





## Module 8 Sustainable Developement Goal No 14

### **Life Below Water**

Conserve and sustainably use the oceans, seas and marine resources for sustainable development









### Agenda

- 1. Introduction to the Sustainable Development Goals (SDGs)
  - 1.1 Defining SDG 14
    - Significance
    - Advantages
    - Interdependencies
    - Challenges
- 2. Good practices within SDG 14
- 3. Exercises
- 4. Assessment







### 1. Introduction

- What are the SDGs?
- What do they want to achie
- How are they connected?
- What are the dimensions they are based on?



WATCH THE VIDEO

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URL:

https://vimeo.com/206120732







• 17 Goals to be reached until 2030 (Agenda

Five critical dimensions:

people, prosperity, planet, partnership and peace

• three core elements:

social inclusion, economic growth, an

environmental protection

holistic approach to tackle the challenges



Fig. 1: ©United Nations Department of Public Information (UN DPI) https://trello.com/c/jb39QPqs/36-infographic-on-the-five -elements-of-the-sdgs









#### © United Nations

URL: <a href="https">https</a>

://www.youtube.com/watch?v=N3nnyj998BI

### 1.1 Defining SDG 14

- Significance
- Advantages
- Interdependencies
- Challenges









### 1.1 Defining SDG 14

"Conserve and sustainably use the oceans, seas and marine resources for sustainable development."

(Source: © <a href="https://sustainabledevelopment.un.org/sdgs">https://sustainabledevelopment.un.org/sdgs</a> refers to all SDG icons)







- Importance of oceans and marine resources:
  - provide the basis for a habitable planet
  - influence conditions like temperature, weather, water availability, water circulation, food, ecosystems, and means of transportation

- All people depend on the ocean, as its functions include e.g.:
  - uptake and redistribution of carbon dioxide and heat
  - regulation of the hydrological cycle
  - Provision of services related to energy, food and freshwater







# thematic areas Main

Significan

#### **Marine Pollution**

- Marine pollution is one of the biggest environmental problems of the modern world
- Everyday a huge amount of waste find its way into the oceans
- Marine litter represents a threat to biodiversity and marine services
- Particularly serious is the pollution caused by plastic waste and microplastics, especially due to its impact to marine species and human health

#### **Ocean and Climate**

- Oceans are climate regulators for capturing heat and carbon dioxide from the atmosphere
- The carbon dioxide combines with water and generates carbon acid; this intensified process has been causing ocean acidification and has been impacting biodiversity and marine services
- Impacts of climate change lead to sea temperature rise, another serious impact to marine species

#### Sustainable Use

- SDG 14 reinforces the importance of sustainable use and aims at implementing efforts to end illegal fishing, overfishing and other unsustainable practices
- SDG 14 also fosters the Blue Economy, which represents the sustainable use and management of marine resources with principles of ecosystem health, economic growth and improved livelihoods

Source: Authors based on work by Sturesson et al. (2018) - License:

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Population and Species

**Ecological community** 

Ecosystem functions and services

Human Wellbeing

Governance

**Knowledge** and Behaviour

Source: Authors based on work by Brooks et al. (2020) -

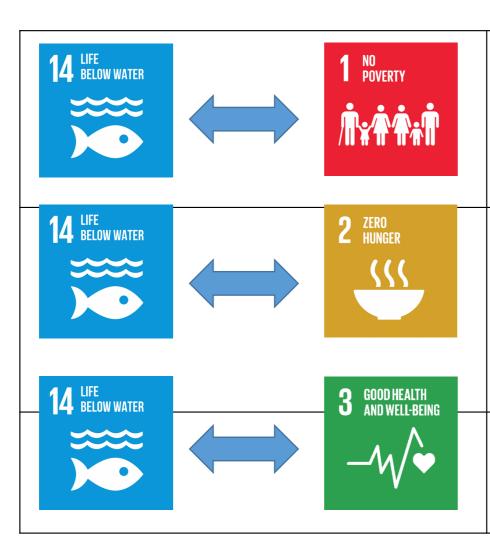
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# ende Interd



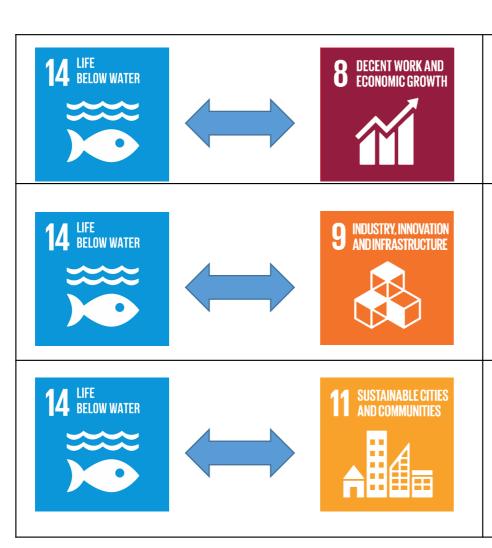
- Disadvantaged communities can benefit from improved resilience and alternative livelihood
- **Fighting poverty**, less pressure might be made in those ecosystems given their unsustainable use
- Proper management of ecosystems and fisheries can also improve production, food quality and contribute to reducing hunger
- Activities related to food production, as agriculture, should also be well managed to prevent impacts on water ecosystems
- Protection of marine resources and reduced pollution have a positive impact on health conditions







