



Food and Agriculture
Organization of the
United Nations



Interagency and Experts Collaboration to Improve the Production and Dissemination of SDG Indicators from Official National Sources

SDG Indicators under FAO Custodianship - Goal 14
Indicator 14.4.1 and 14.7.1



Aymen Charef
Office of the Chief Statistician



LEARNING ABOUT

14.4.1
INDICATOR

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START COURSE

SDG Indicator 14.4.1 - Fish stocks sustainability

Course content

This course presents tools, methods, and processes to monitor fish stocks and the 2030 Sustainable Development Agenda. There are **five lessons** in this course:

Lesson 1

Introduction to SDG Indicator 14.4.1

This lesson will introduce you to SDG 14.4.1, the importance of being able to measure fish stocks, which is the focus of SDG Indicator 14.4.1.

You will learn that while the natural functions provided by the oceans are essential for the livelihoods of billions of people, the key to sustainable fisheries is to ensure that the natural functions provided by the oceans are maintained.

This helps to understand the rationale behind the importance of fish stocks assessments, despite how challenging they are, and the implications of nonaction, including in relation to the achievement of related SDGs.

30 minutes

Go to this lesson

- Homepage
- Course overview
- Why should you take this course?
- Quick tutorial
- Course content
 - Lesson 1: Introduction to SDG Indicator 14.4.1
 - Lesson 2: Concepts and process behind the estimations of SDG Indicator 14.4.1
 - Lesson 3: Estimation of SDG Indicator 14.4.1 from classical stock assessment outputs
 - Lesson 4: Estimation of SDG Indicator 14.4.1 from data-limited methods
 - Lesson 5: Guidelines for national reporting
 - Conclusion

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Quick tutorial

Before you start, click on the numbers below for some tips on using the course features and navigation elements.

Indicator 14.4.1: The rationale for defining biologically sustainable levels

1 **2**

3 **4**

Maximum Sustainable Yield (MSY) is a widely recognized and internationally accepted reference point and is the reference point for SDG Target 14.4 and Indicator 14.4.1.

MSY is the maximum catch that can be extracted from a fish stock or population over the long term.

The concepts behind MSY

Best definition of this maximum catch level (MSY) may vary due to natural fluctuations in the environment and in the size of the fish stock, which should be considered by fisheries scientists and managers in practice.

Do you need support?

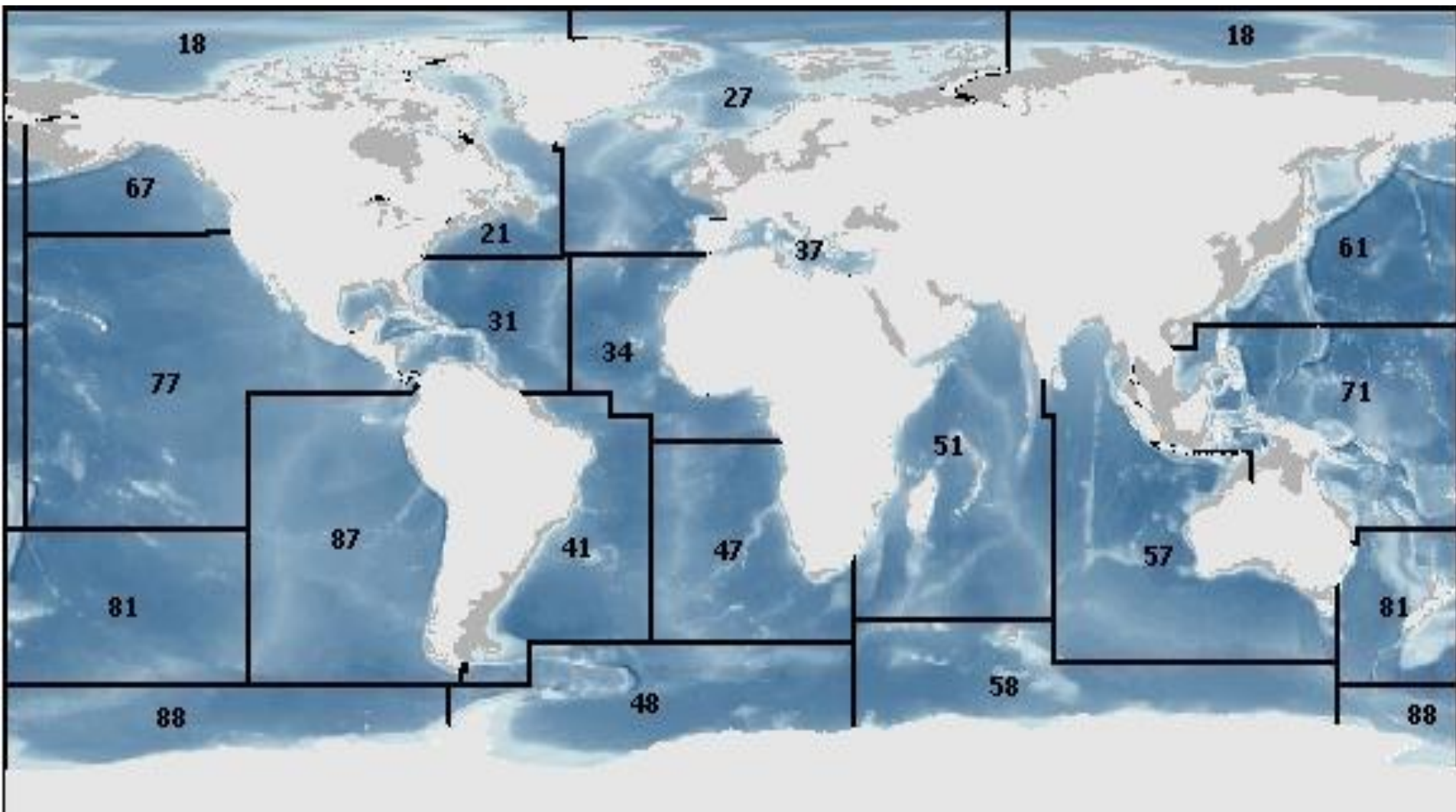
For clarification on the topics covered in this course:
SDG-indicators@fao.org

