



# NGO viewpoints on CCS: A geoscientist's perspective

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# 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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<sub>2</sub> 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 CO<sub>2</sub> 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**
- CO<sub>2</sub> storage is **preventing geothermal** energy
- CCS serve to prolong the regime of coal indefinitely



# Not available

- 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 CO<sub>2</sub> emissions** as in reality only a small amount of the captured CO<sub>2</sub> will be stored

# Changing position

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

- expect CO<sub>2</sub> capture will lead to higher CO<sub>2</sub> 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

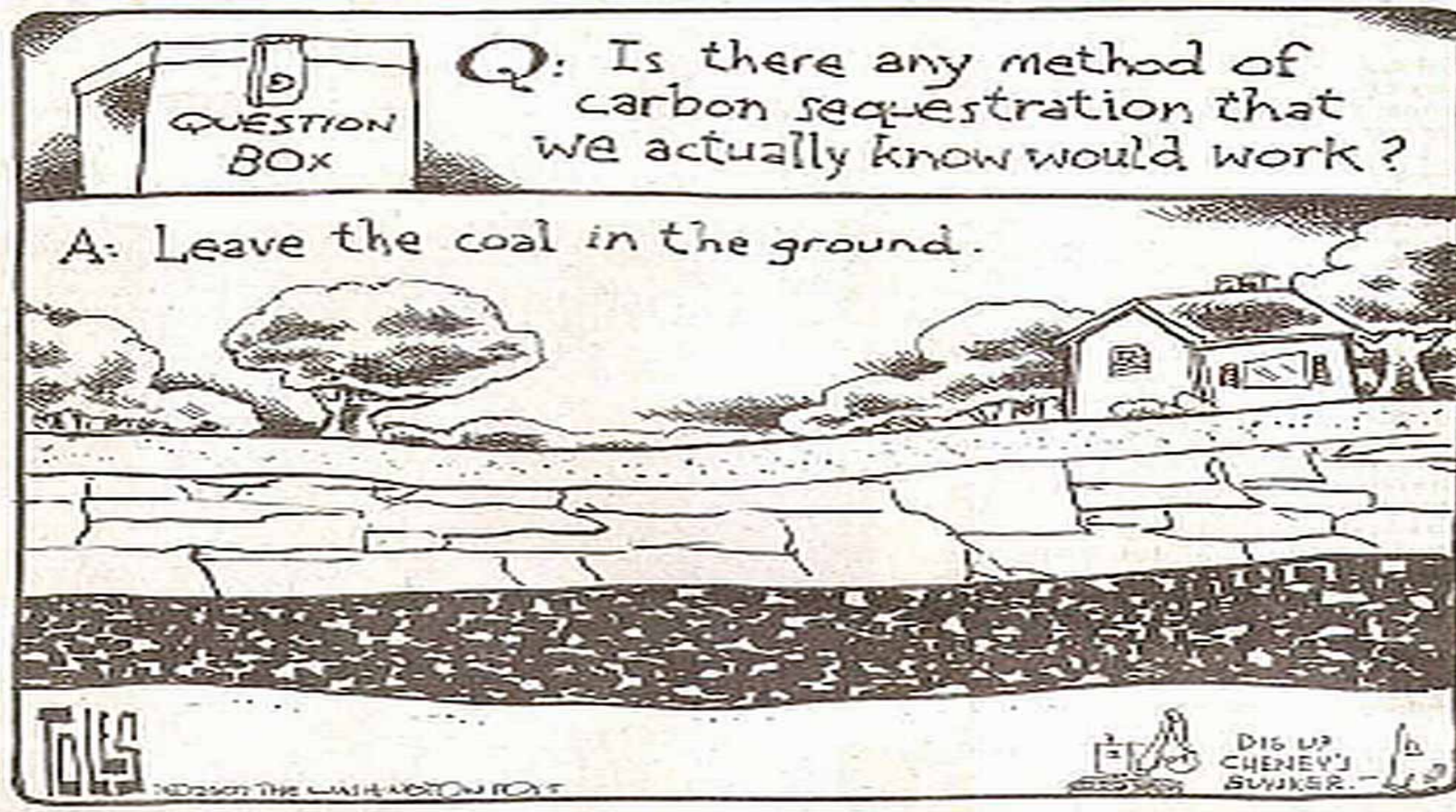
# “No new coal” – unless

- No new coal power plants **unless** they capture and store all CO<sub>2</sub> 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

*Tom Toles*



# 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<sub>2</sub> 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



