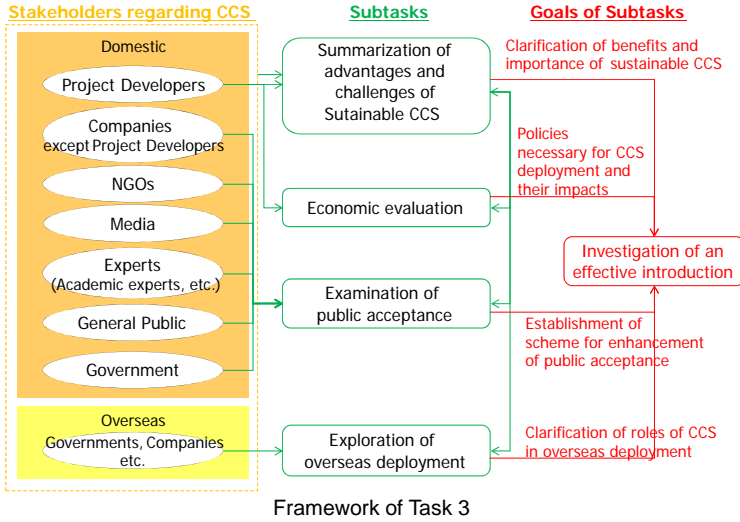


Task 3. Social and Economic Groundwork for CCS Introduction

Background and goals

- Consensus-building among all stakeholders including general public is important to effectively start up CCS projects.
- To identify the issues of CCS consensus-building, we will summarize the advantages and challenges of sustainable CCS, investigate and analyze the policies, economic factors and public acceptance that affect the consensus-building, and explore overseas deployment of CCS.



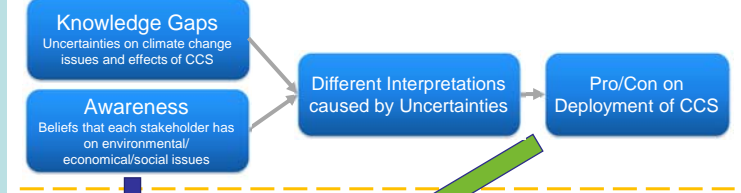
Examination of Public Acceptance

Establish a scheme for consensus building featuring public involvement and knowledge management.

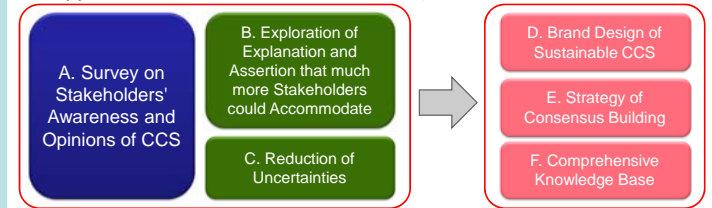
To establish the scheme:

- Identification of stakeholders' awareness of CCS by conducting a social survey.
- Identification of knowledge gaps between experts and non-experts.
- Design and development of required software and systems.

Formation of Opinions (based on Existing Studies)



Our Approach



Details

Summarization of Advantages and Challenges of Sustainable CCS

Research on technical and political CCS trends

Definition of sustainable CCS and identification of its advantages and its challenges

- Definition of sustainable CCS.
- Identification of the advantages and challenges of related technology and policies that support sustainable CCS.

Factors of Sustainable CCS

Factors of sustainable CCS (proposed)		Exemplars
Consideration for the environment	CO2 emission	CO2 emission in each CCS process
	Environmental burden	Chemical emissions in each CCS process and environmental risks of amine-based solvents, etc.
	Biodiversity	Influence on biodiversity conservation, etc.
Consideration for social environment	CO2 leakage risk	CO2 leakage risk in each CCS process, possible countermeasures, etc.
	Energy cost	Influence on energy costs (especially on electricity price), etc.
	Economic effect	Economic ripple effects, employment, and other secondary effects in Japan and the CCS sites
	Consideration for other industries	Consideration for existing businesses such as fishing, shipping industries, etc.
Public awareness	Consideration for public awareness about the need for and the potential risks of CCS, etc.	

Economic Evaluation and Life Cycle Assessment of CO2 Emission

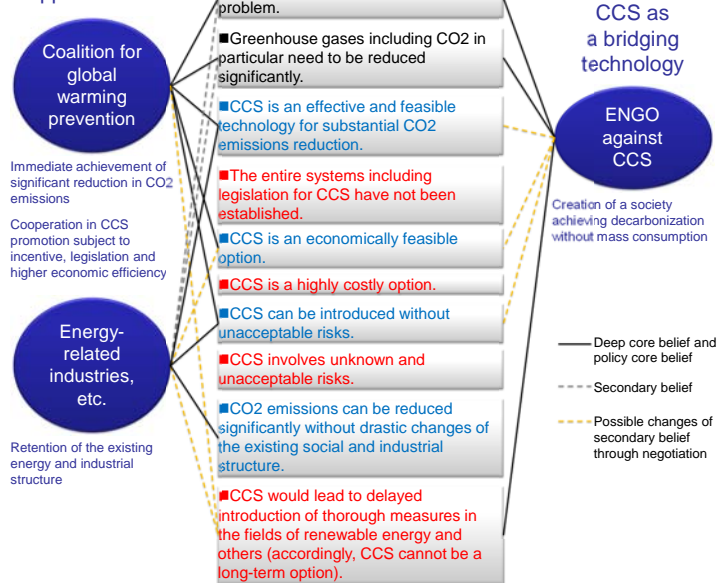
Economic evaluation

- Evaluation of the whole business regarding its economic factors, etc., focusing on CCS by CO2 shuttle ship transportation.
- Evaluation of incentives for CCS operators.

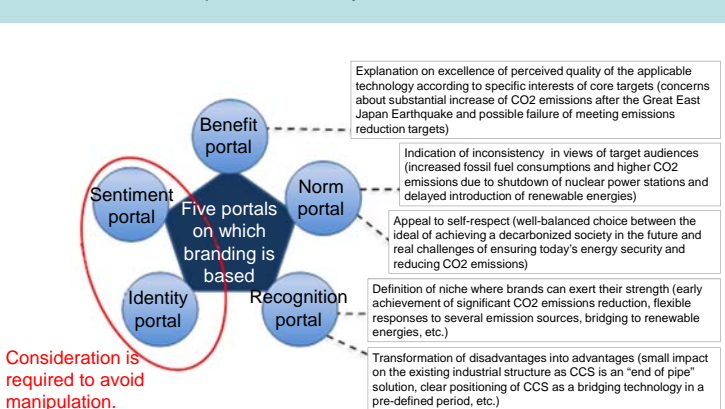
Life cycle assessment

- Evaluation of greenhouse gas emissions using life cycle assessment (LCA) on CCS by CO2 shuttle ship transportation.

Support for CCS



Example of "Advocacy Coalition Framework"



Concept of portals on which branding is based