For technical support:
elearning-support@fao.org

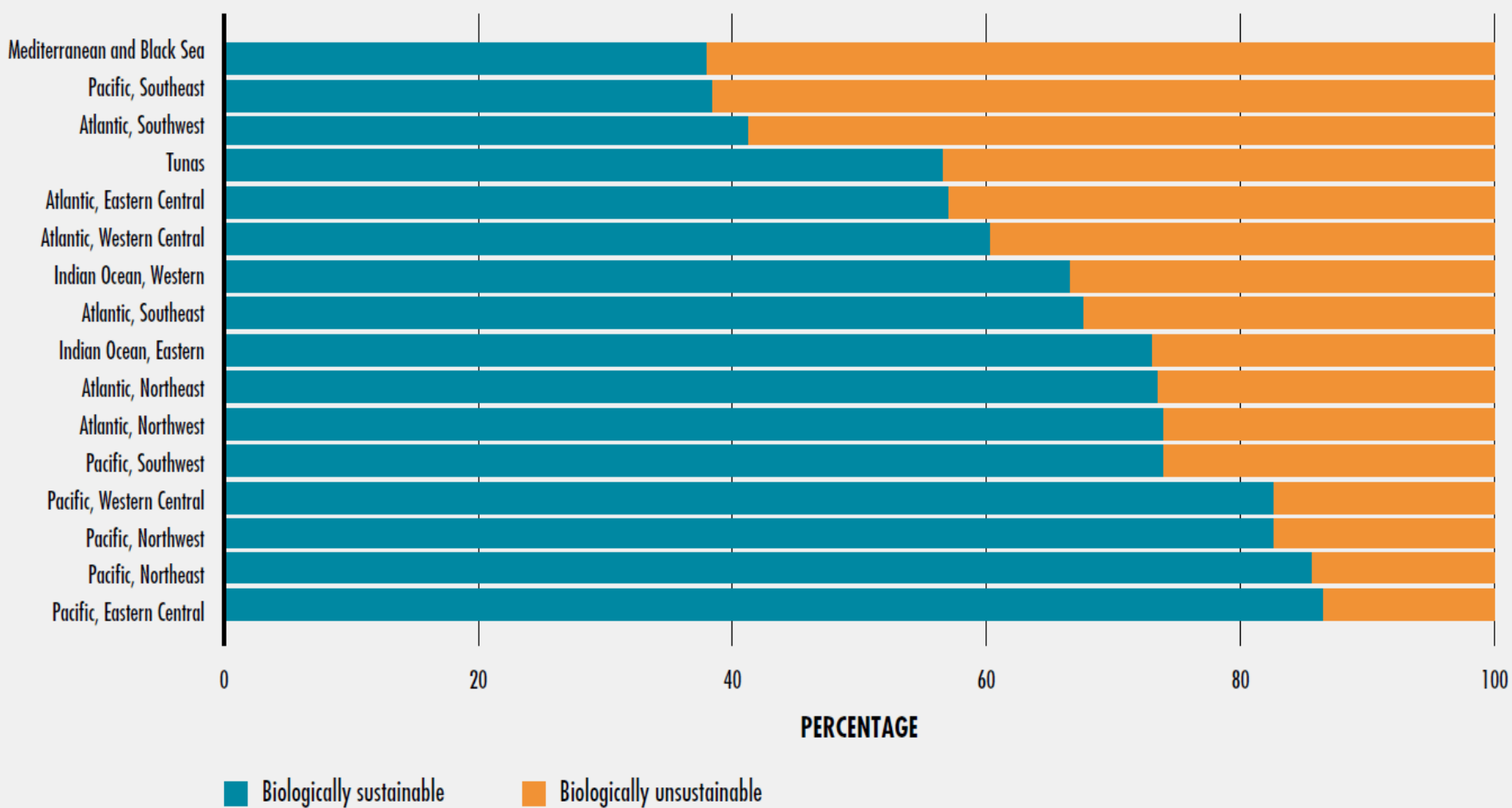
← Prev Next →

E-learning course

Disaggregated data available by FAO Major fishing areas

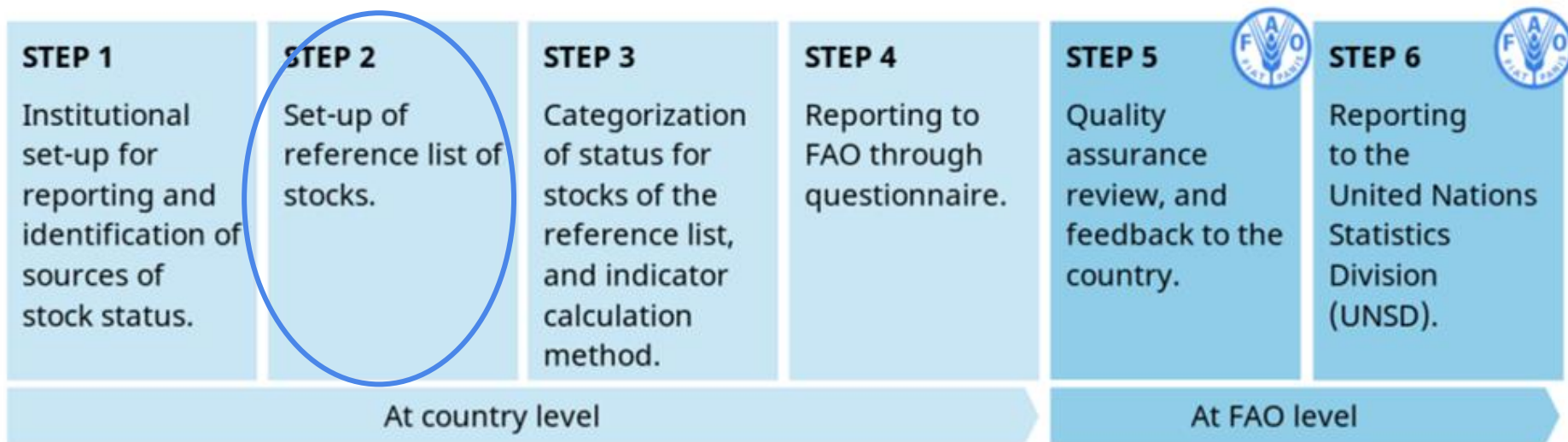


Percentages of stocks fished at biologically sustainable and unsustainable levels by FAO statistical area, 2015



NOTE: Tuna stocks are singled out as they are largely migratory and straddling across statistical areas.

