecies justice. Holly also recommended that ethical analysis of SRM should be embedded in the research process, rather than afterwards – allowing ethics to inform what SRM models investigate as well as how research questions are asked.

Dr Perkins raised the importance of religious perspectives when considering the ethics of deliberately intervening in the climate system. She argued that religion provides the lens through which many people view humanity’s relationship with nature, and that religious insights should be part of a broad societal conversation around geoengineering.

The morning session concluded with a panel Q&A session. Participant questions covered a range of topics, from humanity’s ability to deliver SRM, to potential side effects, to issues of governance and ethics.
During the afternoon session, the focus moved to participant discussion with a facilitated plenary conversation that encouraged all meeting participants to share their views on SRM science, politics and research, and address the immediate challenge of research governance.

The session opened with participants discussing their concerns about the level and nature of the threat that climate change presents for Jamaica. In particular people highlighted the threats to Jamaica’s biodiversity and economy, pointing out that climate change is already harming Jamaican ecosystems, and that this will continue. There was also some despondency over global action on climate change, despite the climate agreement that came out of the Paris UNFCCC talks. “Even with country commitments to reduce GHGs, it is still far away from where we need to be”, concluded one participant.

Making a direct link to their pessimism about how climate change is going to affect Jamaica, participants expressed a high level of support for increased research on SRM. At one point a woman stood up and challenged her fellow participants: “can we afford not to look into SRM, given what we know about climate change?”. The response on this was clear – no one disagreed. Of those who voiced agreement, there was repeated reference to the aspirational temperature target of 1.5 degrees that was agreed at the Paris climate talks. “We must look at SRM because all the options at this point in time will not get us to the 1.5 degree change”, said one participant, while another added “the 1.5 agreement puts SRM on the table”.

While participants expressed support SRM research in general, there was some pessimism about the different dimensions of research governance. One scientist bemoaned the lack of funding opportunities: “how are we going to get support for this type of research in the first place?”, while another observed how difficult it might be to persuade people that SRM research would be a good use of money: “the first pushback on research will be: why waste money and do research here if we aren’t sure [about SRM]?”. A participant who worked for an NGO wondered about what mechanisms there would be for public input into research: “are the scientists going to acknowledge our concerns or points?”.

If participants were generally supportive of research, many expressed concerns about the possible unintended impacts of SRM use. Some people questioned what the physical impacts might be: “it has potential, but is so risky”, and “SRM is an option – but what are the ecological concerns?”. Others debated the potential for SRM to distract from cuts to greenhouse gas emissions, with several people arguing that it could allow countries to keep polluting and not be held accountable. One participant likened SRM to a drug, treating the symptom not the cause of the problem: “if SRM is a medication, once we stop treatment, all the symptoms come back full force and the body – the planet – will not have adapted”.

In response, one man argued for a pragmatic approach: “people who don’t take action on climate change will use SRM as an excuse. How do we stop that? We can’t not have this conversation [about SRM], because we need to address the problem of climate change”. Participants then discussed how it might be possible to avoid SRM becoming a distraction from emissions cuts. One person suggested that SRM use might be linked to cuts in greenhouse gases, while another stressed the need for a backup plan that would allow the use of SRM to be phased out.

A concern that was widely shared was the prospect that geopolitical power would determine if, how and when SRM would be used. A number of participants expressed agreement with a speaker who feared
that Jamaica would not get a say in the decision to use or reject SRM – powerful countries would make
the decision and Jamaica would have to accept the consequences.

Looking to the future, and thinking about research governance, some emphasised that alliances and
negotiations would be an important way for countries like Jamaica to influence SRM development and
possible use. One person argued that bodies like AOSIS – the Alliance of Small Island States – would be
important for preventing developing country participation in negotiations becoming mere tokenism. The
optimism over negotiating international agreements over SRM was not shared by all, however, with one
participant arguing that it was hard even to get everyone to agree that climate change exists.