



LEARNING ABOUT **14** **b.1** INDICATOR

SDG Indicator 14.b.1 Securing sustainable small-scale fisheries

Lesson: Introduction

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Food and Agriculture
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working for Zero Hunger

In this lesson

Introduction 3

Learning Objectives..... 3

Overview of Goal 14: Life Below Water 3

Target 14.b: The importance of small-scale and artisanal fisheries 9

Target 14.b and the linkages with other SDGs targets 11

Small-scale fisheries characteristics..... 12

Summary 14

Introduction

This lesson will introduce you to the main topics addressed by SDG 14. It will familiarize you in particular with **SDG Target 14.b** and illustrate the nature and importance of small-scale fisheries (SSF).

You will learn that while the **nature of small-scale fisheries** can differ at country level, the key livelihood functions provided by the sector apply globally.

This helps to better understand the **rationale behind SDG Target 14.b** and the implications of non action, including in relation to the achievement of related SDGs.

Learning Objectives

At the end of this lesson, you will be able to:

- describe the overall nature of Sustainable Development Goal 14 and its targets;
- explain the important role of small-scale fisheries (Target 14.b) within SDG 14 and other related SDGs;
- describe in greater detail Target 14.b and its importance.

Overview of Goal 14: Life Below Water

Oceans cover more than **70 percent** of our planet. They host an enormous richness of biodiversity, and are particularly important for **coastal communities**, which now represent about **40 percent** of the global population.

Oceans and seas provide **food, employment** in a large variety of sectors, from fisheries to marine transport, and recreational areas, but have also important functions in regulating our climate. At the same time, pollution, overexploitation and climate change are posing major threats to the oceans.



The global community has recognized the importance of the oceans and seas and dedicated one of the 17 Sustainable Development Goals to this area.

Goal 14a and its targets

“Goal 14 aims to conserve and sustainably use the oceans, seas and marine resources for sustainable development.”

Countries can use Goal 14, its targets and indicators, to gain a much fuller picture of their natural capital, the sustainability of their development strategy and the health of their ecosystem. It has **ten different targets**, and this course is focused on **14.b**.

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.
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 .
Target 14.3	Minimize and address the impacts of ocean acidification , including through enhanced scientific cooperation at all levels.
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.
Target 14.5	By 2020, conserve at least 10 percent of coastal and marine areas , consistent with national and international law and based on the best available scientific information.
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.

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.
Target 14.a	Increase scientific knowledge, develop research capacity and transfer marine technology , taking into account the Intergovernmental Oceanographic Commission 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 small island developing States and least developed countries.
Target 14.b	Provide access for small-scale artisanal fishers to marine resources and markets .
Target 14.c	Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in 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.




The Future We Want - Outcome document: paragraph 158 on oceans and seas

158. We recognize that oceans, seas and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical to sustaining it, and that international law, as reflected in the United Nations Convention on the Law of the Sea, provides the legal framework for the conservation and sustainable use of the oceans and their resources. We stress the importance of the conservation and sustainable use of the oceans and seas and of their resources for sustainable development, including through their contributions to poverty eradication, sustained economic growth, food security and creation of sustainable livelihoods and decent work, while at the same time protecting biodiversity and the marine environment and addressing the impacts of climate change. We therefore commit to protect, and restore, the health, productivity and resilience of oceans and marine ecosystems, and to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations, and to effectively apply an ecosystem approach and the precautionary approach in the management, in accordance with international law, of activities having an impact on the marine environment, to deliver on all three dimensions of sustainable development.

[Future we want – outcome document:](#)

<https://sustainabledevelopment.un.org/futurewewant.html>

Let's meet Natee, a fisheries administration official with long experience in fisheries.



*"Hi, my name is Natee, I am a **fisheries administration official** in a national agency. I have long been interested in the role that **women play in small-scale fisheries**, as I myself was involved in this practice early in my life. In my country, the **situation is challenging**; in fact the contribution of small-scale fisheries to food security and poverty eradication is not yet fully recognized."*

Natee works at a fisheries administration agency and manages a team of 5 people.