Set-up of reference list of stocks

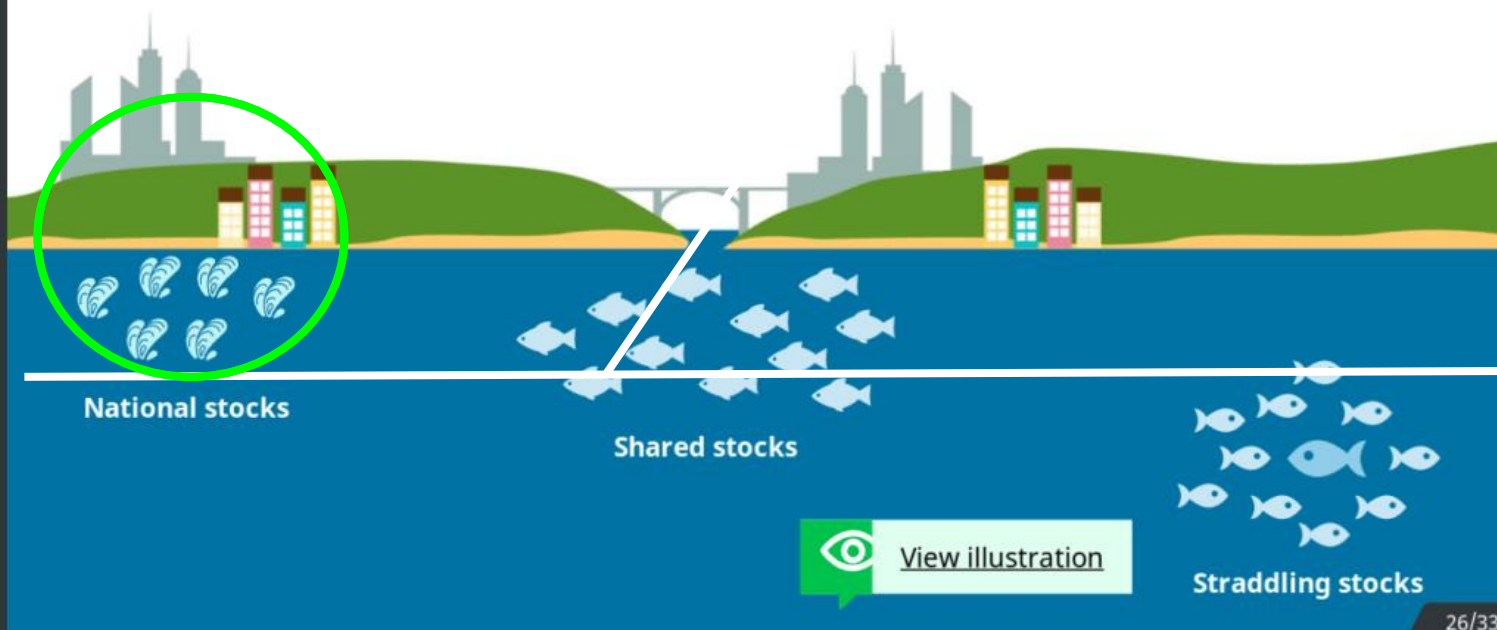


Set-up of reference list of stocks

Set-up of reference list of stocks

The reference list includes **national** and **shared fish stocks** and does not include **straddling stocks**, which are not considered for the Indicator calculation.

Click on each type of fish stock to read more

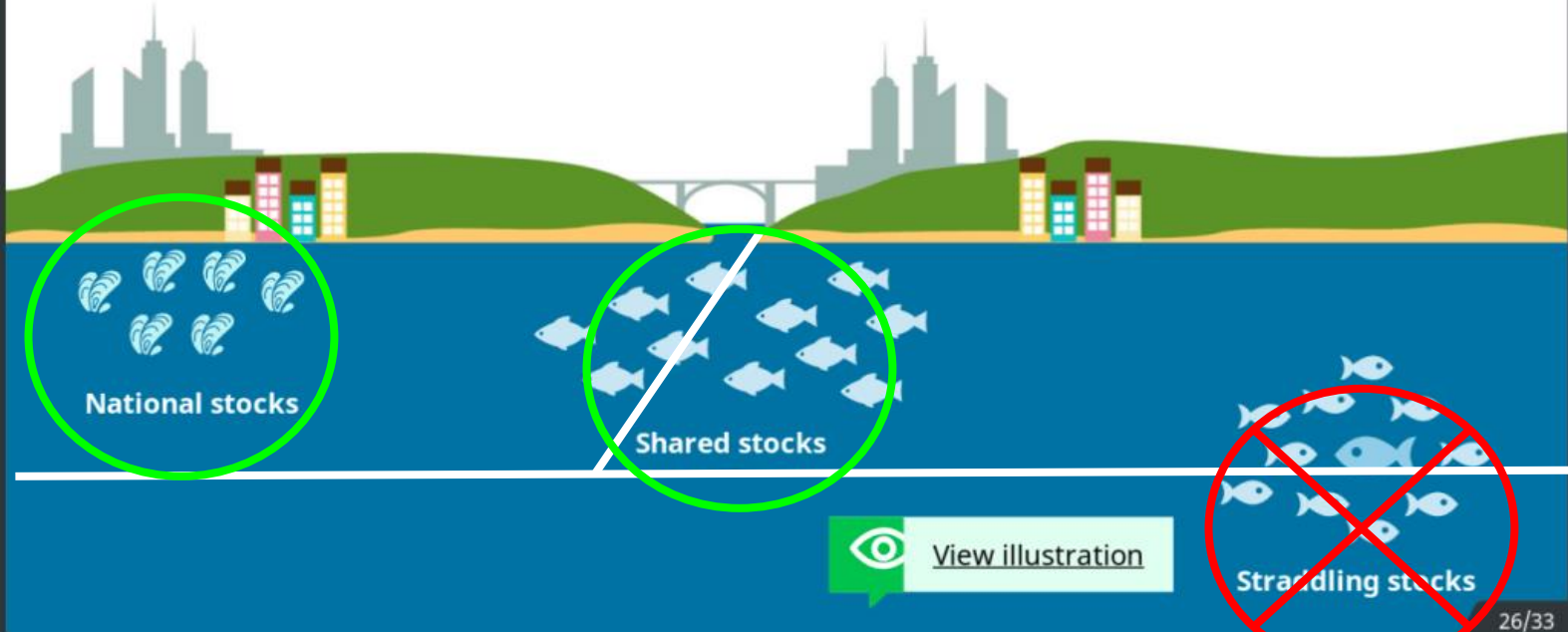


Overview of Reporting Process: Reference list of stocks

Set-up of reference list of stocks

The reference list includes **national** and **shared fish stocks** and does not include **straddling stocks**, which are not considered for the Indicator calculation.

