



## Development of Regional Joint Master Program in Maritime Environmental Protection and Management - MEP&M -

Know-how transfer related to the latest topics in climate change and marine pollution effects on marine ecosystems (dev.3.4.2)

### THE SUSTAINABLE DEVELOPMENT GOALS



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# History of the 2030 Agenda for Sustainable Development

- Builds on decades of work by countries and the UN
  - 1992: **Agenda 21**, the Rio Declaration on Environment and Development, adopted by 178 countries at the Earth Summit in Rio de Janeiro
  - 2000: the **Millennium Declaration** was adopted at the Millennium Summit at UN Headquarters in New York which led to the elaboration of 8 **Millennium Development Goals (MDGs)** to reduce extreme poverty by 2015.
  - 2012: UN Conference on Sustainable Development (**Rio+20**) MSs adopted the outcome document “**The Future We Want**” in which was decided to develop a set of SDGs to build upon the MDGs
  - 2015: adoption by all United Nations Member States (MSs) of the **2030 Agenda for Sustainable Development**, with **17 SDGs** at the UN Sustainable Development Summit





## the 2030 Agenda for Sustainable Development: Declaration

*“We [the Heads of State and Government and High Representatives] resolve, between now and 2030, to **end poverty and hunger everywhere**; to **combat inequalities** within and among countries; to build **peaceful, just and inclusive societies**; to protect **human rights** and promote **gender equality** and the **empowerment of women and girls**; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for **sustainable, inclusive and sustained economic growth**, shared **prosperity** and decent **work** for all, taking into account different levels of national development and capacities.”*

<https://sdgs.un.org/2030agenda>

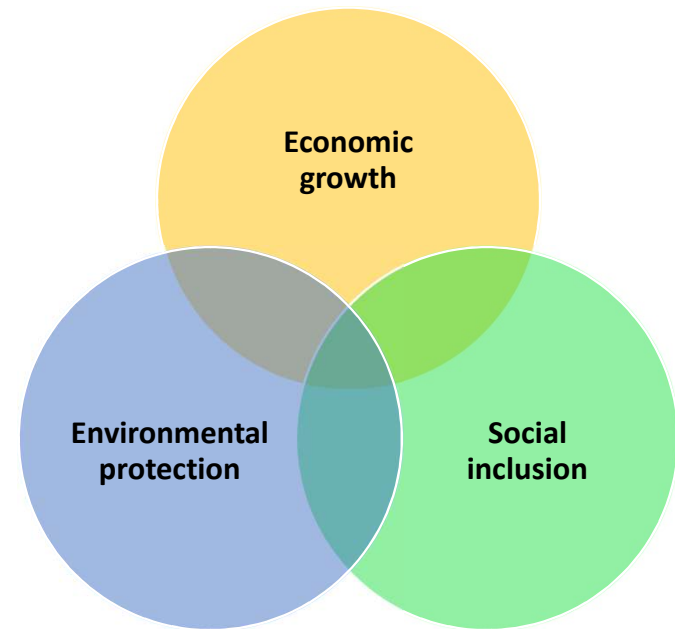
# The declaration ...continued

- Sustainable Development Goals (SDGs) are an urgent call for action **by all countries** - developed and developing - in a **global partnership**.
- They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.
  - The United nation

# Concept of sustainable development

Sustainable development is the overarching paradigm of the United Nations.

It was described by the 1987 as the *“development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”*



Three dimensions to sustainable development  
- **integrated** and **indivisible**

# Main global challenges to sustainable development

## Global challenges to sustainable development

Rising  
inequalities  
within and  
among  
countries

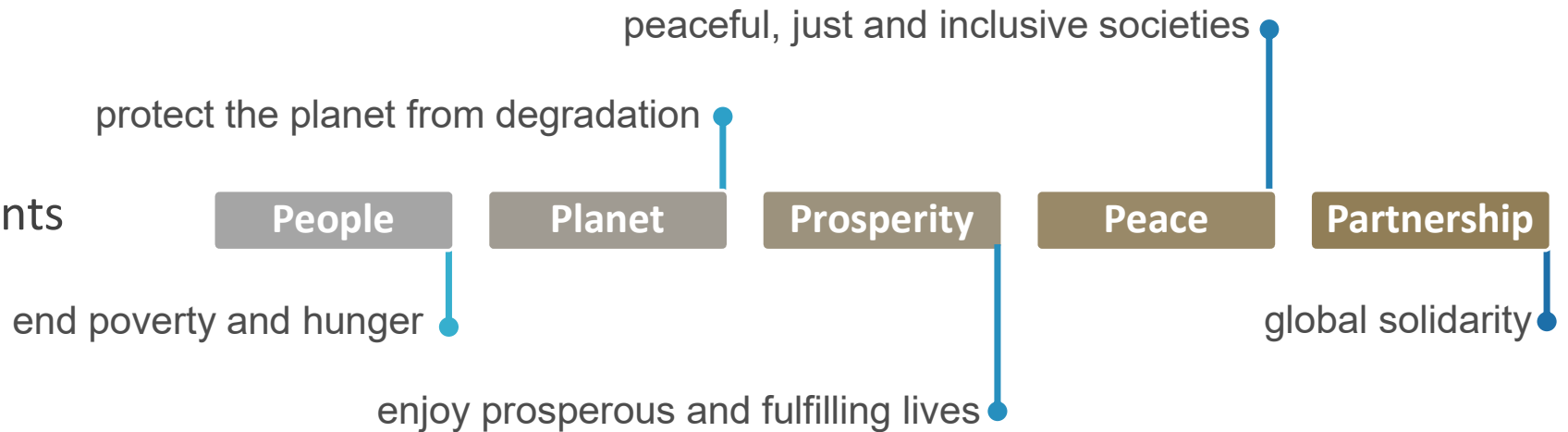
Depletion  
of natural  
resources

Rising  
population

Climate  
change

# The 2030 Agenda

- 5 key components



- 17 goals
- **Targets (169) and indicators**
  - “Outcome targets” use numbers
  - “Means of implementation targets” use lower case letters
- 15 years (2015-2030)
- All countries and stakeholders are expected to make the goals a priority

*“Never before have world leaders pledged common action and endeavor across such a broad and universal policy agenda”  
-The United Nation*

# The 17 SDGs



**Goal 1.** End **poverty** in all its forms everywhere



**Goal 2.** End **hunger**, achieve food security and improved nutrition and promote sustainable agriculture



**Goal 3.** Ensure **healthy lives** and promote well-being for all at all ages



**Goal 4.** Ensure inclusive and equitable **quality education** and promote lifelong learning opportunities for all



# The 17 SDGs



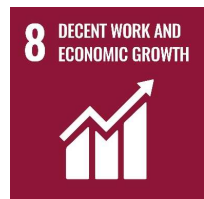
**Goal 5.** Achieve **gender equality** and empower all women and girls



