

Economic and Social Commission for Western Asia

Statistical Frameworks for informing on Resource Efficiency, Sustainable Consumption and Production, SDG12 and other related SDGs

Resource Efficiency in the Arab Region: Monitoring Progress of SDG 12 and Building Back Better from COVID-19 7-8 October 2020



UNITED NATIONS

الاستسقا
ESCWA

Shared Prosperity Dignified Life



Wafa Aboul Hosn, Ph.D.
Chief, Economic Statistics
UNESCWA
aboulhosn@un.org



- I. Sustainable Consumption & Production, Resource efficiency, SDG 12
- II. Scope of Measurement:
National Subnational Regional Global
- III. Statistical Frameworks
Accounting:
 - SEEA-CF (System of Environmental-Economic Accounting-Central Framework) SNA (System of National Accounts) SUT (Supply and Use tables)
 - NCA (Natural Capital Accounts)
 - Ecological Footprint (IO)FDES -Basic Statistics
- IV. Indicators and SDG Index on SCP



I- Sustainable Consumption and Production Resource efficiency and SDG 12

Worldwide consumption and production: driving force of the global economy rest on the use of the natural resources and continues to have destructive impacts on the planet.

Sustainable consumption and production

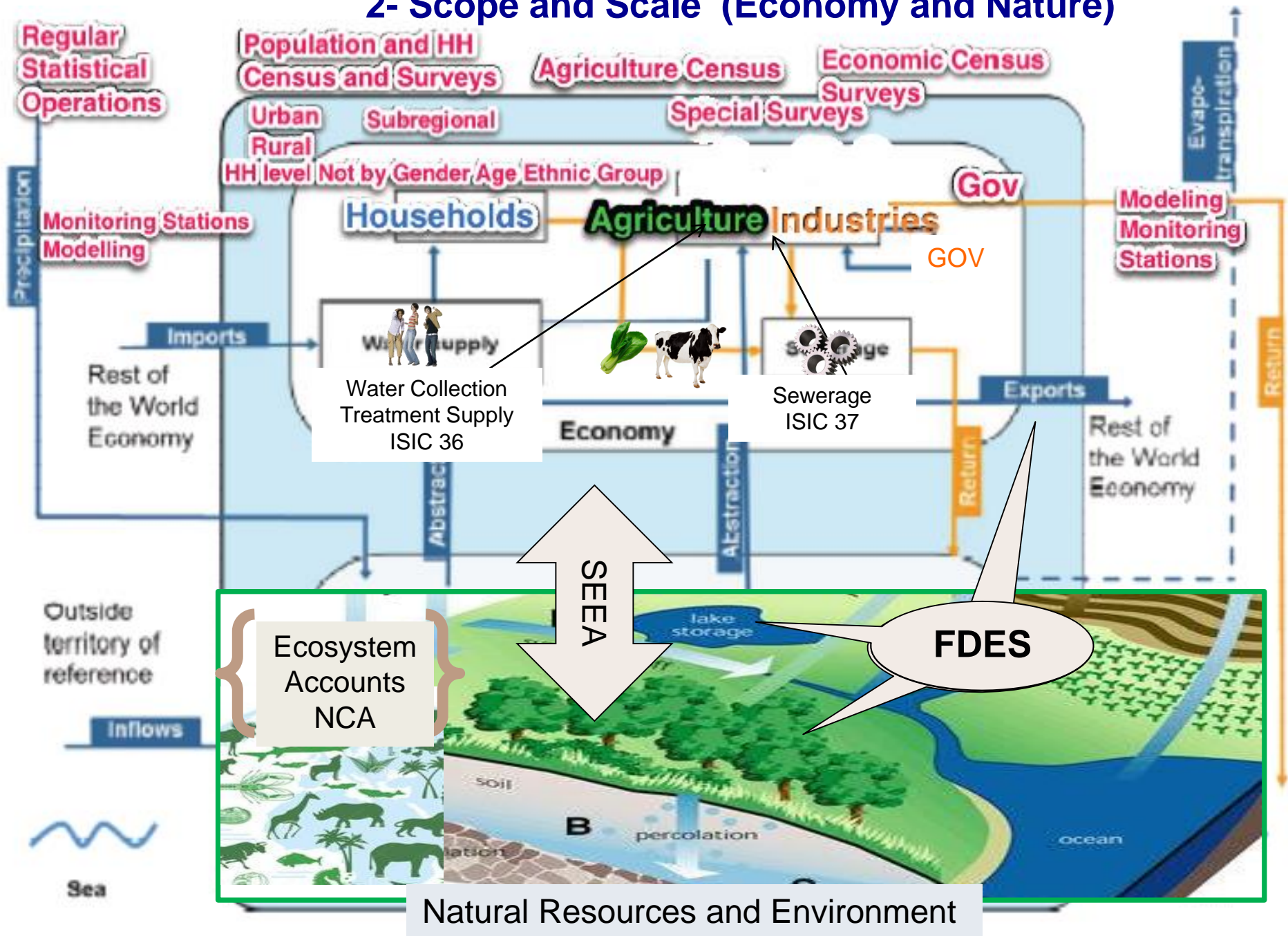
- doing more and better with less
- decoupling economic growth from environmental degradation,
- increasing resource efficiency and promoting sustainable lifestyles.

