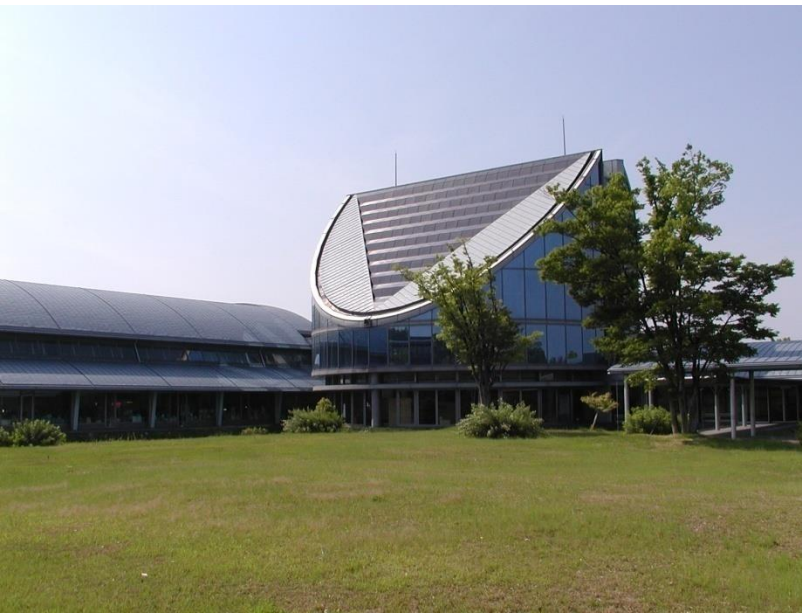


# ***Discussion on London Protocol application to Norway and EOR***

May 3, 2018



**Ryozo Tanaka**

Senior Researcher

CO<sub>2</sub> Storage Research Group

Research Institute of Innovative  
Technology for the Earth (RITE)

## ➤ **Official Title**

1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972

## ➤ **Objectives of the London Protocol 1996**

To protect and preserve the marine environment and to take effective measures against pollution caused by dumping or incineration at sea of wastes or other matter.

## ➤ **CCS under the London Protocol 1996,**

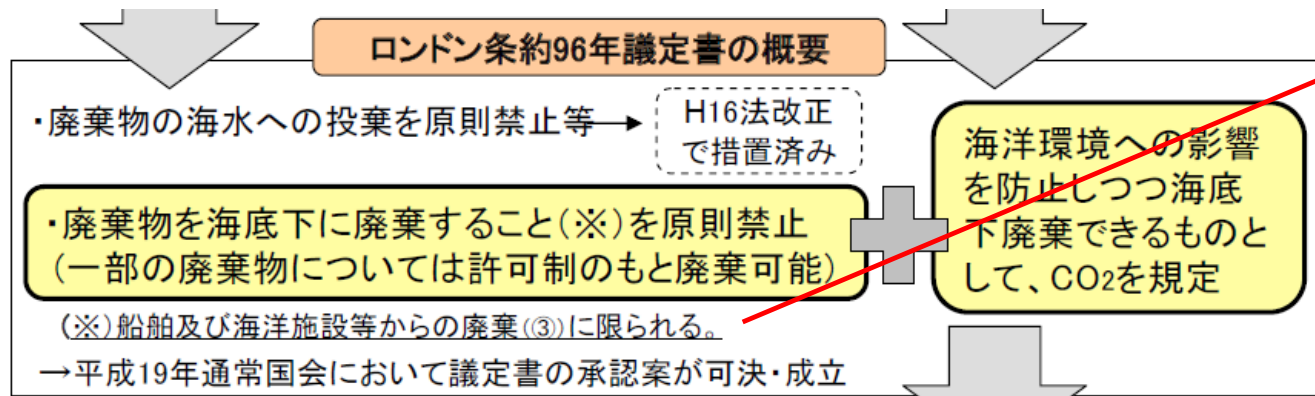
- We can inject and store CO<sub>2</sub> under the seabed if obtained a permit from an appropriate authority (Article 4 & Annex I),
- But currently, we are not allowed to export CO<sub>2</sub> for offshore CO<sub>2</sub> storage (Article 6).

# Question 1

Is CO<sub>2</sub> injection at an onshore injection site into an sub-seabed storage site within the scope of the London Protocol or not?

