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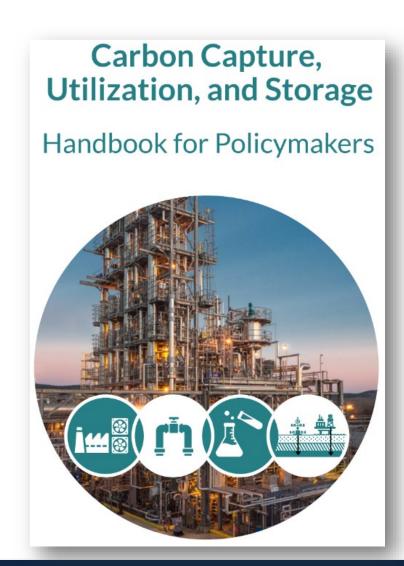
Carbon Capture, Utilization, and Storage: Handbook for Policymakers

About the Handbook

A 'how-to' action guide to empower legislators, ministries, regulators, and NOC officials for understanding the policies, rules, and best practices that countries can adopt and implement for CCUS.

Available here:

cldp.doc.gov/carbon-capture-utilization-and-storageccus-resources





Carbon Capture, Utilization, and Storage: Handbook for Policymakers

About the Handbook (Cont.)

- Sponsored by **U.S. Department of** State, Bureau of Energy Resources.
- Drafted over one week in an intense session with eight expert co-authors.
- Co-written by authors representing:
 - Government
 - NGOs
 - Multilaterals
 - Industry
 - Academia





























Key Takeaways

- To build a thriving and safe CCUS industry, countries need to develop frameworks. A CCUS framework consists of policies, laws, acts, regulations, and related instruments that set the terms for the key actors to build CCUS projects.
- To create a successful framework, this Handbook proposes a six-step process, starting with assessing a country's existing policies to establish a country policy (or strategy) for CCUS.
- The fourth step in this six-step process is creating the framework. Countries can decide if they want to adopt all new legislation to create a standalone CCUS framework; or to adapt existing legislation to an existing framework (such as oil and gas). Countries can also leverage external standards and sources or not. There is no one "right" way.
- While there is no one right way, a successful CCUS framework must address all parts of CCUS to ensure that regulatory activities by different governmental players are coordinated.
- Japan and Norway offer examples of how CCUS projects can proceed even without a fully developed CCUS framework in place.

A Roadmap to Developing a Framework

One such approach to establishing a CCUS framework can include a combination of the following six steps:



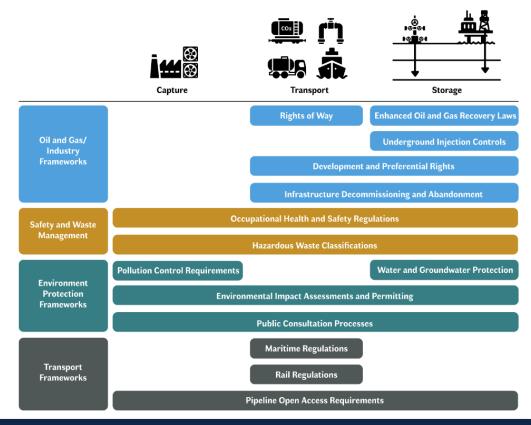


Step 1: Country Policy/Strategy

- It is imperative for CCUS to be included in national policy and strategy documents
- To do so, one must assess existing country policies and strategies to determine if CCUS is included, or where it can fit in
- When developing a country policy/strategy, considerations include:
 - Identifying relevant industries
 - Determining the role of the State
 - Addressing ownership/liability/access
 - Gathering resources
 - Determining financial options



Step 1





Step 2: Gaps and Barriers



Step 2

- Conducting a gap and barrier analysis of existing CCUS-related legal and regulatory instruments will
 determine whether:
 - 1) existing frameworks can be repurposed to support CCUS activities, or
 - 2) whether a new regulatory framework is necessary
- A World Bank study found many countries already have legal instruments needed to support a CCUS framework

Ex. Government of Norway found its existing Petroleum Act and Regulation to be flexible enough to incorporate capture, transport, and storage from natural gas production offshore without any amendments

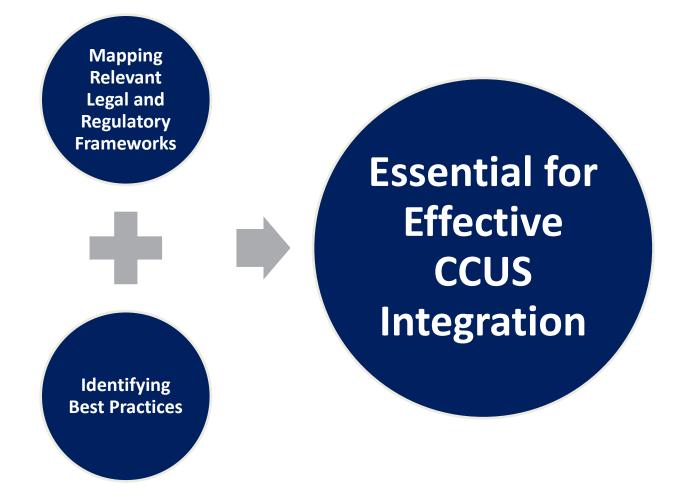
Ex. Regulators in Japan found that some gaps in the framework could be addressed to accommodate new activities.



Step 3: Resources for Developing Frameworks



Step 3





Step 4: Making a Fit-For-Purpose Framework



Step 4

- Use resources from Step 3 to develop a fit-forpurpose CCUS framework
- Can be developed as
 - 1) a new stand-alone CCUS framework
 - 2) an amendment to an existing framework
- If there is no existing framework, external resources could be leveraged to develop a suitably tailored framework





Step 5: Drafting Laws/Regulations



Step 5



- Based on results from the Step 2 Gap Analysis, may be possible to apply or amend an existing law by clarifying the application of CCUS projects
- Sometimes, a more rigorous process may be required to draft new laws or regulations



Step 6: Implementing Framework



- ✓ *Identify agencies* for compliance and enforcement of the laws/regulations
- ✓ **Develop tools** for permitting, monitoring, reporting, and verification
- ✓ *Offer online resources* and templates for applications and reporting requirements
- ✓ **Develop and make available resources** such as a geological atlas or licensing data
- ✓ **Provide capacity-building** and training for regulators, industry, and other parties
- *Pilot test the framework*, such as through a demonstration project coupled with an engagement plan