2008 SNA, international standard on macroeconomic statistics (GDP) to be Updated to include Wellbeing and sustainability and inform better on 2030 Agenda

<https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

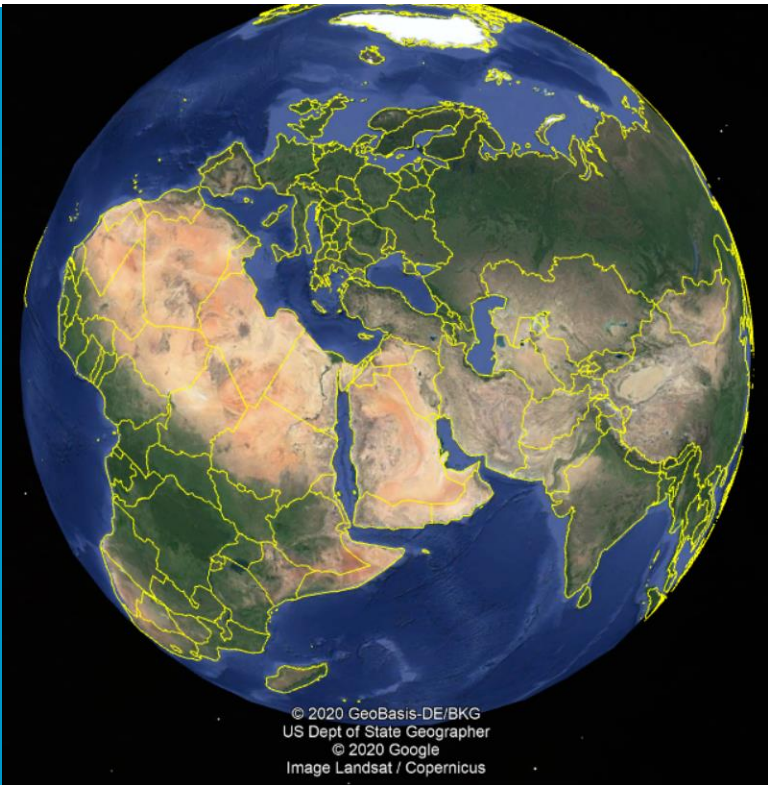


2- Scope and Scale (Economy and Nature)



