



World Meteorological Organization

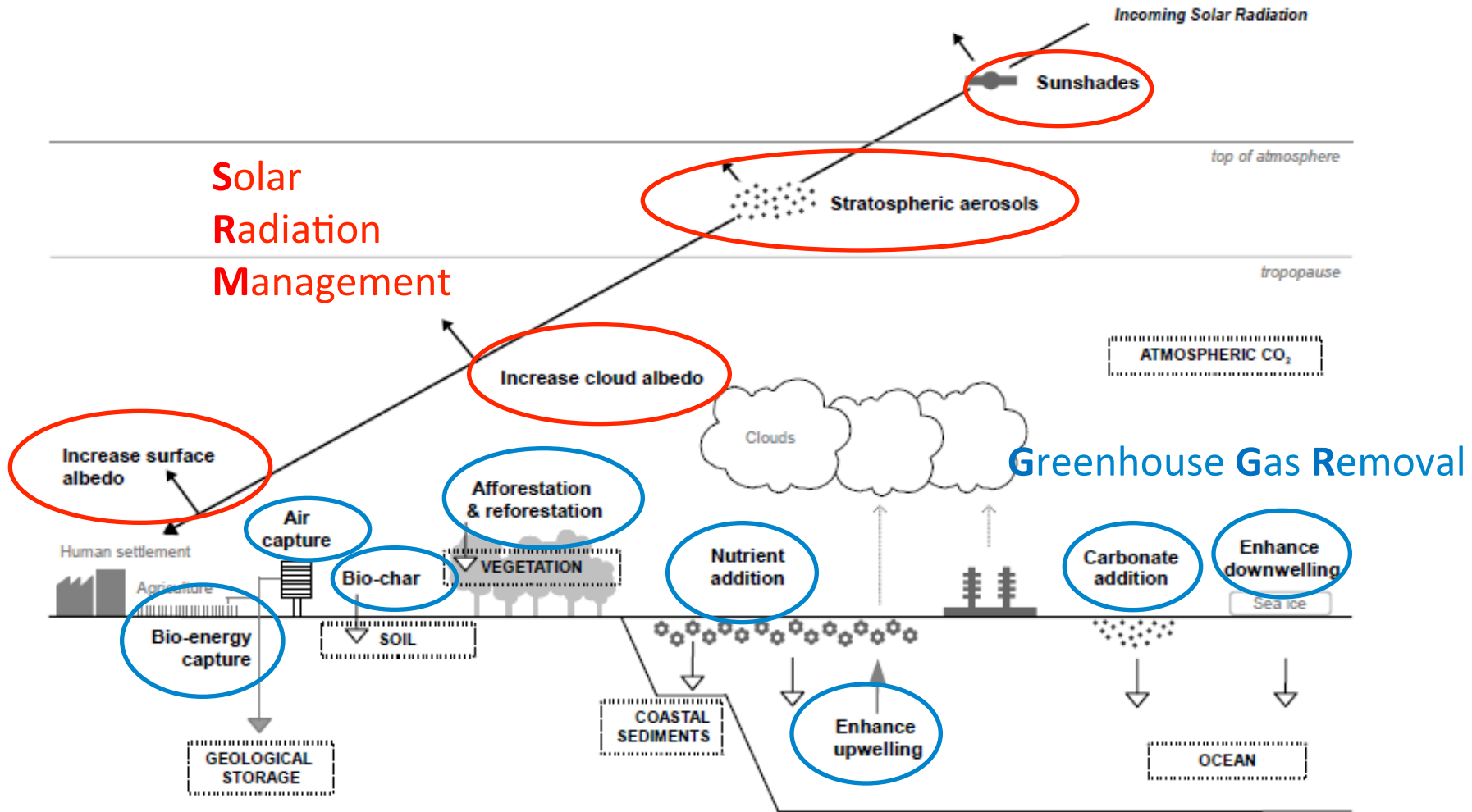
Weather • Climate • Water

WMO and Geoengineering

Doc. 8.2

