NGO viewpoints on CCS: A geoscientist’s perspective

by
Niels Poulsen
GEUS

CO₂ Capture and Storage – Response to Climate Change
Regional workshop for the Baltic Sea Region and C&E European Countries
13-14 April 2011, Vilnius, Lithuania
Objective

- About NGOs
- Scope of this study
- NGO viewpoints
- Observations
- Conclusions
Non-governmental organizations

Classifications

The typology the World Bank uses divides them into

**Operational**
- The primary purpose of an operational organizations is the design and implementation of *development-related projects*
  - religious or secular
  - public or private-oriented
  - community-based, national or international

**Advocacy**
- The primary purpose of an advocacy organizations is to *defend or promote specific causes*
  - raise awareness, acceptance and knowledge
  - by lobbying at media and activist events

**NGO**
- The United Nations system uses the term *non-governmental organizations or "NGOs"*
Non-governmental organizations

- The number of internationally operating NGOs is estimated to around **40,000** (Anheier et al., 2001)

- National numbers are even higher, e.g. Russia has **277,000 NGOs**, and India has between **1 to 2 million NGOs** (Rodriguez, 2008)

- Most NGOs are now organised with a professional structure comparable to most **multinational companies**, having built up an expertise in logistics, research, communications and management
  - to raise private and public financing

- But NGOs cannot be seen as multinational companies; their organisations reflect their **social ambition and moral values**
Scope of study

- Survey by Google® search of CCS
- The approach taken was to identify the CCS position of different NGOs
- Both organisations promoting or rejecting CO₂ geological storage are identified
- Explore the knowledge on current CCS projects
- Understand why they say what they say
Global climate change targets cannot be reached without CCS

- Global CO₂ emissions must be reduced by 50 to 80% by 2050
- CCS is an important climate change mitigation technology
- Invest in CCS technology or provide incentives for full-scale CCS demonstration projects

- Emission reduction targets can be achieved by renewable energy, energy efficiency and CCS
- But the CCS technology is not likely to be commercially available until at least 2025

- Global use of coal is a serious climate protection objective
- The global climate change targets cannot be reached without CCS
- CCS should be seen as a component not a substitute for other clean energy strategies
- CCS must as bridging technology be tested quickly and implemented
CCS will come too late

False Hope

- CCS can’t deliver in time
- Mitigation potential of CCS on coal is insignificant, it will occur far too late

- CCS technology (2010) has had limited use in Norway, but has not been demonstrated on a commercial scale

- CCS will lead to more coal being burned without CO\textsubscript{2} being stored than not deploying CCS at all

- Power plants will be 'CCS ready', rather than having the technology installed from the beginning
CCS is costly

- The energy consumption at power plants increases by some 40% and it is unreasonably expensive.
- Increasing our dependence on coal and blocking the development of 100% renewable energy systems.
- Coal power plants with CO₂ capture and storage are very expensive and are neither environmentally nor economically sensible.
- CCS is regarded as a costly risk and investments should be used for renewable energy and energy efficiency.
- CO₂ storage is preventing geothermal energy.
- CCS serve to prolong the regime of coal indefinitely.
CCS technology is not likely to be commercially available until at least 2025, some say 2030 at the earliest.

- CCS technology only limited use in Norway
- Not been demonstrated on a commercial scale
- CCS is many years from commercial application
- CCS is not a viable options because it’s too little too late and that building
- New capture-ready power plants will result in higher CO₂ emissions as in reality only a small amount of the captured CO₂ will be stored
Changing position

Some NGOs are changing their position from accepting CCS to rejecting it

- expect CO$_2$ capture will lead to higher CO$_2$ emissions due to a lack of storage

Some NGOs are changing their position from rejecting CCS to accepting it

- only new coal power plants if CCS is applied
“No new coal” – unless

- No new coal power plants unless they capture and store all CO₂ emissions
- No new coal fired power plants to be built until CCS is available
- Existing power plants shall be used for testing preventing an increase in emissions
- No new large coal-fired power stations for small scale testing of CCS
- No new coal powered plants if CCS too expensive
- All plants less than twelve years old, CCS should be obligatory
Greenpeace position on CCS
Washington Post, 16 July 2007

Q: Is there any method of carbon sequestration that we actually know would work?
A: Leave the coal in the ground.
NIMBYs

“not in my backyard” (NIMBY)

- fear of storage risks
- demo-projects are ‘dangerous experiment’
- house prices are at risk
- effects on job
- protection of recreational areas and natural habitats
Small NGOs

The **minor** NGOs tend to **borrow** statements from each other or simply copy or refer to the larger NGOs

- The information they present on geological storage usually shows a **major lack** of knowledge or is deliberately **misleading**

- **Quote scientists**, which have no geological training
  - "I can only warn against trying to include large amounts of CO$_2$ underground for several thousand years. I know of no reputable scientists presumes to predict over such long periods of site security"
Fictitious advertisements

Owners in chock, falling estate prices by 30-50%

Death notice 5023 dead in Aabybro
No one in Germany really needs the CCS technology

Bürgerinitiative Kein CO₂ Endlager Altmark

Bürgerinitiative Co₂ntraEndlager Neutrebbin

Bürgerinitiative Kein CO₂ Endlager Altmark
Local demonstration of position in respectively Denmark and Germany
Is this a risk?
How do landowners think?
What do the farmers say?
NOAH etc. ...
Nature protection areas
Understand why they say what they say

- Not without CCS
- False hope
- CCS is expensive
- CCS is not available
- CCS cannot deliver on time
- CCS is not ready (lack of storage sites)
- Coal only if CCS
- Not in my backyard (NUMBY)
- Ground water is at risk
- CCS prevent geothermal use of the underground
- Increasing our dependence on coal

They cannot hear us
Survey of NGO statements on carbon capture and storage

- General lack of understanding that a growth in emissions from coal is forecasted
- General lack of knowledge or ignorance about
  - Why (climate issue)
  - EOR and CCS, capture and storage methodology, transport, risk and safety, monitoring
- There seems to be an lack of knowledge or ignorance on ongoing international CCS project
Thank you for your attention