# ende Interde



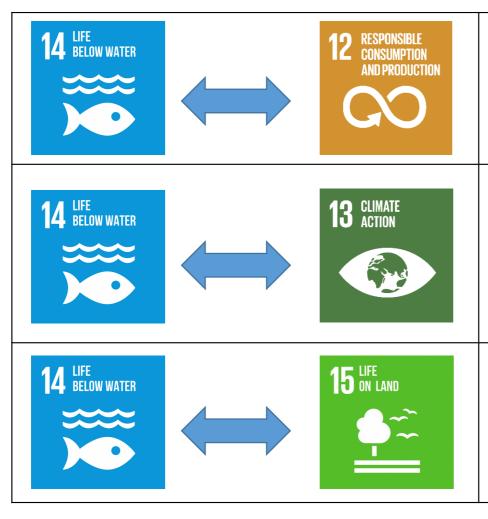
- Promotion of better management of marine ecosystems and biodiversity can boost sustainable economic growth and job creation (especially in coastal/touristic regions)
- Industrial activities can also cause ocean pollution and endanger marine biodiversity
- Proper infrastructure planning and improvements due to innovation in this area can support marine protection
- By making **cities more sustainable**, it is expected to have pollution from urban activities and the impact of urbanization under control, reducing the pressure on coastal regions and contamination of marine resources







# ende Interde



- Reducing the release of chemicals and waste into the environment - including the water resources - can achieve a decreased impact of production and consumption practices on marine ecosystems
- Ocean acidification and increased sea temperature are negative impacts of climate change that directly hinder the ocean's role in capturing carbon dioxide, and consequently effect biodiversity and marine population
- By protecting coastal areas, **terrestrial ecosystems** also benefit
- Equally, the conservation of terrestrial ecosystems can reduce ocean pollution







# Challenges

- Solving the problem of ocean acidification
- Protecting key biodiversity areas
- Increasing efforts to curb illegal fishing and promote sustainable production
- The impact caused by the COVID-19 pandemic



(Source SDG Icon: ©United Nations <a href="https://sustainabledevelopment.un.org/sdgs">https://sustainabledevelopment.un.org/sdgs</a>)







### 2. Good practices within SDG 14



Source: ©Friends of Ocean Action <a href="https://www.weforum.org/friends-of-oce">https://www.weforum.org/friends-of-oce</a> an-action/who-we-are

- Global action
- Coalition of over 50 ocean leaders
- Fast-tracking solutions to the most pressing challenges facing the ocean
- Members: businesses, civil society, international organizations, science and technology







### 2. Good practices within SDG 14

ERICSSON'S CONNECTED MANGROVES

- Situated in Malaysia:
   https://www.ericsson.com/en/blog/2019/10/latest-connected-mangroves-reforest ation-project
- Aim: to reduce mangrove degradation and restore their livelihoods
- It combines mobile, Internet of Things and cloud technologies in a world's first project where mangroves are being monitored in real-time
- It benefits Malaysian people, businesses and society







### 2. Good practices within SDG 14



(Source: © European Commission <a href="https://ec.europa.eu/info/events/eu-beach-cleanup-2020\_en">https://ec.europa.eu/info/events/eu-beach-cleanup-2020\_en</a>

- Focal area: Europe
- Aim: to raise awareness of marine litter
- The Smurfs are the official partners of the campaign. They are a universal symbol of living in harmony with nature
- Different partners have teamed up to organize various lake, beach and river clean-up events and challenges







### 3. Exercises

CLEAN-UP CHALLENGE This is a practical exercise where students can, for instance, team up to promote one-day events for cleaning-up rivers, lakes or beaches.

SMALLER FOOTPRINTS Discuss the impacts of climate change on the ocean and how these might affect people. Make a list of all the ways that human activities impact on climate change and therefore ocean life. What can be done to reduce these impacts? How can you, your family, friends and community support this?







### 3. Exercises

TRIPLE LAYERED
BUSINESS
MODEL CANVAS

Groups of students are invited to discuss challenges regarding SDG 14 and its targets and propose a solution for it using Business Model Canvas. This exercise should be performed in at least three classes.

PLASTIC WASTE SELF-MONITORING Students should list and measure the plastic waste they generate during a period (a semester, a month, or a week) and develop a report to discuss possibilities to reduce plastic consumption and problems of pollution.







### 3. Exercises

ECOLABELS AND FISHERIES

With the aim of learning about ecolabels on fisheries and the importance of products' sustainability status, students can search and list sustainability labels and then go to a fish market or supermarket and try to identify items labelled as sustainable. Discussions on label requirements, meaning, difference of price, and willingness to pay more for sustainable products, can be raised.







### 4. Assessment

- How could our current life patterns affect SDG 14 targets?
- 2. Why does ocean degradation not only pledge the coastal population?
- 3. How can marine ecosystem degradation affect human life?
- 4. How is the COVID-19 pandemic affecting SDG 14 targets? Are these impacts positive or negative?
- 5. How can SDG 14 actions help on post-COVID-19 recovery?
- 6. List some good practices that targeted the implementation of the SDG 14.
- 7. What could be your own contribution to SDG 14?
- 8. How is SDG 14 interconnected with the other SDGs?
- 9. What are the main challenges in realizing steps for the protection of marine ecosystems?
- 10. What are the difficulties in implementing SDG 14 in your country? Which are the main barriers, and how can they be overcome?







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Developed and produced by Amanda Lange Salvia, Barbara Fritzen and Jennifer Pohlmann with support from George Matthews

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