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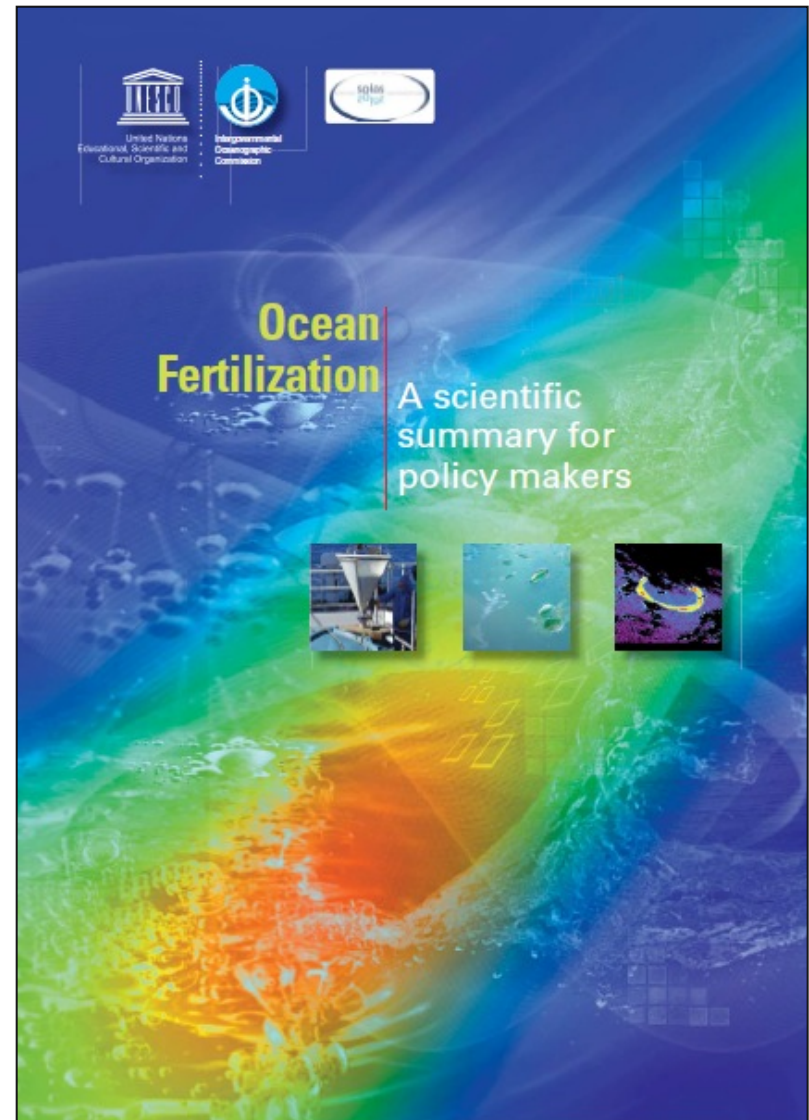
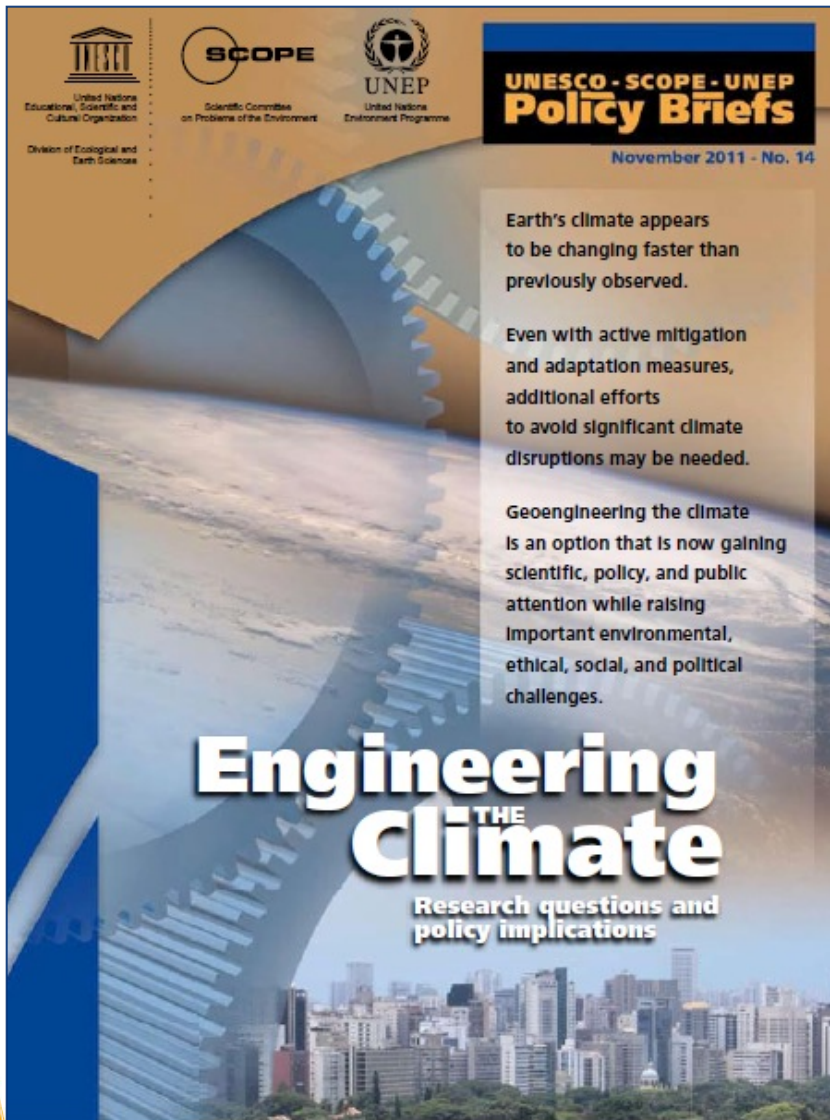
Some Climate Engineering options