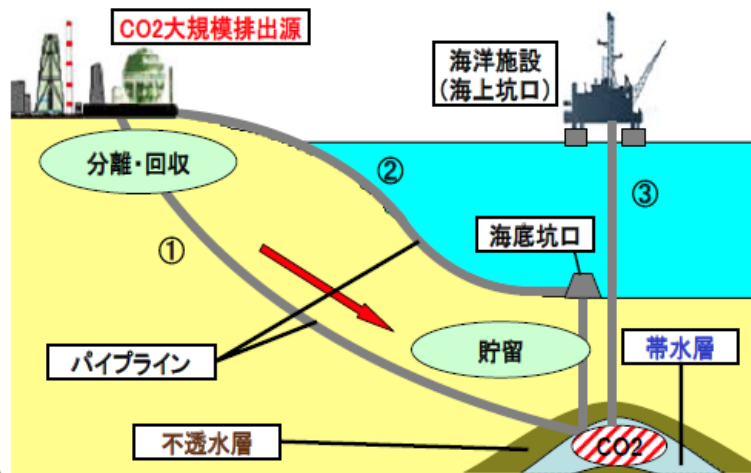
# Background of Question 1 (1)

To ratify the London Protocol 1996, the Japanese Ministry of the Environment (MOE) amended the Marine Pollution Protection Act.



LP 1996 regulates only CO<sub>2</sub> disposal at sea e.g. from a ship and an offshore platform (③).

## 二酸化炭素海底下地層貯留のイメージ



ロンドン条約96年議定書及び我が国の実態を踏まえ、陸域からの廃棄(①②)を含め、以下の事項に係る法的枠組みを整備することが必要。

廃棄物の海底下廃棄を原則禁止

CO<sub>2</sub>海底下地層貯留による海洋環境への影響を防止

But the amended act covers onshore CO<sub>2</sub> disposal to the sub-seabed (① & ②) as well as ③.

## ARTICLE 1 DEFINITIONS

4 .1 "Dumping" means:

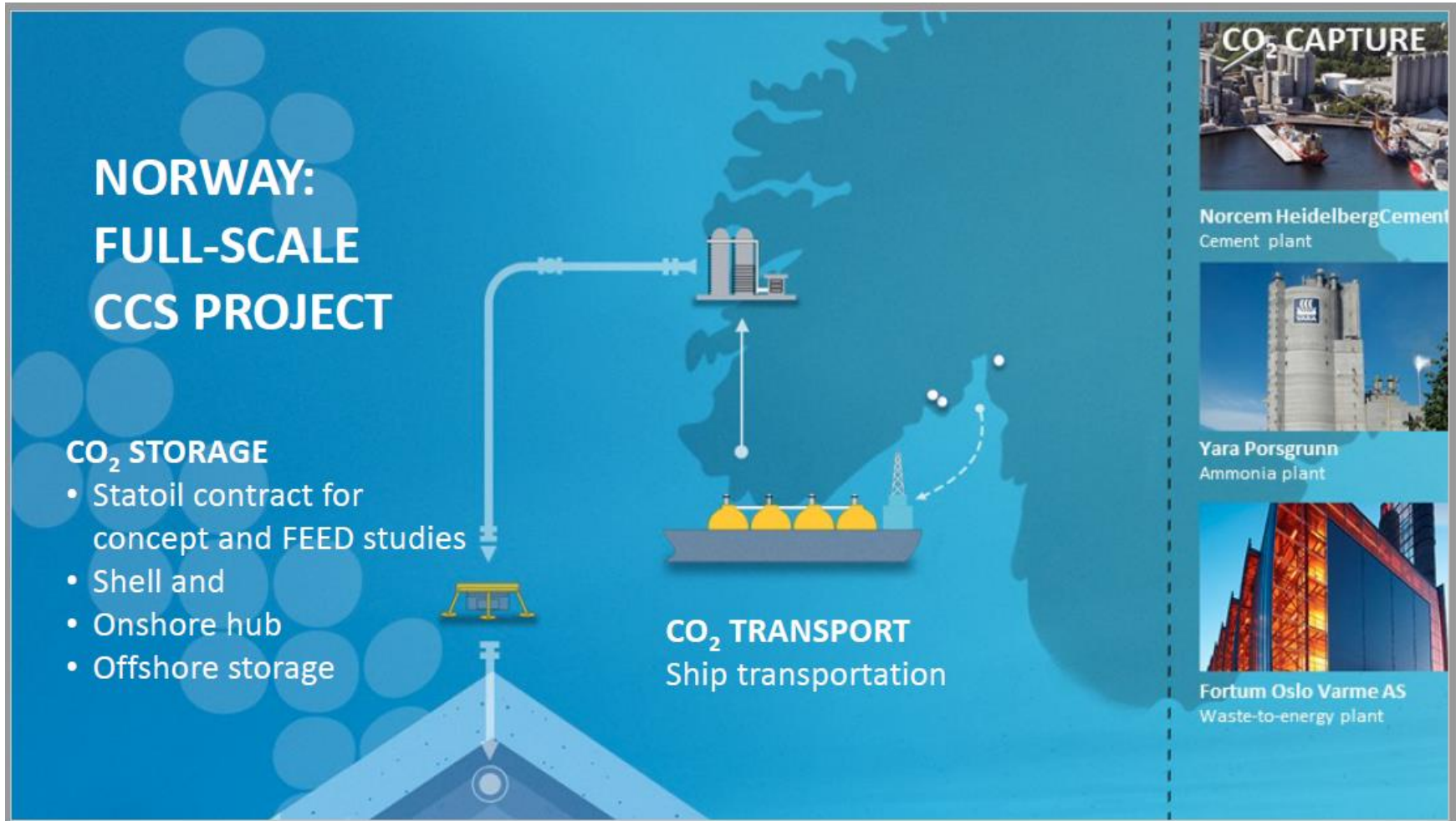
.1 **any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;**

7 "Sea" means all marine waters other than the internal waters of States, as well as the seabed and the subsoil thereof; it does not include sub-seabed repositories accessed only from land.