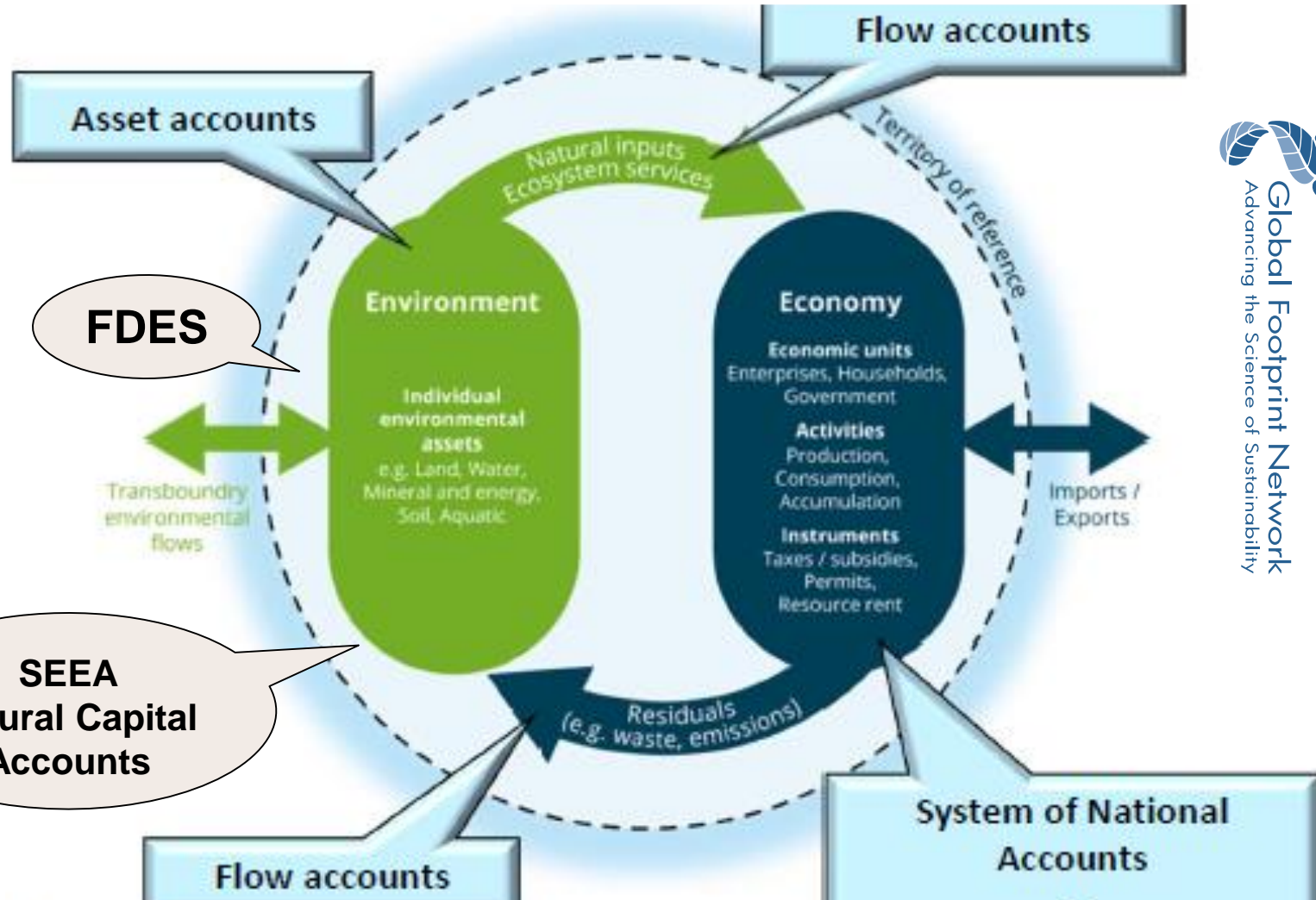


2- Scope and Scale Production and Consumption across borders Living Planet



<https://comtrade.un.org/labs/ResourceTrade.earth/>

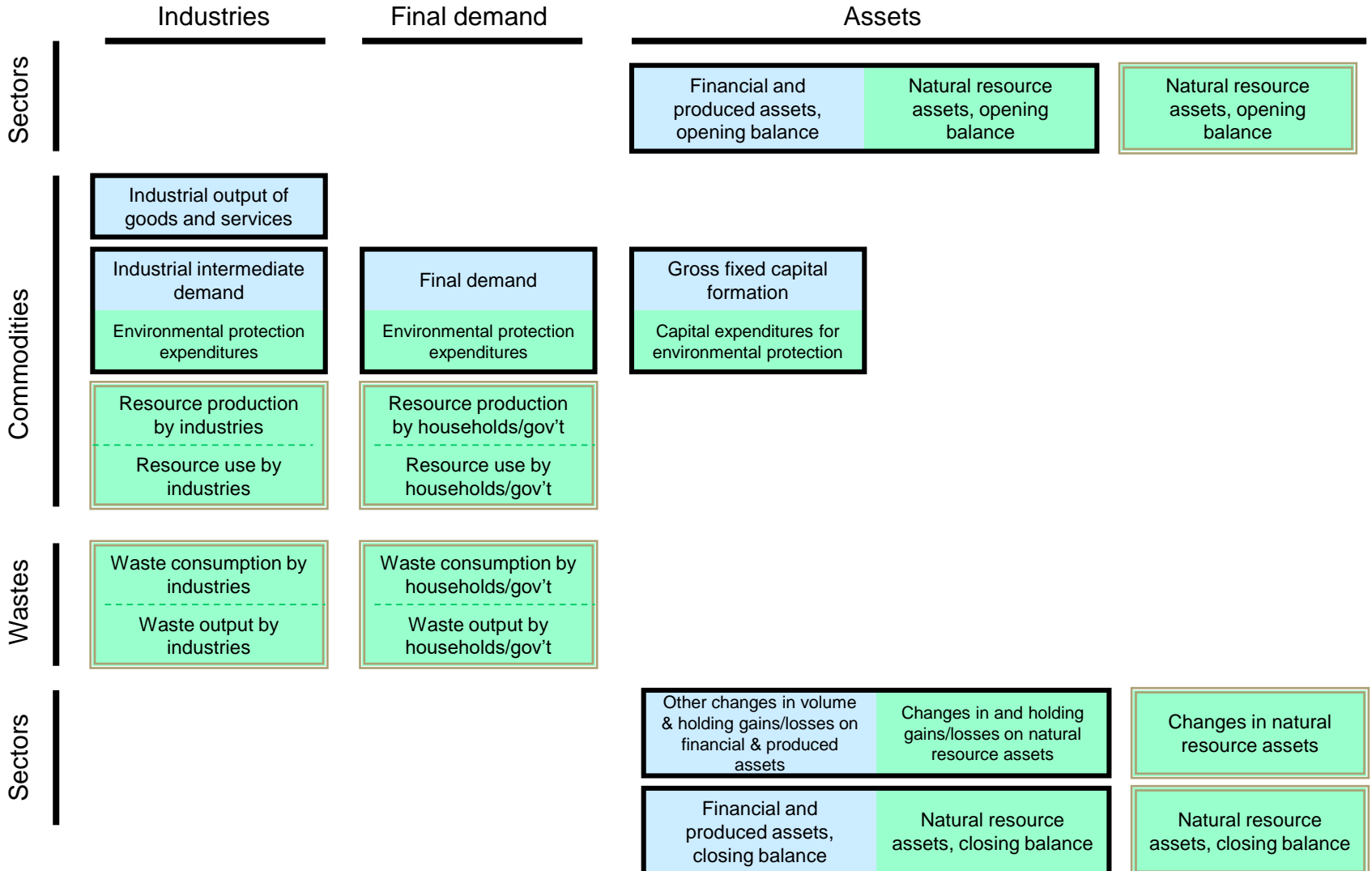
III. Statistical Frameworks



Policy Questions

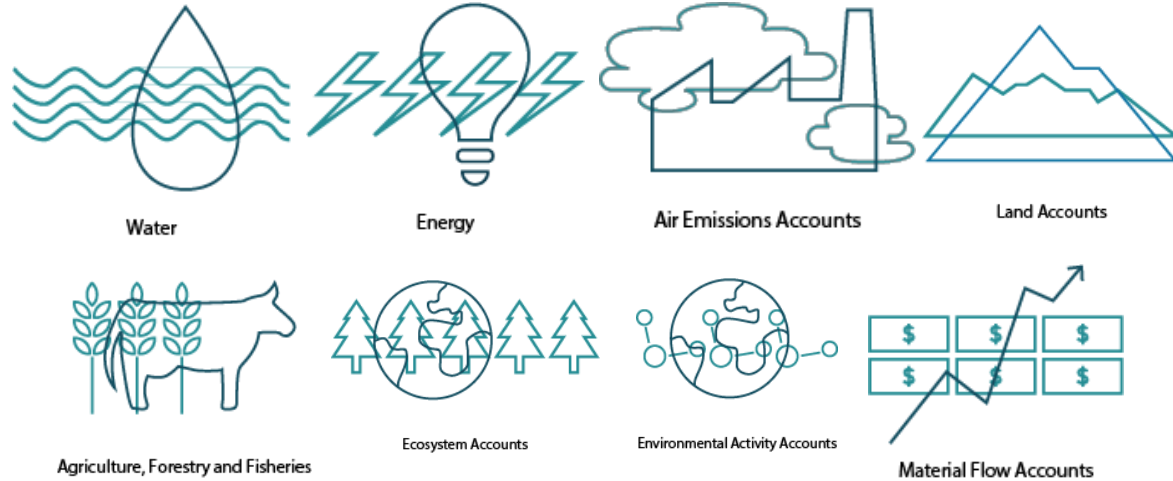
- For target policy options information on the sectors: Industries by economic activity, Households, Financial sector, Government, NPISH)
- how much they use, (material energy water ...)
- how much they produce (output and value added)
- generate waste how they dispose
- how many employees and value added
- How much they invest in Environmental, **Social**, and **Corporate** Governance (**ESG**) how much they pay in environmental taxes and receive incentives

SEEA framework



SEEA: System of integrated information and Thematic Areas

<https://seea.un.org/>



- accounting framework
- Integrates statistics into “accounts”
- (water, energy, land, ecosystems)
- Links to SNA by using same classifications and methods
- Good for compiling integrated indicators to assess trade-offs (water intensity of economy)
- Does not cover all issues of environmental issues

Elearning Platform and Arabic Content

SEEA-Central Framework SEEA-Energy SEEA-Water

elearning-cms.unstats.un.org/learn/lesson?trackingActivityId=858&lessonId=22



نظام المحاسبة البيئية والاقتصادية المتكاملة (SEEA)

الحلقة الأولى من التدريب الإلكتروني
مدخل إلى نظام المحاسبة البيئية والاقتصادية المتكاملة

أهلاً وسهلاً ◀

World Bank: Wealth Accounting, Valuation of Ecosystem Services and Natural Capital Accounts

wavespartnership.org/en/natural-capital-accounts-explained



Wealth Accounting and the Valuation of Ecosystem Services

Search website and knowledge cent

[English](#) | [Español](#)

[Home](#) | [News and Events](#) | [Wealth accounting](#) | [Natural Capital Accounting](#) | [Knowledge center](#) | [Partners](#) | [About Us](#)

Natural Capital Accounts Explained

What exactly is a forest, land or water account? This new series describes in simple terms what they are, how they are produced, and their potential benefits. They also provide examples from WAVES countries.

