



Food and Agriculture
Organization of the
United Nations

SUSTAINABLE
DEVELOPMENT
GOALS



FAO WORKING FOR SDG 14

Healthy oceans for
food security, nutrition
and resilient communities

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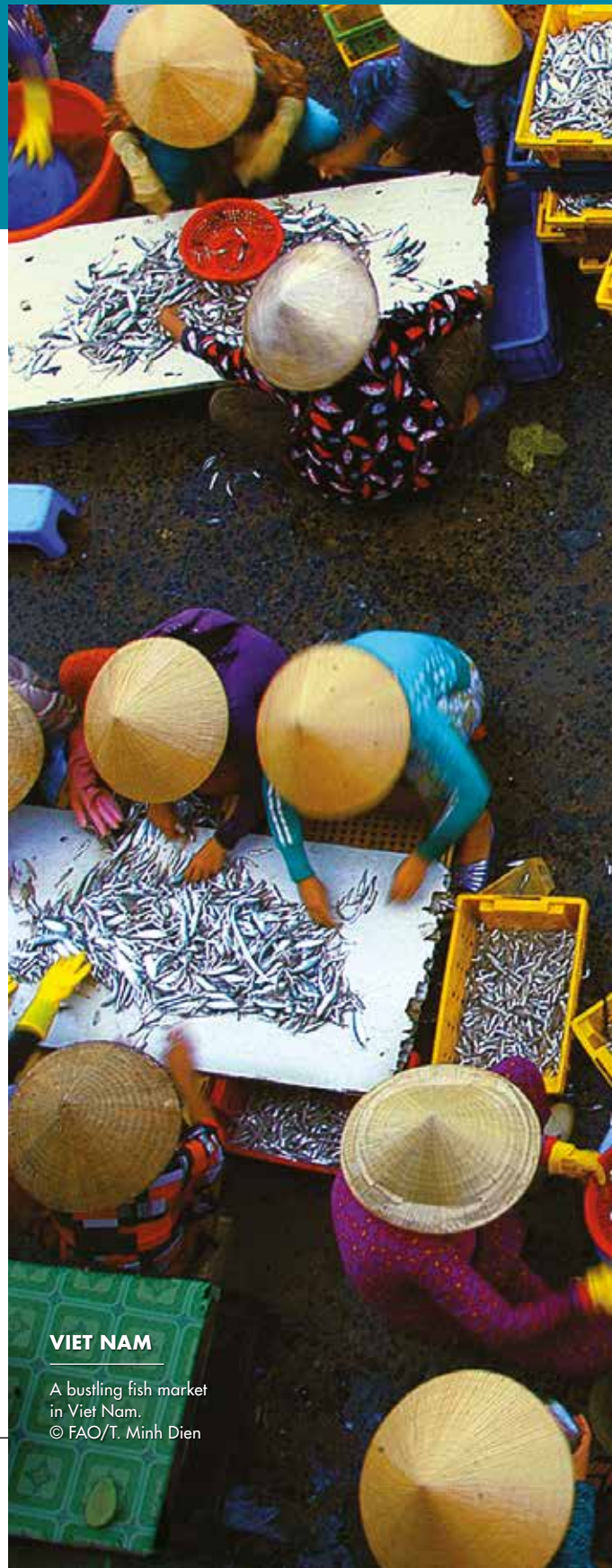
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VIET NAM

A bustling fish market
in Viet Nam.
© FAO/T. Minh Dien



"EFFECTIVE AND SUSTAINABLE MANAGEMENT OF MARINE RESOURCES IS ESSENTIAL TO ACHIEVING SDG 14, AND IN CONTRIBUTING TO FOOD SECURITY AND NUTRITION FOR ALL".

FAO Director-General
José Graziano da Silva

INTRODUCTION

SDG 14 IS A MAJOR PRIORITY OF THE 2030 AGENDA.

Our planet faces multiple and complex challenges in the twenty-first century. The 2030 Agenda for Sustainable Development commits the international community to act together to surmount them and transform our world for present and future generations.

On 25 September 2015, the 193 Member States of the United Nations adopted the 2030 Agenda for Sustainable Development, including 17 Sustainable Development Goals (SDGs) with 169 targets and 230 indicators.

Defined and fully owned by countries, the 2030 Agenda is a global vision for people, for the planet and for long-term prosperity. It charts a plan for the future, shifting the world onto a sustainable and resilient course in leading to a transformation in living standards.

The 2030 Agenda aims to tackle the complex challenges facing the planet today – ending poverty, hunger and malnutrition, and responding to climate change while achieving inclusive growth and sustainably managing natural resources.

Integrating the three dimensions of sustainable development – economic growth, social inclusion and environmental protection – the SDGs are universal, interconnected and indivisible. As relevant to developed as they are to developing nations, they call for comprehensive and participatory approaches, bringing together everybody to leave no one behind.

The SDGs succeed the Millennium Development Goals, and are now the main global reference for development policies.

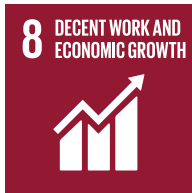
With its importance to food security, climate regulation, whole communities and the very future of individual states, achieving SDG 14, *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*, is a major priority of the 2030 Agenda.

CUBA

Women wait for fishing boats to return with the catch of the day.
© FAO/V. Crespi



SUSTAINABLE DEVELOPMENT GOALS



SAFEGUARDING OUR OCEANS

Moving beyond ocean conservation, SDG 14 focuses on people and coastal communities who rely on marine resources.

Oceans and seas support livelihoods and whole communities, providing nutritious food and potential for prosperity for hundreds of millions of people around the world. Covering more than 70 percent of the surface of our planet, oceans and seas provide half of the world's oxygen, sequester carbon, and serve as home to 80 percent of life on Earth.

A stand-alone goal in the form of SDG 14, which aims to conserve and sustainably use the oceans, seas and marine resources for sustainable development, clearly illustrates their crucial role for human well-being and the health of our planet.

International recognition of the importance of conserving our ocean resources is helping build global momentum around this issue. However, SDG 14 goes far beyond conservation to focus on the people and coastal communities, particularly those in developing countries, who rely on these marine resources.

Oceans, along with coastal and marine resources, play an essential role in human well-being and social and economic development worldwide. They are particularly crucial for coastal communities, who represented 37 percent of the global population in 2010. Oceans provide livelihoods and tourism benefits, as well as subsistence and income.

Fisheries sustain millions of jobs and often pass down traditions and knowledge from generation to generation. Fish is among the most widely traded food commodities, at a value of USD 145 billion annually. Sixty percent of the volume of fish trade originates in developing countries, providing opportunities to workers in the fisheries and aquaculture sectors. And fish has the potential to help meet the demand for nutritious food of the nearly 10 billion projected to live on earth in 2050. Healthy oceans and seas are more important than ever.