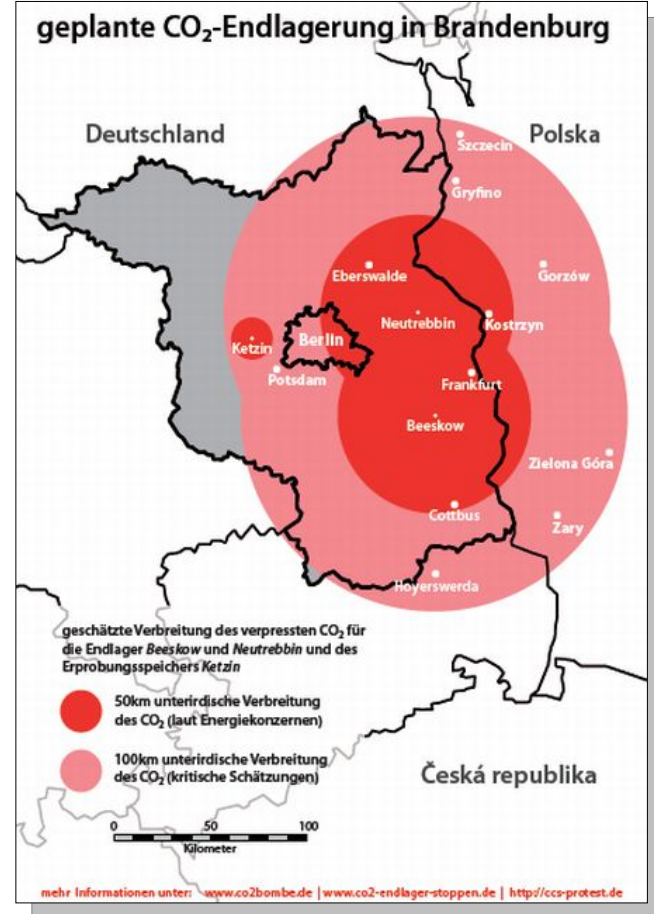
# No one in Germany really needs the CCS technology



Bürgerinitiative Kein CO<sub>2</sub> Endlager Altmark



Bürgerinitiative Co<sub>2</sub>ntraEndlager Neutrebbin



Bürgerinitiative Kein CO<sub>2</sub> Endlager Altmark



# Local demonstration of position in respectively Denmark and Germany



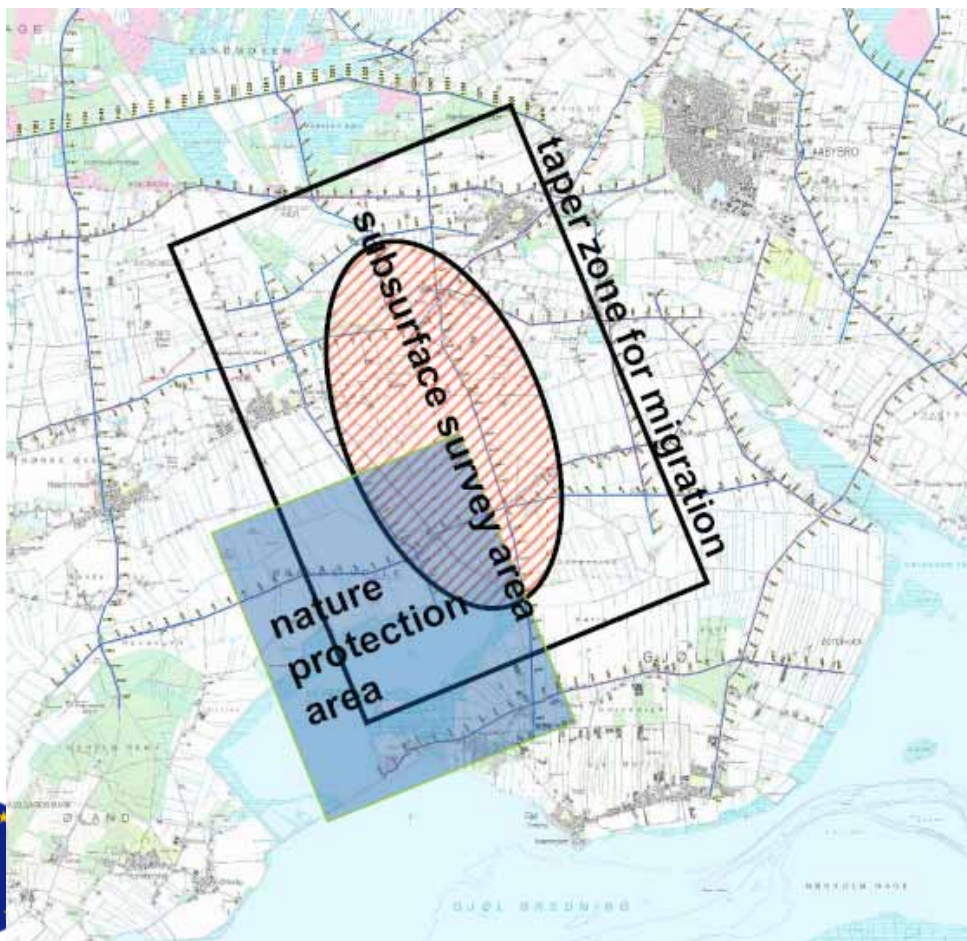
Is this a risk?  
How do landowners think?



# 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



# 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

A photograph of an industrial facility, likely a power plant or refinery, featuring several tall smokestacks and a large, complex structure with multiple levels and pipes. A thick plume of white smoke or steam rises from the facility, partially obscuring the sky. The foreground shows some dry, brownish vegetation.

Thank you for your  
attention