She strives to ensure that all those taking part in small-scale fisheries activities, including women, are fairly treated and included in policy dialogue, so as to better understand and sustainably use the resource. However, Natee faces challenges within her administration in terms of drawing attention to the sector, since information and data are often lacking, and there is competition for scarce resources.



Why are the oceans, seas and marine resources so important?

Oceans and seas and their resources support human well-being and livelihoods providing:

- ✓ **Employment** - The OECD estimates that between 2010 and 2030, the ocean economy could more than double its contribution to global employment, surpassing 40 million full-time equivalent jobs (OECD, 2016). More than half of this is in **marine capture fisheries** - 16 million jobs. The rest is in sectors such as maritime **transport, oil and gas production** and **dredging** for ports and other facilities.
- ✓ **Food** - Most recently, total capture production in marine waters was estimated at 81.5 million tonnes, of which about 60 million tonnes are for direct human consumption (the remainder is primarily for fish meal and fish oil production). More than 3 billion people rely on fish for their animal protein intake, and the consumption of fish is increasing in all countries.

Marine and coastal ecosystems therefore provide a vital basis for the livelihoods of many coastal communities, particularly in developing countries, including Small Island Developing States (SIDS).

But oceans and seas and their ecosystems have many **more functions**:

- ➡ **Protection from natural disasters**, for example through mangrove forests, which form natural barriers in coastal areas to reduce the impact of storms.

- ➡ **Creating oxygen** through the phytoplankton that lives near the water's surface.
- ➡ Oceans and seas are the **primary regulators of the global climate**, and an important sink for greenhouse gases.
- ➡ They **provide habitats** for marine mammals, sea birds and a large variety of other aquatic animals, including fish, crustaceans and molluscs.
- ➡ They **provide recreational and tourism areas**, for example for swimming, diving and watersports.

The conservation and sustainable use of the oceans, seas and marine resources for sustainable development is **threatened by marine and land-based human activities**. SDG 14 aims to counter these **threats**, which include:

➡ *Marine pollution and litter*

Marine pollution and litter **destroy marine life**. An estimated **5 trillion pieces of plastic** currently float in the world's oceans. Ocean-borne plastic trash can be ingested by wildlife, causing harm. Some sea creatures have even been seen to prefer beads of a particular colour. Even tiny plankton have been observed consuming plastic beads. Such dietary choices can have tragic outcomes. For example, sea turtles that eat plastic bags often die of dehydration and sunburn as their digestion is paralyzed and decomposing food turns into gas, which forces the animals to float.

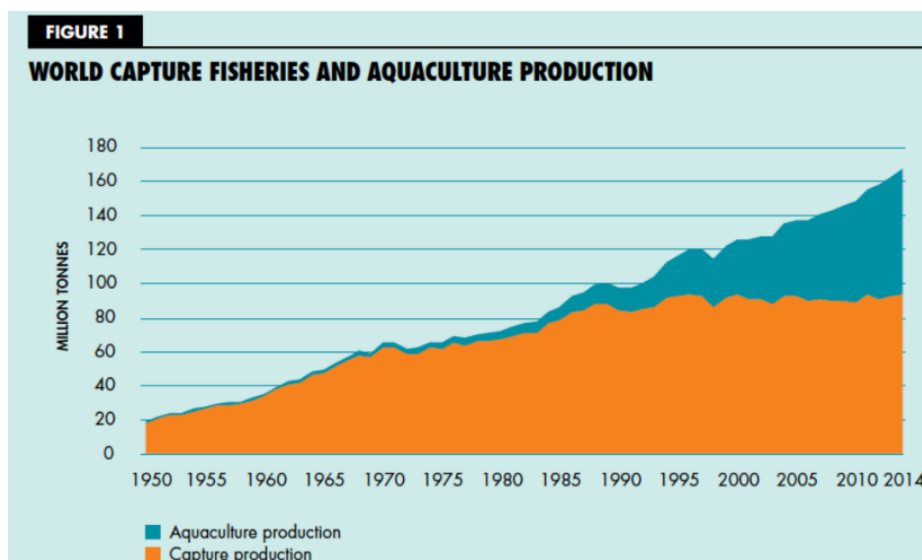
Microplastics - beads less than 5 millimeters in diameter - are of particular interest as they are produced on industrial scales and **greatly contribute to pollution** of the marine environment, from beaches to the depths of the ocean. Microplastics are used in human products such as cosmetics and shower gels, and are also used in resin pellet form by manufacturers. **More than 250 million tonnes are now produced each year.**

