



RISING UP  
FOR  
**SIDS**

SMALL ISLAND  
DEVELOPING STATES

DECEMBER 2022

SIDS Data Platform

Indicator Catalogue

# Overview

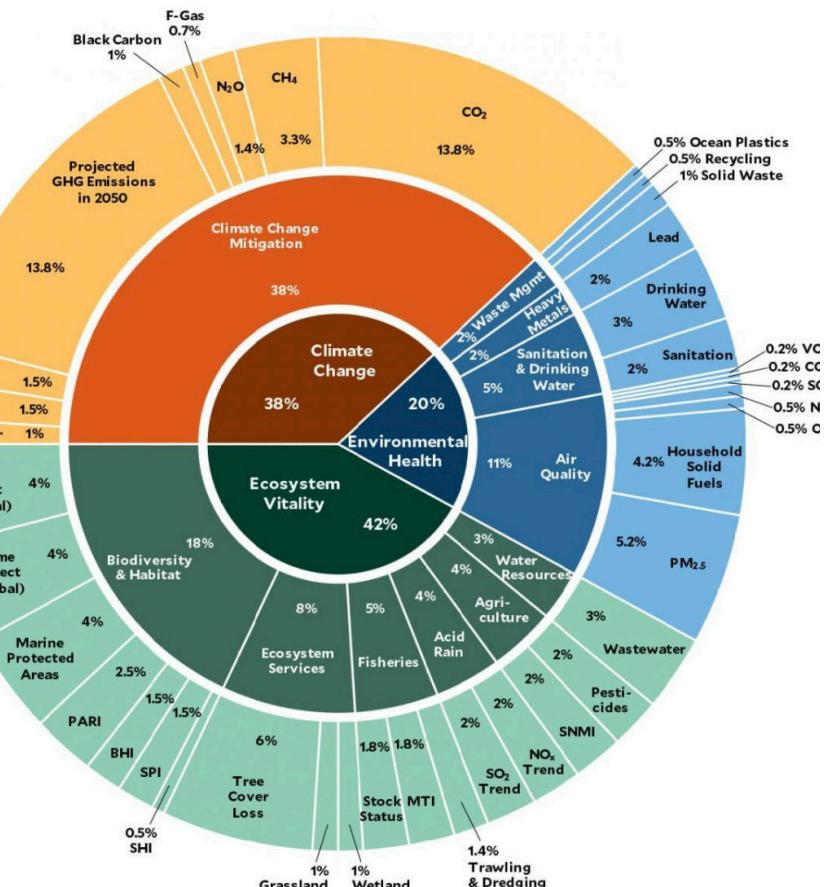
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As a new component of the United Nations Development Programme's offer for Small Island Developing States (SIDS), the SIDS Data Handbook 2022 provides data and statistics on a wide range of indicators relevant to sustainable development. This handbook assembles data and statistics to facilitate SIDS policymakers, researchers, academics, national governments, international organizations and non-government organizations (NGOs) in data-driven decision making and monitoring progress towards the SAMOA Pathway and 2030 Agenda. Country-level indicators play a key role in vulnerability assessments, accountability and transparency, and monitoring development progress through the development of multidimensional indices used in structural reforms. Statistical limitations in SIDS due to the unique demographic and geographic characteristics have resulted in challenges in implementing monitoring frameworks as proposed in the 2030 Agenda, and in general have posed challenges for SIDS to track progress against regional and global benchmarks. When data is available, an additional barrier for effective use in policymaking due to the challenge of integrating several data sources released in disparate formats that require standardization. This variety of formats is due to the varying dimensionality of datasets as well as a lack of a single data and metadata standard for publication of indicator and index datasets. As part of the SIDS Data Platform a database of indicators and indices has been compiled and standardized, accessible within the SIDS Data Platform as well as a separate API to access the database. The included datasets are selected due to their coverage of SIDS, for which many databases were excluded due to a lack of sufficient coverage for comparison among SIDS values. These datasets also are aligned to the three pillars of UNDP's 'Rising Up For SIDS' offer, as key accelerators of development for SIDS - Climate Action, Blue Economy, and Digital Transformation.

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# Environmental Performance Index (EPI)



**Figure 1.**

EPI Framework

Source: (Wolf, et al. 2022)

The EPI assesses how countries, regions and the world are progressing towards sustainability policy targets. Developed by Yale University and Columbia University, the EPI scores and ranks 180 countries on climate change performance, environmental health and ecosystem vitality. Using 40 performance indicators across 11 issue categories, countries are given an overall EPI score between 0 and 100, with a score of 0 indicating very poor performance and a score of 100 indicating excellent performance. These scores are used to rank countries to indicate which countries are best addressing environmental challenges.

Beyond overall scores, data can be individually analyzed by issue category, policy objective, peer group and country. This provides a way to spot problems, set targets, track trends, understand out-

comes and identify best policy practices. It also allows countries to identify, compare and learn from peer countries which face similar environmental challenges. Governments can use EPI data to refine their policy agendas, facilitate communications with key stakeholders and maximize the return on environmental investments. The EPI is a widely-used measure of environmental performance, but it is important to recognize its methodical limitations. For example, the framework only captures a country's environmental performance within its borders and does not capture the environmental impacts imported to or exported from other countries. The EPI is released every two years during even-numbered years, and methodology and datasets are changed with each version of the EPI to reflect the latest advances in science and metrics.

Source	Link	#Indicators	#SIDS	#Years
Wolf, M. J., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z. A., et al. (2022). 2022 Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy.	<a href="https://epi.yale.edu/">https://epi.yale.edu/</a>	55	48	28

# FishStatJ

Workspace	Dataset
Global production workspace:	Global Production by production source 1950-2020
	Capture Production 1950-2020
	Aquaculture Production (Quantities and values) 1950-2020
Global fish trade workspace	Global fish trade - All partners aggregated - Quantities and Values - 1976-2019
	Global fish trade - By partner country - Quantities and Values - 2019
Global fish processed products production workspace	Global Fish Processed Products Production – Quantities – 1976-2019
Fishery food balance sheets workspace	Food balance sheets of fish and fishery products 1961-2017
	Total population 1961-2017
Regional workspace	CECAF (Eastern Central Atlantic) capture production 1970-2019
	GFCM (Mediterranean and Black Sea) capture production 1970-2019
	RECOFI capture production 1986-2019
	Southeast Atlantic Capture Production 1975-2019
Border Rejection workspace	Import notifications for fisheries and aquaculture products 2016-2021

Figure 2.

List of Data Available in the FishStatJ

Source: FAO

FishStatJ is a desktop application which gives access to aquaculture and fisheries statistics from the Food and Agriculture Organization (FAO). It contains 13 datasets organized into six workspaces in the application: global production; global fish trade; global fish processed products production; fisheries food balance sheets; regional; and border rejection. Data are collected on every phase of the fishery structure from national authorities using a standardized system of questionnaires developed by the FAO called STAT-LANT.

FishStatJ can be used to extract and aggregate data to different levels of detail and international standard classifications. The data can be used to assess how sustainably countries are exploiting fisheries and ensure adherence to the FAO Code of Conduct for Responsible Fisheries. The data can also inform national policies on the sustainable harvest of fish for domestic requirements, and identify opportunities for developing exports, promoting sustainable expansions of fisheries, and improving the conditions of fishers.



Food and Agriculture  
Organization of the  
United Nations

Source	Link	#Indicators	#SIDS	#Years
Food and Agriculture Organization of United Nations .(2022). <i>Fisheries and Aquaculture</i> .	<a href="https://www.fao.org/fishery/topic/18238/en">https://www.fao.org/fishery/topic/18238/en</a>	23	50	57

# Global Cybersecurity Index (GCI)

The GCI evaluates the actions taken by countries to tackle cyber risks and monitors the commitment of countries to the International Telecommunication Union's (ITU) Global Cybersecurity Agenda. The GCI covers 194 countries and territories and collects data via country questionnaires. The GCI questionnaire has 82 questions on 20 indicators across the five pillars of the Global Cybersecurity Agenda. These pillars are:

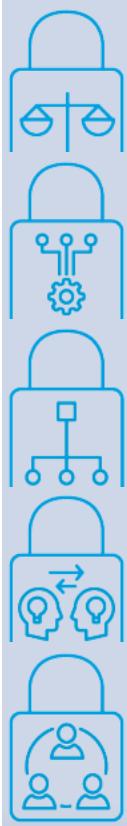
- Legal Measures - laws and regulations dealing with cybercrime and cybersecurity.
- Technical Measures - a technical institution framework dealing with cybercrime and cybersecurity which measures the implementation of technical capabilities through national and sector-specific agencies. Such capabilities include child online protection reporting mechanisms, active computer incident response teams (CIRTs), and engagement in a regional CIRT.
- Organizational Measures - local policies, coordination institutions and strategies for national development of cybersecurity.
- Capacity Development Measures - education, development,

research and training programmes that foster capacity-building in cybercrime and cybersecurity.

- Cooperation Measures - cooperative frameworks, partnerships and networks for information sharing.

The GCI scores countries on a scale of 0 to 100, with a score of 0 indicating poor performance towards achieving Global Cybersecurity Agenda commitments and a score of 100 indicating excellent performance. Countries are then ranked by their overall score.

The GCI enables countries to identify where action has been taken on cybersecurity, what action may be insufficient, and understand the landscape of successes. Given the multidimensional, cross-border challenges of cybersecurity, GCI data can be used to raise awareness among stakeholders on the needs for coordination or action. The GCI can also be used to benchmark good cybersecurity practices against partners such as national governments of other countries, and to conduct self-assessments.