**HEALTHY
OCEANS AND
SEAS ARE MORE
IMPORTANT
THAN EVER.**

INDONESIA

A local fisherman displaying the day's catch.
© FAO/J. Holmes

14 LIFE
BELOW WATER



FAO AND SDG 14

- ▶ FAO is custodian agency for four (14.4.1, 14.6.1, 14.7.1 and 14.b.1) of the 10 SDG 14 indicators, from a total of 21 indicators across the SDGs for which the Organization has been given a custodianship role. FAO provides countries with information on optimum levels of fishing, aquaculture expansion and fair and secure access to living aquatic resources and markets.
- ▶ FAO is responsible for binding and non-binding instruments negotiated with member countries that can help achieve SDG 14, including the FAO Code of Conduct for Responsible Fisheries, the FAO Port State Measures Agreement, the Voluntary Guidelines on Catch Documentation Schemes, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries, and ecolabelling guidelines.

KEY MESSAGES

A sea of opportunity to end poverty, achieve zero hunger and feed the future

Fisheries already provide more than 3.1 billion people with 20 percent of their daily animal protein intake, but oceans and seas offer vast potential to feed the near 10 billion people who will live on Earth in 2050. About 70 percent of the planet provides less than 5 percent of our food. By investing in fishing communities, curbing overfishing and sustainably managing the oceans, we are contributing to multiple targets from SDG 14 right across the 2030 Agenda.

To leave no one behind, we must promote fishing communities

Fisheries and aquaculture support the livelihoods of 10–12 percent of the world's population. The best way to sustain employment within the world's fishing villages, to reduce the need for urban migration and preserve sea vitality while countering the threat from overfishing and ocean pollution is to share the riches of the seas more evenly and give coastal communities greater access to resources and involvement in decision-making.

Managing the oceans sustainably

Moving beyond conservation to sustainably using our oceans and other natural resources will define SDG 14's success. Blue Growth is designed to deliver development in three dimensions, balancing a focus on growth and conservation, industrial and small-scale fisheries and aquaculture, while fostering cooperation among countries and partnerships among actors. Promoting Blue Growth can accelerate progress across the SDGs, and maximize benefits for Small Island Developing States.

FAO – NOURISHING PEOPLE, NURTURING THE PLANET

A specialized UN agency working in the three dimensions of sustainable development, FAO is assisting countries to implement the 2030 Agenda by offering technical and monitoring expertise, and support to policy design, participatory governance, partnership building and resource mobilization efforts.

FAO'S WORK REACHES RIGHT ACROSS THE SDGs

Addressing the linkages of SDG14 with other 2030 Agenda targets, particularly under SDG 1, no poverty, SDG 2, zero hunger, and SDG 8, decent work and economic growth, FAO acts hand-in-hand with governments, small producers, fishing communities, labour unions, civil society organizations, scientists and other key actors in food security and sustainable development in projects and programmes across the globe.

PHILIPPINES

Women play an important role in fisheries and aquaculture.
© FAO/P. Suuronen



THE SPECIAL ROLE OF FISH IN HUMAN NUTRITION

Seas and oceans have the potential to help meet the demand for nutritious food of the almost 10 billion projected to live on Earth in 2050.

FISH IS NOT ONLY A SOURCE OF PROTEINS AND HEALTHY FATS, BUT ALSO A UNIQUE SOURCE OF ESSENTIAL NUTRIENTS.

As recognized at the Second International Conference on Nutrition in 2014, fish has an important role to play in human nutrition. More than 3.1 billion people around the world depend on fish for at least 20 percent of their total animal protein intake. Population growth and economic development will increase demand for fish as part of a healthy diet.

Fish is not only a source of proteins and healthy fats, but also a unique source of essential nutrients, including long-chain omega-3 fatty acids, iodine, vitamin D, and calcium. The multiple benefits of fatty fish high in omega-3s and small fish eaten whole, which contain nutrients in the skin and bones, clearly illustrate seafood's irreplaceable nutritional value.

An increased focus on fish and nutrition aids both developing countries and the developed world. In many developing countries, fish is the main or only source of animal protein, and is essential to providing micronutrients. Dietary patterns are also shifting in developed and middle-income countries, and an increasing emphasis on non-communicable diseases and overall health has led to an increased demand for fish.

Furthermore, fish plays a crucial role in a child's healthy development. Expectant women throughout the world face demanding nutritional needs. The so-called 1 000 day window of a child's life – from pregnancy to the child's second birthday – is now recognized as a key time

to promote proper nutrition for development. Fish consumption by expectant mothers aids their children's neurodevelopment, from promoting optimal brain development to ensuring strong bone growth and providing sufficient levels of iron and zinc.

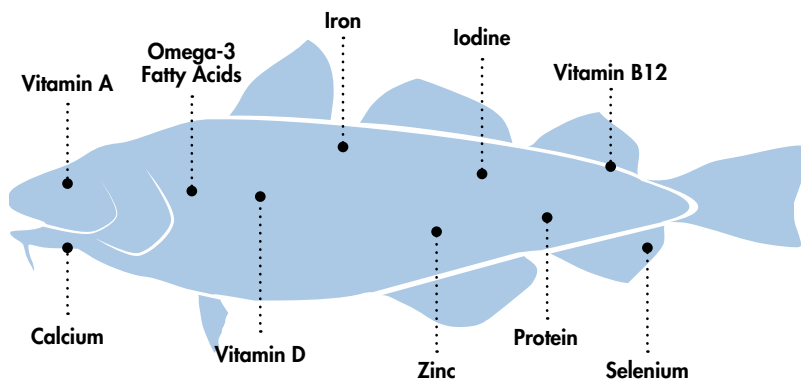
Sustainable fisheries management practices that safeguard our fisheries resources for future generations are more crucial than ever.



CÔTE D'IVOIRE

Fish consumption aids children's physical growth and neurodevelopment.
© FAO/S. Kambo

Nature's superfood



LONG CHAIN OMEGA-3 FATS

Mainly found in fish and fishery products, these fatty acids are essential for optimal brain development.



IODINE

Seafood is in practice the only natural source of this crucial nutrient. Iodine serves several purposes like aiding thyroid function. It is also essential for neurodevelopment.



VITAMIN D

Another nutrient crucial for mental development, this vitamin also regulates the immune system function and is essential for healthy bones.



IRON

During pregnancy, iron intake is crucial so that the mother can produce additional blood for herself and the baby.



CALCIUM, ZINC, OTHER MINERALS

Diets without dairy products often lack calcium, and zinc deficiency slows a child's development.