Source: London Protocol 1996, amended in 2006

# Background of Question 1 (3)

Norway repeatedly raises concern that Article 6 on the prohibition of CO<sub>2</sub> export for offshore CO<sub>2</sub> storage will be a barrier for their plan to inject imported CO<sub>2</sub> in their planned full-scale project.



Source: Gassnova & Statoil, CCS Technical Workshop in Tokyo, Jan 2017



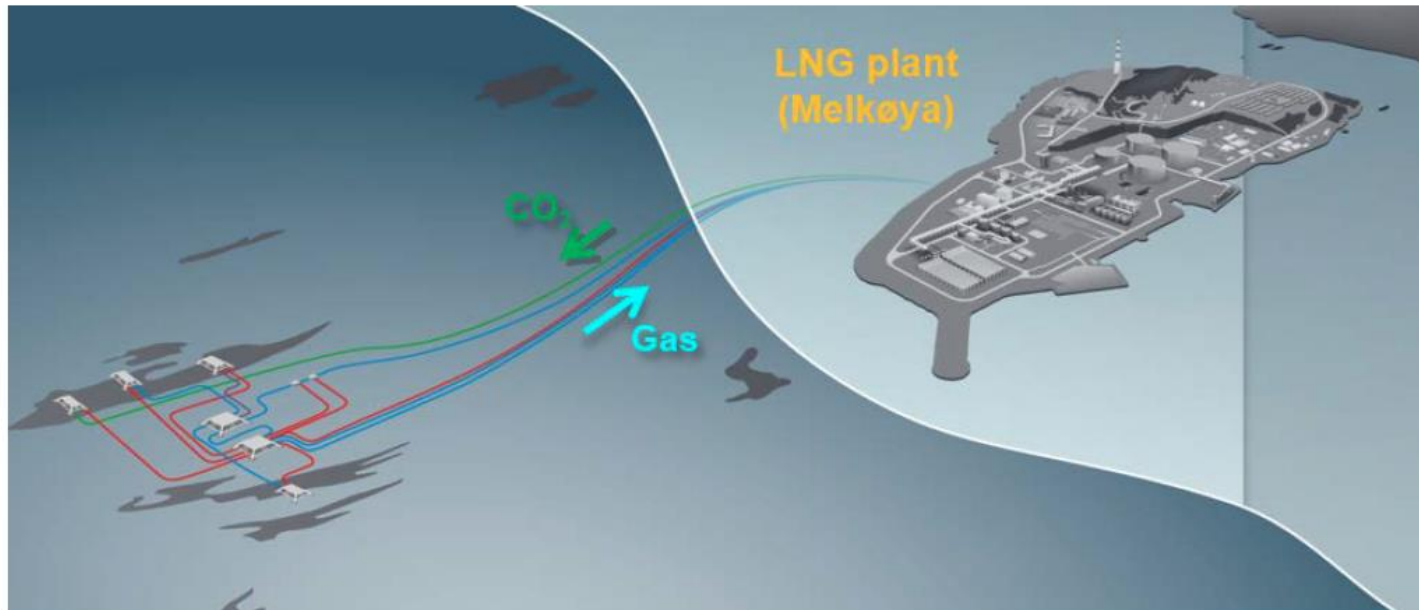
# A supplementary Question

Is Snøhvit within the scope of the London Protocol or not?

## ARTICLE 1 DEFINITIONS

4 .3 **The disposal or storage of wastes** or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol.

Source: London Protocol 1996, amended in 2006



Source: Gassnova & Statoil, CCS Technical Workshop in Tokyo, Jan 2017

# Question 2

Is CO<sub>2</sub> injection  
for offshore CO<sub>2</sub>-EOR  
within the scope of the London Protocol or not?



# Background of Question 2

A Norwegian stakeholder mentioned in an international workshop on CO<sub>2</sub>-EOR:

- CO<sub>2</sub> injection for offshore CO<sub>2</sub>-EOR is out of the scope of the London Protocol because CO<sub>2</sub> in this case is not waste but commodity.
- The interpretation is supported by a lawyer(s) of theirs.

## Question 1

Is CO<sub>2</sub> injection at an onshore injection site into an sub-seabed storage site within the scope of the London Protocol or not?

## Supplementary Question to Question 1

Is Snøhvit within the scope of the London Protocol or not?

## Question 2

Is CO<sub>2</sub> injection for offshore CO<sub>2</sub>-EOR within the scope of the London Protocol or not?



Thank you for your attention.