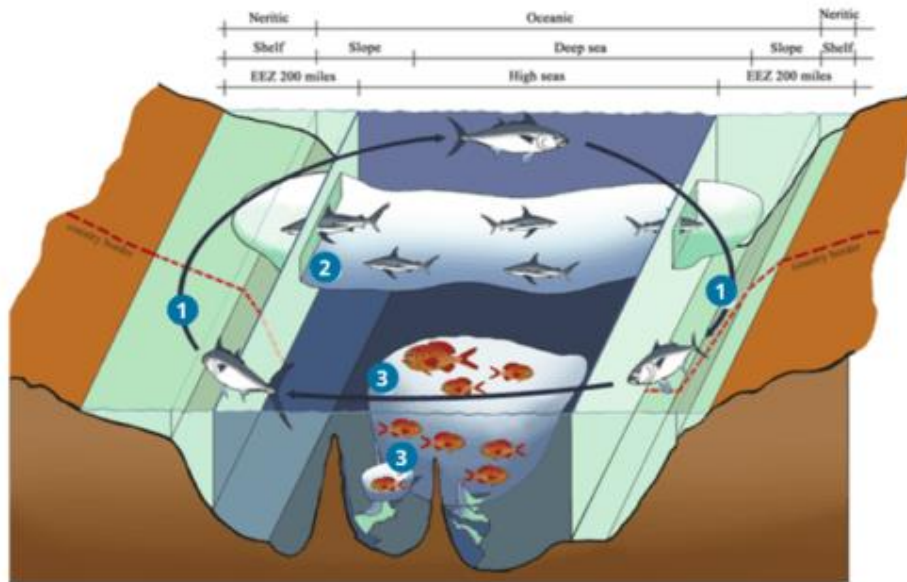
Click on each type of fish stock to read more



View illustrations of straddling stocks



In this image, you can view types of stocks occurring partially or entirely in the high seas.



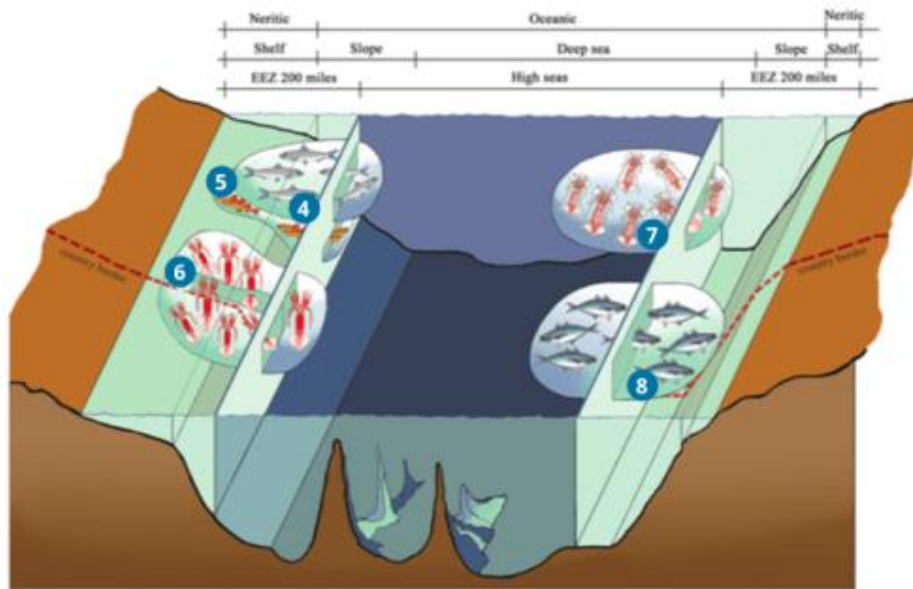
- 1 Highly migratory
- 2 Straddling (extensive distribution);
- 3 High seas



View illustrations of straddling stocks



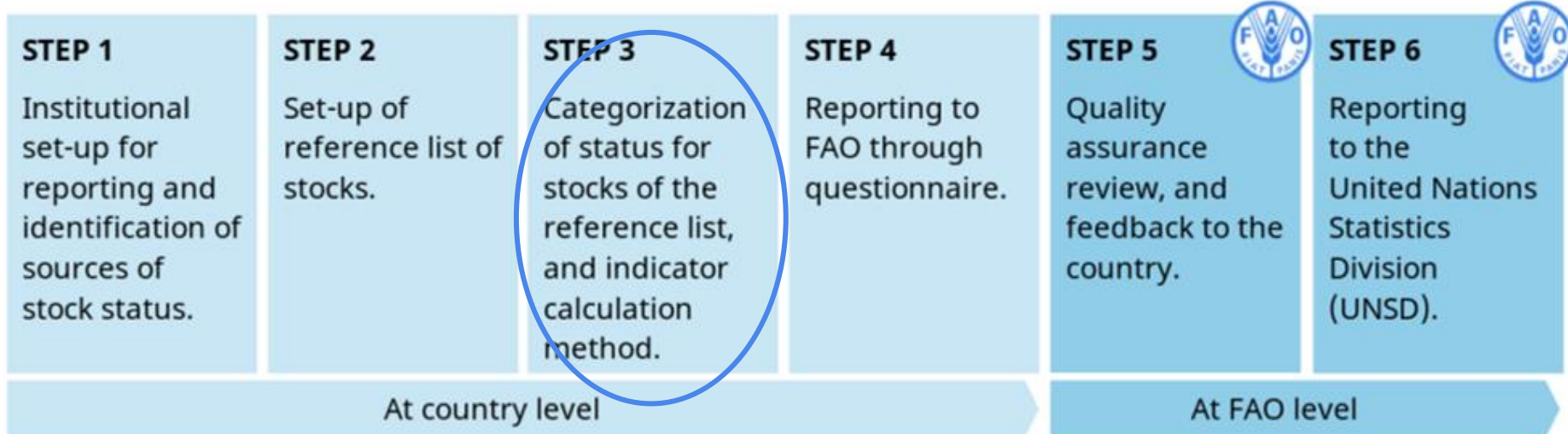
These are other types of stocks occurring partially or entirely in the high seas.



- 4 Pelagic straddling (mostly within EEZ)
- 5 Demersal straddling (mostly within EEZ)
- 6 Straddling (transboundary)
- 7 Straddling (mostly in high seas)
- 8 Straddling (evenly distributed)



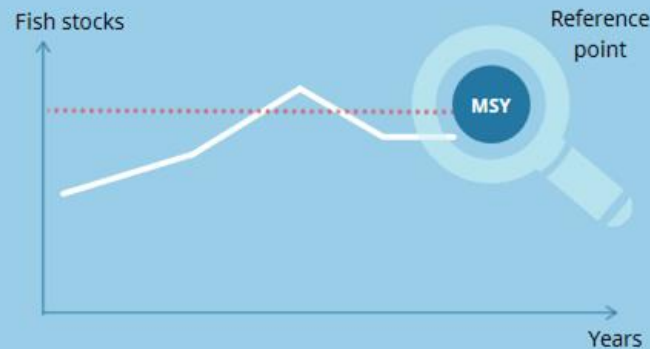
Status of stocks of the reference list




Overview of Reporting Process: Categorise status

Indicator 14.4.1: The rationale for defining biologically sustainable levels How do we define what is 'sustainably fished'?