**Goal 6.** Ensure availability and sustainable management of **water and sanitation** for all



**Goal 7.** Ensure access to affordable, reliable, sustainable and modern **energy** for all



**Goal 8.** Promote sustained, inclusive and sustainable **economic growth**, full and productive employment and decent work for all

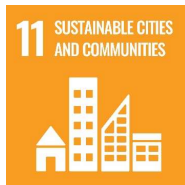
# The 17 SDGs



**Goal 9.** Build resilient **infrastructure**, promote inclusive and sustainable industrialization and foster innovation



**Goal 10.** Reduce **inequality** within and among countries



**Goal 11.** Make cities and **human settlements** inclusive, safe, resilient and sustainable



**Goal 12.** Ensure sustainable **consumption and production** patterns

# The 17 SDG ...continued



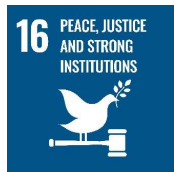
Goal 13. Take urgent action to combat **climate change** and its impacts\*



Goal 14. Conserve and sustainably use the **oceans, seas and marine resources** for sustainable development



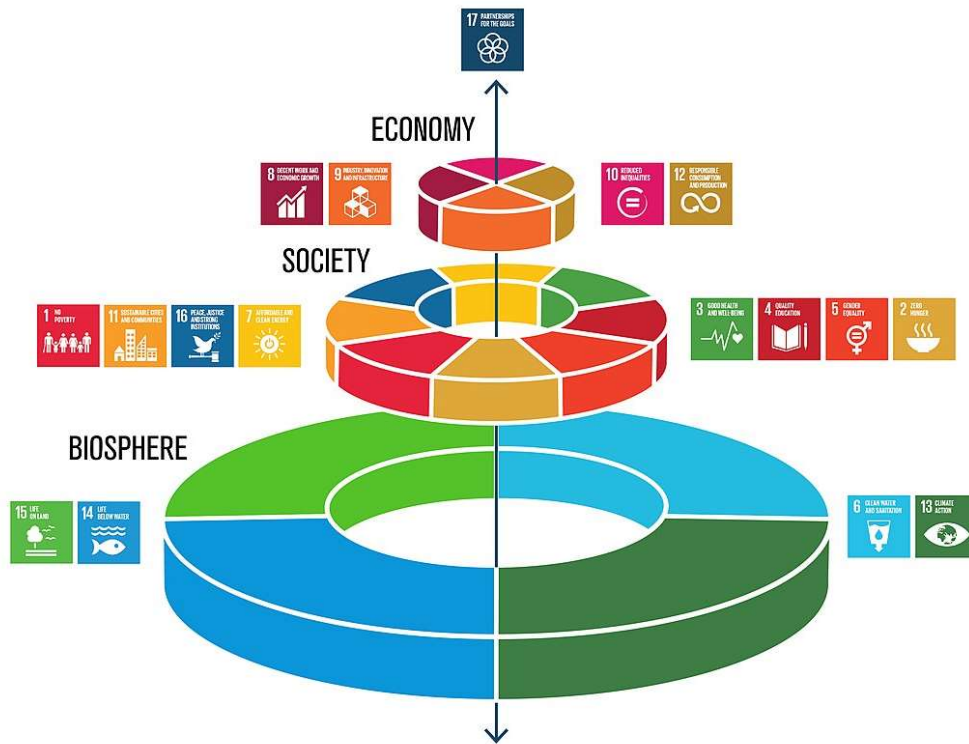
Goal 15. Protect, restore and promote sustainable use of **terrestrial ecosystems**, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Goal 17. Strengthen the means of implementation and revitalize the **global partnership** for sustainable development



Goal 16. Promote **peaceful and inclusive societies** for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels



To achieve sustainable development, 3 interdependent and critical sectors need to come together:

- Economic
- Socio-political
- Environmental.

Cross cutting issues:

- Gender equality
- Education
- Culture
- Health

→ Progress requires **multidisciplinary** and **trans-disciplinary** research across all three sectors.

1 NO POVERTY



# END POVERTY IN ALL ITS FORMS EVERYWHERE

OVERVIEW

THE  
**GLOBAL POVERTY RATE**  
IS PROJECTED TO BE

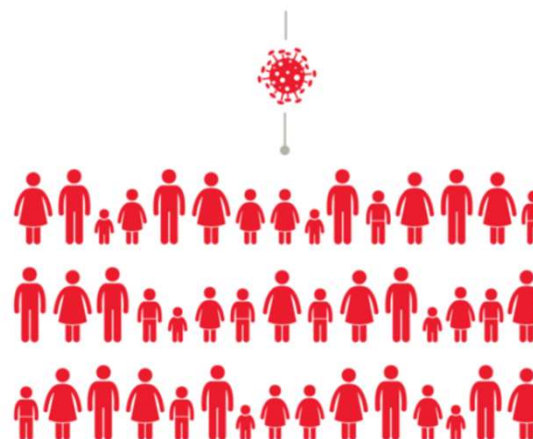
**7% IN 2030**



MISSING THE TARGET  
OF ERADICATING POVERTY

COVID-19 HAS LED TO THE  
**FIRST RISE IN EXTREME POVERTY**  
IN A GENERATION

AN ADDITIONAL **119-124 MILLION PEOPLE** WERE  
PUSHED BACK INTO **EXTREME POVERTY** IN 2020



**1** NO  
POVERTY



# END POVERTY IN ALL ITS FORMS EVERYWHERE

Targets & Indicators

**Target**  
**1.1** By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

## Indicators

### 1.1.1

Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)