	<b>Legal</b>	Measuring the laws and regulations on cybercrime and cybersecurity	167 Countries with some form of cybersecurity legislation 133 Data Protection Regulations 97 Critical Infrastructure regulations
	<b>Technical</b>	Measuring the implementation of technical capabilities through national and sector-specific agencies	131 Active CIRTS 104 Engaged in a regional CIRT 101 Child Online Protection Reporting mechanisms
	<b>Organizational</b>	Measuring the national strategies and organizations implementing cybersecurity	127 National Cybersecurity Strategies 136 Cybersecurity Agencies 86 Child Online Protection strategies and initiatives reported
	<b>Capacity development</b>	Measuring awareness campaigns, training, education, and incentives for cybersecurity capacity development	142 Countries conduct cyber-awareness initiatives 94 Countries with cybersecurity R&D programs 98 Countries reported having national cybersecurity industries
	<b>Cooperation</b>	Measuring partnerships between agencies, firms, and countries	166 Countries engaged in cybersecurity Public-Private Partnerships 90 Countries with cybersecurity bilateral agreements 112 Countries with cybersecurity multilateral agreements

**Figure 3.**  
**Global commitments of indicators per pillar**  
Source: ITU



Source	Link	#Indicators	#SIDS	#Years
International Telecommunication Union. (2021). Global Cybersecurity Index 2020. Measuring Commitment to Cybersecurity.	<a href="https://www.itu.int/en/ITU-D/Cyber-security/Pages/GCI/GCIv4-Report-Launch.aspx">https://www.itu.int/en/ITU-D/Cyber-security/Pages/GCI/GCIv4-Report-Launch.aspx</a>	37	1	

# Global Gender Gap Index (GGGI)

The GGGI evaluates the current state and evolution of gender parity across four major dimensions (sub-indices): economic participation and opportunity; educational attainment; health and survival; and political empowerment. Overall GGGI scores range from 0 to 1, where 0 indicates imparity and 1 indicates full gender parity. Countries are also assigned a score for each sub-index and their 14 underlying indicators.

The GGGI is built on three concepts that determine how indicators were chosen, how data are treated and how the index can be used. First, the GGGI looks at the gender gaps in accessing resources/opportunities in countries rather than the actual levels of the re-

sources/opportunities in those countries. Second, it captures gaps in outcome variables such as the gap between men and women in high-skilled jobs, rather than measuring input variables such as maternity leave lengths. Third, GGGI ranks countries based on gender equality rather than women's empowerment.

The GGGI can be used to identify where countries' largest gender gaps are, evaluate progress of national gender parity policies and benchmark against other countries. Parity and imparity benchmarks remain fixed through report editions to allow for comparison and assessment of progress over time. The GGGI was developed by the World Economic Forum and is updated annually.

Sub-Index	Indicators	Source of Data
Economic participation and opportunity	Wage equality between female and male for similar work	World Economic Forum
	Ratio: female legislators, senior officials and managers over male value	
	Ratio: female labor force participation over male value	
	Ratio: female estimated earned income over male value	
	Ratio: female professional and technical workers over male value	
Political empowerment	Ratio: female with seats in parliament over male value	Inter-parliamentary Union Women: 2015, reflecting elections/appointment up to 1 June 2015
	Ratio: female at ministerial level over male value	
	Ratio: number of years of female head of states(last 50 years) over male value	
Health and Survival	Sex ratio at birth (converted to female ratio over male ratio)	Central Intelligence Agency The CIA Factbook 2015 (data updated weekly)
	Female healthy life expectancy over male value	
Educational Attainment	Ratio: female literacy over male value	UNESCO
	Ratio: female net primary enrolment rate over male value	
	Ratio: female net secondary enrolment rate over male value	
	Ratio: female net tertiary enrolment rate over male value	

Figure 4.  
Structure of the GGGI  
Source: World Economic Forum



## Global Gender Gap Report

Source	Link	#Indicators	#SIDS	#Years
World Economic Forum (2022). Global Gender Gap Report 2022	<a href="https://www.weforum.org/reports/global-gender-gap-report-2022/">https://www.weforum.org/reports/global-gender-gap-report-2022/</a>	8	18	1

# Global Hunger Index (GHI)

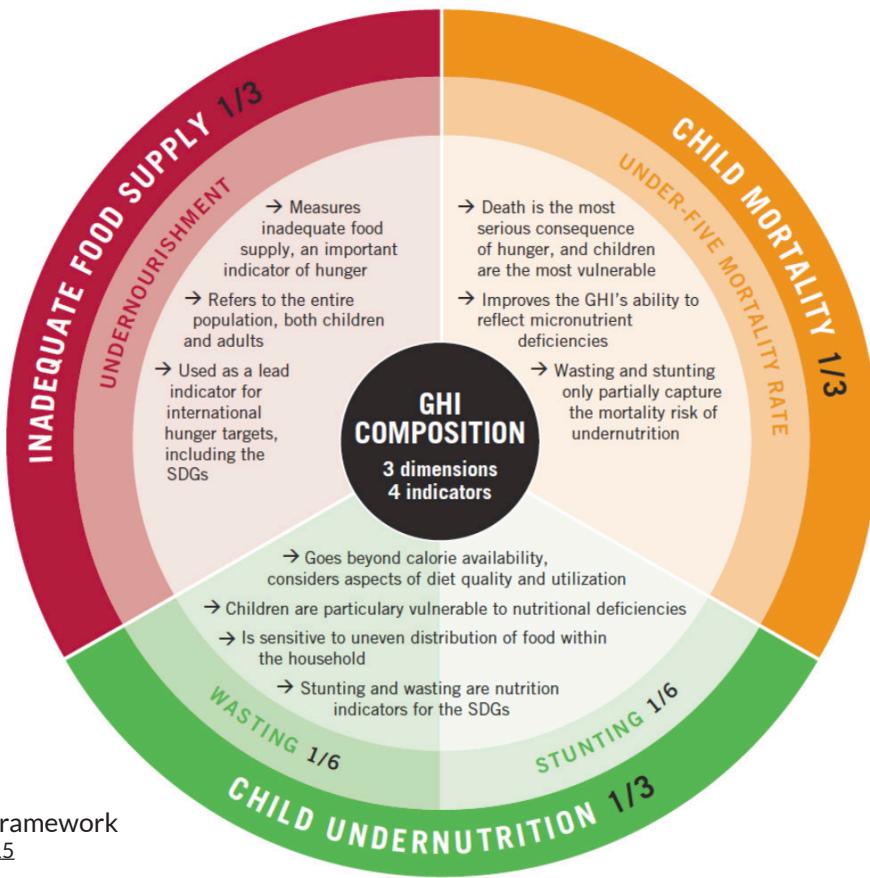


Figure 5.

Global Hunger Index Framework

Source: Wiesmann et al. 2015

The GHI measures and tracks hunger at the country, regional and global levels. GHI scores are determined using a three step process:

- First, countries are assessed on four indicators. These are the share of the population that is undernourished, the share of children under five who have a low weight for their height (child wasting), the share of children under five who have a low height for their age (child stunting), and the mortality rate of children under five.
- Second, a standardized score is given to each of the indicators on a scale of 0 to 100.
- Third, the standardized indicator scores are aggregated to calculate the country's overall GHI score, with equal weight given to three dimensions (child mortality; inadequate food supply; and child undernutrition which is composed equally of child wasting and child stunting).

Overall GHI scores range from 0 to 100. A score of 0 indicates "no

hunger", scores less than or equal to 9.9 indicate "low hunger", 10.0 to 19.9 indicates "moderate hunger", 20.0 to 34.9 indicates "serious hunger", 35.0 to 49.9 indicates "alarming levels of hunger", and above 50 indicates "extremely alarming levels of hunger".

The GHI can be used by countries to track progress in the fight against hunger, identify policy gaps, and learn from the successes of other countries. The GHI is also a tool for raising awareness - The 2021 GHI report projects that the world may not reach global "low hunger" by 2030, let alone achieve Sustainable Development Goal 2 (Zero Hunger) by then.

The GHI is updated every year and is published by Concern Worldwide and Welthungerhilfe. The data is collected from UN and other multilateral agencies. Scores, indicator values and rankings are not comparable between different years' reports, as data are revised and improved, and GHI methodologies have been revised in the past and may be revised again in the future.

## GLOBAL HUNGER INDEX

Source	Link	#Indicators	#SDS	#Years
Wiesmann, D., H.-K. Biesalski, K. von Grebmer, and J. Bernstein. 2015. <i>Methodological Review and Revision of the Global Hunger Index</i> . ZEF Working Paper 139. Bonn: Zentrum für Entwicklungsforschung (Center for Development Research)	<a href="https://www.globalhungerindex.org/about.html">https://www.globalhungerindex.org/about.html</a>	7	17	4