Maximum Sustainable Yield (MSY) is a widely recognized and internationally accepted **reference point** and is the reference point for SDG Target 14.4 and Indicator 14.4.1.



MSY is the maximum catch that can be extracted from a fish stock or population over the long term.

 [The concept behind MSY](#)



The exact definition of this maximum catch level (MSY) may vary due to natural fluctuations in the environment and in the size of the fish stock, which should be considered by fisheries scientists and managers in practice.

Overview of Reporting Process: Categorise status

MSY-based reference points (4/7)



What measure of B/B_{MSY} should be considered for the calculation of SDG Indicator 14.4.1?

In the **USA and Australia**, $B/B_{MSY} < 0.5$ is commonly used.

If sustainability is defined following this lower threshold, it is recommended to **attempt to assess whether the current biomass is at or above 80% of B_{MSY}** for consistency in the calculation of SDG Indicator 14.4.

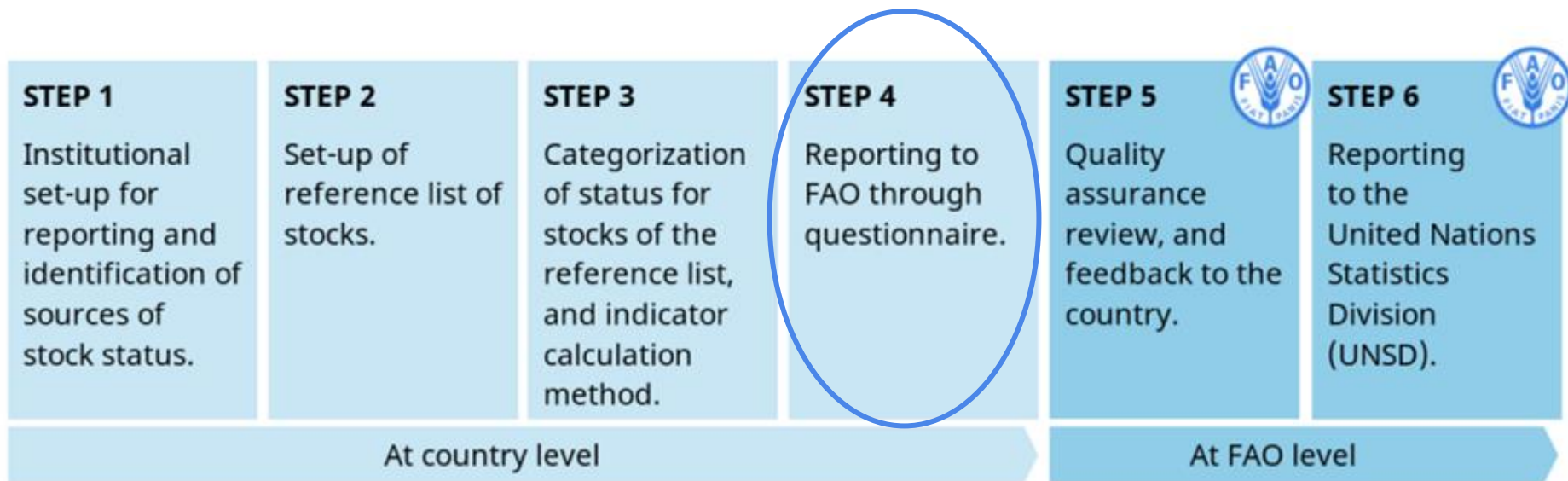
FAO suggests the criteria of $B/B_{MSY} < 0.8$. as indicative of an unsustainable stock status.

Therefore, for the calculation of SDG Indicator 14.4.1, if $B/B_{MSY} < 0.8$, the practitioner **could consider that the stock does not meet the criteria** for biological sustainability.



USA and Australia threshold

Reporting to FAO through questionnaire



Introducing the Food and General Organization through the questionnaire



Viale delle Terme di Caracalla, 00153 Rome, Italy Fax: +39 0657053152 Tel: +39 0657051 www.fao.org
Our Ref: Your Ref:

11 November 2019

Subject: National Reporting on the Sustainable Development Goal Indicator 14.4.1

Dear Sir/Madam,

I am contacting you to request your collaboration to report on the Sustainable Development Goal (SDG) 14.4.1 Indicator for which the Food and Agriculture Organization of the United Nations (FAO) is the custodian agency. The indicator measures the biological sustainability of the world's marine capture fishery resources according to the maximum sustainable yield (MSY).

The indicator will provide policy makers with comprehensive information on the state of fish stocks at regional and global levels towards reaching the SDG 14.4 target. The data collected are also expected to identify countries' capacities in producing stock assessments so that FAO can provide the necessary technical assistance.

To this end, I would appreciate it if your office, or alternate focal points, could complete the attached questionnaire for reporting SDG Indicator 14.4.1. Ideally, a leading scientist at each of the institution and agency that is carrying out the assessment of fish stocks should be responsible for compiling the components of the SDG Indicator 14.4.1. The excel questionnaire should be compiled according to the definitions and instructions provided in its first sheets.

An online course on this SDG indicator has been developed to support countries; it includes some methods of stock assessment and provides guidelines for national reporting. The course is available at <https://elearning.fao.org/course/view.php?id=502>. We call your attention to two key steps of the guidelines: the institutional set-up, and the establishment of the reference list of fish stocks.

Reporting of the indicator using the approved methodology will generate a national value (score) of the proportion of fish stocks within biologically sustainable levels. Countries are encouraged to submit detailed information for individual fish stocks to allow FAO as the custodian agency to undertake a quality assurance assessment, and to establish regional and global values for the indicator.

Original national data submissions at the individual fish stock level will not be disseminated by FAO. However, national indicator value will be produced and disseminated by FAO, unless the reporting country requests not to do so, with a proper justification for this decision.

2

We would be grateful if the questionnaire could be completed and returned to FAO by 30 December 2019. If you are not responsible for compiling the questionnaire, kindly forward the form to the responsible contact, keeping us in copy to this communication.

