



Curtin University

INSTITUTE FOR ENERGY  
TRANSITION

# Building support and understanding for CCUS

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*We respectfully recognise the Whadjuk Elders past and present as the Traditional Owners of the Nyungar boodja on which the Curtin Institute for Energy Transition is located. We also acknowledge the tens of thousands of years of Indigenous knowledge, culture and insight into living sustainably and caring for the natural world that has shaped this land and our ongoing research.*

# Acknowledgements

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# Our study

Systematic literature review (2016 - 2023) CCS, CCU, CCUS and BECCS

Research questions:

1. What are the most common public perceptions of CCUS technologies worldwide - positive, negative or neutral and why?
2. What are the principles that guide public communication and engagement in relation to CCUS technologies?
3. What has been the interaction of those principles with communities to achieve environmental, social, cultural, and economic goals?

To inform necessary ongoing follow up research.





# Perceptions - Not much has changed



Perceptions are varied



Most common response tends to be guided by the need to mitigate climate change and collective beliefs to ensure benefits for all (positive)



Indifference and lack of knowledge about the technology (neutral)



Scepticism and community concerns (negative)

# Concerns - Not much has changed



Safety



Minimising any potential environmental impacts



Cost effectiveness



Timeliness to deploy



Are there adequate regulations in place for monitoring and ongoing liability

# Communication - Not much has changed



Many guidelines and toolkits that have been developed across the world.



Recent engagements through public dialogues in the UK and the US stress the need to actively implement such activities to help ensure projects will happen successfully.



Key characteristics include considerations of procedural (fair and transparent) and distributive (individual and collective benefit sharing) justice to build trust in the project developers and the projects themselves.



# SLO considerations

## **Distributive justice – benefits/burdens**

Understand context

Conflicts with agricultural practices, tourism etc.

Compensation beyond the landholder

## **Procedural justice**

Respectful, fair, and transparent

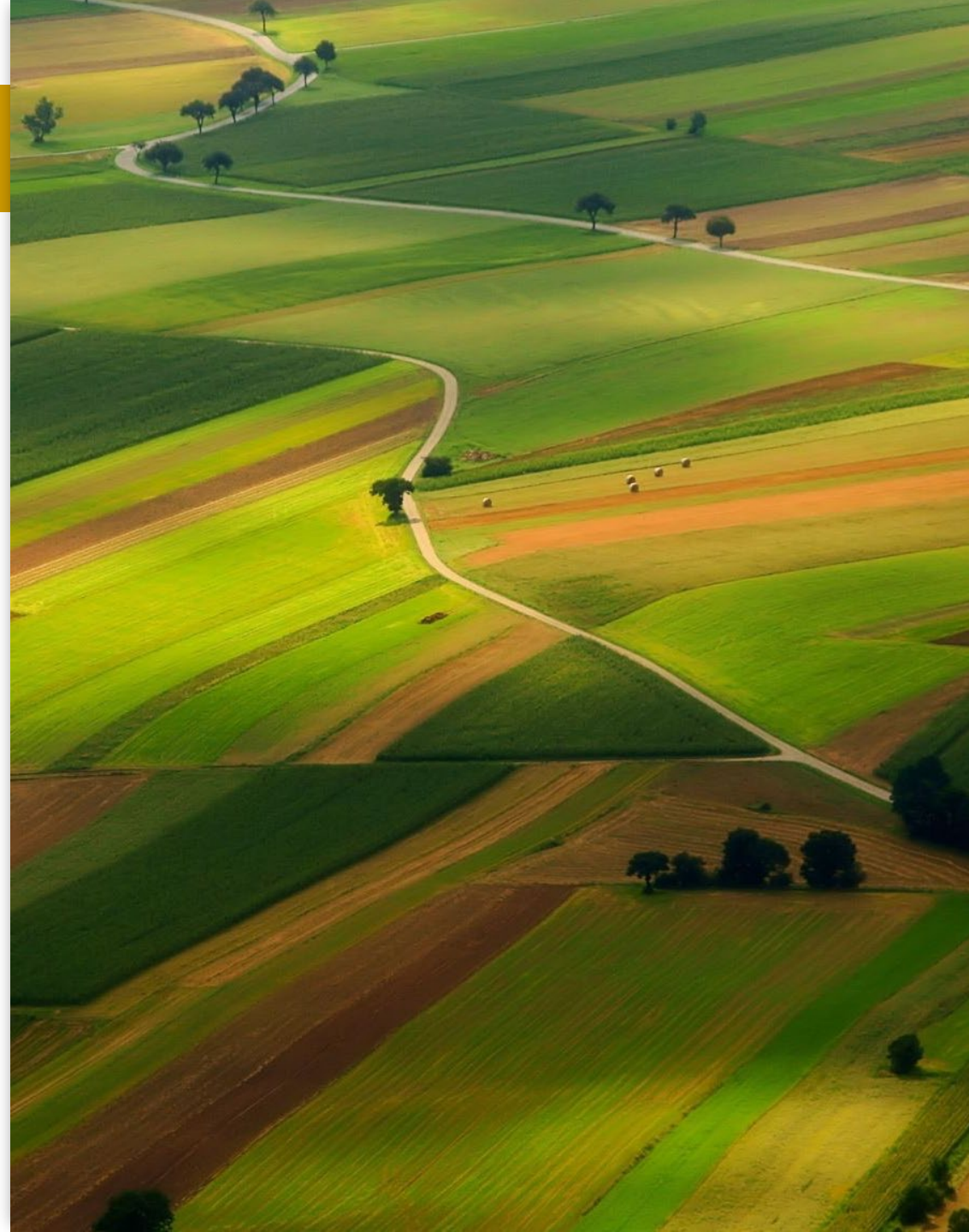
Flexibility in decision making

Adequate time to engage

## **Adequate information to inform decision making**

Trusted expert

Capacity to engage (**time and resources**)



# Building understanding

- Not all stakeholders are equal:
  - Influential stakeholders (policy, CEOs, etc.)
  - Local host communities
  - Broader public
- Targeted engagement – influential stakeholders
- Deliberative processes to bring together wider group of stakeholders
  - Identify the need to transition
  - Suite of options for technologies
  - Where and why do we need CCUS – how it fits with the wider suite of options
  - Allow time for deliberation and discussion

# Key reflections

Discussions on CCU can lead to more support for CCS, and a focus on CCU to address waste as part of a circular economy approach does have a positive effect on attitudes – even in those who are not supportive of climate change action.

A need to ensure the broader public understands that CCUS technologies will not be at the expense of renewable energy deployment and are important in helping to mitigate emissions from fossil fuel intensive industries as part of the transition to net zero.

As well it is important to stress the improvements in the technical parameters including cost effectiveness, reasons for site selection, monitoring and verification tools, quantitative risk assessment, and addressing those factors holistically, ensuring adequate regulation.





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