# Human Development Report (HDR)

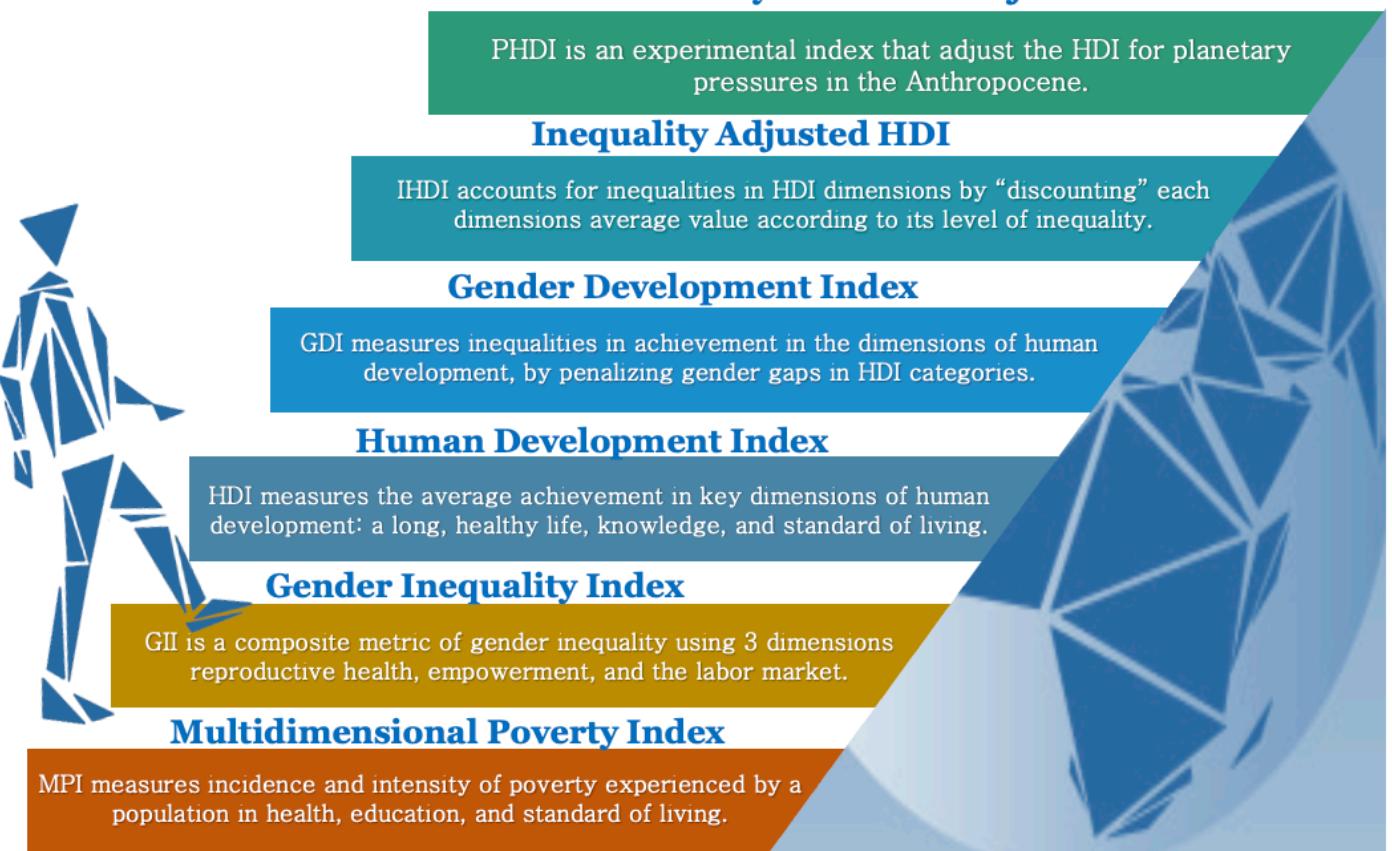


Figure 6.

Human Development Report Indices

Source: HDR 2021

The HDR is an annual report that analyzes human development in 191 countries and territories. Human development is the process of enlarging people's choices by expanding their ability to remain healthy, become educated, gain knowledge, enjoy decent standards of living, participate actively in community life and be creative in an environment of dignity and freedom. The HDR tracks 150 indicators of human development which are used to create six composite indices: Human Development Index (HDI); Inequality-adjusted Human Development Index (IHDI); Planetary Pressure-adjusted Human Development Index (PHDI); the Multidimensional Poverty Index (MPI); the Gender Inequality Index (GII); and the Gender Development Index (GDI).

Countries can use the data, analysis and recommendations from the HDR to identify causes of and solutions to human development challenges, monitor the impact of human development policies, and learn from the experiences of other countries. These data include global, regional, and country/territory-level data on key dimensions of human development. The human development data are globally comparable, linked to the Sustainable Development Goals (SDGs), and sourced from international data agencies with the mandate, resources, and expertise to collect national data on specific indicators unless otherwise noted. The HDR is published by the UNDP's Human Development Report Office.



**Human Development  
Report 2020**

Source	Link	#Indicators	#SIDS	#Years
United Nations Development Programme. 2020. Human Development Report 2020. The Next Frontier.	<a href="https://hdr.undp.org/data-center">https://hdr.undp.org/data-center</a>	39	38	32

# Institute for Health Metrics and Evaluation - Global Burden of Disease (IHME)

The Global Burden of Disease (GBD) study assesses mortality and disability from hundreds of diseases, injuries, and risk factors around the world. It analyzes 286 causes of death, 369 diseases and injuries, and 87 risk factors in 204 countries and territories. The GBD results tool gives access to this data dating back to 1990, allowing comparisons over time, across age groups, and among populations. Data are collected and analyzed by more than 7,000 researchers around the world, coordinated by the IHME.

The GBD data can be used to identify which risk factors and diseases are most affecting different countries and populations and

the relative harm these cause. With this information, countries can identify weaknesses in their national health systems, and develop policies to eliminate disparities and improve health systems by better targeting their country's health challenges. Data is modeled based on several measures including: deaths, years of life lost (YLLs), years lived with disability (YLDs), disability-adjusted life years (DALYs), prevalence, incidence, life expectancy, healthy life expectancy (HALE), maternal mortality ratio (MMR), and summary exposure value (SEV).



Figure 7.  
Dimensions of the GBD  
Source: IHME



Source	Link	#Indicators	#SIDS	#Years
Institute for Health Metrics and Evaluation. (2019). Global Burden of Disease Study 2019	<a href="http://ghdx.healthdata.org/gbd-results-tool">http://ghdx.healthdata.org/gbd-results-tool</a>	169	42	30

# International Groundwater Resources Center - Transboundary Water Assessment Programme (IGRAC)

Workspace	Dataset
Global production workspace:	Global Production by production source 1950-2020
	Capture Production 1950-2020
	Aquaculture Production (Quantities and values) 1950-2020
Global fish trade workspace	Global fish trade - All partners aggregated - Quantities and Values - 1976-2019
	Global fish trade - By partner country - Quantities and Values - 2019
Global fish processed products production workspace	Global Fish Processed Products Production – Quantities – 1976-2019
Fishery food balance sheets workspace	Food balance sheets of fish and fishery products 1961-2017
	Total population 1961-2017
Regional workspace	CECAF (Eastern Central Atlantic) capture production 1970-2019
	GFCM (Mediterranean and Black Sea) capture production 1970-2019
	RECOFI capture production 1986-2019
	Southeast Atlantic Capture Production 1975-2019
Border Rejection workspace	Import notifications for fisheries and aquaculture products 2016-2021

Figure 8.

TWAP groundwater core current and projected indicators and thematic areas

Source: [IGRAC](#)

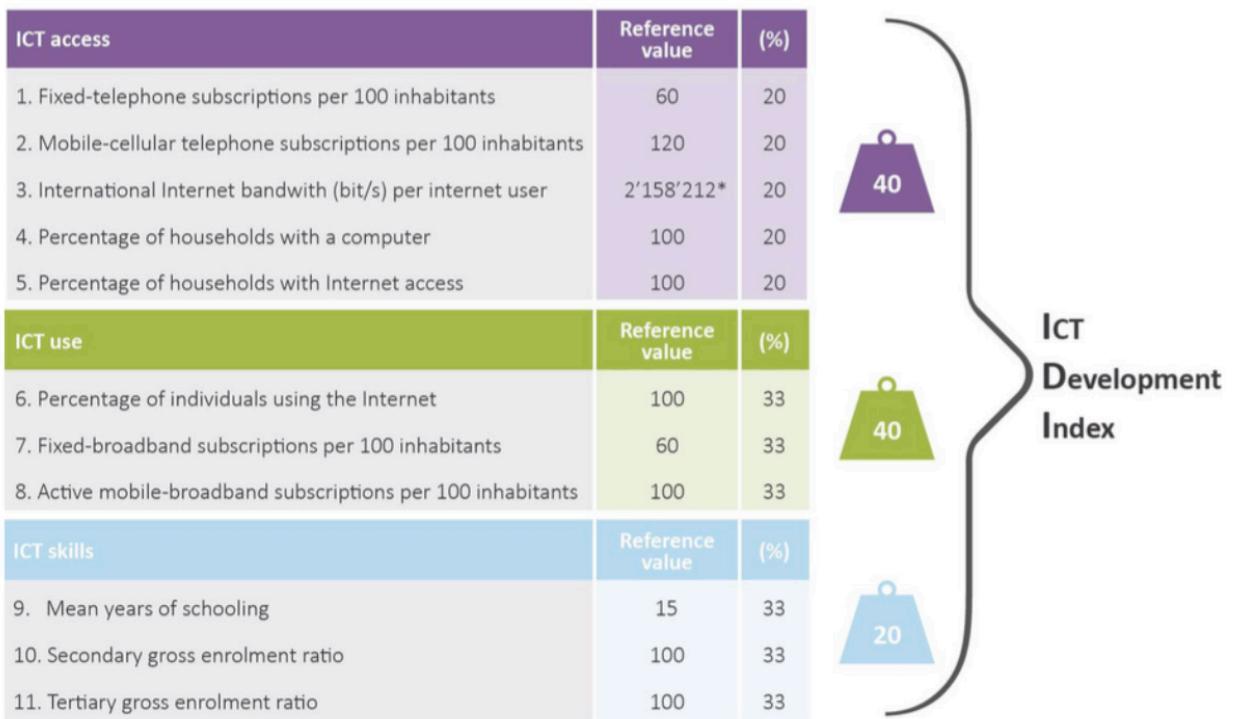
The Transboundary Water Assessment Programme (TWAP) collects data on 199 transboundary aquifers and 43 SIDS groundwater systems. Data are collected on 20 indicators, with 10 of these selected as core indicators. The core indicators are divided into four thematic clusters: quantity; quality; socio-economic; and governance. The data include indicators describing the hydrogeological, environmental, socio-economic and governance dimensions of the SIDS groundwater systems. The TWAP assesses the current condition of groundwater systems and calculates projected future conditions for four indicators.

The TWAP data can be used to determine which aquifers and regions should be priorities for investment in SIDS, highlighting major issues, concerns and hotspots associated with transboundary and SIDS aquifer systems.

The 43 SIDS assessed by the TWAP are those included on the list of the United Nations Department of Economics and Social Affairs which do not exceed five millions inhabitant, do not have any of their territories located on the continent, and have a maximum land size of 50,000 km<sup>2</sup>. The data are collected using questionnaire surveys and desk reviews.

Source	Link	#Indicators	#SIDS	#Years
International Groundwater Resources Assessment Centre. (2021). SIDS Transboundary Water Assessment Programme.	<a href="https://www.un-igrac.org/ggis/small-island-developing-states-twap">https://www.un-igrac.org/ggis/small-island-developing-states-twap</a>	88	36	1

# ITU Digital Development Dashboard



**Figure 9:**  
ICT Development Index (IDI) Framework  
Source: [ITU](#)

The International Telecommunication Union (ITU) collects, organizes and publishes data on digital transformation at country, regional and global levels. The data are collected from over 200 countries and economies, with the main sources being Telecommunication Regulatory Authorities and ICT ministries. Questionnaires are used by these agencies to collect household and individual data. The ITU Digital Development Dashboard gives access to the latest data on indicators that cover ICT infrastructure and access, internet use, ICT prices, and ICT skills.