**Target**  
**1.2** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

## Indicators

### 1.2.1

Proportion of population living below the national poverty line, by sex and age

### 1.2.2

Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

OVERVIEW

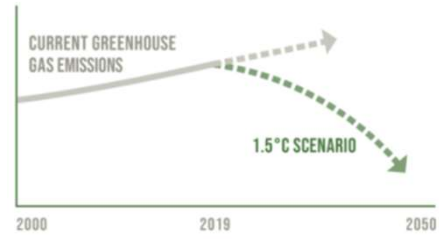
**THE CLIMATE CRISIS CONTINUES, LARGELY UNABATED**



2020 GLOBAL AVERAGE TEMPERATURE AT 1.2°C ABOVE PRE-INDUSTRIAL BASELINE

WOEFULLY OFF TRACK TO STAY AT OR BELOW 1.5°C AS CALLED FOR IN THE PARIS AGREEMENT

**RISING GREENHOUSE GAS EMISSIONS REQUIRE SHIFTING ECONOMIES TOWARDS CARBON NEUTRALITY**



**CLIMATE FINANCE INCREASED**

BY 10% FROM 2015-2016 TO 2017-2018, REACHING AN ANNUAL AVERAGE OF \$48.7 BILLION

**125 OF 154 DEVELOPING COUNTRIES ARE FORMULATING AND IMPLEMENTING NATIONAL CLIMATE ADAPTATION PLANS**

HIGHEST PRIORITY AREAS INCLUDE



FOOD SECURITY AND PRODUCTION



TERRESTRIAL AND WETLAND ECOSYSTEMS



FRESHWATER RESOURCES



HUMAN HEALTH



KEY ECONOMIC SECTORS AND SERVICES



3 Outcome targets  
2 Means of implementation targets



# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

Targets & Indicators

Target

## 13.1

Strengthen **resilience and adaptive capacity to climate-related hazards and natural disasters** in all countries

*Indicators*

### 13.1.1

Number of **deaths**, missing persons and persons affected by disaster per 100,000 people

### 13.1.2

**Number of countries** with national and local disaster **risk reduction strategies**

### 13.1.3

Proportion of **local governments** that adopt and implement **local disaster risk reduction** strategies in line with national disaster risk reduction strategies

Target

## 13.2

**Integrate climate change measures into national policies**, strategies and planning





# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

Targets & Indicators

Target

## 13.3

**Improve education**, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

### 13.a

Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of **mobilizing jointly \$100 billion annually by 2020** from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

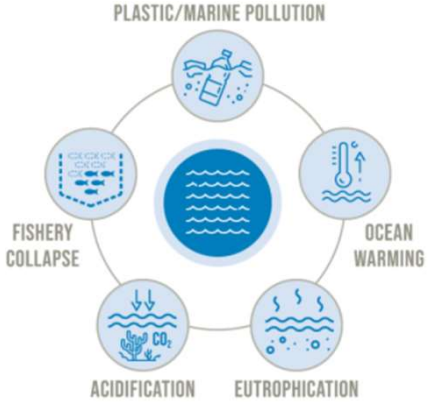
### 13.b

**Promote mechanisms** for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities \* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

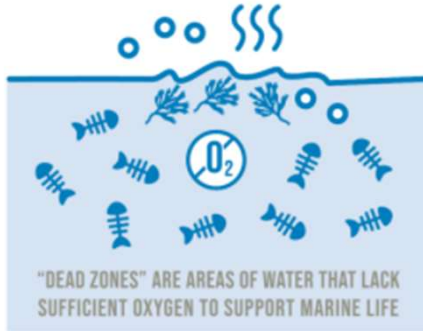
OVERVIEW

THE SUSTAINABILITY OF OUR OCEANS IS UNDER SEVERE THREAT



OVER 3 BILLION PEOPLE RELY ON OCEANS FOR THEIR LIVELIHOODS

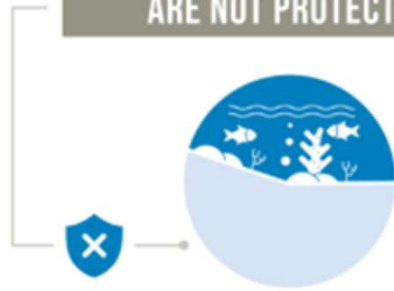
DEAD ZONES ARE RISING AT AN ALARMING RATE, FROM 400 IN 2008 TO 700 IN 2019



ABOUT HALF OF COUNTRIES WORLDWIDE HAVE ADOPTED SPECIFIC INITIATIVES TO SUPPORT SMALL-SCALE FISHERS



OVER HALF OF MARINE KEY BIODIVERSITY AREAS ARE NOT PROTECTED



ON AVERAGE, ONLY 1.2% OF NATIONAL RESEARCH BUDGETS ARE ALLOCATED FOR OCEAN SCIENCE



7 Outcome targets  
3 Means of implementation targets



# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Targets & Indicators

Target

## 14.1

By 2025, prevent and significantly reduce **marine pollution** of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

*Indicators*

### 14.1.1

Index of coastal **eutrophication** and floating **plastic** debris density

Target

## 14.2

By 2020, sustainably manage and **protect marine and coastal ecosystems** to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

*Indicators*

### 14.2.1

Proportion of national **exclusive economic zones managed using ecosystem-based approaches**



# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Targets & Indicators

Target

## 14.3

Minimize and address the impacts of **ocean acidification**, including through enhanced scientific cooperation at all levels

*Indicators*

### 14.3.1

Average marine acidity (**pH**) measured at agreed suite of representative sampling stations

Target

## 14.4

By 2020, effectively **regulate harvesting and end overfishing**, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

*Indicators*

### 14.4.1

Proportion of **fish stocks** within biologically sustainable levels



# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Targets & Indicators

Target

## 14.5

By 2020, **conserve at least 10 per cent** of coastal and marine areas, consistent with national and international law and based on the best available scientific information

*Indicators*

### 14.5.1

Coverage of **protected areas** in relation to marine areas

Target

## 14.6

By 2020, **prohibit certain forms of fisheries** subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

*Indicators*

### 14.6.1

Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing



# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Targets & Indicators

Target

## 14.7

By 2030, **increase the economic benefits** to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

*Indicators* **14.7.1**

Sustainable fisheries as a **percentage of GDP** in small island developing States, least developed countries and all countries

Target

## 14.a

Increase **scientific knowledge**, develop research capacity and transfer marine technology, taking into account the IOC Criteria and Guidelines on the Transfer of Marine Technology, in order to improve **ocean health** and to enhance the contribution of **marine biodiversity** to the development of developing countries, in particular SIDS and least developed countries

*Indicators* **14.a.1**

Proportion of total **research budget** allocated to research in the field of marine technology



# CONSERVE AND SUSTAINABLY USE THE OCEANS, SEA AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Targets & Indicators

Target

## 14.b

Provide access for **small-scale artisanal fishers** to marine resources and markets

*Indicators 14.b.1*

Progress by countries in the degree of **application of a legal/regulatory/policy/institutional framework** which recognizes and protects access rights for small-scale fisheries

Target

## 14.c

Enhance the conservation and sustainable use of oceans and their resources by **implementing international law** as reflected in United Nation Convention on the Law of the Sea (UNCLOS), which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want

