



**International Seminar on  
The Security Implications  
of Emerging Climate  
Altering Technologies**

Royal Military Academy  
Hobbemastraat 8, 1000 Brussels  
23 October 2019



**The Security Implications of Geoengineering**

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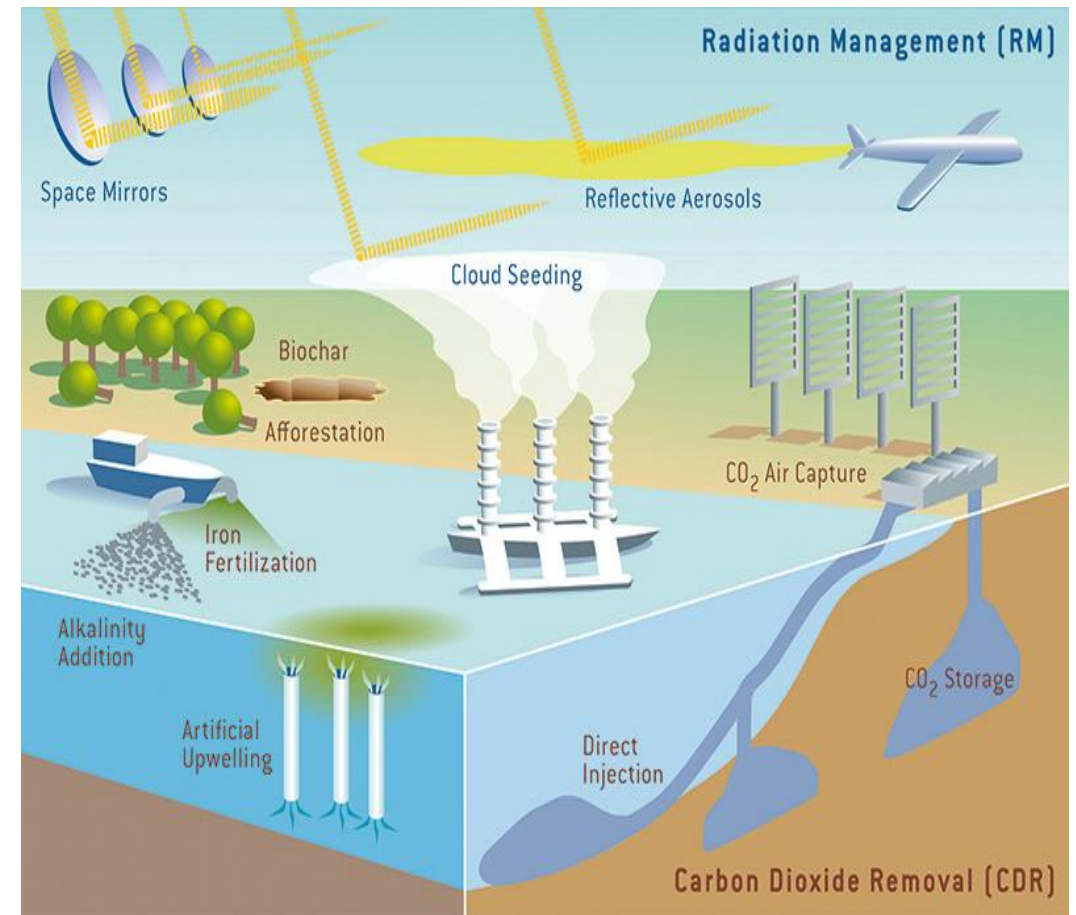
# THE SECURITY IMPLICATIONS OF GEOENGINEERING

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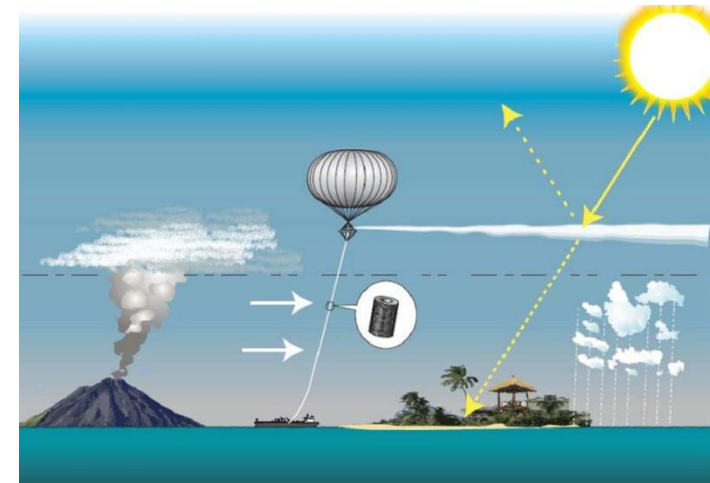
# INTRODUCTION

