

LANDSCAPE

The **climate emergency** pushes towards CDR deployments while respecting the **energy trilemma** (*security, viability, sustainability*) in a **world economic competition**.

Offsetting carbon emissions will prevail for many industries

What is BECCS?

Bio Energy Carbon Capture & Storage could generate electricity from biomass and store permanently carbon in underground storage areas. Its a part of **Carbon Direct Removal** that could remove between 30-780 GtCO₂ by 2100 (IPCC 6th AR)

Study & Methodology

Framed within Multi Level Perspective on 3 levels (*landscape, regime, niche*), we study the **controversies and socio-political components of BECCS** deployment through 2 on-going cases in United-Kingdom and Sweden

REGIME

Social Acceptance

- Territorial **integration** matters with **residents** living near exploitation areas
- **Industrial hazards** perceptions

NICHE

DEPLOYMENT

«How is it deployed?»
Governance, public dialogue, trust in project leaders, location

DEFINITION

«What is it deployed?»
Who support this technology? What are its objectives? Who benefit from it?
Electricity or negative emissions?

ARTEFACT

«The materiality of BECCS»
Existing infrastructure and needs of new ones

Material Considerations

- **Air pollution** for the regeneration of capture solvents
- **Access limits** to storage area

Techno Competition

- For carbon neutral electricity with **solar panels** and **windfarms**
- For NET with **afforestation**

Administrative Obstacles

- **Delays and weight of procedures** to obtain licenses
- **Auditing and accounting** for biomass

Economic Conditions

- Cost of electric **KWh** is higher with biomass
- **Subsidies** and **long term guarantees** are mandatory for investing

Industrial Dependency

- All **necessary links** in the **value chain**, mostly upstream
- Impact of the source on the **image**

Drax United-Kingdom



Sweden
Stockholm Exergi