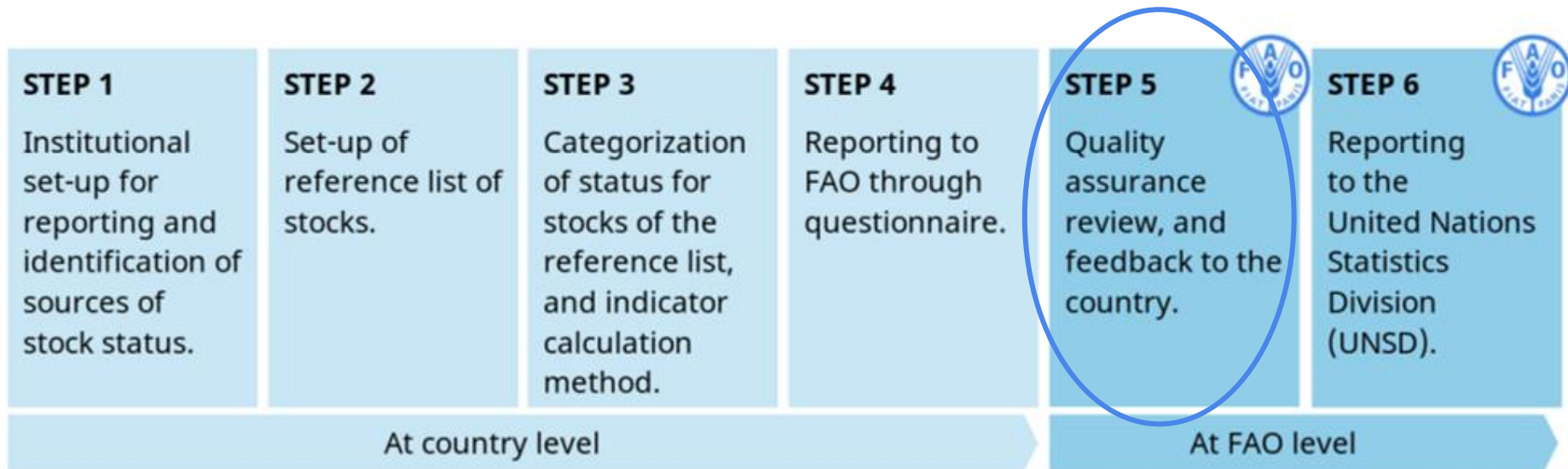
Should you have any questions, comments or difficulties in completing the questionnaire, do not hesitate to contact us at SDG14-4-1-eForms@fao.org.

Thank you in advance for your cooperation.

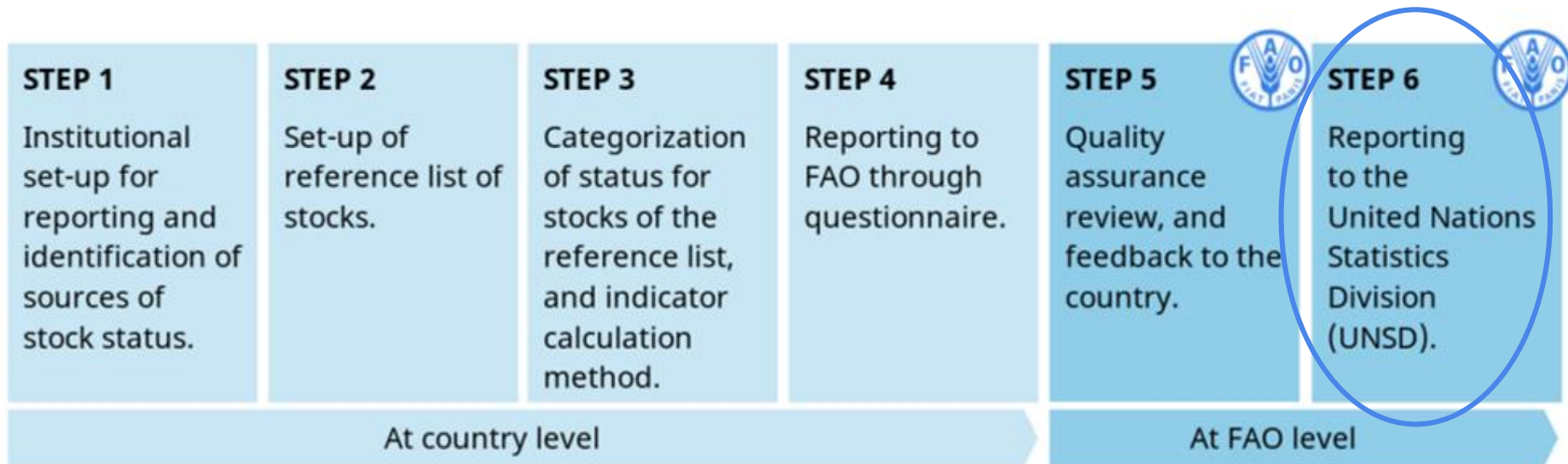
Yours sincerely,

Pietro Gennari
Chief Statistician

Data quality assurance and feedback to the country



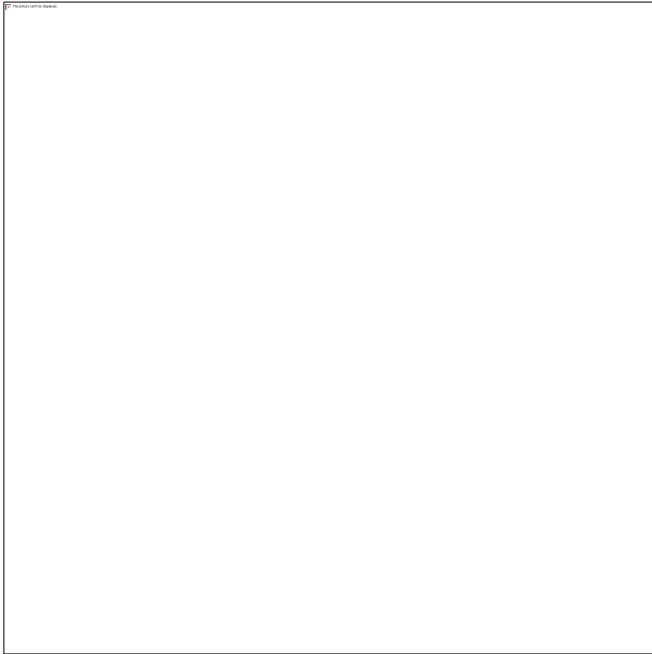
Reporting to UNSD by FAO



FAO's role

- One of the key missions of FAO is to **support member countries** develop the capacity of their statistical systems and enable them to collect, disseminate and use relevant, reliable and timely data.
- By strengthening countries' capacity in this area, FAO contributes to help identify which/whether the data that are collected can be used for data-limited methods
- FAO can assist in the identification of a suitable set of stock assessment methods in Data limited situations
- FAO has developed **a wide range of data systems and information products** to support countries

Questions



شكرا

謝謝

Merci

Thank You

Благодарю

¡Muchas Gracias!