KEY FACTS & FIGURES

More than **3.1 billion people** depend on fish for at least **20%** of their **total animal protein** intake, and a further **1.3 billion people** for **15%** of animal protein intake.

Often undervalued and discarded parts of the fish, like the head, viscera and back-bone, make up **30-70% of fish** and are especially high in micronutrients.

Fish consumption has increased from **9 kg** per capita in 1961 to over **20 kg** per capita today.

FAO'S ROLE AS CUSTODIAN FOR SDG 14 INDICATORS

FAO MONITORING, ACTIVITIES AND INSTRUMENTS, BOTH BINDING AND NON-BINDING, PLAY AN IMPORTANT ROLE IN ACHIEVING THE OBJECTIVES OF SDG 14.

A significant factor in the success of the SDGs will be new and effective ways of collecting data, monitoring targets and measuring progress.

In March 2017, the UN Statistical Commission endorsed 230 indicators to monitor the SDGs' 169 targets. These global indicators will help countries measure the progress they are making towards achieving objectives, learn from experiences

and understand which areas to prioritize.

Although FAO is actively involved with all aspects of SDG 14, it has a special role to play working with the following indicators for which FAO acts as custodian:

HIGH-LEVEL POLITICAL FORUM

The 2030 Agenda has set in place a global reporting structure that includes inputs at local, national and regional levels, and culminates in the UN High-Level Political Forum, an annual intergovernmental meeting that provides guidance and recommendations, identifies progress and challenges, and mobilizes action to accelerate implementation of the 17 SDGs. Indicators are the foundation of this mutual accountability structure.



14.4.1 Proportion of fish stocks within biologically sustainable levels

FAO's analysis of assessed stocks concludes that the share of stocks within biologically sustainable levels has exhibited a downward trend, declining from 90 percent in 1974 to 68.6 percent in 2013. Thus, 31.4 percent of stocks were in 2013 fished at biologically unsustainable levels and therefore overfished.

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

A year after its entry into force, significant progress in adherence

to the FAO Agreement on Port State Measures is being made. Code of Conduct for Responsible Fisheries implementation questionnaires indicate numerous countries have developed and implemented national plans of action to combat IUU fishing.

14.7.1 Sustainable fisheries as a percentage of GDP in Small Island Developing States (SIDS), least-developed countries and all countries

Access to relevant data on the value of fisheries within the national economy offers an opportunity to examine the comparative success of specific country policies on fisheries management and economic development, providing valuable

insights for fishery-dependent countries, including SIDS.

14.b.1 Progress by countries in adopting and implementing a legal/regulatory/policy/institutional framework that recognizes and protects access rights for small-scale fisheries

The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries includes specific chapters on the responsible governance of tenure and on value chains, post-harvest and trade, providing an important tool for achieving SDG 14.b.1. FAO supports countries and regions actively engaged in the implementation of these Voluntary Guidelines.

HOW FAO CONTRIBUTES TO ACHIEVING SDG 14

Over 20 years after its approval, the **Code of Conduct for Responsible Fisheries** remains more relevant than ever.

Throughout its two decades, the Code's principles have given rise to various instruments that seek to improve the conservation, management and development of the fisheries and aquaculture sector. These include technical guidelines and plans of action, ecosystem approaches to fisheries and aquaculture, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries, the Port State Measures Agreement, the Catch Documentation Schemes, and the Blue Growth Initiative.

Member countries and all those involved in fisheries and aquaculture have been working to implement the Code through their policies. FAO is responsible for monitoring implementation and supporting countries in their efforts to implement the Code, providing capacity support when necessary.

Back in 1995, FAO member countries drafted, negotiated and adopted a forward-looking

instrument that seized upon the growing global interest in sustainable development.

The Code, which consists of a collection of principles, goals and elements for action, took more than two years to elaborate, involving representatives from members of FAO, inter-governmental organizations, the fishing industry and non-governmental organizations.

At the time, the fisheries and aquaculture sectors were experiencing enormous changes. The high production levels in the fisheries sector and increasing concerns in the early 1990s about the risks of overfishing, shifted the debate from one about greater production to one of sustainable production.

In 1991, FAO's Committee on Fisheries (COFI) first called on FAO for the development of new concepts for responsible, sustainable fisheries. The International Conference on Responsible Fishing held in Cancún, Mexico, in 1992 followed up on this process. The process was further boosted by the United Nations Conference on

THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

What it is:

Negotiated instrument. The Code represents a global consensus on a wide range of fisheries and aquaculture issues.

What it does:

Lays forth principles of sustainable fisheries and aquaculture management

Since: 1995

Environment and Development, the Earth Summit, later that year in Rio de Janeiro, Brazil. The Earth Summit positioned sustainable development high on the international agenda, paving the way for negotiations and adoption of the Code.

This responded to the need to better integrate conservation and environmental considerations into fisheries management and to ensure food security for future generations.



ITALY

For over 20 years, the Code of Conduct for Responsible Fisheries has guided countries implementing sustainable fisheries management policies.
© FAO/G. Napolitano

The Code of Conduct for Responsible Fisheries

provides principles and standards applicable to the conservation, management and development of all fisheries, including:



Relationship with international instruments



Implementation & monitoring



Requirements of developing countries



Fisheries management



Fishing operations



Aquaculture development



Coastal area management



Post-harvest



Trade



Fisheries research

HOW FAO CONTRIBUTES TO ACHIEVING SDG 14

Illegal, unreported, and unregulated (IUU) fishing is believed to represent 20 percent of total catches per year. Estimates place the cost of illegal fishing between USD 10–23 billion annually.

In 2009, a key measure designed to prevent illegally caught fish from ever entering international markets through ports was adopted by member countries at FAO: **The Port State Measures Agreement to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing.**

The Agreement promotes collaboration between fishers, port authorities, coast guards and navies to strengthen inspections and control procedures at ports and on vessels. Under the terms of the treaty, vessels must request permission for port entry. Port entry and port services must be denied to offending vessels after regular inspections, and international ports must exchange information about suspect vessels.

On 5 June 2016, the Port State Measures Agreement officially entered into force as an international treaty. Its ratification and entry into force was a tremendous achievement, and one that could only have been reached in this current environment of international collaboration on oceans. Positive momentum to end

IUU fishing worldwide advances, as countries continue to accede to or ratify this important treaty.

The Agreement itself recognizes the special requirements of developing states and includes provisions to establish funding mechanisms for implementation to countries that have become Party to the Agreement. These mechanisms are intended to be directed towards developing and enhancing capacity for monitoring, control and surveillance and compliance activities relevant to port state measures, as well as training for port managers, inspectors and enforcement and legal personnel.