Countries can use the ITU Digital Development Dashboard to monitor progress towards becoming “information societies”, learn their strengths and weaknesses in digital development and benchmark with other countries. The data can be used to build consensus around policies that improve digital infrastructure and reduce digital divides, and as powerful advocacy tools to accelerate digital uptake worldwide and ensure that digital development is a key priority on every country’s agenda. Data is collected through annual ITU questionnaires.

Three dimensions are used for the ICT Development Index (IDI)

- ICT infrastructure and access which comprises five indicators (see framework). The data on ICT infrastructure and access are collected on an annual basis through questionnaires.
- ICT use data comprises three indicators (see framework) and is collected from individuals and households using a questionnaire on an annual basis. The agencies which conduct these questionnaires on ICT use are Telecommunication Regulatory Authorities and ICT ministries.
- ICT skills comprises three indicators (see framework) that capture country-level capabilities essential for handling ICT. The main source of the data are Telecommunication Regulatory Authorities and ICT ministries.

The digital development dashboard enables SIDS to compare themselves to the world, learn their strengths and weaknesses in digital development, and motivate them to track development of their digital platforms to fit in the current digital world and reduce inequities.

# Least Developed Country (LDC) Criteria Indicators

LDC Identification Criteria	Index	Sub-Index	Indicators	
Human Assets	Human Assets Index	Health Index	Under-five mortality rate	
			Prevalence of stunting	
			Maternal mortality ratio	
	Education index		Gross secondary school enrolment ratio	
			Adult literacy rate	
			Gender parity index for gross secondary school enrolment	
Economic and environmental vulnerability	Economic and environmental vulnerability Index	Economic vulnerability Index	Share of agriculture, forestry, fisheries in GDP	
			Remoteness and landlockedness	
			Merchandise export concentration	
			Instability of export of goods and services	
	Environmental vulnerability Index	Environmental vulnerability Index	Share of population in low elevated costal zones	
			Share of population living in drylands	
			Instability of agricultural production	
			Victims of disaster	
Income	-	-	Gross National Income (GNI) per capita	

Figure 10:  
LDC Criteria Structure  
Source: CDP

LDC Criteria Indicators are used to measure three criteria that determine whether a country is included in the United Nations' list of LDCs. These criteria, which reflect long-term structural change, are: Human assets; economic and environmental vulnerability; and income. LDCs have exclusive access to certain international support measures, in particular in the areas of development assistance and trade, to aid in their development efforts.

The list of LDCs is reviewed every three years by the United Nations Committee for Development Policy. Countries will enter or leave the LDC category if they meet the defined inclusion or graduation thresholds, measured using the LDC Criteria Indicators. The grad-

uation thresholds (to leave the category) are set higher than the thresholds for inclusion (to enter the category) to ensure that graduation is sustainable.

Countries can use LDC Criteria Indicators data to track their development, compare their development efforts to other countries, and identify structural impediments to sustainable development.

LDC Criteria Indicators are selected on the basis that they are methodologically robust, ensure equal treatment of countries over time, maintain stability of the criteria, and that data relevant to the indicator are frequently updated for all countries.

Source	Link	#Indicators	#SIDS	#Years
United Nations Department of Economic and Social Affairs (2022). Least Developed Countries.	<a href="https://www.un.org/development/desa/dpad/least-developed-country-category/">https://www.un.org/development/desa/dpad/least-developed-country-category/</a>	31	38	21

# Multidimensional Vulnerability Index (MVI)

Most SIDS are still not eligible for concessional financing due to their classification as middle or high-income countries. The MVI was developed as a means of reassessing eligibility for concessional financing by measuring a wider range of vulnerabilities. The MVI uses 11 indicators across four dimensions of vulnerability: economic; financial; environmental; and geographic.

UNDP analysis using the MVI for 128 countries (including 34 SIDS) found that all but five SIDS are far more vulnerable than income level alone would suggest. It also compared SIDS to least developed countries, finding that if the MVI was used as a conces-

sional financing criterion (rather than just income per capita) SIDS would save close to 1.5% of GDP annually on servicing their long-term external public and publicly-guaranteed debt.

Countries can use the MVI to identify target areas for investments to reduce their vulnerabilities and increase self-sufficiency. The MVI was developed by UNDP as a response to a 2020 UN General Assembly resolution on the sustainable development of SIDS. Work is ongoing to advance the MVI as a tool for determining eligibility for sustainable development financing.

Index	Components of MVI	Indicators
<b>Multidimensional Vulnerability Index</b>	<b>Economic vulnerability</b>	<b>Export concentration</b>
		<b>Export instability</b>
		<b>Agricultural instability</b>
	<b>Financial vulnerability</b>	<b>Adult literacy rate</b>
		<b>Tourism revenues as share of exports</b>
		<b>Remittances as percentage of GDP</b>
		<b>FDI inflows as percentage of GDP</b>
	<b>Environmental vulnerability</b>	<b>Victims of disasters</b>
		<b>Agriculture and fishing as share of GDP</b>
		<b>Remoteness</b>
	<b>Geographic vulnerability</b>	<b>Share of population in low elevated coast zones</b>
<b>Share of population living in drylands</b>		

Figure 11:  
Multidimensional Vulnerability Index (MVI) Structure  
Source: Meddeb and Assa (2021)



## Multidimensional Vulnerability Index

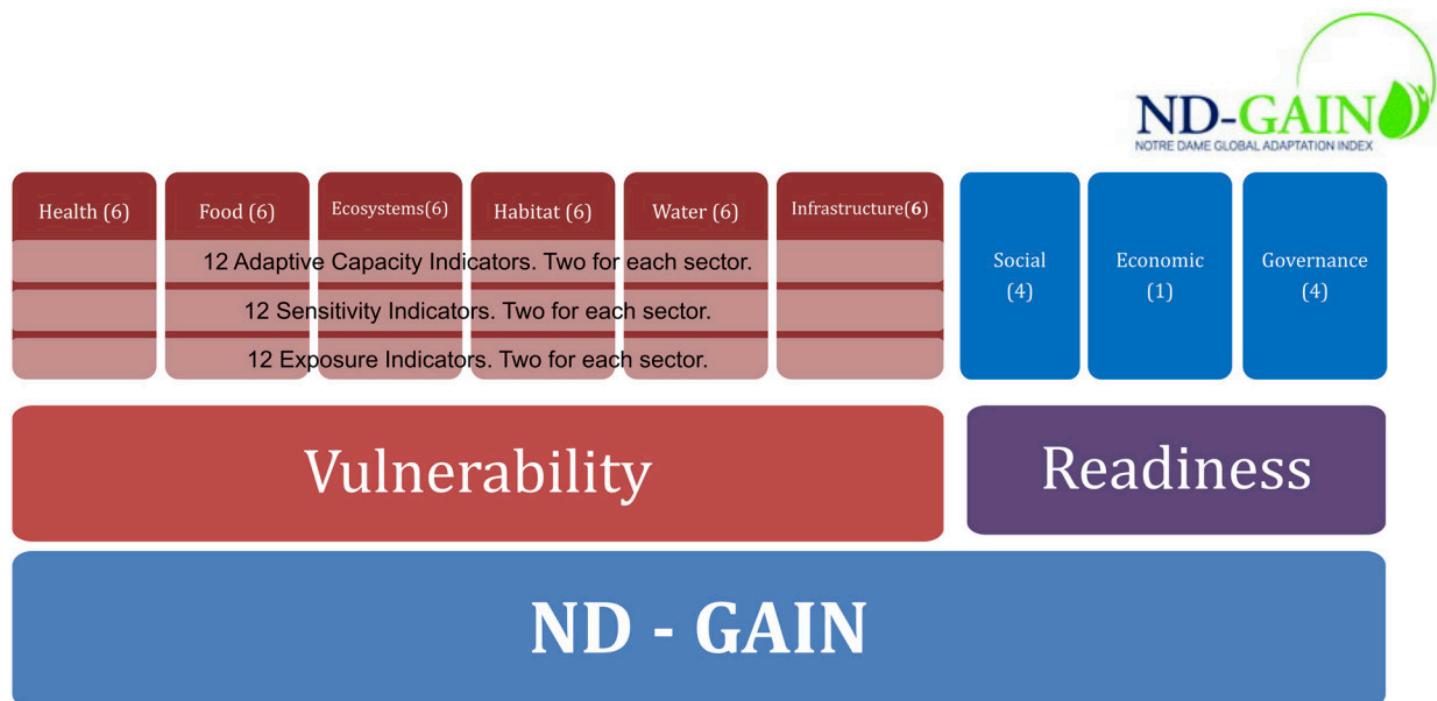
Source	Link	#Indicators	#SIDS	#Years
Jacob Assa & Riad Meddeb.(2021). Towards a Multidimensional Vulnerability Index. Retrieved from United Nations Development Programme website: <a href="https://www.undp.org/publications/towards-multidimensional-vulnerability-index">https://www.undp.org/publications/towards-multidimensional-vulnerability-index</a>	<a href="https://www.undp.org/publications/towards-multidimensional-vulnerability-index">https://www.undp.org/publications/towards-multidimensional-vulnerability-index</a>	16	38	21

# Notre Dame Global Adaptation Initiative (ND-GAIN)

ND-GAIN assesses countries' adoption efforts in the face of climate change. Covering 191 countries, it focuses on two dimensions: readiness and vulnerability. The readiness dimension measures the ability of countries to leverage investments and convert these investments into adaptation actions. The vulnerability dimension measures the sensitivity, exposure and capacity of countries to adapt to climate change on the basis of six sectors supporting life - health, food, ecosystems, habitat, water, and infrastructure. ND-GAIN comprises 45 indicators, with 36 indicators underlying the vulnerability dimension and nine underlying the readiness dimension. ND-GAIN scores range from 0 to 100, with a score of 0 indicating high vulnerability to climate change with weak readiness strategies to counter climate change. A score

of 100 indicates low vulnerability to climate change and high readiness to counter climate changes. Countries are ranked based on this score.

Countries can use ND-GAIN to better prioritize climate adaption investments to lower climate risks and enhance their response to immediate climate challenges. Countries can compare their performance to others facing similar challenges and identify successful policies and practices. The ND-GAIN framework can also be used to conduct self assessments at local level (for example, cities or provinces). ND-GAIN is published every year by the University of Notre Dame.