لمزيد من المعلومات التفصيلية حول مؤشر ١٤-٤-١

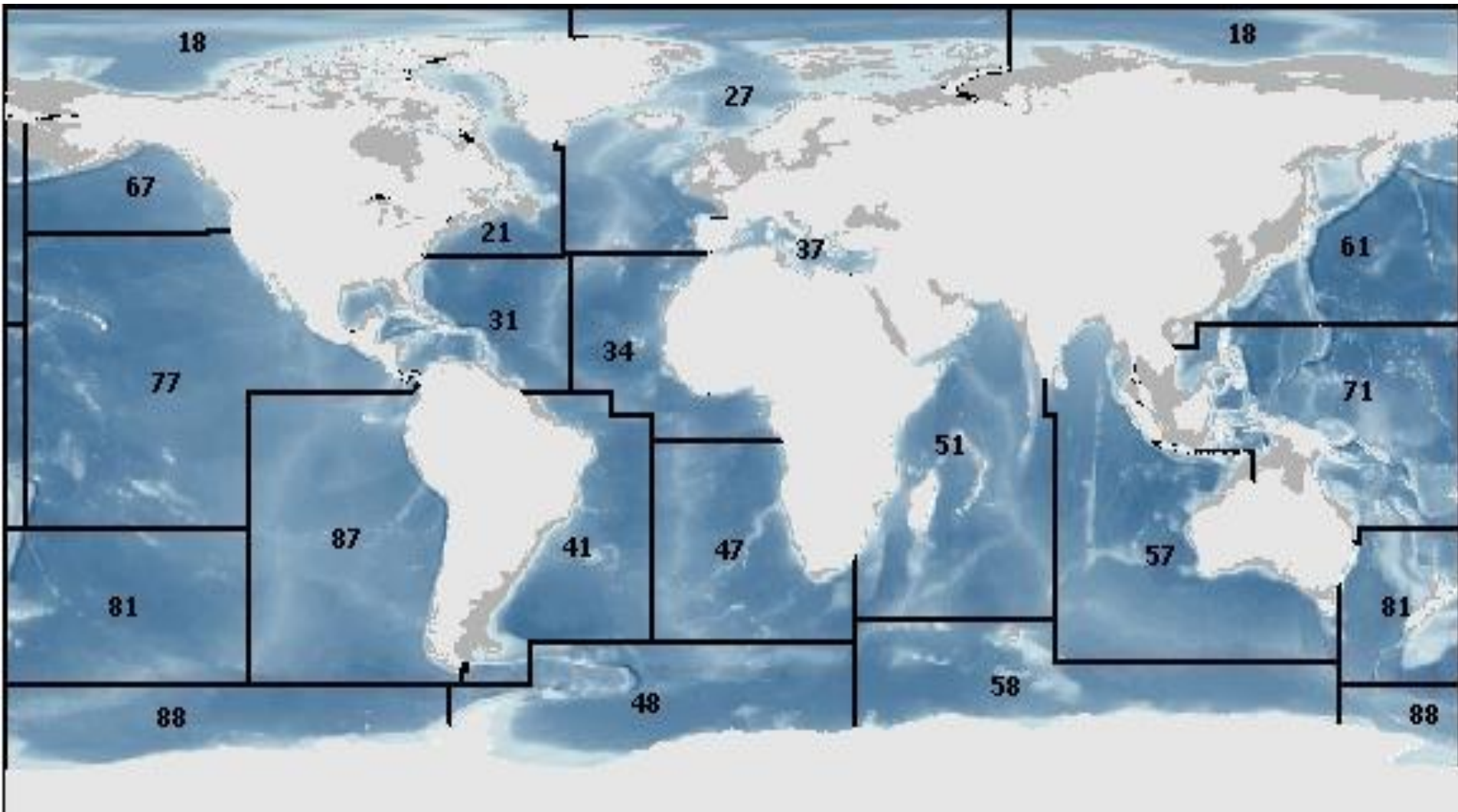
<http://www.fao.org/sustainable-development-goals/indicators/1441/ar/>



SDG INDICATOR 14.7.1

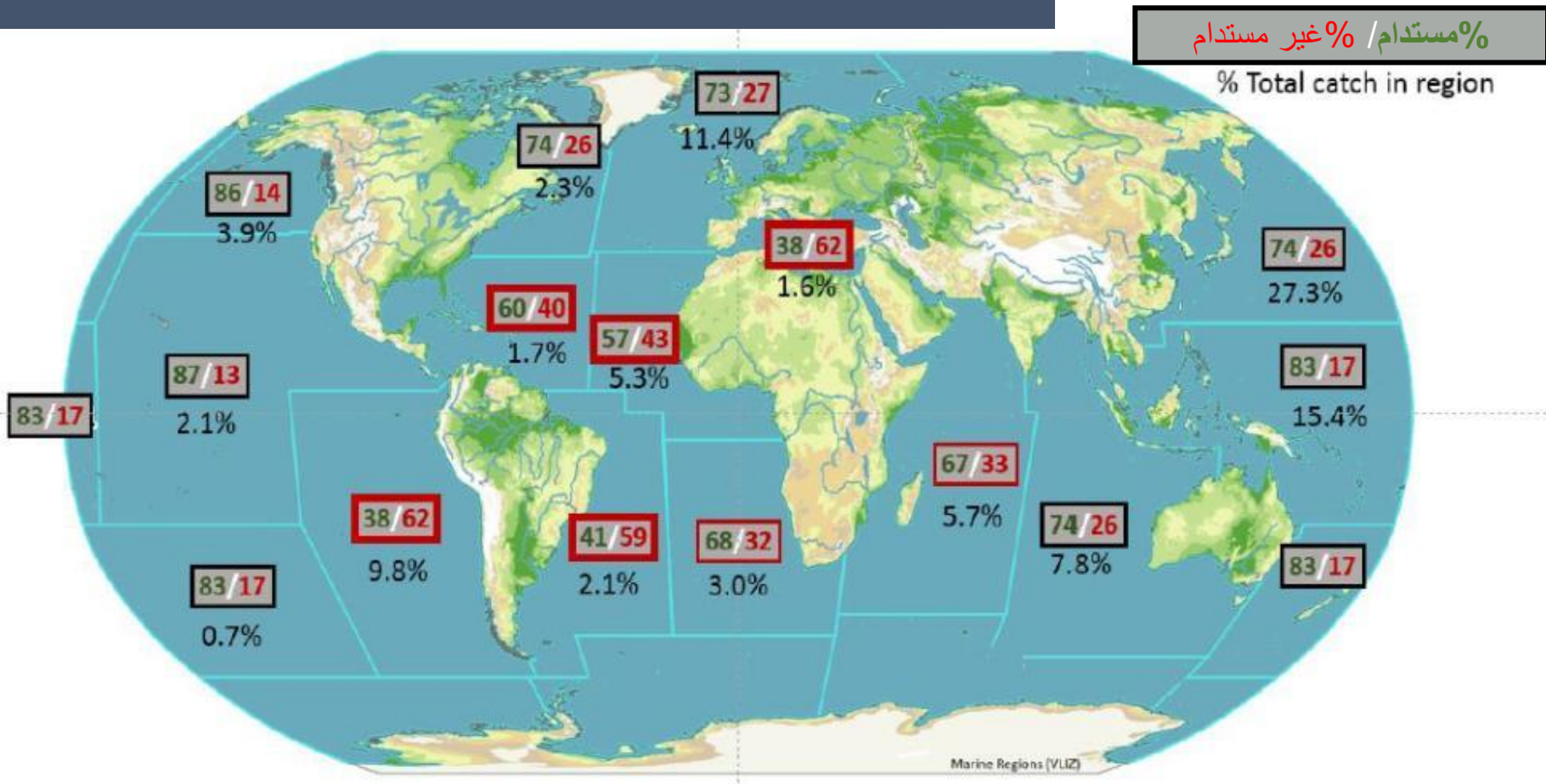
Sustainable fisheries as a percentage of GDP in small island developing states, least developed countries and all countries