Global Program on Sustainability



WAVES is now part of the broader World Bank umbrella initiative, the [Global Program for Sustainability \(GPS\)](#).



[Natural Capital Accounting: Forests](#)

Forest accounts are a systematic framework for collating data on forest assets and activities, using methodologies approved by the United Nations to ensure these data are comparable and replicable. Importantly, they are linked to the System of National Accounts and its traditional indicators of economic performance, such as GDP. This means that results from forest accounts can be used by economic groups beyond the forestry sector, including agriculture, manufacturing and trade. Forest accounts also introduce a better recording framework, to understand stocks (i.e. total forests available in a country) and flows or changes during a period of time.

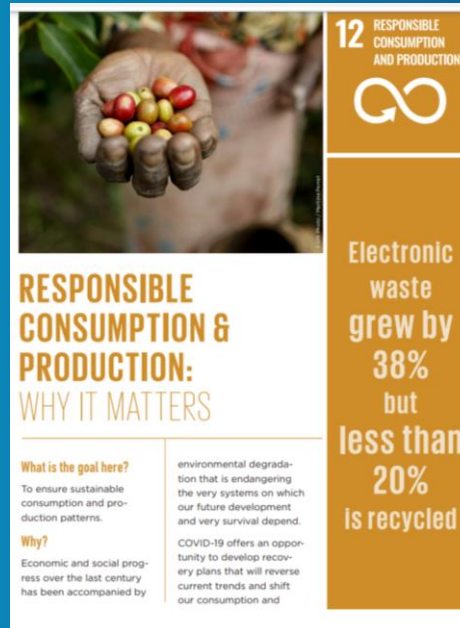
"It is important to highlight the extent of uncontrolled timber extraction that the accounts reveal. There is no institutional control, and evidently an important part of it is illegal," said Guillermo Alejandro Gándara, Universidad Rafael Landívar, Guatemala.



FDES



Ewaste



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

RESponsible Consumption & Production: WHY IT MATTERS

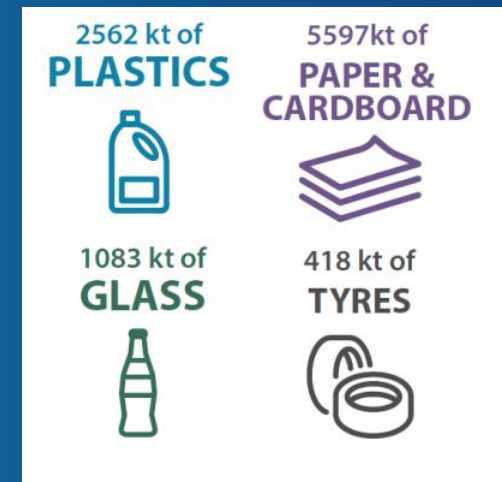
What is the goal here?
To ensure sustainable consumption and production patterns.





Why?
Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future development and very survival depend.

COVID-19 offers an opportunity to develop recovery plans that will reverse current trends and shift our consumption and

Electronic waste grew by 38% but less than 20% is recycled

Waste Accounts



<p>2562 kt of PLASTICS</p>  <p>1083 kt of GLASS</p> 	<p>5597kt of PAPER & CARDBOARD</p>  <p>418 kt of TYRES</p> 
--	---

Organizing framework
Based on Pressure-State-Response
Compiling basic environment statistics
and reporting



Global Footprint Network
Advancing the Science of Sustainability

OUR WORK **TOOLS & SERVICES** ABOUT US NEWS

- Open Data Platform
- Footprint Calculator
- Data Downloads & Licenses
- Publications
- Journal Articles
- Case Studies
- Educational Resources

Earth Overshoot Day
August 22

SOLUTIONS TO #MOVEITHERE.

Measure what you treasure

Humans use as much ecological resources as if we lived on 1.6 Earths. The Ecological Footprint is the only metric that compares the resource demand of individuals, governments, and businesses against what Earth can renew.

What is your impact?