- ❖ Geoengineering involves artificial intervention in the global climate.
- ❖ It is an option to address the adverse impacts of climate change.
- ❖ Concerns revolve around the associated effects of geoengineering as it intervenes in the regular system and natural order of the world's climate.
- ❖ A special kind of governance is required at global level to develop and monitor geoengineering.

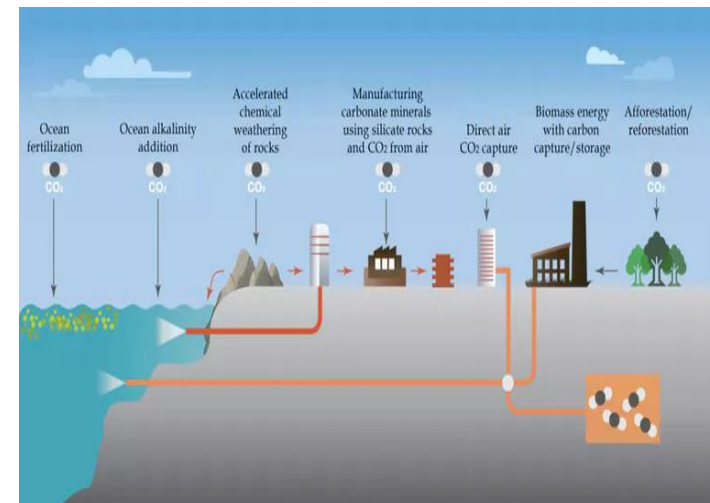


# METHODS OF GEOENGINEERING

- Solar Radiation Management (SRM)



- Carbon Dioxide Removal (CDR)



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

It is an untested science.

The consequences are unknown and uncertain.

It has not been sufficiently game-planned or sufficient modeling studies done.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- Is it safe to intervene in an already fragile climate?
- It has risks of ozone depletion.
- Possible impact on vegetation, crop growth and issues of food security.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- Risks associated with premature termination.
- Extremely expensive, capacity lies only with rich nations.
- Insufficient research and lack of transparency.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- Issues of intergenerational ethics.
- Potential for weaponization of technique.
- Dependence on military deployment, possibility of arms race.





# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- Risks of termination shocks.
- Risk to hydrological cycles, plant growth and aquatic systems.
- Risk of climate winter.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- Risk of technology falling in wrong hands.
- Lack of governance structure.
- Long-term legal issues.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- It will militarise the outer space.
- It will give rise to mistrust and suspicion, and blame game can give rise to “weather war.”
- Ocean fertilisation methods can sterilise large stretches of ocean over time, effectively destroying fisheries and local ecosystem.



# SECURITY IMPLICATIONS OF CLIMATE GEOENGINEERING

- It can produce toxic tides and increase ocean acidification.
- It can be a threat to marine life.



## WAY FORWARD

- There should be global moratorium to undertake large-scale geoengineering intervention on climate until everything is in place.
- Recent findings regarding geoengineering must be transparent and open access must be given to all.
- A global research pool has to be formed.
- Contingency planning should be made ready beforehand at global level.
- Governance structure has to be universally worked out and accepted.

## WAY FORWARD

- The UN should be involved in bringing out a governance structure.
- Concerns of third world countries must be taken.
- Develop a code of conduct.
- Develop a monitoring mechanism.
- Decide on liability and compensation in case of failure.



**BIPSS**

Towards a Secure World

# THANK YOU

Bangladesh Institute of Peace and Security  
Studies



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For more information about this seminar visit:

<https://www.edrc.net/events/the-security-implications-of-emerging-climate-altering-technologies>