FAO PORT STATE MEASURES AGREEMENT TO PREVENT, DETER AND ELIMINATE ILLEGAL, UNREPORTED, AND UNREGULATED FISHING

What it is:

Negotiated international treaty

What it does:

Prevents illegally caught fish from entering international markets through ports

Since: 2016

ITALY

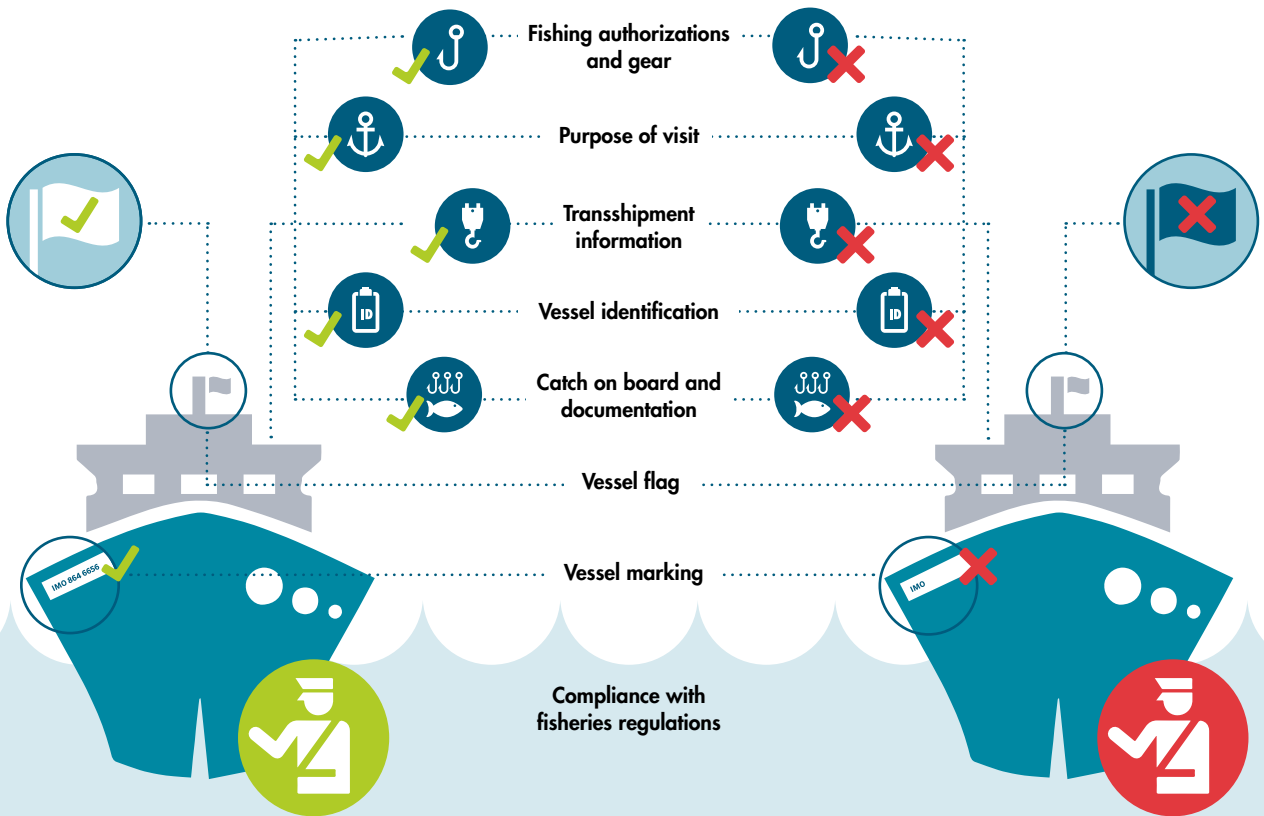
Celebrating with signatory countries the entry into force of the Port State Measures Agreement at FAO ceremony, July 2016.
© FAO/A. Benedetti





The Port State Measures Agreement is a cost-effective and efficient manner to combat IUU fishing by preventing vessels engaged in IUU fishing from using ports.

Two foreign vessels request entry to a port in a country that adheres to the Port State Measures Agreement:

REVIEW AND VERIFY



 Authorize use of port for all port services. Fish can be landed and transhipped.

 Deny use of port, prompt notification to flag state, coastal states and regional fisheries management organization and take other measures / prosecute.

HOW FAO CONTRIBUTES TO ACHIEVING SDG 14

CÔTE D'IVOIRE

State authorities should ensure that all authorized vessels are registered in the Global Record.

© FAO/S. Kambou



GLOBAL RECORD OF FISHING VESSELS, REFRIGERATED TRANSPORT VESSELS AND SUPPLY VESSELS

What it is:

State-certified repository of vessels involved in fishing operations

What it does:

Provides a tool for eliminating illegal fishing

Since: 2014

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels

(Global Record) emerged from a process begun in 2005 with the adoption of the Rome Declaration on illegal, unreported and unregulated (IUU) fishing.

The Global Record is a single tool in which state authorities and regional fisheries management organizations compile information about all vessels authorized for fishing operations in their countries or regions. Each vessel is registered into the database

with a unique vessel identifier (UVI), which remains with a vessel throughout its lifespan, regardless of change of the vessel's name, ownership or flag.

The database is crucial for the work of inspectors, port state authorities and flag state authorities, making it easier to identify vessels not regularly identified and registered by the proper national and regional authorities.

Combined with the Port State Measures Agreement and catch documentation schemes, the

Global Record forms part of a powerful set of instruments and measures aimed at eliminating illegal fishing, and ensuring consumers that the fish reaching their plates can be legally traced from the moment of harvesting and along the value chain leading to its purchase.

ITALY

Fresh fish on sale at a fish market
in Acilia.
© FAO/G. Napolitano



THE VOLUNTARY GUIDELINES FOR CATCH DOCUMENTATION SCHEMES

What it is:

Negotiated voluntary guidelines

What it does:

Provides better and more harmonized traceability of fish along the value chain

Since: 2017

The Voluntary Guidelines for Catch Documentation Schemes

are aimed at combating, illegal, unregulated and unreported (IUU) fishing. Catch documentation schemes are tracking and tracing systems that monitor the fish from the point of catch through the whole supply chain to its final destination, thereby documenting the legality of the seafood catch.

A five-year negotiation process led by FAO successfully carried out the task set out for it in the Fisheries Resolution adopted by the United Nations General Assembly in

December 2013, calling upon FAO and its members to elaborate, in accordance with international law and agreements established under the World Trade Organization, guidelines for catch documentation schemes that would help to guarantee 'sea to plate' traceability of all seafood products.

The guidelines were unanimously approved in 2017 by a member country-driven FAO technical committee. These guidelines will be presented for endorsement by the FAO Conference in July 2017.

