



GLCb2020 Environmental threats and security

**Environmental security:
a sustainable future?**

April 13, 2023

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Agenda

- Final exam
- Presentations
- Sustainable future: radical solutions

Final exam

- Written (online)
- Four questions
- Short answers
- Concepts, theory, case studies, examples
- Each answer for max. 10 points, together max. 40 points
- Required (not recommended) literature, lectures, presentations



Final exam: what (not) to do

- Answer the question.
- Explain your answer (don't assume that I know what you are talking about).
- Explain the logic of your argument.
- Define key terms.
- Correctly link the authors with their theories / arguments.
- Use clear examples and explain how those are linked to your theory.
- **Do not copy and paste text from anywhere and add references to your sources!**
- **Answer the question.**

Rubric

- **9-10:** Exceptional answer – includes everything that a “7-8” answer has, but it also has something extra (e.g., linking themes/weeks/concepts, balance of arguments, etc.)
- **7-8:** Good answer – key concepts are defined, question is clearly answered in a structured way, emphasis on analytical thinking, the use of examples is explained

Rubric

- **5-6:** Answer is mostly descriptive. It contains key terms but doesn't include much analysis or the analysis makes no sense.
- **3-4:** No sensible answer and no analysis. Student wrote down everything on the topic. There may be gaps, mistakes.
- **1-2:** No clear answer to the question. Many or most concepts not well defined. Inaccuracies in theories, authors, concepts, etc.
- **0:** No answer

Presentations: logistics

- 15 minutes presentation, 10 minutes discussion
- The group facilitates the discussion
- Don't forget to upload your presentation summary to the IS
before your presentation

Presentations: logistics

20.4.

Group#1

- Wright, Nathan; Hanzar, Iradukunda; Stompff, Ceder
- Wildfires in Canada

Group#2

- Cioflînc, George-Daniel; Honore, Dushime; Malinowski, Enzo
- Deforestation in Romania

Group#3

- Kepic, Hana; van Meer, Lotte
- Street littering in Japan vs USA

Presentations: logistics

27.4.

Group#1

- Nomoto, Haruka; Moreno Mestre, Victor; Flores Gutierrez, Patricia
- Deforestation in Indonesia

Group#2

- Bishop, Antoine; Constantinescu, Andreea-Cosmina; Shahaghasy, Ahmad Mawloud
- The melting of permafrost

Group#3

- Corcinschi, Catalina; Diore, Marine
- Overconsumption in USA

Geoengineering: history

- 19. century: preventing drought through cloud seeding
- 1983: Carl Sagan and “nuclear winter”