➡ *Sea water acidification*

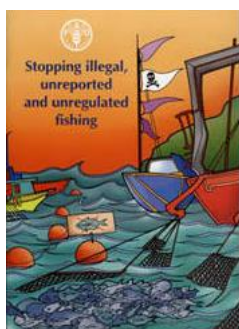
One-quarter of all **carbon dioxide** released through human activity is absorbed by the oceans. This is a huge amount! It **raises the acidity of the sea water**, causing ocean acidification. This changes the pH (acidity) of the water, and can have a negative impact on marine life, causing **coral reef bleaching** and even **fish mortality**. For more on ocean acidification: www.oceansatlas.org/subtopic/en/c/7/

➡ *Destructive fishing practices and overfishing*

Destructive fishing practices, overfishing and illegal, unreported and unregulated (IUU) fishing are increasing pressures on marine ecosystems. Nearly one-third of all fish stocks are now below sustainable levels.



www.franciscoblaha.info/blog/2016/7/8/the-state-of-the-world-fisheries-and-aquaculture-2016



Stopping illegal unreported and unregulated fishing.

www.fao.org/docrep/005/Y3554E/Y3554E00.HTM

⇒ **Harmful fisheries subsidies**

Harmful fisheries subsidies¹ exacerbate the problem by encouraging fishing overcapacity - too many boats catching too few fish.

"Subsidies² to support the extraction of an already depleted resource make no economic, environmental, or social sense. We are running a senseless race to the bottom"

Joakim Reiter, UNCTAD Deputy Secretary-General

¹ **Fisheries subsidy** Fisheries subsidies are government actions or inactions that are specific to the fisheries industry and that modifies - by increasing or decreasing - the potential profits by the industry in the short-, medium- or long-term.

² **Subsidies**, loosely speaking, are government policies in aid of one or more industries, usually carrying a financial benefit to the industry. At the most conventional level, subsidies are government financial transfers to an industry, through payments to workers or to firms.

www.fao.org/docrep/006/Y4647E/y4647e05.htm

The human activities described are just some of the forces driving **deterioration of coastal and marine ecosystems and habitats**. Vulnerable groups in coastal areas, such as poorer populations and indigenous peoples, are particularly affected.

Small-scale fisheries actors, who account for about 90 percent of all people depending on capture fisheries, are among the worst affected, including in **Small Island Developing States**, where culture and economies are deeply interconnected with the oceans.



What are we doing to improve the situation?

The oceans and seas belong to all of us. The waters are interconnected and difficult to separate. Fish swim across borders, maritime transport crosses national waters and the high seas. We therefore need to find solutions together. Several international instruments have been adopted to address the many challenges facing oceans and seas. The most important is the **United Nations Convention on the Law of the Sea (UNCLOS)**.

(www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm) UNCLOS sets out the legal framework within which all activities in the oceans and seas must be carried out.



UNCLOS should guide us in regulating various aspects related to the use of the oceans and their resources, from maritime transport to exploitation of living and non-living resources and pollution from various sources.

To help implement UNCLOS legal frameworks, several **integrated, interdisciplinary and intersectoral tools** have been developed to help manage activities in the oceans and seas in a more sustainable manner. These include increased scientific knowledge, research capacity and **marine technology transfer and area-based management tools**, such as marine spatial planning and **marine protected areas (MPAs)**.

Target 14.b: The importance of small-scale and artisanal fisheries



Why is SDG Target 14.b. of particular significance?

While all the SDG 14 targets are mutually supportive and act together to conserve and sustainably use the oceans, seas and marine resources for sustainable development, **only SDG Target 14.b makes specific reference to the small-scale fisheries sector.**

The people directly using fisheries resources are key to ensuring the conservation and sustainable use of the oceans, seas and resources!



How do we define small-scale artisanal fisheries?

Small-scale and **artisanal fisheries** may have different meanings, but they are also often used interchangeably. For this course, we will refer to small-scale fisheries in the broad sense, including artisanal fisheries. While some countries have an official definition for the sector, in most cases the definition of small-scale fisheries must be approached with great flexibility, as their characteristics may differ based on national, regional and local perspectives.