Although voluntary, the Guidelines enjoy a high level of buy-in by governments after the lengthy and participatory negotiation process. These Guidelines will be considered the standard to which new catch documentation schemes at the national, regional or international level will adhere. Additionally, because the guidelines call on countries to comply with existing international laws as well as agreements established under the World Trade Organization, relying on them to develop catch documentation schemes will allow countries to avoid unwanted trade.

HOW FAO CONTRIBUTES TO ACHIEVING SDG 14



INDIA

Over 90 percent of the world's capture fishers and fish workers are small-scale fishers.
© FAO/N. Franz

VOLUNTARY GUIDELINES FOR SECURING SUSTAINABLE SMALL-SCALE FISHERIES IN THE CONTEXT OF FOOD SECURITY AND POVERTY ERADICATION.

What it is:

Negotiated voluntary guidelines

What it does:

Recognizes and supports the important role of small-scale fishing communities

Since: 2014

In 2014, FAO's Committee on Fisheries adopted an instrument negotiated by FAO member countries – the **Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food security and Poverty Eradication**. The Guidelines are the first internationally agreed instrument for the small-scale fisheries sector.

This ground-breaking instrument recognizes the key role small-scale fishing communities – comprising more than 90 percent of the world's capture fishers and fish workers –

play in contributing to poverty alleviation and food security.

The Guidelines support investing in health, literacy, and education, eradicating forced labour, promoting social security protection, mandating gender mainstreaming, and building fisheries' resistance to climate change and extreme weather events.

FAO supports countries as they work towards implementing the Voluntary Guidelines in their national policies and programmes.



NORWAY

The Nansen marine research programme helps developing countries report on their SDG 14 achievements.
© FAO/K. Sullivan

THE NANSEN RESEARCH VESSEL

What it is:

Marine research programme

What it does:

Conducts marine research in developing countries, for their benefit

Since: 1974

Over four decades ago, the Government of Norway and FAO began a collaboration, alongside Norway’s Institute of Marine Research, to create a marine research partnership that was far ahead of its time. In the 1970s and 1980s, before environmental awareness was widespread, scientists on the *Nansen* embarked on survey voyages around the globe, measuring the health of our oceans.

The only marine research vessel to fly the UN flag, the **R/V Dr. Fridtjof Nansen** has carried out its research primarily in Africa but also in Asia, in some of the least observed waters on the planet. And in over forty years of conducting this marine research for the benefit of developing countries and global ocean research, the successive *Nansen* vessels have sailed the impressive equivalent of sixty times around the globe.

Nansen surveys provide a platform for many developing countries

that lack the proper infrastructure to conduct such marine research independently. Without these resources, many of these countries would face challenging obstacles in assessing their fisheries resources, a crucial step to make sound fisheries management decisions. All of the collected data are input into a dedicated database and made available to the countries and regions. This unique partnership allows many developing countries to achieve their efforts of managing sustainable fisheries and to obtain critical information key to their reporting on SDG 14 achievements.

Over the years, the *Nansen* has welcomed aboard hundreds of scientists from around the world, but primarily those from developing countries. A robust gender policy ensures that many of these young scientists and researchers are women. Many of these marine researchers may not have had the opportunity to conduct research at sea before

setting sail on the *Nansen*. Yet they join the international crew with great enthusiasm, sharing their areas of expertise and local knowledge, and absorbing the knowledge of the other scientists on board. At journey’s end, the scientists return to their countries to apply their newly acquired knowledge and experience within their universities, research institutes and ministries.

The newest *Nansen* vessel, the third since the start of this programme, launched in Oslo’s harbour 24 March 2017. The new *Nansen* is the most advanced marine research vessel of its kind. New laboratories facilitate research in climate change and the study of marine plastics in addition to its fisheries management research activities. The new *Nansen* began its marine research off the coast of northwestern Africa in May 2017, and will continue to carry out its research in support of SDG14.

HOW FAO CONTRIBUTES TO ACHIEVING SDG 14

FAO launched its **Blue Growth Initiative** in 2013 and it has featured in high-level fora such as the Global Action summit in the Hague, the Netherlands. It grew from the “blue economy” concept that emerged from the Rio+20 Conference in 2012, and emphasizes the three pillars of sustainable development – economic, social and environment.

Blue Growth prioritizes the sustainable management of natural aquatic resources, fully taking into consideration environmental, social and economic needs. Blue Growth emphasizes efficient resource use in capture fisheries and aquaculture, ecosystem services, trade, livelihoods and food systems.

The approach minimizes environmental degradation, biodiversity loss and the unsustainable use of resources, while maximizing the economic and social benefits that build strong communities. The approach also aims at creating an enabling environment for workers involved in fisheries and aquaculture, and those workers along the entire seafood value chain, to act not only as resources users, but also to play an active role in protecting and safeguarding these natural resources for the benefit of future generations.

The Blue Growth Initiative and the objectives of SDG 14 are complementary. The activities undertaken in countries to achieve SDG 14 and to mainstream Blue Growth into national and regional policies and programmes are important steps forward in conserving ocean resources and strengthening coastal communities.

BLUE GROWTH INITIATIVE

What it is:
Programme and overarching policy

What it does:
Supports sustainable fisheries and aquaculture development and SDG 14

Since: 2013



ALGERIA

Blue Growth conserves ocean resources while strengthening coastal communities.
© FAO/C. Amico

THE STATE OF WORLD FISHERIES AND AQUACULTURE

What it is:
FAO flagship publication

What it does:
Presents and analyses latest official fisheries and aquaculture statistics and trends

Since: 1994



Which countries are the major marine capture fisheries producers?

1. China
2. Indonesia
3. United States of America
4. Russian Federation
5. Japan

Which countries are the major aquaculture producers?

1. China
2. India
3. Viet Nam
4. Bangladesh
5. Egypt

Major importers of fish and fishery products:

1. United States of America
2. Japan
3. China
4. Spain
5. France

Major exporters of fish and fishery products:

1. China
2. Norway
3. Viet Nam
4. Thailand
5. United States of America

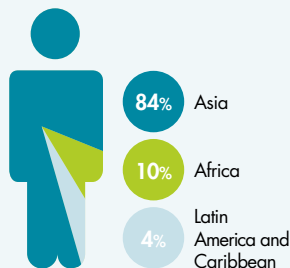


Role of developing countries in fish trade



World fishers and fish farmers by region

In 2014, an estimated **56.6 million people** were engaged in the primary sector of capture fisheries and aquaculture.



In 1994, FAO began publishing its flagship publication for fisheries, **The State of World Fisheries and Aquaculture**.

This premier advocacy document is published every two years to provide policy-makers, civil society and those whose livelihoods depend on the sector a comprehensive, objective and global view of capture fisheries and aquaculture, including associated policy issues.

