NESHAINTHI NAVARATHINAM
1477931

SHOULD WE HACK THE CLIMATE?

THE MORAL DILEMMA

THE GOVERNANCE

GEOENGINEERING

Geoenigineering describes various technologies that serve to counteract climate change by either removing CO2 from the atmosphere or reflecting the sunlight. (Anselm et. al, 2014, p.135)

The most often discussed methods are the injections of aerosols into the stratosphere, cloud whitening, ocean fertilization but also more massive interventions like space mirrors. (ibd.)

POTENTIAL

Methods like injecting sulphate aerosols into the atmosphere lead to the reflection of radiation. This in turn, could lead to global cooling. Humans could now essentially control the earth´s temperature and thus prevent climate change and it´s consequences. (Svoboda, 2012, p.244)

Not only are geoengineering strategies and in particular sulphate injections efficient but compared to other mitigation and adaption strategies they are also economical. (Bodansky, 2013, p.540)

Even though there seems to e a lot of potential. Geoengineering also bears various risks.(Anselm et. al, 2014, p.135)

RISKS

Geoengineering is highly speculative, because it can´t be tested on a large scale and therefore the direct and the long-term consequences can´t be comprehended, especially since it concerns a system as complex as our ecosystem. (Anselm et. al, 2014, pp.137)

The risks are myriad like droughts, reduction of freshwater, disruption of regional weather patterns, famines. This also affects plant-life, animals and other organisms of the ecosystem. (Svoboda, 2012, p.245)

Though there are various consequences only recently have ethicists considered the moral impllications of these processes. (Svoboda, 2012, p.244)

MEGALOMANIA

Geoengineering can be seen as climax of the human hybris and megalomania. (Anshelm, 2014, p.137)

The normalized relationship of human and nature is essentially coined by arrogance and domination. (Bunzl, 2009, p.2)

But moral implication don´t only concern the human species also other organisms of the ecosystem who can not participate in the discourse such as animals. (Svoobda, 2012, p.245)

RESPONSIBILITY

We caused it we fix it?

REGULATION

Although, there is no specific international agreement on geoengineering, there are some existing international rules. Amongst others there is the precautionary and inter-generational principle and the prohobition of using environmental modification techniques in general, for hostile purposes. (Bodansky, 2013, p.542)

GAMBLE

The extent of these risks can not be calculated, which make them even more imapactful, since they transcend time and space. (Anshelm, 2014, p.137)

This gamble and reformation implemented today will bear risks that don´t only affect today´s but also future generations. (Anshelm, 2014, p.140)

RESEARCH

Today´s research of all possible options is essential to prepare future generations, so they can make decisions even in states of emergency. (Ott, 2011, p.200)

There are a lot of findings about the side-effects that researchers can see through experimentation. Though,this is highly restricted. (Bunzl, 2009, p. 3)

DEMOCRATISATION

When it comes to international regulations regarding Geoengineering. The question here is to reach an international consensus of the governance of geoengineering. (Anshelm, 2014, p.140)

In order to ensure legitimacy of the decisions ,there should be representatives of all affected countries present in the governance. This might come at the cost of effectiveness. (Bodansky, 2013, p.542)

DISCONTINUATION

The discontinuation of Geoengineering could have drastic consequences. Rapid global warming, impact on agriculture and ecosystems are only some of them. (Svoboda, 2012, p.245)

Humanity as a whole in this case becomes dependent on these methods for at least centuries. (Anshelm, 2014, p.138)

Future generations could face the dillemma whether to live with the side-effects or face an even more rapid climate chnage. (Ott, 2011, p. 202)

TIME

Geoengineering allows to avoid the need to take action right away, since it buys us time to conteract the real causes. (Bodansly, 2013, p.540)

Also, the use of effective geoengineering is not as hazardous as other more ineffective methods, which can´t lead to a slowdown of climate change. (Ott, 2011, p.201)

PRIVATIZATION

One could argue that for the implementation of geoengineering, international collaboration is not necessary. This could be considered a positive aspect regarding effectiveness but this could also imply a new threat. (Bodansly, 2013, 549)

Just as in terrorism, geoengineering could become a threat in which individual or private entities could cause demages for many. (Bodansky, 2013, 548)

NO CHANGE

Geoengineering becomes an enabler of our unsustainable , industrial society. Naomi Klein describes this as *"the ultimate expression of a desire to avoid doing the hardwork of reducing emissions"* . (Anshelm, 2014, p.138)

Therefore there is no change in our culture of consumerism but our dysfunctional ways remain. (ibd.)

EASINESS

It is harder to mobilize society and economy to change their ways long-term, because it is more inconvenient compared to mitigation strategies. Mitigation would also imply more political interventions into the lifestyles of people, which might be perceived as unpleasant. (Ott, 2011, p.201)

MILITARIZATION

The integral question of *"who has the right to set the global thermostat"* as the ETC Group asks, could be answered by rogue states militarizing Geoengineering. (Anshelm, 2014, p.140)

NEOCOLONIALISM

One country could implement geoengineering and others that did not partake in the decision-making could carry the consequences. (Anshelm, 2014, p.140)

Especially, the global north willl keep this unsustainalble lifestyle, while the global south bears the higher vulnerability and side-effects. Even though industrial countries are more responsible because of their emissions. (Anshelm, 2014, p.140)

NEOCOLONIALISM

same marginalized groups will be affected by climate change

SOURCES

Anshelm, Jonas; Hansson, Anders (2014): Battling Promethean dreams and Trojan horses: Revealing the critical discourses of geoengineering. In: Energy Research & Social Science 2, S. 1
144. DOI: 10.1016/j.erss.2014.04.001.
Bodansky, Daniel (2013): The who, what, and wherefore of geoengineering governance. In: Climatic Change 121 (3), S. 539–551. DOI: 10.1007/s10584-013-0759-7.
Bunzl, Martin (2009): Researching geoengineering: should not or could not? In: Environ. Res. Lett. 4 (4), S. 45104. DOI: 10.1088/1748-9326/4/4/045104.
Konrad Ott (2011): Fallstudie zur Ethik in Wissenschaft, Wirtschaft, Technik und Gesellschaft. Argumente für und wider „Climate Engineering".
Toby, Svoboda (2012): The Ethics of Geoengineering: Moral Considerability and the Convergence Hypothesis. In: Journal of Applied Philosophy (29), S. 243–256.
all icons: canva.com