This table shows some example definitions of small-scale marine fisheries from developing country case studies.

Country (area)	Size of vessel/ engine	Other criteria	Subcategories	No. of vessels
Brazil	<18 m		"Small boats" <12 m (with and without engines); "middle-sized boats" 12-18 m	99 100
Cambodia	<10 HP	Largely subsistence fishing	Motorized; nonmotorized	5 400
Ghana	Canoes	Low level of mechanization	According to gear types: Ali/Poli/Watsa, set net, hook and line, drift gillnet, beach seine	11 200
India	Non mechanized		Motorized; nonmotorized and type of boat: catamarans, plank-built craft, fiber-reinforced polymer and other craft, ring seiners, dugouts	179 000
Philippines	<3 GT	Operating in coast area <15 km and under management of local municipalities	Motorized and nonmotorized <i>bancas</i> (an outrigger boat)	469 800

Source: Developing country case studies.

Notes: HP = horsepower; GT = gross tonnage.



A global definition of small-scale fisheries?

Attempts to develop a global definition of small-scale fisheries failed during the development process of the [Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication](http://www.fao.org/3/a-i4356e.pdf) [www.fao.org/3/a-i4356e.pdf] (SSF Guidelines). This internationally negotiated instrument settled for the following solution (paragraph 2.4):

"These Guidelines recognize the great diversity of small-scale fisheries and that there is no single, agreed definition of the subsector. Accordingly, the Guidelines do not prescribe a standard definition of small-scale fisheries nor do they prescribe how the Guidelines should be applied in a national context. These Guidelines are especially relevant to subsistence small-scale fisheries and vulnerable fisheries people."

To ensure transparency and accountability in the application of the guidelines, it is important to ascertain which activities and operators are considered small-scale, and to identify vulnerable and marginalized groups needing greater attention. This should be undertaken at a regional, subregional or national level, and according to the particular context in which they are to be applied. States should ensure that such identification and application are guided by meaningful and substantive participatory, consultative, multilevel and objective oriented processes, so that the voices of both men and women are heard. All parties should support and participate, as appropriate and relevant, in such processes.

Target 14.b and the linkages with other SDGs targets

You need to engage with the small-scale fisheries sector if you want to achieve development goals such as **protecting livelihoods**, **eradicating poverty** and food insecurity, as well as **ensuring shared prosperity**. You can certainly see that small-scale fisheries can be closely associated with additional SDGs beyond its host, SDG Target 14.b. Other key SDGs/targets include:



SDG 1: "End poverty in all its forms everywhere"

Did you know that in the small-scale fisheries sector close to 6 million small-scale fishers are estimated to earn less than USD1 per day?



SDG 2: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture"

Approximately 95% of all small-scale fisheries landings are destined for local consumption, providing highly nutritious food for a large number of consumers.



SDG 5: "Achieve gender equality and empower all women and girl"

About 50% of those operating in small-scale fisheries are women. However, their role is often not sufficiently recognized.



SDG 12: "Ensure sustainable consumption and production patterns"

Small-scale fisheries actors can be champions of sustainable production and contribute to sustainable consumption at local, national and international level. They have traditional fisheries management and processing systems and should also play a key role in modern fisheries management and use systems.



SDG 13: "Take urgent action to combat climate change and its impacts"

Small-scale fishing communities in coastal areas are among the most vulnerable and exposed to climate change impacts and require specific inclusion in national climate change adaptation planning.



SDG 16.7: "Ensure responsive, inclusive, participatory and representative decision-making at all levels"

The responsible use of aquatic resources requires the involvement of the direct users in these processes, to allow them to become resource stewards.

It is therefore important that small-scale fisheries actors, including women, whose livelihoods depend on aquatic resources, are partners in the conservation and sustainable use of marine and freshwater resources in the context of achieving SDG 14.

Small-scale fisheries characteristics

Small-scale fisheries generally emphasize **simpler technologies and household or family-based social units**, compared with larger-scale and industrial fisheries.