The report is the only publication synthesizing information on global fisheries and aquaculture, covering a range of topics relevant to the sector. Each issue presents the latest official statistics on fisheries and aquaculture to evaluate a global analysis of trends in fish stocks, production, processing, utilization, trade and consumption. It also reports on the status of the world's fishing fleets and analyses activities related to the people involved in all stages along the fish value chain.

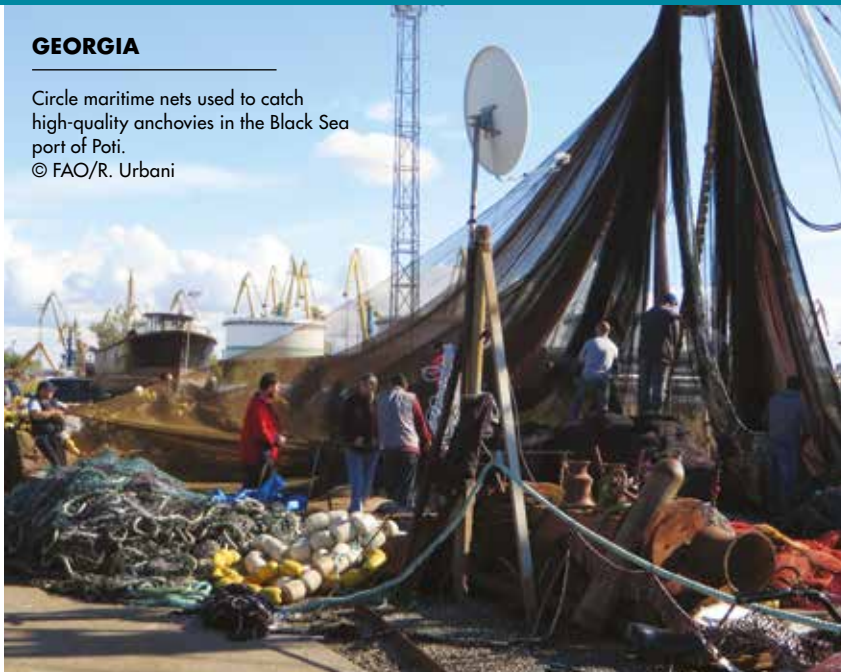
FAO HELPING COUNTRIES ACHIEVE SDG 14

EXAMPLES FROM AROUND THE WORLD

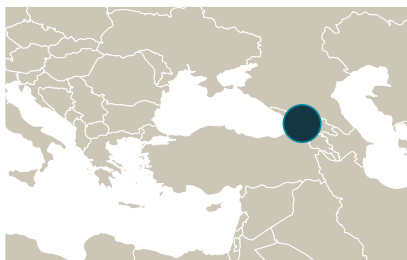
These short stories describe projects and programmes in different areas across the globe in which FAO and partners are already supporting countries to achieve SDG 14 and multiple objectives of the 2030 Agenda.

GEORGIA

Circle maritime nets used to catch high-quality anchovies in the Black Sea port of Poti.
© FAO/R. Urbani



Boosting fish trade in Georgia



SDGs **1** **2** **8** **14** **17**

This country in the Caucasus enjoys significant fish resources. Along its Black Sea coastline,

annual catch of anchovies totals 60 000 tonnes. Most of that is sold fresh to neighbouring countries or processed into fish oil. Georgia would like to export directly to the world's largest fish importing market, the European Union (EU), to earn higher revenues, but it does not yet meet a number of EU criteria for fish inspection, certification, laboratories and related legislation. FAO is providing support to Georgia, assessing its landing sites, factories and fish markets with an

eye to meeting EU requirements, training its fish inspectors and, alongside Georgia's National Food Agency, reviewing all aspects of EU regulations on traceability and labelling, including checklists to be completed at each inspection. This important work in partnership with the Georgian government, will help build capacity for Georgia's fisheries production and provide the country with greater trade opportunities and revenues in the future.

MOROCCO

Fishermen preparing to leave the fishing port of Dikky.
© FAO/A. Senna



Supporting maritime fishing nation Morocco to develop aquaculture



SDGs **1** **2** **3** **8** **14** **17**

With its long coastline, Morocco possesses a strong tradition of maritime fisheries. Its national fisheries production totalled 1.3 million tonnes in 2014, making it the largest maritime fisheries producer in Africa and the twenty-fifth in the world. Fisheries contribute 2.3 percent to the GDP. It is estimated that 3 million people in Morocco depend on fisheries for their livelihoods. Despite this generally positive outlook, Morocco is concerned about how to meet increased demand for fish products, particularly in light of challenges related to climate

change, without placing additional strain on its marine resources. For this reason, Morocco is working with FAO to sustainably expand its aquaculture sector. Morocco and FAO believe that aquaculture can be a solution to meeting increasing internal demand for fish as part of a healthy diet, and crucial to expanding trade. Additionally, aquaculture activities have a strong potential to contribute to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner.

FAO HELPING COUNTRIES ACHIEVE SDG 14



THAILAND

Decreasing fuel consumption can help the fishing industry decrease greenhouse gas emissions.
© FAO/P. Suuronen

Improving the efficiency of Thai trawl fishing fleets



SDGs **2** **8** **13** **14**

The profitability of the global commercial fishing fleet is presently challenged by volatility

in oil prices, despite recent global reductions in the price of oil. Coupled with concern over greenhouse gas emissions from the combustion of fossil fuel, greater focus is also now being placed on energy-intensive fisheries and the application of fuel saving practices to the fishing vessel and fishing gear. One FAO activity in Thailand focuses attention on the issue of fuel use and links to greenhouse gas mitigation from the capture fisheries sector. The Thai context is fairly typical of the fishing industry in the Southeast Asia region – labour costs in Thailand are generally low and fuel consumption comprises a full

70 percent of costs for Thai trawl fishing operations. Reducing fuel use provides multiple economic and environmental benefits. An energy audit was carried out to systematically evaluate the potential cost and environmental impacts of fuel saving practices in fisheries. Interviews carried out for this audit showed that the captains generally did not understand the important role they play in lowering fuel consumption. Implementing changes to lower the fuel consumption of Thai trawl fishing vessels can help the industry decrease greenhouse gas emissions, thereby lowering the carbon footprint.

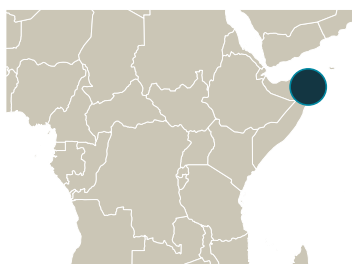


SOMALIA

Training a new generation of Somali women boat builders.