Disaggregated data available for FAO Major fishing areas



Overview of methodology: sustainability multiplier

Regional state of the world's marine fish stocks (2015 data)



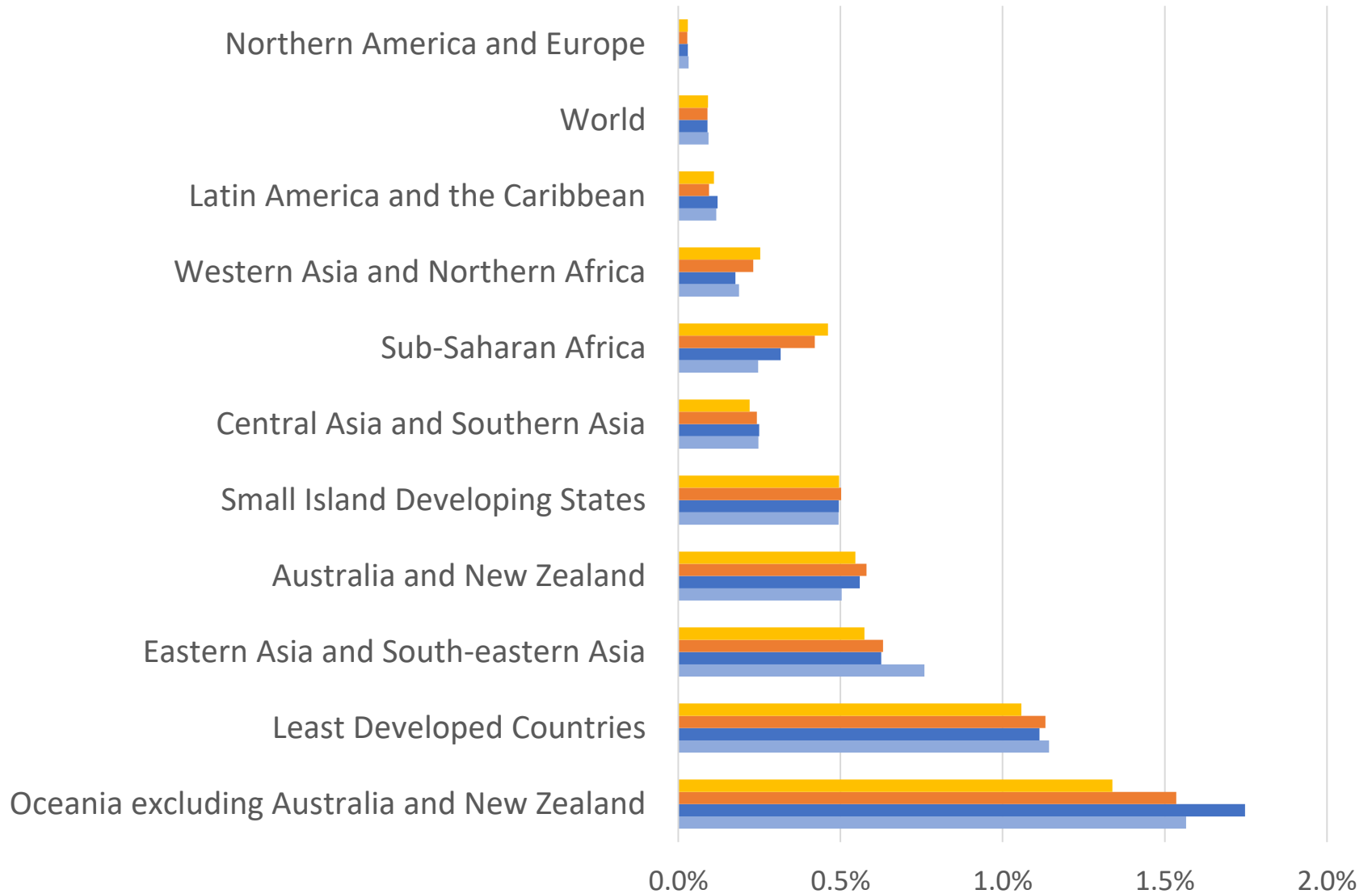
Overview of methodology: sustainability multiplier

Finally, the value added of marine capture fisheries will be adjusted by the sustainability multiplier to get the sustainable marine capture fisheries as a percentage of GDP

$$\text{Sustainable Fisheries as a \% of GDP} = \text{Sustainability multiplier} \times \text{Value Added marine Fisheries}$$

Sustainable Fisheries as a Percentage of GDP

2017 2015 2013 2011





لمزيد من المعلومات التفصيلية حول مؤشر ١٤-٧-١

<http://www.fao.org/sustainable-development-goals/indicators/1471/ar/>