**Figure 12:**  
Summary of ND-GAIN Vulnerability and Readiness Indicators  
Source: University of Notre Dame



Source	Link	#Indicators	#SIDS	#Years
University of Notre Dame (2019). Notre Dame Global Adaptation Initiative	<a href="https://gain.nd.edu/our-work/country-index/methodology/">https://gain.nd.edu/our-work/country-index/methodology/</a>	105	38	26

# Ocean Health Index (OHI)

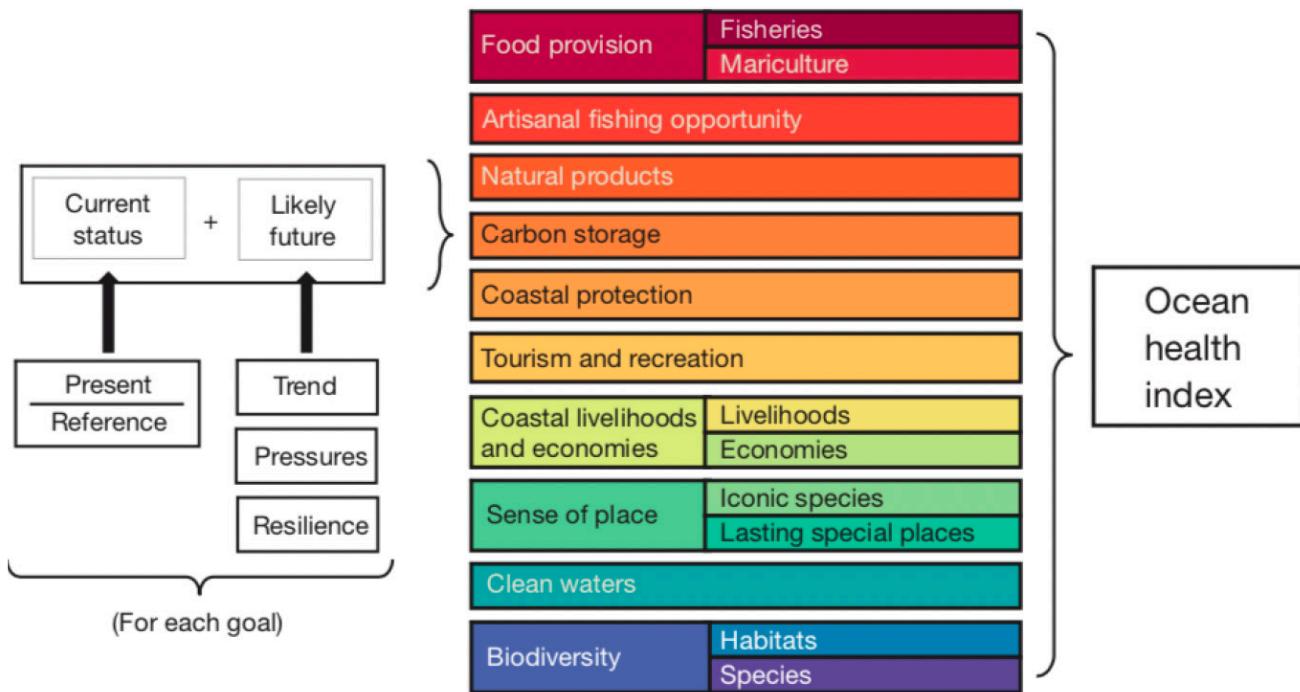


Figure 13.

Ocean Health Index Framework

Source: Halpern, B. et al., 2012

Oceans are an important component of the global ecosystem, providing food, recreation opportunities, an economic livelihood and many more benefits to humans. The OHI measures how well oceans are sustainably providing these ocean benefits. The OHI framework encompasses 10 benefits, or “goals”, of the oceans: artisanal opportunities; biodiversity; carbon storage; clean water; coastal protection; food provision; livelihood and economies; natural products; sense of place; and tourism and recreation. The OHI covers the exclusive economic zone (EEZ) of 220 countries and territories.

Overall country scores are given between 0 and 100 - an average of the 10 “goal” scores, weighted by the area of the country’s EEZ. A score of 0 indicates very poor performance, that is, current methods are overstretching the ocean’s resources and harm its ability to deliver in future. A score of 100 indicates maximization

of ocean benefits without affecting its ability to deliver in future. Scores for each goal are based on five components: resilience; trend; pressure; current status; and future status. Resilience looks at policies, laws and other social initiatives, as well as ecological factors that mitigate pressures on a goal. Trend looks at the change in the status of the goal over the last five years. Pressure looks at social initiatives and ecological factors that may negatively affect the status of a goal. Current status refers to the value of a goal today. Future status is the predicted score of the goal in five years’ time, calculated by adjusting the current score with the trend, pressure and resilience components.

The OHI can be used to track the sustainability of ocean systems over time, identify future challenges and areas for improvement, and compare ocean health with other countries. The OHI assessment is conducted yearly.



Source	Link	#Indicators	#SIDS	#Years
Halpern BS, Longo C, Hardy D, McLeod KL, Samhouri JF, Katona SK, et al. (2012). An index to assess the health and benefits of the global ocean. <i>Nature</i> . 2012;488: 615–620. doi:10.1038/nature11397.	<a href="http://www.oceanhealthindex.org/">http://www.oceanhealthindex.org/</a>	110	49	10

# PARIS21 Statistical Capacity Monitor

The PARIS21 Statistical Capacity Monitor assesses national statistical systems. It collects data on 96 indicators across five dimensions of statistical capacity: planning; production; dissemination; use; and investment. Data for most indicators is updated annually. The PARIS21 Statistical Capacity Monitor can be used to track progress towards more advanced statistical capacities and identify the best areas to invest in to yield more and better data for development.

PARIS21 has also developed the PARIS21 Capacity Development

4.0 framework to respond to the rapid expansion of the data ecosystem, broadening the approach to statistical capacity monitoring and its assessment. The framework provides a roadmap for a country's national statistical system, its organizations and individuals to obtain, strengthen and maintain their abilities to collect, produce, analyze and disseminate high-quality and reliable data. The framework can help develop new capacities to deal with the plethora of new, unstructured data sources and demands from new actors and data users (such as NGOs, civil society and citizens).

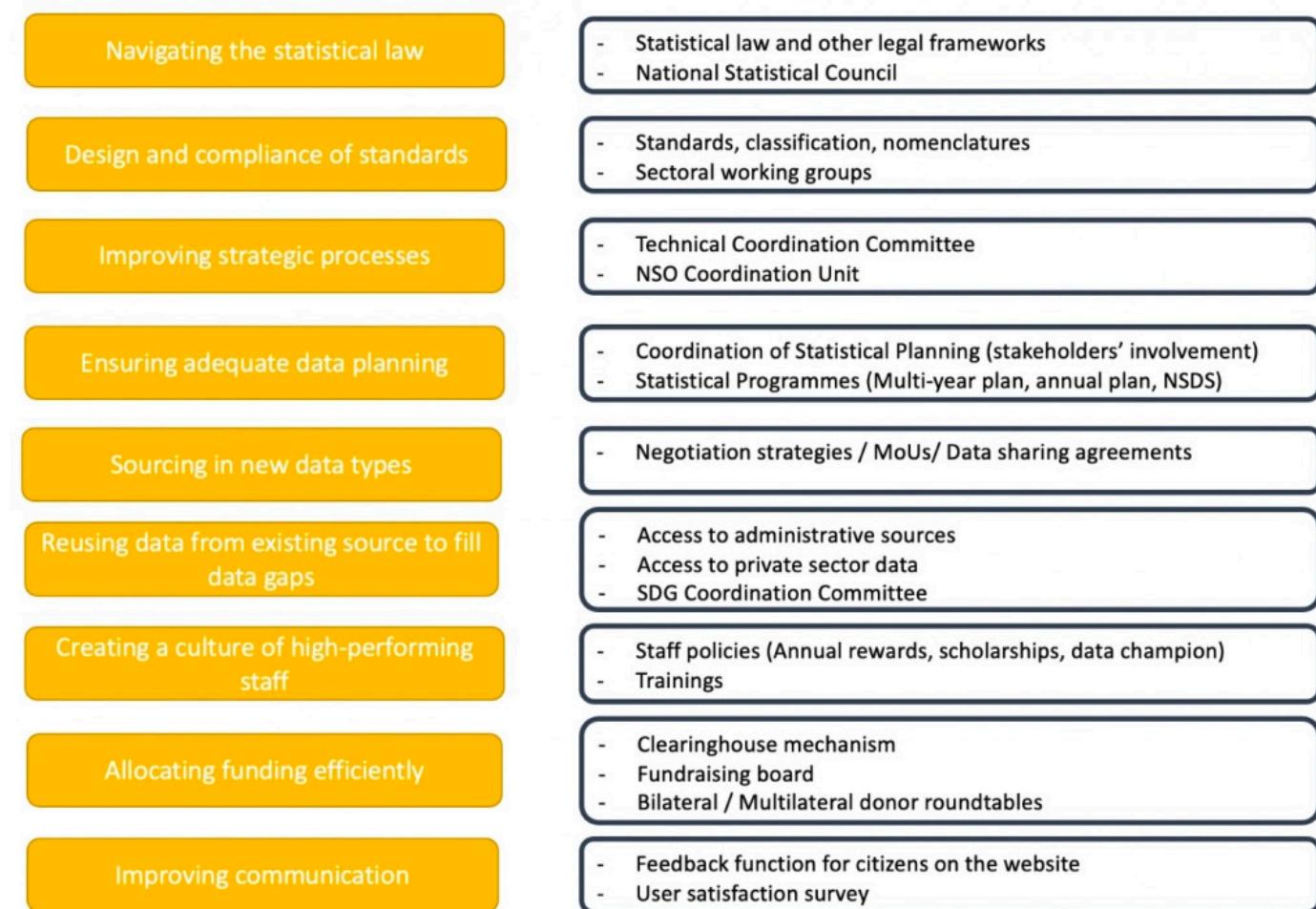


Figure 14.