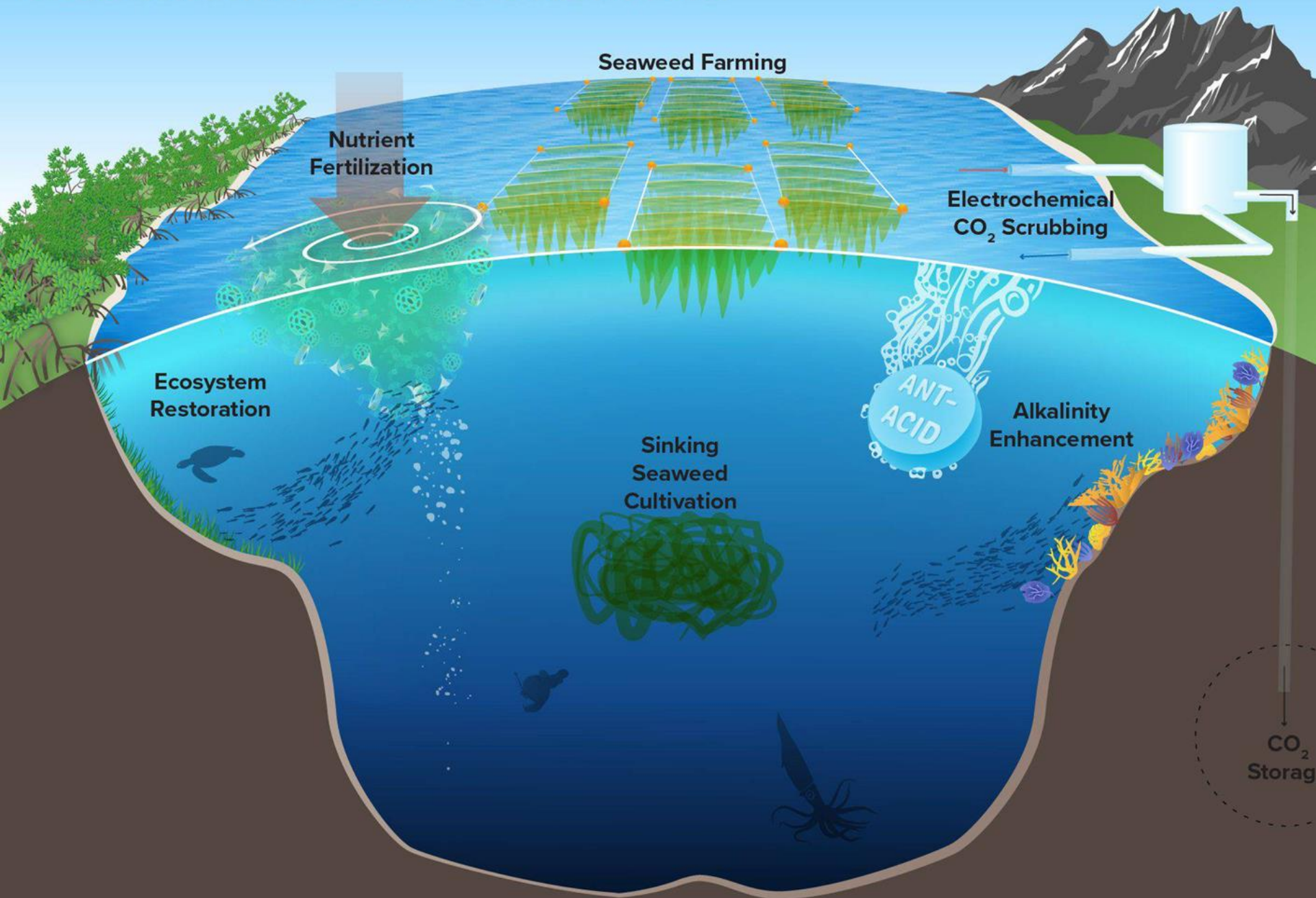
Geoengineering

- The use of technology to alter global or regional climatic systems
 - carbon dioxide removal (CDR)
 - solar radiation management (SRM)

Carbon dioxide removal

- Traditional environmental policies – e.g., reforestation
- Lowering of the GHG emissions may not be enough → CO₂ that is already in the atmosphere must be removed
 - E.g., infusing the oceans with iron → seaweed growth
- Risks are mostly local

Global Solutions for Carbon Dioxide Removal



Solar radiation management

- Goal is to use science for shifting global climate systems back to early or preindustrial era
 - Reflexive surfaces
- Volcanic eruptions (Mount Pinatubo, Tambora)