*Indicators 14.c.1*

**Number of countries** making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that **implement international law**, as reflected in the UNCLOS, for the conservation and sustainable use of the oceans and their resources

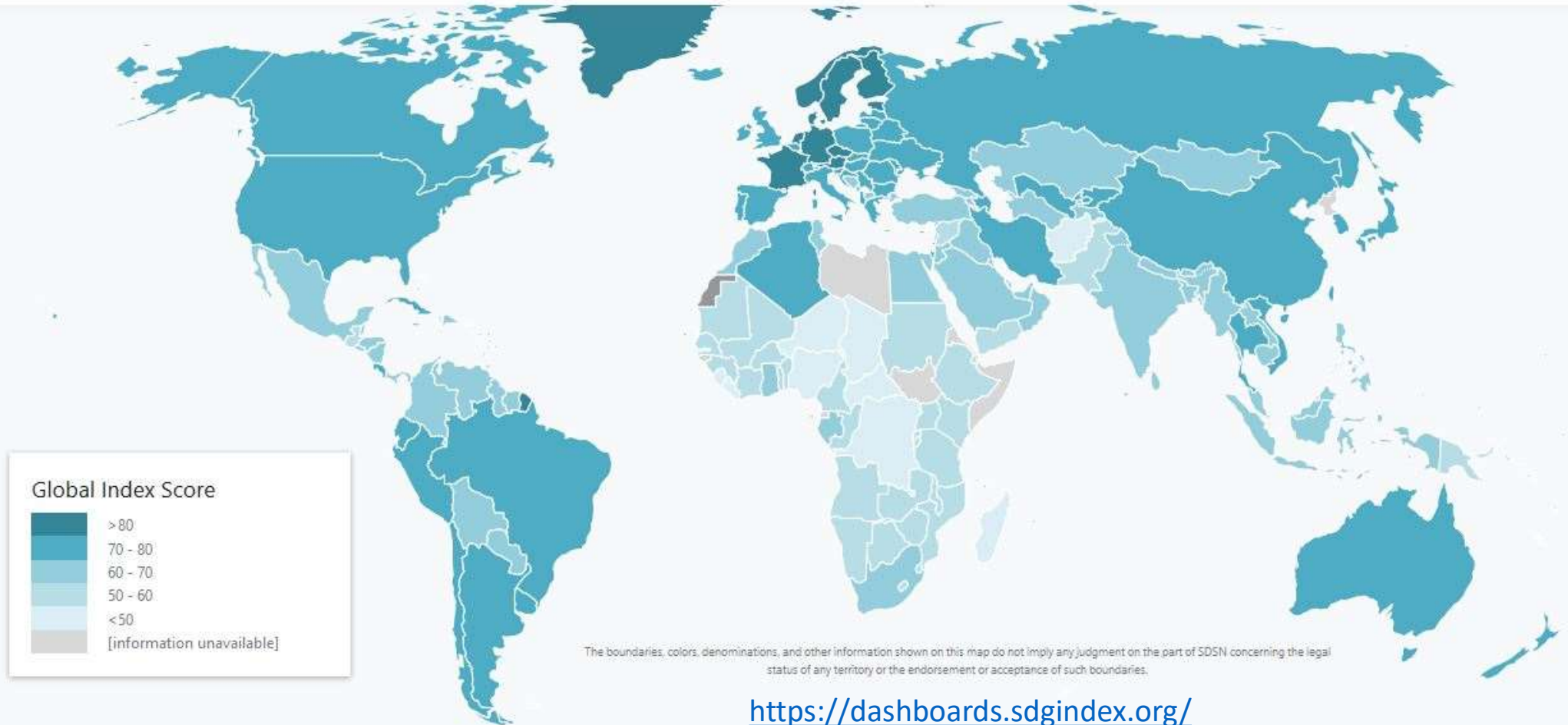


- The global goals Impact every nations and person on the planet.
- International bodies, nations, and individuals are impacted by the goals and share responsibilities on the success
- Individual can play their part by taking actions and joining campaigns;
- Nations are committing to be responsible of the goal, and mechanisms of enforcement are put in place to make sure that the goals are being met.



# Means of implementation and follow-up

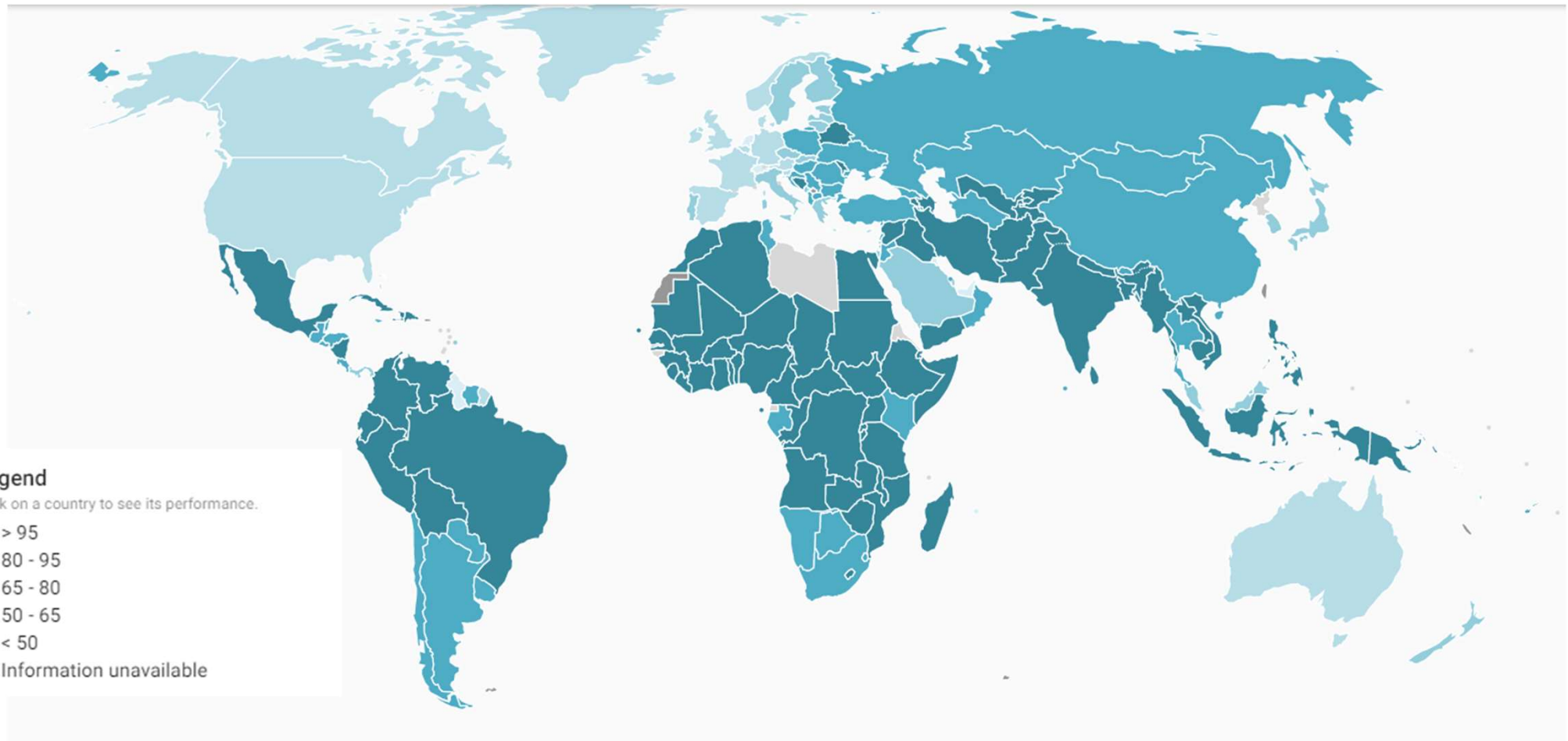
- Mobilization of **financial resources** as well as **capacity-building** and the **transfer of technologies** (environmentally sound ) to developing countries
- Individual can play their part by taking actions and joining campaigns;
- **Governments** are expected to take ownership and establish national frameworks, policies and measures for the implementation of the 2030 Agenda. They have the primary responsibility for follow-up and review, at the national, regional and global levels, progress made over the coming fifteen years.
- Indicators have been developed to assist this work.
  - Quality, accessible, timely and reliable disaggregated data are needed to help with the measurement of progress and to ensure that no one is left behind.
  - Such data are key to decision-making.