Toolbox of coordination mechanisms and associated coordination capabilities  
Source: PARIS21 (2021)

## PARIS21

Source	Link	#Indicators	#SIDS	#Years
PARIS21.(n.d.). Statistical Capacity Monitor. <a href="https://statisticalcapacitymonitor.org/">https://statisticalcapacitymonitor.org/</a>	<a href="https://statisticalcapacitymonitor.org/">https://statisticalcapacitymonitor.org/</a>	59	50	18

# Predicted Vulnerability of Fisheries to Climate Change

This study develops a global index of climate vulnerability of marine fisheries. The vulnerability score is calculated using three variables: exposure to climate change impacts; sensitivity to climate change impacts; and adaptive capacity, being the ability to modify or adjust fisheries, the economy and society to cope with the negative impacts of climate change and pursue any emerging opportunities. Scores are between 0 and 1, with 0 indicating low vulnerability and 1 indicating high levels of vulnerability. Countries are then ranked from most to least vulnerable.

The fisheries sector is central to income generation, food security and natural resource management in many countries, especially SIDS. Countries can use the data and statistics on the vulnerability of fisheries to climate change to identify weak points, develop policies that better prepare them for climate challenges and ensure the sustainability of fisheries and marine ecosystems.

The index's framework was first developed by the Intergovernmental Panel on Climate Change (IPCC), then expanded on by an international group of academics in 2017.

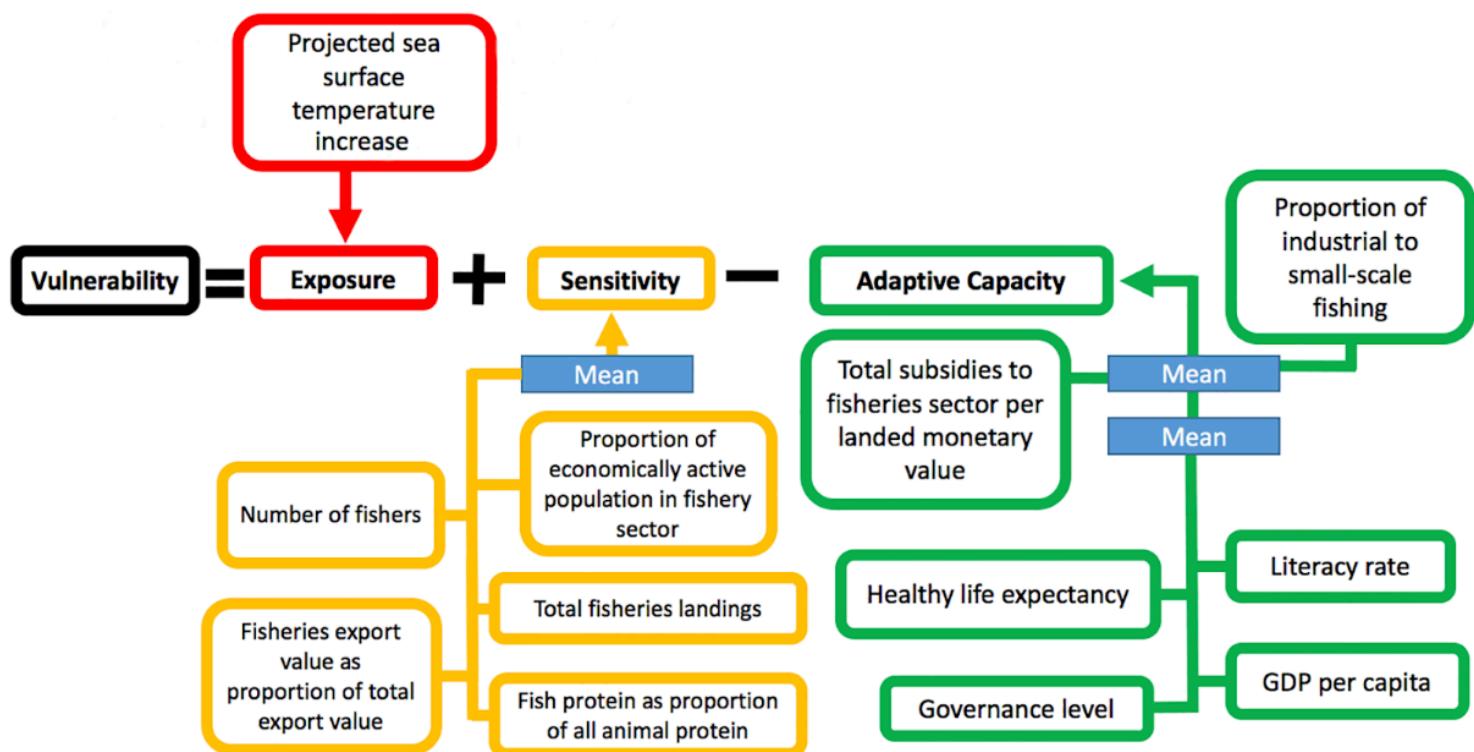


Figure 15.

Index of Vulnerability framework

Source: Blasiak et al (2017)

— Blasiak et al. 2017 —

Source	Link	#Indicators	#SIDS	#Years
Blasiak R, Spijkers J, Tokunaga K, Pittman J, Yagi N, Österblom H. (2017). Climate change and marine fisheries: Least developed countries top global index of vulnerability. PLoS ONE 12(6): e0179632.	<a href="https://doi.org/10.1371/journal.pone.0179632">https://doi.org/10.1371/journal.pone.0179632</a>	26	35	1

# Productive Capacities Index (PCI)

The PCI captures the key drivers and enabling factors that foster productive capacities at national level to advance research, diagnostics, vulnerability profiles, impact assessments, national planning, and to benchmark national and regional performance over time. The PCI covers 193 countries for the period of 2000 to 2018, with productive capacities measured across 46 indicators. The indicators are divided into eight dimensions: human capital; natural capital; energy; transport; information and communication technologies (ICT); institutions; structural change; and the private sector. PCI scores range from 0 to 100, where a score of 0 indicates that a country's capacity to produce is very low and a score of 100

indicates a very high production capacity.

Productive capacities are essential for generating inclusive and sustained economic growth and achieving sustainable development. The PCI includes regional scores, as well as country scores, to provide a better picture of vulnerabilities and opportunities in production systems. Countries can use the PCI to inform structural transformation policies through understanding their economic structures and identifying areas where targeted national policies and action are needed. The PCI is published by UNCTAD.



## Human capital

Human capital captures the education, skills and health conditions possessed by population, and the overall research and development integration in the texture of society through the number of researchers and expenditure on research activities. Gender dimension is reflected by the fertility rate which at each increase reduces human capital score.



## Natural capital

Natural capital estimates the availability of extractive and agricultural resources, including rents generated from the extraction of the natural resource, less the cost of extracting the resource. To capture commodity dependence, natural capital decreases as the material intensity increases.



## Energy

This category measures the availability, sustainability and efficiency of power sources. For this reason, it is composed by use and access to energy, losses in distribution and renewability of energy components and sources, and includes the GDP generated by each unit of oil to highlight further the importance of optimal energy systems.



## Transport

Transport measures the capability of a system to take people or goods from one place to another. It is defined as the capillarity of roads and railways network, and air connectivity.



## Information and Communication Technology (ICT)

Information and Communication Technology estimates the accessibility and integration of communication systems within the population. It includes fixed line and mobile phones users, internet accessibility and server security.



## Institutions

Institutions aim at measuring political stability and efficiency through its regulatory quality, effectiveness, success in fighting criminality, corruption and terrorism, and safeguard of citizens' freedom of expression and association.



## Private sector

Private sector is defined by the ease of cross-border trade, which includes time and monetary costs to export and import, and the support to business in terms of domestic credit, velocity of contract enforcement and time required to start a business.



## Structural Change

Structural change refers to the movement of labour and other productive resources from low-productivity to high-productivity economic activities. This shift is currently captured by the sophistication and variety of exports, the intensity of fixed capital and the weight of industry and services on total GDP. Structural change can also happen within a given sector provided that binding constraints in a particular sector are identified and effectively addressed.

Figure 16.

PCI Components  
Source: UNCTAD



## Source

UNCTADStat. (2022). Productive Capacities Index. United Nations Conference on Trade and Development.

## Link

<https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=199270>

## #Indicators

9

## #SIDS

6

## #Years

2

# Readiness for Frontier Technologies Index (RFTI)

Index	Building Blocks	Indicator Name	Source
RFTI	ICT deployment	Internet users (percentage of population)	ITU
		Mean download speed (Mbps)	M-Lab
	Skills	High-skill employment (% of working population)	ILO
		Expected years of schooling	UNDP
	R&D activity	Number of scientific publications on frontier technologies	SCOPUS
		Number of patents filed on frontier technologies	PatSeer
	Industry activity	High-technology manufactures exports (% of total merchandise trade)	UNCTAD
		Digitally deliverable services exports (% of total service trade)	UNCTAD
	Access to finance	Domestic credit to private sector (% of GDP)	WB/IMF/OECD

Figure 17.

RFTI Framework

Source: UNCTAD

The RFTI measures countries' capacity to use, adopt and adapt frontier technologies - new and rapidly developing technologies that take advantage of digitization and connectivity. Frontier technologies include artificial intelligence, the internet of things, big data, blockchain, 5G, 3D printing, robotics, drones, gene editing, nanotechnology, and solar photovoltaic. The RFTI ranks 158 countries from most prepared to least prepared using nine indicators across the five "building blocks" that make up the index. These building blocks are: ICT deployment; industry activity; skills; research and development (R&D) activity; and access to finances.

Frontier technologies can have dramatic impacts on economies and societies as well as on the development of other technologies.

The RFTI allows countries to monitor their progress on frontier technologies, identify and address existing gaps in frontier technology policies, and compare themselves with other countries to ensure that they are not left behind in this technological revolution.

The choice of the building blocks and indicators is constrained by the availability of data, thus some possible indicators are not used in RFTI (including perception indicators such as effectiveness of frontier technologies policies). Instead, RFTI focuses on indicators with the widest-possible country coverage. The RFTI was developed by the United Nations Conference on Trade and Development (UNCTAD).