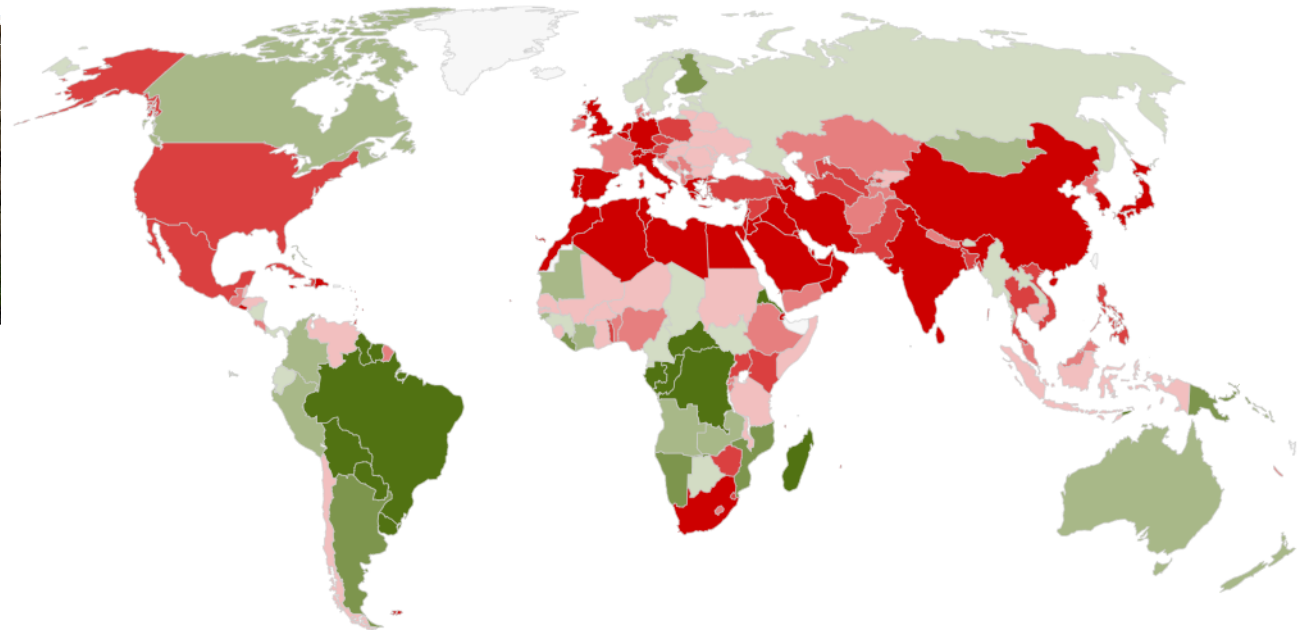
Calculate your Ecological Footprint and personal Overshoot Day.

[CALCULATE NOW!](#)

Passionate about data?

Check out our Ecological Footprint Explorer open data platform.


[DIVE INTO DATA!](#)




ECOLOGICAL DEFICIT/RESERVE


TOTAL ECOLOGICAL FOOTPRINT


ECOLOGICAL FOOTPRINT PER PERSON


TOTAL BIOCAPACITY


BIOCAPACITY PER PERSON

ECOLOGICAL DEFICIT/RESERVE

An ecological deficit occurs when the Ecological Footprint of a population exceeds the biocapacity of the area available to that population. A national ecological deficit means that the nation is importing biocapacity through trade, liquidating national ecological assets or emitting carbon dioxide waste into the atmosphere. An ecological reserve exists when the biocapacity of a region exceeds its population's Ecological Footprint.