World map showing countries that are closest to meeting the SDGs (in dark blue) and those with the greatest remaining challenges (in the lightest shade of blue) in 2018

# Spill over score

<https://dashboards.sdgindex.org/>



A higher score means that a country causes more positive and fewer negative spillover effects.

- By the end of 2020, 21 of the 169 Sustainable Development Goal targets will have matured.
- Of these 21 targets, 12 are linked to the United Nations Convention on Biological Diversity Aichi Biodiversity Targets, and 4 involve SDG 14.



**Biodiversity-linked SDG**

**targets with a 2020 deadline <sup>1</sup>**

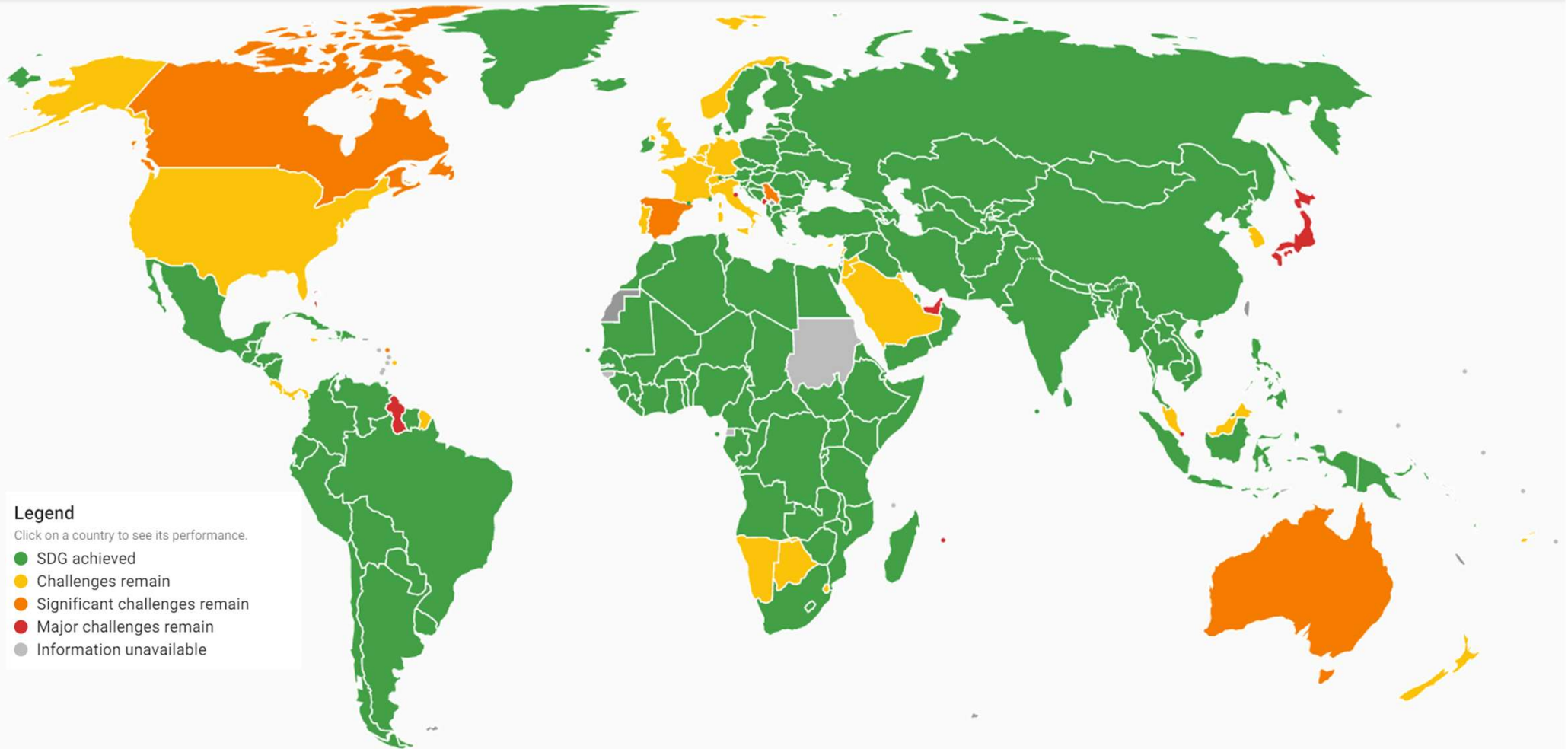
**Progress**

**Progress analysis**

14.2	Protect and restore marine and coastal ecosystems	●	The global Ocean Health Index appears to have been static over the last eight years. Some regions have low scores on ocean health that are likely worsening.
14.4	Restore fish stocks to sustainable levels	●	The sustainability of global fishery resources continues to decline, although at a reduced rate, with the share of fish stocks within biologically sustainable levels at 65.8 per cent in 2017, down from 90 per cent in 1974, and 0.8 percentage points lower than 2015 levels.
14.5	Conserve at least 10 per cent of coastal and marine areas	●	As of December 2019, over 17 per cent (or 24 million square kilometres) of waters under national jurisdiction (0 to 200 nautical miles from shore) were covered by protected areas, more than double the area covered in 2010. The global mean percentage of each marine KBA covered by protected areas increased from 30.5 per cent in 2000 to 46.0 per cent in 2019, but the majority of these sites still have incomplete or no coverage by protected areas.
14.6	End subsidies that contribute to over-fishing and to illegal, unreported and unregulated fishing	●	As of February 2020, the number of parties to the Agreement on Port State Measures - the first binding international agreement that specifically targets illegal, unreported and unregulated fishing - increased to 66 (including the European Union) from 58 the previous year. Close to 70 per cent of countries reported high scores in implementing the Agreement

# Threats to marine species embodied in imports of goods and services.

<https://dashboards.sdgindex.org/>



Ratings provide a visual representation of a country's performance on the indicator.

# SDG implementation: by all including *YOU*

- Importance of participation by all actors is emphasized throughout the 2030 Agenda
- The Division for SDGs (DSDG) supports and facilitates the participation of stakeholders <https://sdgs.un.org/>
- Stakeholder actions through projects, initiatives, advocacy, knowledge-sharing, and monitoring.
- Major Groups and Other Stakeholders (MGoS) (join the High-Level Political Forum MGoS Coordination Mechanism mailing list)

*Preamble “A spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.”*

*SDG are “the result of over two years of intensive public consultation and engagement with civil society and other stakeholders around the world, which paid particular attention to the voices of the poorest and most vulnerable.”*