Source	Link	#Indicators	#SIDS	#Years
UNCTAD (2021). <i>Technology and innovation Report 2021. Catching Technological Wave</i> . (UNCTAD/TIR/2020).	<a href="https://unctad.org/system/files/official-document/tir2020_en.pdf">https://unctad.org/system/files/official-document/tir2020_en.pdf</a>	8	21	1

# Renewable Energy Capacity (IRENA)

The International Renewable Energy Agency (IRENA) provides data and analysis on country-level renewable energy capacity and generation. It focuses on three key areas of renewable energy: renewable energy capacity; actual power generation; and renewable energy balances. IRENA collects data from over 150 countries on a range of topics such as installed capacity, electricity generated, renewable energy consumption, and finance and investment.

Data on renewable power capacity represents the maximum net generating capacity of power plants and other installations that use renewable energy sources to produce electricity. For most countries and technologies, the data reflects the capacity installed and connected at the end of the calendar year.

IRENA data can be used to inform the development of renewable energy policies and projects, make informed decisions about where to direct investments and compare renewable energy capacity and generation with other countries. Additionally, IRENA can provide training and methodological guidance to member countries to help strengthen national data collection and reporting activities. IRENA collects data from a variety of sources, including an IRENA questionnaire, official national statistics, industry association reports, consultant reports and news articles.

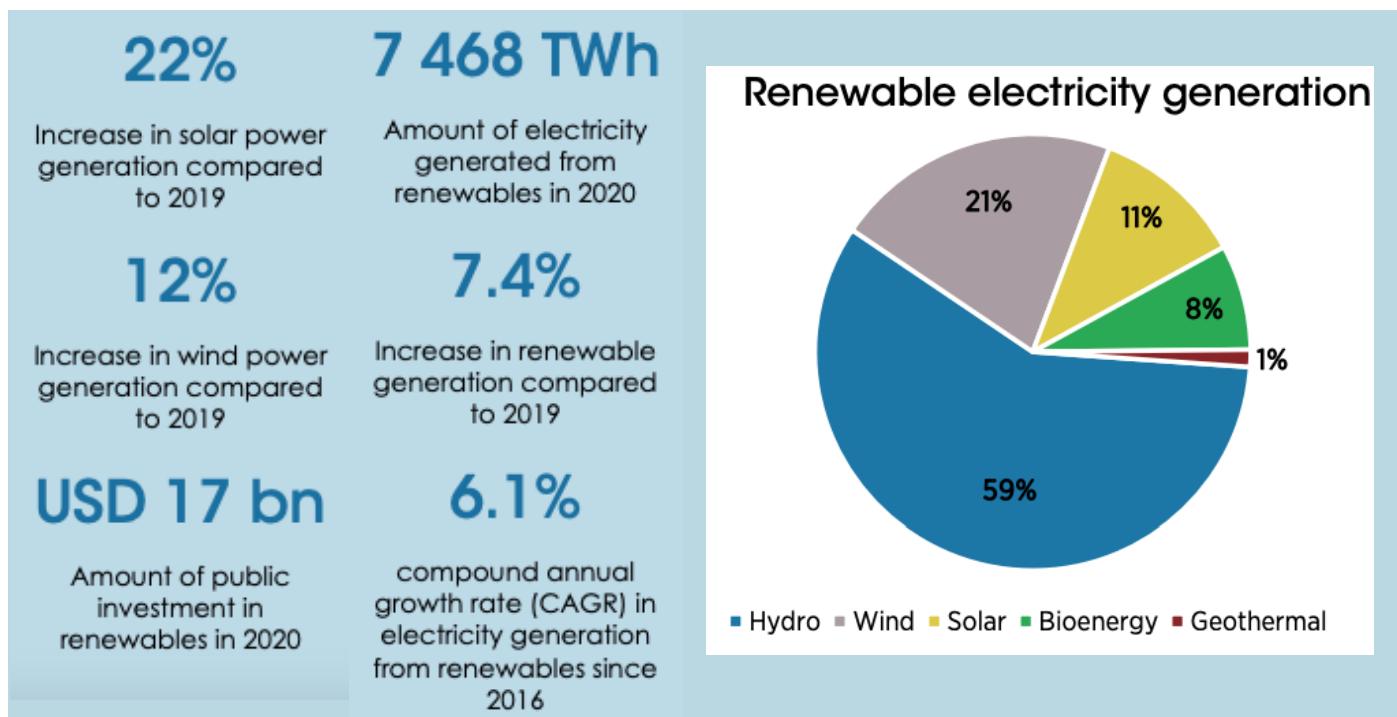


Figure 18.  
Global figures from IRENA  
Source: IRENA 2021

Source	Link	#Indicators	#SIDS	#Years
International Renewable Energy Agency (2019). IRENA Data and Statistics.	<a href="https://www.irena.org/Statistics/Download-query-tools">https://www.irena.org/Statistics/Download-query-tools</a>	75	48	7

# UNICEF State of the World's Children (SOWC)

State of the World's Children (SOWC) is the flagship report of UNICEF, and provides data and analysis on key issues affecting children at country level. SOWC contains data on 254 indicators across 15 topics: child mortality; child poverty; child protection and development; demography; economic; education; gender equity; HIV/AIDS; immunization; maternal; child and newborn health; migration; nutrition; social policy and protection; and water, sanitation and hygiene (WASH).

SOWC data can be used to monitor countries' progress on chil-

dren's rights, identify areas of improvement and develop policies that safeguard the future of children and adequately prepare them to drive progress towards the Sustainable Development Goals. UNICEF analysis in SOWC enhances government accountability and can be used to promote the inclusion of children's perspectives in decision making. UNICEF's goal with SOWC is to provide policymakers with the information they need to ensure that every child has an equitable chance in life to learn, be protected from exploitation and violence, live in a clean and safe environment, and be able to survive and thrive.

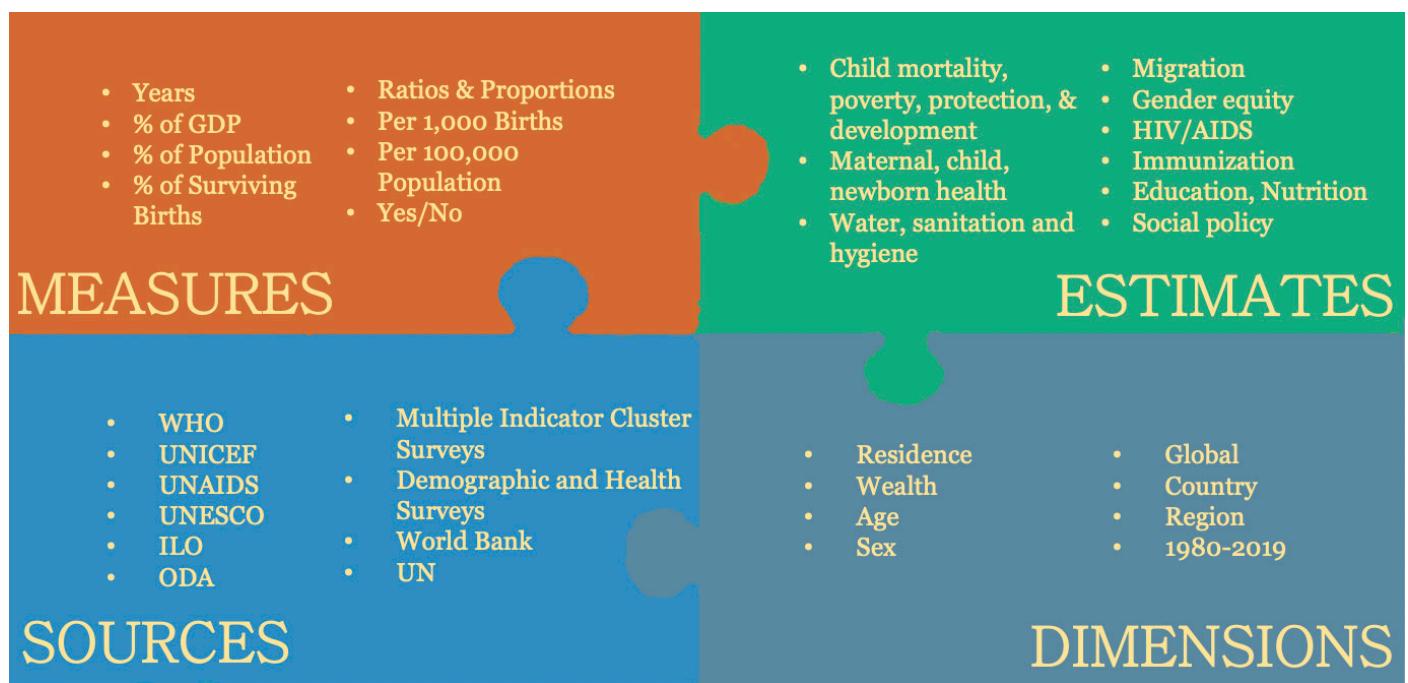


Figure 20.  
Structure of SOWC dataset  
Source: UNICEF (2021)



Source	Link	#Indicators	#SIDS	#Years
UNICEF (2019). The State of the World's Children 2019. StatisticalTables.	<a href="https://data.unicef.org/resources/_dataset/sowc-2019-statistical-tables/">https://data.unicef.org/resources/_dataset/sowc-2019-statistical-tables/</a>	296	45	9

# Sustainable Development Goals Indicators

The Sustainable Development Goals (SDGs) indicators are used to monitor and evaluate progress in achieving the SDGs at country, regional and global levels. There are 232 indicators to measure the 169 SDG targets that define the 17 SDGs, with data from more than 200 countries and territories. The indicators are selected based on their relevance to the SDG targets, existing reporting frameworks, universality, comparability across industries, consistency in measurement, and the suitability of the indicator within legal frameworks. The United Nations has created the Open SDG

Data Hub to give easy access to the indicator data. The 2030 Agenda for Sustainable Development "encourages member states to conduct regular and inclusive reviews of progress at the national and sub-national levels which are country-led and country-driven". Countries can use the SDG Indicators data to monitor their progress on SDGs, identify patterns and inter-relationships between different targets and indicators, compare trends with other countries, and inform SDG-related policies.