BIOCAPACITY CREDITORS BIOCAPACITY GREATER THAN FOOTPRINT

>150%

100%

50% - 100%

50% - 0%

BIOCAPACITY DEBTORS FOOTPRINT GREATER THAN BIOCAPACITY

>150%

100%

50% - 100%

50% - 0%

الهدف 12- ضمان وجود أنماط استهلاك وإنتاج مستدامة			
12.1 Implement the 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or target into national policies	12 - 1 - 1 عدد البلدان التي لديها خطط عمل وطنية للاستهلاك والإنتاج المستدامين أو التي أدمجت تلك الخطط في سياساتها الوطنية باعتبارها أولوية أو غاية	12 - 1 تنفيذ الإطار العشري لبرامج الاستهلاك والإنتاج المستدامين، مع قيام جميع البلدان باتخاذ إجراءات وتولي البلدان المتقدمة النمو دور الريادة، مع مراعاة مستوى التنمية في البلدان النامية وقدراتها
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP	12 - 2 - 1 الأثر المادي ونصيب الفرد من الأثر المادي	12 - 2 تحقيق الإدارة المستدامة والاستخدام الكفؤ للموارد الطبيعية، بحلول عام 2030
	12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	12.2.2 استهلاك المواد المحلية واستهلاك المواد المحلية للفرد الواحد، واستهلاك المواد المحلية كل الناتج المحلي الإجمالي	
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	12.3.1 Global food loss index	2 - 3 - 1 المؤشر العالمي لخسائر الأغذية	12 - 3 تخفيض نصيب الفرد من النفايات الغذائية العالمية على صعيد أماكن البيع بالتجزئة والمستهلكين بمقدار النصف، والحد من خسائر الأغذية في مراحل الإنتاج وسلاسل الإمداد، بما في ذلك خسائر ما بعد الحصاد، بحلول عام 2030
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1 Number of parties to international multilateral environmental agreements on hazardous and other chemicals and waste that meet their commitments and obligations in transmitting information as required by each relevant agreement	12 - 4 - 1 عدد الأطراف في الاتفاقات البيئية الدولية المتعددة الأطراف المتعلقة بالمواد الخطرة وغيرها من المواد الكيميائية والنفايات التي تفي بتعهداتها والتزاماتها في نقل المعلومات على النحو الذي يتطلبه كل اتفاق ذي صلة	12 - 4 تحقيق الإدارة السليمة بيئياً للمواد الكيميائية وجميع النفايات طوال دورة عمرها، وفقاً للأطر الدولية المتفق عليها، والحد بدرجة كبيرة من إطلاقها في الهواء والماء والتربة من أجل التقليل إلى أدنى حد من آثارها الضارة على صحة الإنسان والبيئة، بحلول عام 2020
	12.4.2* Treatment of waste, generation of hazardous waste, hazardous waste management, by type of treatment	12 - 4 - 2 معالجة النفايات، وتوليد النفايات الخطرة، وإدارة النفايات الخطرة، بحسب نوع المعالجة	
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1 National recycling rate, tonnes of material recycled	12 - 5 - 1 معدل إعادة التدوير على الصعيد الوطني، وعدد أطنان المواد المعاد تدويرها	12 - 5 الحد بدرجة كبيرة من إنتاج النفايات، من خلال المنع والتخفي وإعادة التدوير وإعادة الاستعمال، بحلول عام 2030

Indicators and SDG Index on SCP

- Selection of Indicators (Arab SDG Priority Indicators list)
- SDG Index
- Normalizing
- Calculating Index
- Ranking <https://dashboards.sdgindex.org/rankings>
- ESCWA will present SDG Index for SCP

2.6 Encourage companies, specially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	12.6.1 Number of companies publishing sustainability reports	12 - 6 - 1 عدد الشركات التي تنشر تقارير تتعلق	12 - 6 تشجيع الشركات، ولا سيما الشركات الكبيرة وغير الوطنية، على اعتماد ممارسات مستدامة، وإدراج الاستدامة معلومات الاستدامة في دورة تقديم تقاريرها
2.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	12.7.1 Number of countries implementing sustainable public procurement policies and action plans	12 - 7 - 1 عدد البلدان التي تنفذ السياسات وخطط العمل المتعلقة بالشراء العمومي المستدام	12 - 7 تعزيز ممارسات الشراء العمومي المستدامة، وفقا للسياسات والأولويات الوطنية
2.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	12 - 8 - 1 النسبة المئوية للمؤسسات التعليمية التي لديها مناهج تعليمية رسمية وغير رسمية تتعلق بمواضيع التنمية المستدامة وأنماط العيش	12 - 8 ضمان أن تتوافر للناس في كل مكان المعلومات ذا الصلة والوعي بالتنمية المستدامة وأنماط العيش في وئام مع الطبيعة بحلول عام 2030
2.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies	12 - أ - 1 * عدد الطلبات المؤهلة لبراءات الاختراع الخضراء نسبة إلى مجموع طلبات البراءات	12 - أ دعم البلدان النامية لتعزيز قدراتها العلمية والتكنولوجية للمضي قدما نحو تحقيق أنماط الاستهلاك والإنتاج الأكثر استدامة
2.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	12-ب-1 * التدفقات المتكررة الناجمة عن السياحة المساهمة المباشرة في الناتج المحلي الإجمالي	12 - ب وضع وتنفيذ أدوات لرصد تأثيرات السياحة المستدامة، التي توفر فرص العمل وتعزز الثقافة والمنتجات المحلية، في التنمية المستدامة
2.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels	12 - ج - 1 مقدار إعانات الوقود الأحفوري لكل وحدة من الناتج المحلي الإجمالي (الإنتاج والاستهلاك) وكنسبة من مجموع النفقات الوطنية على الوقود الأحفوري	12-ج ترشيد إعانات الوقود الأحفوري غير المتسمة بالكفاءة والتي تشجع على الاستهلاك المرفرف، عن طريق القضاء على تشوهات الأسواق، وفقا للظروف الوطنية، بما في ذلك عن طريق إعادة هيكلة الضرائب والتخلص بالتدرج من الإعانات الضارة، حيثما وجدت، لإظهار آثارها البيئية، على أن تراعى في تلك السياسات على نحو كامل الاحتياجات والظروف الخاصة للبلدان النامية، والتقلي إلى أدنى حد من الآثار الضارة التي قد تنال من تنميتها، وعلى نحو يكفل حماية الفقراء والمجتمعات المحلية المتضررة