SCIENTIFIC & TECHNOLOGICAL COMMUNITY















EDUCATION AND ACADEMIA



CHILDREN & YOUTH

# UN SYSTEM SDG IMPLEMENTATION

UN system plays a critical role in supporting member states' implementation of intergovernmentally agreed SDGs

 <b>IAEA</b> International Atomic Energy Agency 2020	 <b>GEF</b> Global Environment Facility 2019	 <b>UNDP</b> United Nations Development Programme 2020	 <b>UNESCO</b> United Nations Educational, Scientific and Cultural Organization (UNESCO) 2020	 <b>UNFCCC</b> United Nations Framework Convention on Climate Change 2019	 <b>WFP</b> United Nations World Food Programme 2020	 <b>WHO</b> World Health Organization 2019
 <b>FAO</b> Food and Agriculture Organization of the United Nations 2020	 <b>UN-Habitat</b> United Nations Human Settlements Programme 2020	 <b>CBD</b> Secretariat Convention Biological Diversity 2019	 <b>IFAD</b> International Fund for Agricultural Development 2020	 <b>WMO</b> World Meteorological Organization 2019	<i>...etc.</i> <a href="https://sdgs.un.org/UNSDImplementation">https://sdgs.un.org/UNSDImplementation</a>	

# IOC-UNESCO United Nation Ocean Decade 2021-2030



“... international efforts at the science-policy interface to reverse the cycle of decline in ocean health and to improve conditions for sustainable development of the ocean”

## 6 Societal outcomes:

- **A Clean Ocean** -pollution
- **A Healthy and Resilient Ocean**
- **A Predicted Ocean**
- **A Safe Ocean** polluting chemicals, micro, nano plastics, *HABS* observation, seismic data for tsunami warnings etc.
- **A Sustainably Harvested Ocean** pollution and fisheries; climate change and fisheries, future of food production etc.
- **A Transparent Ocean** clarify the science-policy interface at the national level, coordination, ocean information etc.

## Cross cutting actions:

- **Capacity dev. and technology transfer**
- **Partnership and financing**
- **Access to Data, Information, and Knowledge**
- **Communicating the Decade**



**JOIN THE MOVEMENT**  
Working together for the Ocean We Want  
[SIGN UP](#)

Join The Ocean Decade **Global Stakeholder Forum**  
The Ocean Decade is for Everyone. Sign up to our interactive platform to start taking action now!

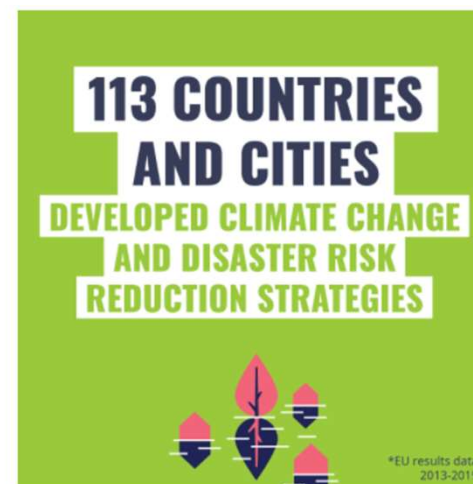
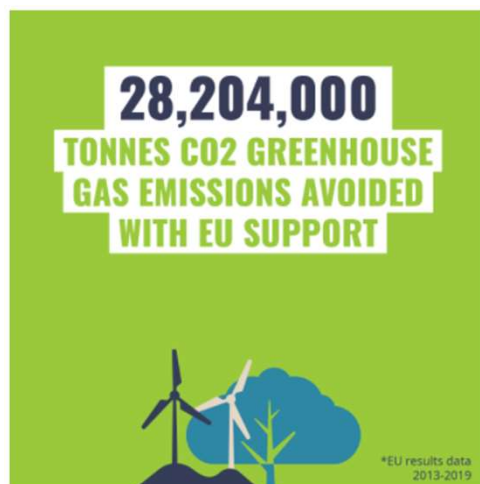
- Submit Decade Activities**  
Submit your idea for an Activity anytime: events, publications, exhibitions, workshops, conferences or training opportunities.
- Take part in Calls for Decade Actions**  
Participate in the Call for Decade Actions No. 02/2021 and submit your idea for a Decade programme, project or contribution.
- Join a Community of Practice**  
Engage with partners and work together on similar topics to co-design solutions and share best practices.
- Explore Events**  
Explore upcoming events and activities.
- Network Globally**  
Network with top experts and engaged professionals connecting ocean and sustainable development.
- Unlock Opportunities**  
Discover opportunities for trainings, partnerships and career development.