Figure 20.  
Sustainable Development Goals-  
Source: UNDESA



Source	Link	#Indicators	#SIDS	#Years
United Nations Department of Economic and Social Affairs (2020). Sustainable Development Goals Indicators. SDG Indicators Database.	<a href="https://unstats-undesa.opendata.arcgis.com/">https://unstats-undesa.opendata.arcgis.com/</a>	1178	50	23

# OECD Sustainable Ocean Economy Database

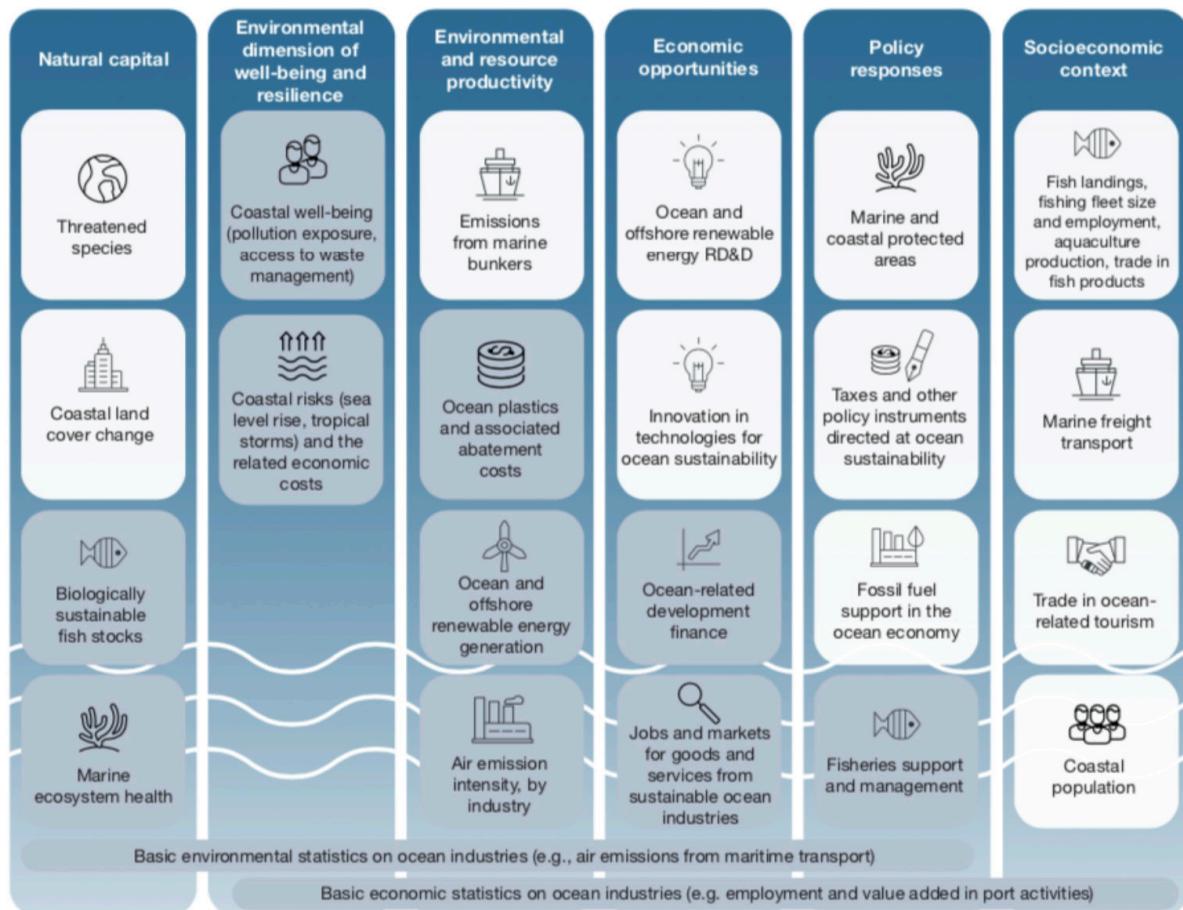


Figure 21:

OECD Green Growth Indicators Framework

Source: [OECD](#)

The Sustainable Ocean Economy Database contains data on environmental and economic issues affecting oceans, seas and marine resources. Developed by the Organization for Economic Co-operation and Development (OECD), the database contains data from the 38 OECD member countries, G20 economies, and other countries for some indicators. The database is grounded in the OECD Green Growth Indicators Framework, developed to improve understanding of environmental and economic issues in an integrated manner. It contains data across five indicator groups: natural capital; environmental dimension of well-being and resilience; environmental and resource productivity; economic opportunities from pursuing ocean sustainability; policy responses; and socioeconomic context.

The Sustainable Ocean Economy Database can be used to monitor how sustainably oceans are being managed, identify where more protections for ocean economies are needed, compare policies and performance with other countries, and track progress towards Sustainable Development Goal 14 (Sustaining Life Below Water).

The time series data available typically cover the period since 2000, and full country-level historic series data are included if available starting in the 1950s in some cases. The database brings together OECD datasets and data from partner organizations such as the International Energy Agency and the International Transport Forum.



Source	Link	#Indicators	#SIDS	#Years
Organisation for Economic Co-operation and Development. (2022). OECD Sustainable Ocean Economy Database. Our data on the Ocean.	<a href="https://www.oecd.org/ocean/data/">https://www.oecd.org/ocean/ data/</a>	83	50	22

# Sustainable Society Index (SSI)

## SSI Structure

Dimension	Category	Indicator
Human Wellbeing (HUW)	Basic Needs	Sufficient Food
		Sufficient Drinking Water
		Safe Sanitation
	Personal Development & Health	Education
		Healthy Life
		Gender Equality
		Income Distribution
	Well-balanced Society	Population Growth
		Good Governance
Environmental Wellbeing (ENW)	Natural Resources	Biodiversity
		Renewable Water Resources
		Consumption
	Climate & Energy	Energy Use
		Energy Savings
		Greenhouse Gases
		Renewable Energy
Economic Wellbeing (ECW)	Transition	Organic Farming
		Genuine Savings
	Economy	GDP
		Employment
		Public Debt

The SSI measures three dimensions of societal sustainability: Human Wellbeing, Environmental Wellbeing and Economic Wellbeing. It uses 21 indicators across seven categories and covers 213 countries and territories. For each indicator, countries are given a score between 1 (least sustainable) and 10 (most sustainable). Category scores are the mean of the underlying indicators. The SSI then gives countries a sustainability score for each dimension, also on a scale of 1 to 10. It does not give an overall sustainability score.

The SSI can be used by countries to track their progress on key indicators of environmentally sound, economically viable and socially responsible societies. SSI data can inform changes to societal policy for sustainability and help policy makers find the right balance to generate social and economic sustainability without compromising environmental sustainability.

The SSI framework does not take a protectionist approach to sustainability, that sees sustainability as maintaining natural systems with minimal human impact. Instead, it takes a “triple bottom line” approach, evaluating societal progress in three dimensions of sustainability (human, environmental and economic). The SSI was developed by the Sustainable Society Foundation in the Netherlands.

The 2018 edition of the SSI demonstrated that the world is behind on sustainability across all dimensions, the global fulfillment of basic needs scores strongest (8), whereas climate protection and transition to a sustainable economic mode score lowest (<5). From 2006–2018 only the dimension of Human Wellbeing shows a continuous improvement.

Figure 22.  
SSI Framework  
Source: SSI (2012)

Source	Link	#Indicators	#SIDS	#Years
Sustainable Society Foundation (2020). Sustainable Society Index.	<a href="https://unctad.org/system/files/official-document/tir2020_en.pdf">https://unctad.org/system/files/official-document/tir2020_en.pdf</a>	32	44	1

# UN E-Government Survey 2020

Index	Components of EGDI	Indicators
E-Government Development Index (EGDI)	Telecommunication Infrastructure Index (TII)	Estimated internet users per 100 inhabitants
		Number of mobile subscribers per 100 inhabitants
		Active mobile-broadband subscription
		Number of fixed broadband subscriptions per 100 inhabitants
	Human Capital Index (HCI)	Adult literacy rate
		The combined primary, secondary and tertiary gross enrolment ratio
		Expected years of schooling
		Average years of schooling
	Online Service Index (OSI)	Online Services Questionnaire (OSQ) consists of a list of 148 questions. Total number of points scored by each country is normalized to a range of 0 to 1.

Figure 23.

E-Government Development Index Structure

Source: UNDESA

The UN E-Government Survey is organized and prepared by the United Nations to evaluate digital governance and development. The Survey collects data from the 193 UN Member States on digital participation and readiness, human resource endowment, website assessments, and telecommunications infrastructure. These data are made available in the United Nations E-Government Development Database (UNeGovDD) along with data from the United Nations Global E-Readiness Reports. To help countries identify

their challenges, strengths and opportunities, these data are used to calculate the E-Government Development Index (EGDI) which assesses digital government development. By providing insights that track national, regional and global trends in e-government development and good practices learned worldwide, EGDI and the UNeGovDD can support policymakers of SIDS in effective planning and implementing of e-government strategies and policies.



E-Government Survey

Source	Link	#Indicators	#SIDS	#Years
United Nations Department of Economic and Social Affairs(2020). <i>E-Government Survey 2020. Digital Government in the Decade of Action for Sustainable Development.</i> (Report No. ST/ESA/PAD/SER.E/214). United Nations, New York.	<a href="https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2020">https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2020</a>	6	38	1

# World Development Indicators (WDI)

The WDI database is a compilation of internationally comparable statistics about global sustainable development and the fight against poverty. World Development Indicators provides measures of social progress, quality of life, economic development, physical infrastructure, environment and government performance. The database contains over 1,400 time series indicators for 217 countries and economies, with data for many indicators going back more than 50 years. Data are grouped under six themes: poverty and inequality; people; environment; economy; states and markets; and global links.

The WDI database can be used to identify trends for different historical and current aspects of development, benchmark and compare performance, and monitor progress towards achieving sustainable development goals and targets. Data is compiled by the World Bank primarily from other sources including international organizations such as UN specialized agencies, national statistical offices, the private sector, and academic studies. The data is also available directly from the World Bank through their API.



**Figure 24.**  
WDI Data Themes  
Source: The World Bank



Source	Link	#Indicators	#SDGs	#Years
The World Bank. (2021). World Development Indicators.	<a href="https://datatopics.worldbank.org/world-development-indicators/">https://datatopics.worldbank.org/world-development-indicators/</a>	1443	45	61