

Goal 14

Target number: 14.7

Indicator Number and Name: 14.7.1. Sustainable fisheries as a percentage of GDP in small island developing States (SIDS), least developed countries and all countries.

Agency: FAO

Has work for the development of this indicator begun?

Yes.

Who are the entities, including national and international experts, directly involved and consulted in developing the methodology/and or data collection tools?

FAO, Fisheries Department and Statistics Department experts. Additionally, FAO has engaged with international experts and partner organizations, namely through International Organization for the Development of Fisheries in Europe (EUROFISH) to assess the feasibility of developing a composite indicator based on the relevant parameters (i.e. socio-economic, governance and bio-economic indicators) and to develop background documentation for an expert meeting.

International experts directly involved in developing the methodological during the expert meeting are:

- Ragnar Arnason - Department of Economics., University of Iceland, Iceland
- Chris Anderson - School of Aquatics and Fisheries Sciences University of Washington, USA; and
- Sébastien Djienouassi - Institute for Survey and Statistical Analysis, Yaoundé, Cameroon.

The expert meeting took place in Copenhagen from 19-20 June, with approximately 20 experts, in preparation for three regional workshops to take place between June and October this year.

Consultation with SIDS (and LDCs)

Further to the expert consultation, FAO has planned three regional workshops with SIDS (and LDCs) (July, August, and October 2018). Pillar one of the workshops will focus on SDG Indicator 14.7.1. The workshops will be used to consult with stakeholders on the work that is being undertaken in relation to the development of a methodology to report on SDG 14.7.1 and to validate the proposed approach.

Stakeholders will be asked to comment on the suggested approaches (the GDP approach and the comprehensive approach), both in terms of their usefulness and of their applicability. The indicators will, in particular, need to take into account the national context in individual countries and will need to accommodate differences between countries in their measurement and reporting capacities.

What is the involvement of or how do you plan to involve National Statistical Systems in the development of the methodology?

National Statistical Systems hold standardised records (e.g. Value Added Fisheries data) that can be examined to look for a GDP ratio or examined to look at standardise value trends through time.

National Statistical experts are to be invited to participate in both the expert consultation and regional workshops. Furthermore, through the collaboration with the experts from FAO ESS.

Please briefly describe the process of developing the methodology for the indicator

A strict interpretation of the indicator would be based on the System of National Accounts (SNA) and the data that is collected through this process. This refers to the fisheries valued added contribution to GDP by country (but without reference to sustainability). This data is available to FAO for 120 countries, including 18 SIDS. Even though the SNA sets out fairly straightforward procedures, in practice its application can vary. Use of this indicator would require grooming to insure the data consistency, both over time and across countries.

While this indicator would be relatively simple to calculate it does not provide a full picture of the contribution of fisheries to GDP.

1. The sector captured by the SNA is related to the **“fishing” activity, rather the more inclusive “fisheries” sector**. In the case of Pacific SIDS the SNA approach would not take account of access payments that are paid by Distant Water Fishing Nations to access tuna resources under the jurisdiction of SIDS. It also does not include the contribution of recreational fisheries or subsistence fisheries to GDP.
2. **Post-harvest activities**, including fish processing, are not included in the fishing sector for the purpose of the SNA. The post-harvest activities are accounted for separately in the manufacturing component of the SNA. The same applies for informal activities and informal trade (especially for small-scale fisheries). Similarly, other fisheries-related services are often unrecorded or miss-counted in public accounts.
3. In addition, the GDP approach does not take into account **sustainability criteria** when estimating the contribution of fisheries to GDP. The work that is being done in relation to SDG 14.4.1 *Proportion of fish stocks within biologically sustainable levels* can also be drawn on to inform the development of a sustainability component for the 14.7.1 indicator. This indicator could constitute a first criterion for biological sustainability; especially while economic and social sustainability criteria are being developed (in relation with SDG 14.b and 14.6).

Noting the limitations of a single GDP-based indicator, the development of a comprehensive indicator will provide a fuller picture of the contribution of fisheries and aquaculture to GDP. Therefore a two track strategy, spanning along three phases, allowing for the development of two complimentary methodologies is planned:

- **PHASE 1:** The SNA based approach will provide a baseline indicator - **GDP approach** - whereas a second and more comprehensive methodology will be sought to calculate an indicator to be used to value the economic contribution of fishing and

aquaculture. The indicator based on the SNA would largely be developed within FAO, in close cooperation with FAO ESS.

- **PHASE 2:** The development of a more comprehensive indicator will be led by FAO FIA, but will be developed in conjunction with relevant partners – **Comprehensive approach**. (these two phases will evolve in parallel)

Please indicate new international standards that will need to be proposed and approved by an intergovernmental process (such as UNSC) for this methodology.

In principle, no new standards should be needed/sought.

When do you expect the methodological work on this indicator to be completed?

Phase I and II of this workplan are planned to be finalized by October 2018.

Are data and metadata already being collected from the National Statistical System for one or more components of this indicator?

Yes, and these have been, and are continuing to be compiled by FAO. If the 'Fisheries as a percentage of GDP' would be the final indicator to be adopted, these data have largely been compiled by FAO. This is true for at least 118 countries that have reported these to UNSD (although fewer SIDS). It might be very well that some countries do list an "Not Available" (NA) for data on the Fishing and aquaculture industry, but do not report these to UNSD. This has to be further investigated.

If yes, please describe:

Data from National Accounts series. Also, data on fishing and aquaculture would need additional validation work before becoming publishable, this point requires further investigation from FAO (ESS) side. Further data processing would still be required to render the data fully comparable over time as data may draw on different ISIC and SNA revisions.

