

CLIMATE ACTION POLICY PAPER: TECHNICAL FIXES



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Technical fixes to counteract climate change include geoengineering, carbon capture and storage and carbon dioxide removal. Islamic Relief believes that it is better to transform the systems and behaviours that lead to climate change and its effects than rely on untried technologies and fixes that threaten peace and security, and increase inequalities such as geoengineering.

Geoengineering is the deliberate and large-scale manipulation of Earth's climate system to influence the weather and reflect solar heat to counteract the negative effects of climate change. Carbon capture and storage (CCS) is a process that involves the capture, transportation, and storage of carbon dioxide (CO2) emitted by power plants, industrial facilities, and other sources of greenhouse gas emissions, mitigating climate change by reducing the amount of CO2 released into the atmosphere.

Carbon dioxide removal (CDR) refers to the process of removing carbon dioxide already in the atmosphere and storing it in various forms, such as underground or in the ocean.



Crops growing in a greenhouse taking in CO2 from an incineration plant. Picture: Matjaz Krivic Climate Visuals Countdown

# Geoengineering

The large scale, intentional manipulation of the planet's natural systems, such as solar radiation management using chemicals and barriers, is increasingly being presented as a strategy to counteract climate change and its effects. However, holistic assessments of geoengineering technologies also show that if deployed they are likely to worsen, rather than mitigate, the impacts of global warming. The irreversibility, risk of weaponisation, and implications for global power dynamics inherent in large-scale climate geoengineering - who is in control, who is effected? - also make it a dubious option. Islamic Relief joins with organisations across the world in urging caution regarding geoengineering. The central premise is that the balance that has been lost because of human greed and disregard for creation can be restored by technological fixes. Islamic Relief argue that it is better to

transform the systems and behaviours that led to that imbalance, rather than risking peace and security, increasing inequalities and meddling further in vital global and local ecosystems with unknown consequences. The false promise of geoengineering is already being used by the fossil fuel industry, the main culprits of climate change, to delay and divert energy transition.

We have a moral and social responsibility to improve the environment and not to destroy it.

Islamic Relief Sudan

## **Carbon capture and storage**

All pathways towards the comparatively 'safe' limit to global heating to 1.5°C depend on removing carbon from the atmosphere. But they also necessitate immediate and sweeping cuts to greenhouse emissions, especially the use of fossil fuels. Technologies to capture carbon at source are developing but are yet to be proved at scale. The prospect of CCS, much promoted by fossil fuel-producing countries and corporations, continues to be used to support the development of the oil and gas industry and further delay real cuts in emissions. It does not make sense to carry on with developing new fossil fuel reserves on the assumption that CCS will be available to mop up all the additional emissions. Efforts to develop such technologies should be supported, but the priority should be to continue investing in existing nature-based solutions such as sequestering and storing carbon in trees and soil, which can provide co-benefits for sustainable development. The focus of energy strategies must be on scaling up proven renewable technologies, developing energy storage, supporting energy efficiency and reducing demand.



Climate and biodiversity advocacy youth leaders planting trees. Picture: Florence Baula Islamic Relief Philippines

#### **Carbon Dioxide Removal**

Carbon dioxide removal (CDR) technologies might provide a means of sucking carbon out of the atmosphere. Scientists and policymakers are divided: Some say the technology must be the immediate priority for research. Others urge caution, warning that creating the impression there are viable options for removing carbon dioxide might lead to a false sense of security. Most CDR technologies are unproven, are likely to be limited in scope, take years to develop and will cost large amounts of money. Islamic Relief believes that the priority must be to fully deploy the reliable, lowcarbon technologies, such as renewable energy, that we already have.

# Climate technologies and Islam

'A Muslim might support climate technologies, but Islamic climate ethics urge them to act with adl (justice) and l'tidal (moderation).'<sup>1</sup> There will always be a need for a comprehensive understanding of reality in climate engineering proposals which balances both considerations. Islamic scholars have concluded that the great uncertainties surrounding the consequences of geoengineering and CCS and CDR would render its 'unnatural and detrimental technologies' impermissible under the Shariah.<sup>2</sup>

#### Muslim scholar Saffet Abid Catovic writes:

In summary, at this point in time, and given the current state of research (at its infancy with no certainty as to its viability, effectiveness, and/or potential harms), it is my considered opinion that an Islamic view on geoengineering is one which not only permits (mubah) but also recommends the use and implementation of carbon capture and storage technologies that mimic and enhance natural processes. Some examples include CO2 removal and storage by terrestrial plants, burying biomass, reforestation, and afforestation (creating new forests). However, because of the reasoning presented heretofore I do not think the Shariah would allow for other types of more unnatural and detrimental technologies. When it comes to solar radiation management technologies, for example, I believe only painting roofs and other structures with reflective material and placing solar reflectors in the desert would be considered permissible (halal). These represent mere enhancements of natural processes rather than more unnatural and potentially dangerous enhancements. In the end Allahu'Alaam -God Knows Best.

Catovic SA, (2018) Islam, the Religion of Nature, and Geoengineering: Let there be no altering of the work wrought by Allah in Playing God? Multi-faith responses to the prospect of climate engineering. New Jersey: GreenFaith

### **Endnotes**

<sup>1</sup> Dedeoğlu, Ç. 2018. "Islam and Climate Engineering." In Playing God? Multi-faith Responses to the Prospect of Climate Engineering

<sup>2</sup> Catovic SA, (2018) Islam, the Religion of Nature, and Geoengineering: Let there be no altering of the work wrought by Allah in Playing God? Multi-faith responses to the prospect of climate engineering. New Jersey: GreenFaith https://www.researchgate. net/profile/Forrest-Clingerman/ publication/333001665\_PLAYING\_GOD\_ Multifaith\_Responses\_to\_the\_Prospect\_ of\_Climate\_Engineering\_A\_GreenFaith\_ Report/links/5cd594f7a6fdccc9dd9edfd5/ PLAYING-GOD-Multifaith-Responses-tothe-Prospect-of-Climate-Engineering-A-GreenFaith-Report.pdf

Front cover image: City rooftop gardening in Dhaka. Picture: Islamic Relief Bangladesh



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