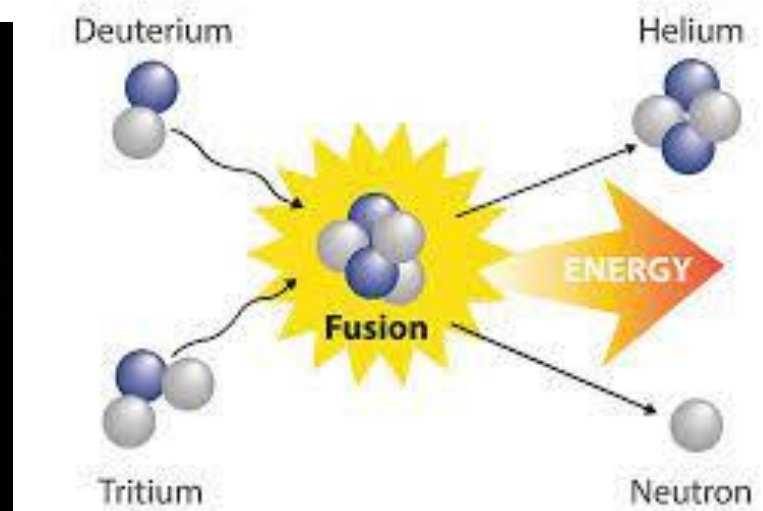
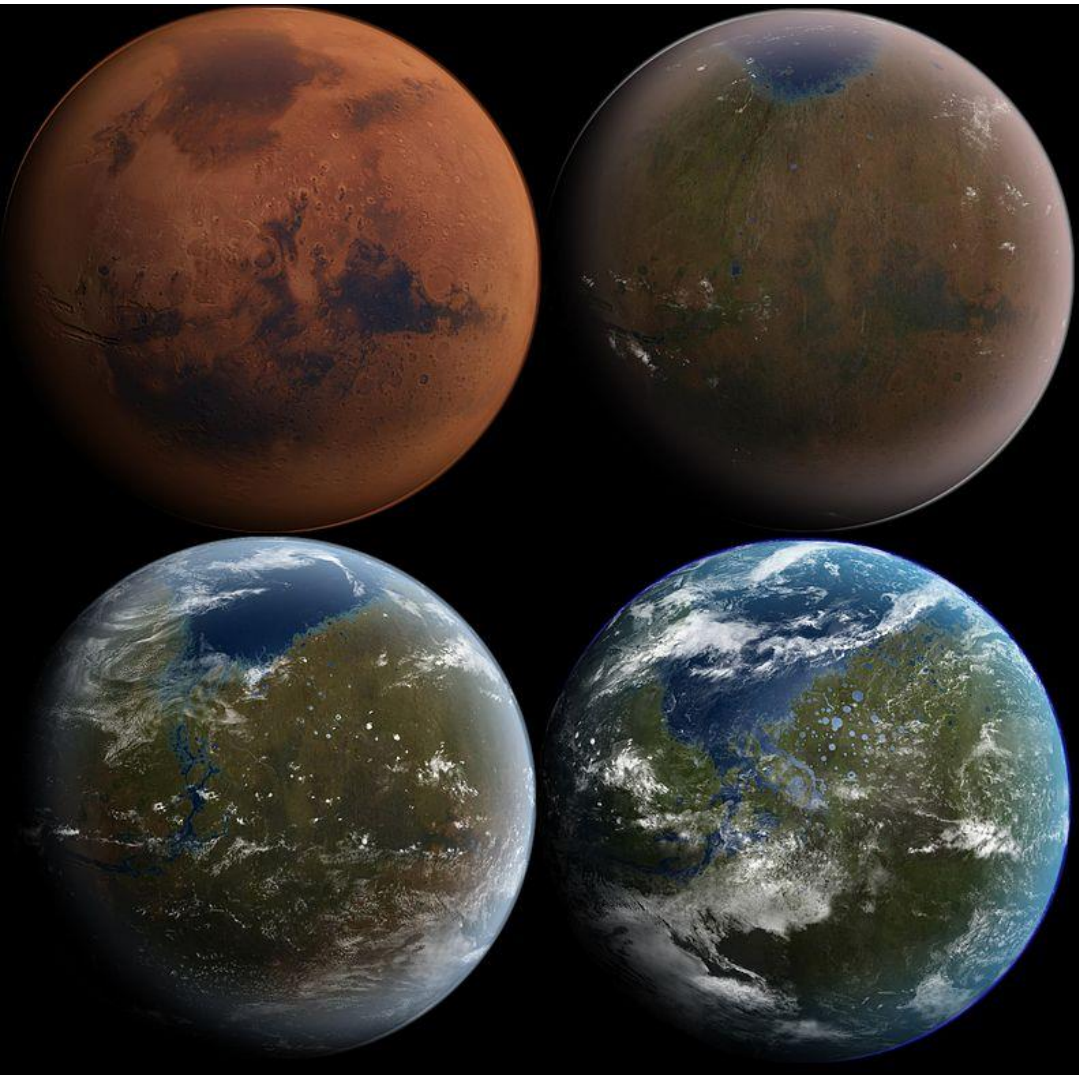
**Geoengineering:
problems**

- Side-effects
- Cost
- Lowering the urgency
- Geopolitics and intentional disasters

Population control?

- Good or bad idea?
- Realistic or not?

Sci-fi (?) solutions





Questions?