In small-scale fisheries, a fishing trip usually takes a maximum of a few days, and the **catch** is either **consumed directly** by the household of the fisher, **or sold in the local market** – even though there

are cases where catches also supply global markets. Most small-scale fisheries operations in developing countries take place in the **informal economy**.

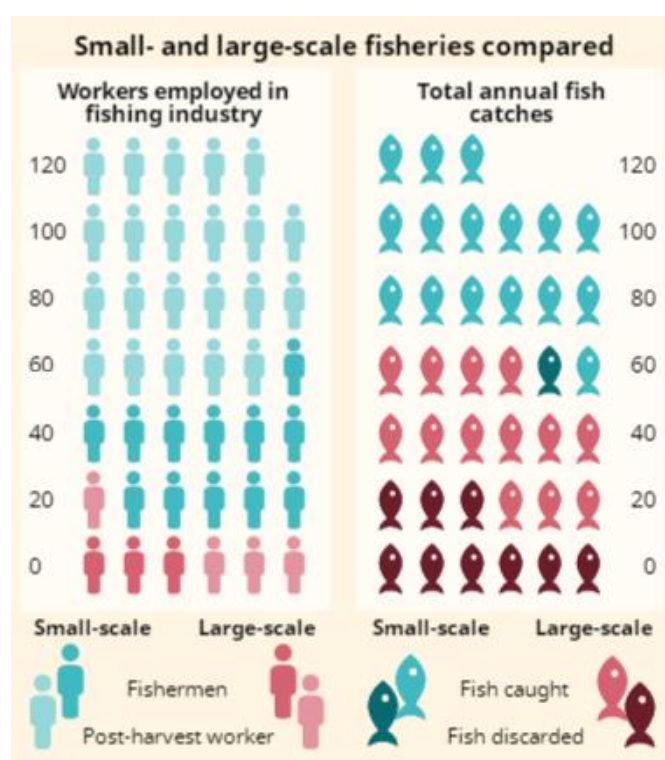
Small-scale fisheries tend to be **strongly anchored in local communities**, reflecting often historic links to adjacent fisheries resources, traditions and values, and supporting social cohesion.

For many small-scale fishers and fish workers, **fisheries is much more than a "job"**. They pass on the activity from generation to generation. **It represent a way of life**, and embodies a diverse cultural richness that is of global significance.



The suggested approach to identify small-scale fisheries at national level is therefore to **consider a range of characteristics that are likely to be found in any particular small-scale fishery**.

It is estimated that **14 million people are directly employed in marine small-scale capture fisheries**. They fish from boats, from the shore, collect molluscs close to the shore or dive.



An additional **38 million people are involved in post-harvest activities**.

They smoke, dry or otherwise process fish and market it at local, domestic, regional or international level. Women are mostly responsible for processing fish, as well as for marketing, particularly at

local level. It is mostly women doing the processing of fish, as well as the marketing, in particular at the local level.

Women account for **at least 50% of the total workforce** in small-scale fisheries. Women are mostly responsible for processing fish, as well as for marketing, particularly at local level.

In general, small-scale fisheries landings are destined for **direct human consumption**. While SDG Target 14.b only refers to the marine environment, you should remember that at least **as many people are involved in freshwater small-scale fisheries!** SDG Target 14.b calls for providing secure access for small-scale artisanal fishers to marine resources and markets.



Lesson 2 “*Creating an enabling environment for sustainable small-scale fisheries*” of this course will provide you with more guidance on how SDG Target 14.b can help to address resources and design policies more effectively, and create tailored national poverty measures in support of small-scale fisheries.

Summary

Aquatic ecosystems, both marine and freshwater, along with supporting coastal ecosystems and processes, provide the vital basis for the livelihoods of many coastal communities, particularly in developing countries, including Small Island Development States (SIDS).

To protect these livelihoods and ecosystems, as well as to support the achievement of humanity’s goals of eradicating poverty and food insecurity, the ten targets of SDG 14 were introduced.

SDG Target 14.b (“Provide access for small-scale artisanal fishers to marine resources and markets”) is of substantial significance, because it is the only target that directly addresses small-scale fisheries.

The achievement of SDG Target 14.b links to additional goals of the SDG framework, such as SDG 1 and SDG 2, on ending poverty and ending hunger, respectively.