



KEYNOTE SPEAKER AT THE SECOND INTERNATIONAL CLIMATE ENGINEERING  
CONFERENCE (CEC17)

International Context for the Geoengineering Debate

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Ladies and Gentlemen,

I want to thank the Institute for Advanced Sustainability Studies for inviting me to the opening session of this Conference on Climate Engineering. It gives me great pleasure to be part of this very important meeting.

You are the thematic experts and it is not my intention to provide you with views on the specific innovative technologies.

I would, however, like to share with you some thoughts on the global context in which your discussions about climate engineering are taking place and the critical role that you play in advancing innovative new solutions to address climate change and the other pressing development challenges and concerns for our planet and people, particularly the most vulnerable.

As you are aware, the international community came together in September 2015 to adopt a truly remarkable framework to transform our world. The 2030 Agenda for Sustainable Development, including the 17 Sustainable Development Goals (SDGs). These goals apply to all countries. They are a plan of action over the next 13 years to significantly shift the world onto a sustainable and resilient path, leaving no one behind.

The scale of the transformation required by the 2030 Agenda and the 17 SDGs is far more significant than anything ever envisioned for the global community and it will require that we design and implement innovative solutions to address the challenges ahead. Goals 3, 4 and 9 relating to health, quality education, and industry, innovation and infrastructure underline the need to strengthen the domestic research, technological and industrial capacity to produce new and improved sustainable and competitive solutions for health-care services, agriculture and infrastructure development, and for tackling climate change. Science, technology and innovation will help accelerate progress, also giving us the wherewithal to do so within our planetary boundaries. We will need to do this by creating the necessary partnerships across governments, business, the scientific community, and civil society, to meet the goals.

While the SDGs are not legally binding, governments are already taking ownership and establishing national frameworks to achieve them.

However, as much as we are beginning to see countries rallying around the Agenda 2030, we also continue to punish our planet with our actions.

More than 2 billion people confront water stress and nine out of 10 city dwellers are breathing polluted air. The devastation caused by natural disasters across the globe, which we are currently witnessing in all its intensity, continues to cost billions in restoring critical infrastructure, displaces millions and wipes away decades of development dividends and gains.

Strengthening the resilience of institutions, communities, individuals and our environment remains key to ensuring sustainable development. Reducing disaster and climate risks and, in particular, bending the emissions curve by 2020, must be top priority.

Implementation of the Paris Agreement is therefore central to the success of the 2030 Agenda.

The Paris Agreement was also signed by almost every country in the world. After it was adopted in December 2015, the Agreement entered into force in less than a year, in record speed, testimony to the urgency of action needed. To date, more than 160 Parties have ratified it, and the numbers are growing monthly.

The Paris Agreement sets an ambitious goal: to keep average increase of global temperature well below 2 degrees and as close as possible to 1.5 degrees, and allowed every signatory to decide how they would contribute to achieve this goal and what would be the specific actions that they would undertake to reach the objective, based on the principle of common but differentiated responsibilities and respective capabilities.

It does not impose specific adaptation or mitigation actions, nor does it take any position on whether any specific technology should or should not be deployed.

This is where the science community has a significant role to play.

Countries need to call on “best available science” in order to decide on which options they undertake to combat climate change; and we must make access to the requisite technologies equitable to make progress.

In the international sphere, the Intergovernmental Panel on Climate Change acts as the United Nations body for assessing the science related to climate change. It was established to provide policymakers with regular scientific assessments concerning climate change, its implications and risks, as well as to put forward adaptation and mitigation strategies. Its assessments of climate change enable policymakers at all levels of government to take sound, evidence-based decisions.

One of the decisions that countries will be taking in the future is whether to deploy geoengineering technologies as a mitigation measure to reduce the concentration of anthropogenic greenhouse gases in the atmosphere.

And the question about whether and how to deploy these type of technologies is emerging in the international sphere.

Without referring to any specific technology, IPCC’s last assessment report, the 5th report of 2014 recognizes that mitigation measures intersect with other societal goals, creating the possibility of co-

benefits or adverse side effects. According to the report, these intersections, if well-managed, can strengthen the basis for undertaking climate action.

In 2018, the IPCC will issue a special report on pathways to achieve the objective of limiting the global increase in temperature to 1.5 degrees. The report will need to consider whether the contribution of technologies such as carbon dioxide removal will be needed to achieve the 1.5 degree path.

Science will provide policy relevant information on these issues, but decisions on whether or not such technologies should be used, need to be taken by societies as a whole, within normal decision-making processes at sub-national, national and international levels.

Some UN organizations and intergovernmental processes have started to address these issues.

The Parties to the Convention of Biological Diversity noted in December 2016 that the application of the precautionary approach, the customary international law, the general obligations of States with regard to activities within their jurisdiction, and requirements relating to environmental impact assessment, may be relevant for geoengineering activities - but still form an incomplete basis for global regulation. This implies that we would have to consider what more will be needed. And you are the community that can help us answer some of these critical questions.

The Parties to the CBD have also called for more transdisciplinary research and sharing of knowledge to better understand the impacts of climate-related geoengineering on biodiversity and ecosystem functions and services, socio-economic, cultural and ethical issues and regulatory options.

This will help us understand what type of rules and agreements these technologies would need to be made operational, what type of governance rules they would require and, eventually, whether an international regulatory framework can be put in place in a way that allows the deployment of new technologies while, at the same time, protects from its anticipated risks.

Ladies and gentlemen,

The United Nations Secretary-General very recently reminded us that innovation is something that we must address. In his speech at the opening of the 72 session of the General Assembly, he pointed out that technology will continue to be at the heart of shared progress, while noting that, "*innovation, as essential as it is to humanity, can also have unforeseen consequences*".

Science and technology drive progress: they improve health and living standards, boost economic growth, increase productivity and improve job conditions. But innovation can also have unplanned effects, particularly shifting the needs of the job markets and making some jobs redundant, they can widen gaps in inequality along multiple dimensions, and challenge our ethical frameworks.

It is your duty as scientists to investigate and assess all possible consequences of the technologies being proposed and to provide the most accurate assessment not only of the specific benefits of a technology being proposed, but also of its potential risks and impacts.

While the various geoengineering technologies and their potential role to reduce the climate risks are being considered, it needs to be clear that whatever role they are given, it has to be done within the sustainable development agenda and making sure that the overall achievement of the sustainable development goals is not compromised and that we do not leave countries or people behind.

I am encouraged to see that the scientific community is engaged in substantial discussions to understand the relationship of the different solutions and the goals that the world has set for 2030 so that informed policy decisions can be taken.

I wish you fruitful discussions and look forward to learning more of the conclusions reached in this Conference.