Start and end year value of the Value Addition of Fisheries to GDP (VA_Fi-to-GDP) ratio by country (country list 120 including 18 SIDS datasets that have a range of start and end datasets, maximum time-series 1989-2015). Care in making assessments is needed as the time span is not identical for all countries. Also the data on VA_fi and by extension the ratio VA_FI/GDP may not be fully comparable between start period and end period for some countries as they may draw on different ISIC and SNA revisions. Further data processing would be required to render the data fully consistent over time. The current country coverage is a lower bound, with additional geographical breakdown also possibly available for some countries.

How do you plan to collect the data?

SNA data is available at FAO; additional data collection can only be accessed upon the results from methodological development of the so-called comprehensive approach.

If the indicator involves multiple components from different data sources, please describe how each individual component of the indicator will be collected here.

NA

With what frequency is data expected to be collected?

NA

Is there a process of data validation by countries in place or planned for this indicator?

NA

If yes, please briefly describe:

References:

Anderson JL, Anderson CM, Chu J, Meredith J, Asche F, Sylvia G, et al. (2015). The Fishery Performance Indicators: A Management Tool for Triple Bottom Line Outcomes. PLoS ONE 10 (5): e0122809. doi:10.1371/journal.pone. 012280.

de Graaf, G. & Garibaldi, L. (2014). The value of African fisheries.FAO Fisheries and Aquaculture Circular. No. 1093. Rome, FAO. 76 pp.

Effects of climate change on oceanic fisheries in the tropical Pacific: implications for economic development and food security. Johann D. Bell, Chris Reid, Michael J. Batty, Patrick Lehodey, Len Rodwell, Alistair J. Hobday, Johanna E. Johnson, Andreas Demmke
<http://link.springer.com/article/10.1007/s10584-012-0606-2>

Relevant readings related to the Pacific Islands:

Fisheries Contributions to GDP: Underestimating Small-scale Fisheries in the Pacific. Dirk Zeller, Shawn Booth, Daniel Pauly
<http://www.botany.hawaii.edu/basch/uhnpscesu/pdfs/sam/Zeller2006SmallAS.pdf>

United Nations. 2009. *System of National Accounts 2008*. United Nations, the European Commission, the Organisation for Economic Co-operation and Development, the International Monetary Fund and the World Bank Group. Washington DC.

World Bank. 2017. The Sunken Billions Revisited: Progress and Challenges in Global Marine Fisheries. World Bank. Washington, D.C.

World Economic Forum 2017. *The Inclusive Growth and Development Report 2017*.
http://www3.weforum.org/docs/WEF_Forum_IncGrwth_2017.pdf

Annex

General Comment:

The case of GDP is an interesting example of how statistics have been entangled in notions of national progress. GDP is an estimate of the sum total of a nation's consumer spending, government spending, investments and trade balance (exports minus imports), which is represented in a single number.

This metric is fiendishly difficult to get right, and efforts to calculate this figure began, like so many mathematical techniques, as a matter of marginal interest during the 1930s. It was only elevated to a matter of national political urgency by the second world war, when governments needed to know whether the national population was producing enough to keep up the war effort.

In the decades that followed, this single indicator, though never without its critics, took on a hallowed political status, as the ultimate barometer of a government's competence. Whether GDP is rising or falling is now virtually a proxy for whether society is moving forwards or backwards despite a number of direct and indirect factors that can alter the outcome of this number, with little relationship (correlation, inverse correlation or consistency) to changes in society. Therefore, it presents us with a challenge, as it does not properly reflect the complexity of the modern economy (World Economic Forum 2017).

Recently there has been a number of pushes to develop more useful indicators. The Stiglitz Commission Report makes 12 recommendations on moving from production to well-being indicators. These range from including measures of income, consumption, and wealth – both market and non-market, as well as their overall distribution – to objective and subjective measures of well-being, such as health, education, personal activities, and environmental conditions.

The European Commission, which has worked on the issue for a decade, has outlined a roadmap for new indicators that includes up-to-date measures on environmental protection and quality of life; distribution between income, health, education, and environmental quality; overall sustainability; and social issues (see also UN 'Human Development Index', OECD 'Better Life Index', New Economics Foundations 'Happy Planet Index'. Several calls have been made in this regards, moving away from numbers and quantities and toward measures of quality.

Lastly the World Economic Forum's System Initiative on Economic Growth and Social Inclusion has developed a composite global index, the Inclusive Development Index (http://www3.weforum.org/docs/WEF_Forum_IncGrwth_2017.pdf), measuring the accumulated level as well as the most recent five-year trend of performance for the 109 countries for which such data is available. The former offers a more integrated and holistic picture of the state of economic development of countries than Gross Domestic Product per capita alone.

Note also that according to the Population Division of the United Nations, the world's population will grow to about 9.7 billion by mid-century. This means that between now and 2050, the world will add as many people as lived on the planet in 1950. However, the distribution of this growth will be highly uneven, being highest in the world's least-developed countries, including SIDS. This also has implication for changes in the metrics mentioned.

Can we follow the 'ocean delivered GDP' growth as an indicator of changes to living standards in SIDS? Maybe Yes

GDP was always intended as a measure of economic activity exclusively, however, it has frequently been used as a proxy for well-being, GDP growth creates the possibility of a positive-sum game for society, even if it does not assure it – so maybe we have a yes. It shouldn't be a percentage of total GDP as this changes for various reasons that have no bearing on 'ocean delivered GDP', so maybe a .

Can we follow the values that reflect the number of people working in fisheries as a possible surrogate? Maybe No

From an economic perspective, what matters for economic growth, household income, and living standards, is not necessarily the number of people who work but rather the productivity of those who work, the amount of benefits and how these benefits are redistributed in society.

(as of July/August 2018)