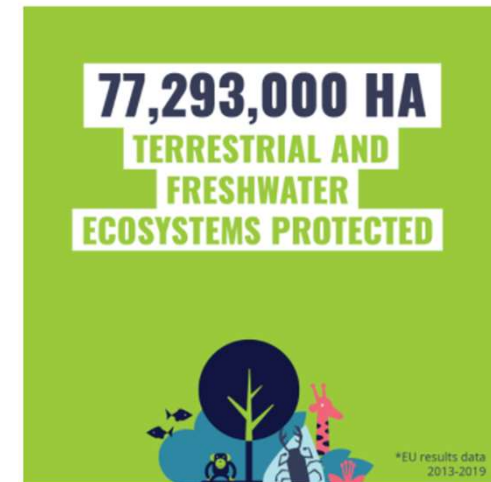
## EU and SDG 13

- The EU has been a leading force towards the adoption of the Paris Agreement at the COP21 conference in 2015.
- In 2014-2017, the EU has allocated 20% of its budget to climate action and this share is likely to reach at least 25% as of 2021, which confirms the growing importance of climate action in the EU agenda.



# EU and SDG 14

- The EU made a positive and constructive contribution to the development of the 2030 Agenda. "... committed to implement the SDGs in all our policies and encourage EU countries in doing the same".
- The EU development policy supports notably, through actions at global, regional, national and local level
  - ✓ improved fisheries management and the fight against **illegal, unreported, and unregulated (IUU) fishing** to secure oceans' contribution to food and nutrition security
  - ✓ conservation of marine and coastal ecosystems notably through the establishment and support of **marine protected areas (MPA)**
  - ✓ **waste management** and efforts to reduce land-based pollution affecting the oceans (including plastic)
  - ✓ **research and technology transfer**



# UNESCO: Education for Sustainable Development Goals - Learning Objectives

Education for

Sustainable Development Goals

Learning Objectives



Education  
2030

<file:///C:/Users/mydbo/Downloads/247444eng.pdf>

*“A fundamental change is needed in the way we think about education’s role in global development, because it has a catalytic impact on the well-being of individuals and the future of our planet. ... Now, more than ever, education has a responsibility to be in gear with 21st century challenges and aspirations, and foster the right types of values and skills that will lead to sustainable and inclusive growth, and peaceful living together. “*

Irina Bokova, Director-General of UNESCO

**“Education for sustainable development (ESD) has to be integrated in all curricula of formal education, including early childhood care and education, primary and secondary education, technical and vocational education and training (TVET), and higher education”**



**Table 1.2.13. Learning objectives for SDG 13 “Climate Action”**

<b>Cognitive learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner understands the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases.</li> <li>2. The learner understands the current climate change as an anthropogenic phenomenon resulting from increased greenhouse gas emissions.</li> <li>3. The learner knows which human activities – on a global, national, local and individual level – contribute most to climate change.</li> <li>4. The learner knows about the main ecological, social, cultural and economic consequences of climate change locally, nationally and globally and understands how these can themselves become catalysing, reinforcing factors for climate change.</li> <li>5. The learner knows about prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.</li> </ol>
<b>Socio-emotional learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.</li> <li>2. The learner is able to encourage others to protect the climate.</li> <li>3. The learner is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change.</li> <li>4. The learner is able to understand their personal impact on the world’s climate, from a local to a global perspective.</li> <li>5. The learner is able to recognize that the protection of the global climate is an essential task for everyone and that we need to completely re-evaluate our worldview and everyday behaviours in light of this.</li> </ol>
<b>Behavioural learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.</li> <li>2. The learner is able to act in favour of people threatened by climate change.</li> <li>3. The learner is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.</li> <li>4. The learner is able to promote climate-protecting public policies.</li> <li>5. The learner is able to support climate-friendly economic activities.</li> </ol>

### Box 1.2.13a. Suggested topics for SDG 13 “Climate Action”

Greenhouse gases and their emission

Energy, agriculture and industry-related greenhouse gas emissions

Climate change-related hazards leading to disasters like drought, weather extremes, etc. and their unequal social and economic impact within households, communities and countries and between countries

Sea-level rise and its consequences for countries (e.g. small island states)

Migration and flight related to climate change

Prevention, mitigation and adaptation strategies and their connections with disaster response and disaster risk reduction

Local, national and global institutions addressing issues of climate change

Local, national and global policy strategies to protect the climate

Future scenarios (including alternative explanations for the global temperature rise)

Effects of and impacts on big eco-systems like forests, oceans, glaciers and biodiversity

Ethics and climate change

### **Box 1.2.13b. Examples of learning approaches and methods for SDG 13 “Climate Action”**

Perform a role-play to estimate and feel the impact of climate change related phenomena from different perspectives

Analyse different climate change scenarios with regard to their assumptions, consequences and their preceding development paths

Develop and run an action project or campaign related to climate protection

Develop a web page or blog for group contributions related to climate change issues

Develop climate friendly biographies

Undertake a case study about how climate change could increase the risk of disasters in a local community

Develop an enquiry-based project investigating the statement “Those who caused the most damage to the atmosphere should pay for it”



**Table 1.2.14. Learning objectives for SDG 14 “Life below Water”**

<b>Cognitive learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner understands basic marine ecology, ecosystems, predator-prey relationships, etc.</li> <li>2. The learner understands the connection of many people to the sea and the life it holds, including the sea’s role as a provider of food, jobs and exciting opportunities.</li> <li>3. The learner knows the basic premise of climate change and the role of the oceans in moderating our climate.</li> <li>4. The learner understands threats to ocean systems such as pollution and overfishing and recognizes and can explain the relative fragility of many ocean ecosystems including coral reefs and hypoxic dead zones.</li> <li>5. The learner knows about opportunities for the sustainable use of living marine resources.</li> </ol>
<b>Socio-emotional learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner is able to argue for sustainable fishing practices.</li> <li>2. The learner is able to show people the impact humanity is having on the oceans (biomass loss, acidification, pollution, etc.) and the value of clean healthy oceans.</li> <li>3. The learner is able to influence groups that engage in unsustainable production and consumption of ocean products.</li> <li>4. The learner is able to reflect on their own dietary needs and question whether their dietary habits make sustainable use of limited resources of seafood.</li> <li>5. The learner is able to empathize with people whose livelihoods are affected by changing fishing practices.</li> </ol>
<b>Behavioural learning objectives</b>	<ol style="list-style-type: none"> <li>1. The learner is able to research their country’s dependence on the sea.</li> <li>2. The learner is able to debate sustainable methods such as strict fishing quotas and moratoriums on species in danger of extinction.</li> <li>3. The learner is able to identify, access and buy sustainably harvested marine life, e.g. ecolabel certified products.</li> <li>4. The learner is able to contact their representatives to discuss overfishing as a threat to local livelihoods.</li> <li>5. The learner is able to campaign for expanding no-fish zones and marine reserves and for their protection on a scientific basis.</li> </ol>

