## **Before**

## **Key Messages for Policymakers**

- Global warming is a real threat for all nations around the world including ASEAN member countries. Scientist found that carbon in the atmosphere as a cause of global warming can be absorbed by plant, including aquatic plant such as seagrass
- Seagrass absorbs CO2 and converts it into potential energy, which is stored in the form of organic carbon, that later considered as Natural Carbon Dioxide Removal (NCDR).
- Comparable to tropical rainforests, seagrass meadows store a large amount of carbon (i.e. blue carbon)
- ASEAN countries have the similar concern and equal responsibility to preserve seagrass ecosystem as a natural-based approach to mitigating global climate change.
- However, seagrass area in each ASEAN country is different so that assessment to the contribution of the nation in climate change mitigation through seagrass ecosystem preservation should be regionally standardized.
- Common platform need to be developed in order to collect data on carbon sequestration in seagrass ecosystem so that the data could be compared equally within ASEAN nation

## After

## **Key Messages for Policymakers**

- Global warming poses a severe threat for the global ecosystem, which will impact all nations around the world, including ASEAN member countries. Urgent and integrated effort is badly needed to reduce the amount of carbon dioxide, which traps heat in the atmosphere and cause global warming.
- Plants have capacity to absorb and store a large amount of carbon. Recent researches suggest that seagrass ecosystem is one of the most promising carbon sequester and carbon sink exists.
- Seagrass absorbs carbon dioxide and converts it into potential energy, which is stored in the form of organic carbon, which later considered as Natural Carbon Dioxide Removal (NCDR).
- Compared to tropical rainforests, seagrass meadows have more potential to capture and store a large amount of carbon (i.e. blue carbon)
- ASEAN countries share similar concerns and equal responsibility to preserve the seagrass ecosystem as a natural-based approach on mitigating global climate change.
- However, seagrass ecosystems in each of the ASEAN country has its own unique characteristics, posing challenges on the contribution assessment of each country. Thus, standardized protocol at a regional scale is needed.
- A common platform to collect data and calculate carbon sequestration from the seagrass ecosystem needs to be developed, to equally compare between the ASEAN countries.