© FAO/M. Savins

Training women boat builders in Somalia



SDGs **1** **2** **5** **8** **14**

Rebuilding the fisheries sector in Somalia, following years of conflict, is crucial for

strengthening food security and nutrition among the Somali population. In Somalia today, over one million people face severe food insecurity. Generating employment in the fisheries sector is also key. A Norwegian-funded component of the fisheries programme developed with FAO has focused on the need to build better and safer vessels for small-scale Somali fishers, replacing the unsafe boats currently being used by the majority of coastal fishers. The new vessels are being constructed in Mogadishu, Berbera and Bossaso entirely by Somalis. The boat building

project has experienced a great deal of enthusiasm from the trainees themselves, who are eager to put their new skills to work. Among these trainees are women who were selected to learn valuable vessel building skills. The success of the sea trials of these boats built to FAO safety standards has generated significant interest in the new vessels, and private-sector companies are already showing interest in purchasing boats directly from the boat yards. This success bodes well for men and women trainees, as it is expected to generate longer-term employment in the sector.

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Experimental capture-based aquaculture of Napoleon fish in Indonesia



SDGs **1** **2** **8** **14**

The humphead wrasse is an iconic reef fish, more commonly known as the Napoleon fish, that is found in shallow, tropical waters of the Indian and Pacific Oceans where it can grow to the size of a large man. With its numbers decreasing over the past two decades, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) now lists the Napoleon fish among its protected species. The inclusion of the Napoleon fish on the CITES listing calls for strict management conditions to be put in place that would not be detrimental to the sustainability of remaining stocks. As local fishers in Indonesia's Anambas and Natuna islands witnessed the decline of Napoleon fish in their reefs, they began to adjust to what is being called capture-based aquaculture. FAO has been



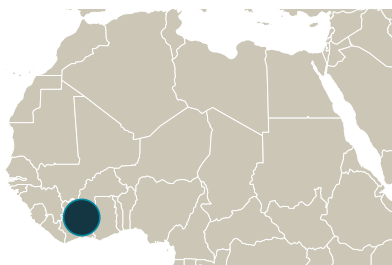
INDONESIA

The Napoleon fish in the coral reefs.
© FAO/Y. Sadovy

working with the Government of Indonesia, CITES and partners to review the interesting and innovative fisheries management experiment currently under way in these Indonesian islands. The fishing communities collect large numbers of the juvenile fish when they are 2–3.5 centimetres over a short harvest period, transferring them to culture nets where they feed them and wait for them

to 'grow-out' to market size, preferably 600 g – 1 kg. This can take the slow-growing Napoleon fish from 3 to 5 years. Although still in the early stages, this Indonesian example is proving a promising attempt to merging the livelihoods requirements of the fishing communities with conservation efforts that will allow the Napoleon fish to return in greater numbers to Indonesia's reefs.

Transforming women's lives in Côte d'Ivoire through simple technologies



SDGs **1** **2** **3** **5** **8** **13** **14**

Smoked fish is extremely popular in western Africa. Women in Côte d'Ivoire handle all tasks related to fish smoking over traditional smoking ovens, which have adverse effects on their health and the health of their children, who are often nearby as they smoke. These women spend long hours over these ovens, often in poorly ventilated areas, as they smoke the fish. Adopting simple and relatively inexpensive technologies can often revolutionize the lives of these women. FTT-Thiaroye ovens were developed jointly with FAO and introduced in 2014 in Côte d'Ivoire as a simple, but efficient, alternative to traditional fish smoking. The ovens are cleaner and require less wood for smoking. Benefits for women have proved to be numerous: healthier working environment,



lower instances of respiratory problems, better quality of products that also fetch higher prices, and extra time to attend literacy classes.

CÔTE D'IVOIRE

Adopting relatively inexpensive technologies like these FTT ovens radically transforms lives – and earnings – for post-harvest fish workers.

© FAO/S. Kambou

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Building back better after Typhoon Haiyan in the Philippines



SDGs **1** **2** **8** **9** **14**

In 2013, Typhoon Haiyan damaged 30 000 fishing boats, comprising two-thirds of the assets of Filipino fishing communities. The typhoon also resulted in massive destruction to forests that shelter fisheries and provide boat building materials for the traditional wooden Filipino vessels, called bancas. In order to minimize the environmental stress while building back the fleet with better and safer vessels, FAO developed a hybrid banca vessel. This new fishing vessel, which local workers were trained to build, is constructed with a fibreglass keel rather than the traditional wooden structure. However, the vessel's new and improved design preserves the traditional boat form, while still being built to full FAO safety standards. This creates a safer, more efficient vessel, while still staying faithful to

traditional designs. Innovation that minimizes resource use must still appeal to tradition

and be accepted by the local fishing communities.



PHILIPPINES

Local ship builders are trained to construct a hybrid banca fishing vessel.
© FAO

Reducing bycatch in Latin America and the Caribbean



SDGs **2** **8** **14**

In recent years, the bycatch – the fish or other marine species caught unintentionally when targeting different species – of fishery resources has become a growing concern. Public scrutiny has grown alongside a heightened interest in conservation issues and concerns about the magnitude of food loss and waste. The levels of bycatch can vary tremendously from industry to industry. For example, on average, the quantity of bycatch for a tropical shrimp trawl can reach a level from 3 to 15 times higher than the targeted species. About 1.9 million tonnes of bycatch is discarded annually from shrimp trawlers alone. FAO work in Latin America and the Caribbean is addressing these concerns by reducing bycatch and promoting more responsible fisheries practices. Brazil, Colombia, Costa Rica, Mexico, Suriname and Trinidad and Tobago are

six countries participating in an initiative aimed at reducing food losses and encouraging sustainable livelihoods by improving the management of

bycatch and minimizing discards and sea-bed damage. In this way, the project aims at transforming bottom trawl fisheries into responsible fisheries.



SURINAME

Tropical shrimp trawl workers work at decreasing bycatch and minimizing discards.

© FAO

FAO HELPING COUNTRIES ACHIEVE SDG 14

Prioritizing Blue Growth in Cabo Verde



SDGs **1** **2** **5** **8** **9** **11** **13** **14**

This African archipelago Small Island Developing State is surrounded by ocean. Working with FAO, Cabo Verde decided to harness the potential of the seas surrounding it by designing and implementing a Blue Growth Charter. Adopted in 2015, this Blue Growth Charter prioritizes environmental, economic and social development of ocean-related priorities. These priority activities include climate change research, conservation of sharks, developing marine protected areas, strengthening fisheries communities, improving sanitation and quality of fish

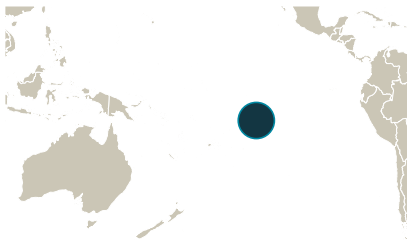
products through better practices and storage, favoring local fish products in tourism and empowering women's groups to market their fish directly to restaurants and hotels, developing ecotourism, improving marine transport networks to facilitate tourism and exploration of other islands, and creating jobs for young people who are too often forced to seek work abroad. Blue Growth policies and activities cut across ministries and jurisdictions, and a cohesive approach allows Cabo Verde to prioritize Blue Growth activities for the benefit of its people.