### Box 1.2.14a. Suggested topics for SDG 14 “Life below Water”

The hydrosphere: The water cycle, cloud formation, water as the great climate regulator

Management and use of marine resources (renewables and non-renewables): global commons and overfishing, quotas and how they are negotiated, aquaculture, seaweed, mineral resources

Sustainable Marine Energy (renewable energies, wind turbines and their controversy)

Marine ecology – the food web, predators and prey, competition, collapse

Coral reefs, coasts, mangroves and their ecological importance

Sea level rise and countries that will experience total or partial loss of land; climate refugees and what a loss of sovereignty will mean

The oceans and international law: international waters, territory disputes, flags of convenience and their related issues

Ocean pollutants: plastics, microbeads, sewage, nutrients and chemicals

The deep ocean and deep-sea creatures

Cultural relationships to the sea – the sea as a source of cultural ecosystem services such as recreation, inspiration and building of cultural identity



## **Box 1.2.14b.** Examples of learning approaches and methods for SDG 14 “Life below Water”

Develop and run a (youth) action project related to life below water

Undertake excursions to coastal sites

Debate sustainable use and management of fishery resources in school

Role-play islanders relocating from their country because of sea-level rise

Conduct a case study about cultural and subsistent relationships with the sea in different countries

Conduct lab experiments to provide students with evidence of ocean acidification

Develop an enquiry-based project: “Do we need the ocean or does the ocean need us?”



The **LAZY PERSON'S**

guide to

**SAVING** the **WORLD**



### THINGS YOU CAN DO FROM YOUR COUCH

- Save electricity by plugging appliances into a power strip and turning them off completely when not in use, including your computer.
- Stop paper bank statements and pay your bills online or via mobile.
- Speak up! Ask your local and national authorities to engage in initiatives that don't harm people or the planet. You can also voice your support for the Paris Agreement and ask your country to ratify it or sign it if it hasn't yet.
- Turn off the lights. Your TV or computer screen provides a cosy glow, so turn off other lights if you don't need them.
- Do a bit of online research and buy only from companies that you know have sustainable practices and don't harm the environment.
- Report online bullies. If you notice harassment on a message board or in a chat room, flag that person.
- In addition to the above, offset your remaining carbon emissions! You can calculate your carbon footprint and purchase climate credits from Climate Neutral Now. In this way, you help reduce global emissions faster!"



## THINGS YOU CAN DO FROM HOME

- Air dry. Let your hair and clothes dry naturally instead of running a machine. If you do wash your clothes, make sure the load is full.
- Take short showers. Bathtubs require gallons more water than a 5-10 minute shower.
- Eat less meat, poultry, and fish. More resources are used to provide meat than plants
- Compost—composting food scraps can reduce climate impact while also recycling nutrients.
- Recycling paper, plastic, glass & aluminium keeps landfills from growing.
- Buy minimally packaged goods.
- Plug air leaks in windows and doors to increase energy efficiency
- Adjust your thermostat, lower in winter, higher in summer
- Replace old appliances with energy efficient models and light bulbs



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LEVEL

3

NEIGHBOURHOOD  
NICE GUY




## THINGS YOU CAN DO IN YOUR NEIGHBOURHOOD


- Shop local. Supporting neighbourhood businesses keeps people employed and helps prevent trucks from driving far distances.
- Let your favourite businesses know that ocean-friendly seafood is on your shopping list.
- Shop only for sustainable seafood. There are now many apps that will tell you what is safe to consume.
- Bike, walk or take public transport. Save the car trips for when you've got a big group.
- Use a refillable water bottle and coffee cup. Cut down on waste and maybe even save money at the coffee shop.
- Bring your own bag when you shop. Pass on the plastic bag and start carrying your own reusable totes.
- Take fewer napkins. You don't need a handful of napkins to eat your take-out. Take just what you need.
- Shop vintage. Brand-new isn't necessarily best. See what you can repurpose from second-hand shops.
- Donate what you don't use. Local charities will give your gently used clothes, books and furniture a new life.
- Take advantage of your right to elect the leaders in your country and local community



## THINGS YOU COULD DO AT WORK

- Give fruits or snacks that you don't want to someone who needs and is asking for help.
- Does everyone at work have access to healthcare? Find out what your rights are to work. Fight against inequality.
- Mentor young people. It's a thoughtful, inspiring and a powerful way to guide someone towards a better future.
- Voice your support for equal pay for equal work.
- Lend your voice to talk about the lack of toilets in many communities around the world!
- Make sure your company uses energy efficient heating and cooling technology.
- Raise your voice against any type of discrimination in your office. Everyone is equal regardless of their gender, race, sexual orientation, social background and physical abilities.
- Bike, walk or take public transport to work. Save the car trips for when you've got a big group.
- Organize a No Impact Week at work. Learn to live more sustainably for at least a week: [un.org/sustainabledevelopment/be-the-change](https://un.org/sustainabledevelopment/be-the-change).

	Compost food scraps. 1	
Drive less. Walk, cycle, take public transport or car pool. 2		Take re-useable bags to the store. 3
Air dry. Let your hair and clothes dry naturally. 4	Avoid driving in peak-hour traffic. 5	Maintain your car. A well-maintained car emits fewer toxic fumes. 6
	Organise for your school or company to plant new trees every year. Trees give oxygen and take in carbon dioxide. 7	Unplug TVs, computers and other electronics when not in use. 8
Spread awareness about ways to stop global warming. 9	Only buy what you need. 20-50% of the food we buy ends up in landfill. 10	<b>13 CLIMATE ACTION</b> 

Start regularly volunteering in community groups to clean up a portion of the beach from litter if living nearby. 1	Don't buy jewellery and other items made from coral, tortoise shells or other marine life. 2	
	Eat local sustainable food. 3	Support organisations that protect the oceans. 4
Use fewer plastic products, which often ends up in oceans causing the death of marine animals. 5	<b>14 LIFE BELOW WATER</b> 	
Respect laws related to over-fishing. 6	Inform yourself on ocean activities by watching educational DVDs and documentaries. 7	Avoid buying wild-caught, salt-water fish for your home aquarium. 8
	Only use the dishwasher and laundry machine when full. 9	Practice responsible recreational activities like boating, fishing, snorkelling and kayaking. 10

# SUSTAINABLE DEVELOPMENT GOALS