Aspects of geoengineering

- **Climate science** issues: Would it work?
- **Technical** issues: Is it feasible?
- **Ethical** issues: Do we have the right to do it?
- **Legal** issues: Who is responsible?
- **Policy** issues: How should it be regulated?
- **Economic** issues: Is it cost-effective?

Emerging guidance by UN Organizations



Overview of Doc 8.2

- The growing interest in Geoengineering
- The wide spectrum of technologies suggested
- Complexity, uncertainty and risks
- The need for further research as also expressed by CAS
- The need for scientific assessment
- The Oxford Principles
- The Statement of AMS on geoengineering



Overview of Doc 8.2

Oxford Principles:

- *Climate engineering* to be regulated as a public good;
- Public participation in *climate engineering* decision-making;
- Disclosure of *climate engineering* research and open publication of results;
- Independent assessment of impacts; and
- Governance before deployment.



Overview of Doc 8.2

■ Draft Resolution 8.2/1

- (1) CAS to establish an appropriate mechanism to:
 - (a) Provide regular update status on the science-basis of geoengineering techniques with guidance material of best practices in a format useful to WMO and its Members;
 - (b) Identify gaps in the scientific understanding related to geoengineering proposals in the WMO sphere of interest and propose research to address gaps;
 - (c) Promote scientific practices in geoengineering research;
 - (d) Facilitate, encourage and promote capacity development and scientific debate in geoengineering;
- (2) The president of CAS to ensure that membership includes experts from a broad research community;
- (3) The Secretary-General to support the actions of CAS in this regard.



Overview of Doc 8.2

- Resolution 8.2 as approved:
 1. Acknowledge climate engineering as an emerging issue of relevance to WMO and its Members;
 2. Request the Commission for Atmospheric Sciences (CAS) to keep the Council and Congress updated on any significant developments in climate engineering of relevance to WMO, in order to enable decisions on the appropriate level and the nature of involvement of WMO in climate engineering.



Should scientific research on climate engineering be encouraged?

- Argument **against**: ‘**Moral hazard**’ ; Attention will be drawn away from emission reductions
- **Counter** argument: Only the scientists can do this kind of research in the **neutral, objective** manner that is needed
- Argument **against**: ‘**Slippery slope**’ ; before we know it our results will be used in a manner that we have not foreseen or recommended
- **Counter** argument: It may well be that our findings will indicate that climate engineering is either **not feasible** or far **too risky** to be ever considered

WCRP Options:

(a)	(b)	(c)
Appreciate CAS report	Appreciate CAS report	Appreciate CAS report
	Endorse CAS analysis & monitoring	Affirm Oxford principles
		(Formally) Join CAS analysis & monitoring