CABO VERDE

Women vendors prepare to sell fish.
© FAO/J. Catanzano

Pacific fisheries key to food security, improved livelihoods and nutrition



SDGs **1** **2** **3** **8** **11** **12** **14**

Amid growing concern by Pacific Island leaders that the present trend towards low rates of economic growth experienced in many Pacific Island countries over the last decade will continue, and with the majority of Pacific Small Island Developing States (SIDS) facing a growing “triple burden” of malnutrition, in which undernutrition, micronutrient deficiencies, and overnutrition co-exist within the same populations, a new collaborative effort between FAO and the Pacific Community has begun. Efforts aim at enhancing the contribution made by sustainable fisheries to food security, nutrition and livelihood improvement. In the Pacific, coastal fishing contributes the bulk of locally consumed fish. Local consumption of fish is estimated to be 2–3 times that of global averages and is especially high in atoll



SAMOA

Locally caught fish at the market in Apia, Samoa.
© FAO/T. Callaghan

IMPLEMENTING THE GLOBAL ACTION PROGRAMME ON FOOD SECURITY AND NUTRITION IN SIDS

FAO and UN partners have worked with member countries to develop the Global Action Plan on Food Security and Nutrition in SIDS (GAP). Aware of the unique challenges that SIDS face, GAP is designed to encourage policies and investments supportive of the development of more resilient, sustainable and inclusive food systems, thereby enabling improvements in the food security and nutrition status of their populations.

nations, and is thought to provide 50–90 percent of dietary animal protein in coastal communities in the Pacific. Currently, many coastal shallow water resources are depleted. Supplementing shallow water coastal resources with tuna and other oceanic species by growing production from the small-scale fisheries sector to supply safe and nutritious fish for domestic consumption is one solution and can help to support more nutritious diets. These opportunities complement

successful offshore fisheries where most fish is destined for sale and consumption in foreign markets. For many Pacific island countries and territories, tuna and other oceanic species are also readily accessible to coastal communities. Together with other key regional partners, FAO and the Pacific SIDS are working collaboratively on a new coastal fisheries supply chain project aimed at increasing the sustainable and safe supply of fish for domestic consumption and livelihood improvement.

FAO HELPING COUNTRIES ACHIEVE SDG 14

Implementing the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in Costa Rica



SDGs **1** **2** **5** **8** **9** **10** **11** **13** **14**

In some areas of Costa Rica, coastal marine resources benefit 60 percent of the population. However, despite these natural resources, many coastal populations are extremely vulnerable, with low levels of education, and high levels of unemployment and poverty. The Government of Costa Rica is implementing the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries with the aim of better integrating regulations to benefit small-scale fisheries, with an emphasis on human rights-based approaches. Fisherfolk organizations have been strengthened to allow them to participate actively in decision making and management, thereby providing them a direct voice in matters directly impacting their livelihoods and food security. Costa Rica has also initiated

an inter-institutional process of developing a policy-oriented approach to promoting the sustainability of small-scale fisheries in the context of food security. In doing so, special attention is afforded to: human rights-based approaches, poverty eradication, social inclusion, conservation, generating employment and improving the quality of life of coastal communities. In 2015, a decree formalizing the application of the Guidelines was issued, incorporating them into the

institutional operating plans. Costa Rica has now initiated a participatory process to prepare a law of implementation, thereby formalizing the application of the Guidelines. At the subregional level, the Costa Rican Institute of Fisheries and Aquaculture (INCOPECSA) is sharing its model of implementation of the Guidelines in the framework of the Organization of the Fisheries Sector and aquaculture of the Central American Isthmus (OSPESCA) – an important step forward for Costa Rican small-scale fisherfolk.



COSTA RICA

Costa Rica is working to strengthen coastal communities and their small-scale fisheries.
© Instituto Costarricense de Pesca y Acuicultura (INCOPECSA)

Promoting anchoveta for school feeding in Peru



SDGs **1** **2** **3** **12** **14**

With an average production of 5-6 million tonnes annually, Peru is the world's largest producer of the Peruvian anchoveta, a species of the anchovy family. Most of this fish is destined to industry, where almost all of the capture is currently converted into fishmeal and fish oil. Although anchoveta is commonly seen as a low-value fish, it is an exceptionally high-value product when it comes to nutrition. This relatively inexpensive fish is high in protein and precious omega-3 fatty acids, with all of their well-documented health benefits. Additionally, as a small fish eaten whole, consumers also gain the benefits of valuable nutrients contained in the anchoveta's skin and bones. However, malnutrition and stunting continue to be a concern for many children in vulnerable Peruvian communities, and the government of Peru has been looking for ways to promote high-nutrition school feeding



policies. FAO and Peru have been working together to see how the anchoveta can find its way into school feeding programmes, offering an inexpensive, yet nutritionally valid staple product for children. Anchoveta is being prepared in various ways – smoked, marinated, frozen – in order to gain greater acceptance in local diets in pilot programmes aimed

PERU

Peru is introducing the healthy and nutritious anchoveta into school feeding programmes.
© FAO/N. Avdalov

at promoting a small segment of Peruvian anchoveta production for human consumption. It is believed that this little fish can provide big health and nutritional benefits to Peruvian school children.

FAO WORKING FOR SDG 14

Healthy oceans for
food security, nutrition and
resilient communities



Healthy oceans and seas are more important than ever. They support people's livelihoods and whole communities across the globe, providing nutritious food, employment and potential for prosperity.

Oceans and seas cover more than 70 percent of our planet's surface, provide half of the world's oxygen, sequester carbon, and serve as home to 80 percent of life on earth.

SDG 14, Conserve and sustainably use the oceans, seas and marine resources for sustainable development, is a major goal of the 2030 Agenda for Sustainable Development, which commits the international community to act to surmount the key challenges facing our planet and all those who live on it.

A focus on SDG 14 will be crucial to protecting marine resources, and the important role they play in human well-being and social and economic development worldwide.

Through monitoring, instruments, both binding and non-binding, and other activities, FAO is working with countries to achieve SDG 14 objectives, addressing linkages with other targets of the 2030 Agenda and ensuring sustainable development in all three dimensions.

This booklet shines a light on FAO's work with countries and partners across the globe to ensure our oceans, seas and marine resources are used sustainably for the benefit of present and future generations.