Recent Support on SDGs SEEA FDES NCA

Capacity Building and Coordination

- [Arab Working Group on Environment and Sustainable Development Indicators Third Meeting 13-15 March 2017 Amman, Jordan](#)
- [Consultative Meeting on the Implementation Framework for the Environmental Dimension of the 2030 Agenda in the Arab Region 18-21 September 2017.](#)
- [National and Regional Workshop on Integrated Environmental and Economic Accounting Systems Sustainable Development Goals \(SDGs\) in the Arab Region 26 to 29 March 2018. Jordan](#)
- [Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region \(UNSD UNESCWA UNEP and EEA\) 11-16 NOV 2018 Lebanon](#)

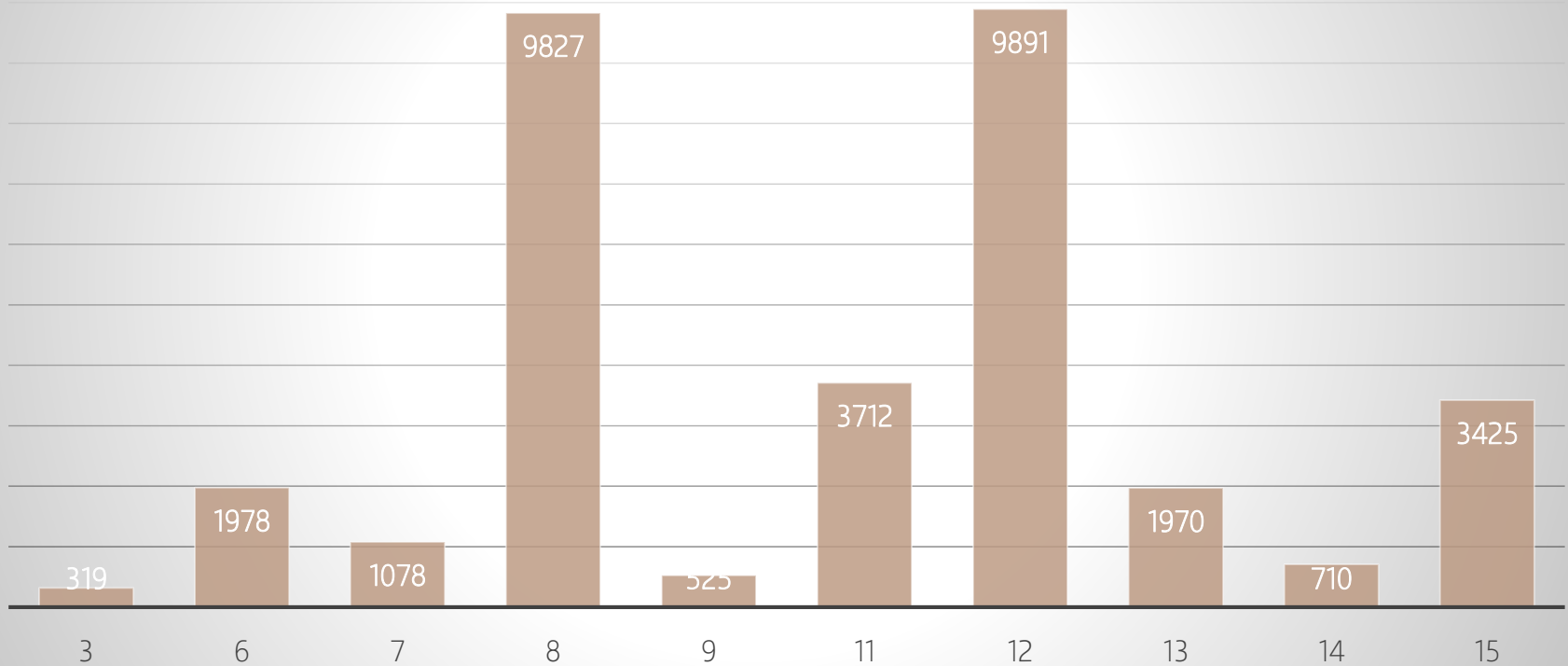
Arabic Translation of eLearning, manuals and metadata

- [e-learning Course on the System of Environmental-Economic Accounting 2012 Central Framework \(SEEA CF\) \(Energy Accounts, Water Accounts\)](#)
- FDES IRES
- [الدليل الإلكتروني لإطار أهداف التنمية المستدامة والبيانات الوصفية](#)

Technology and Official Statistics

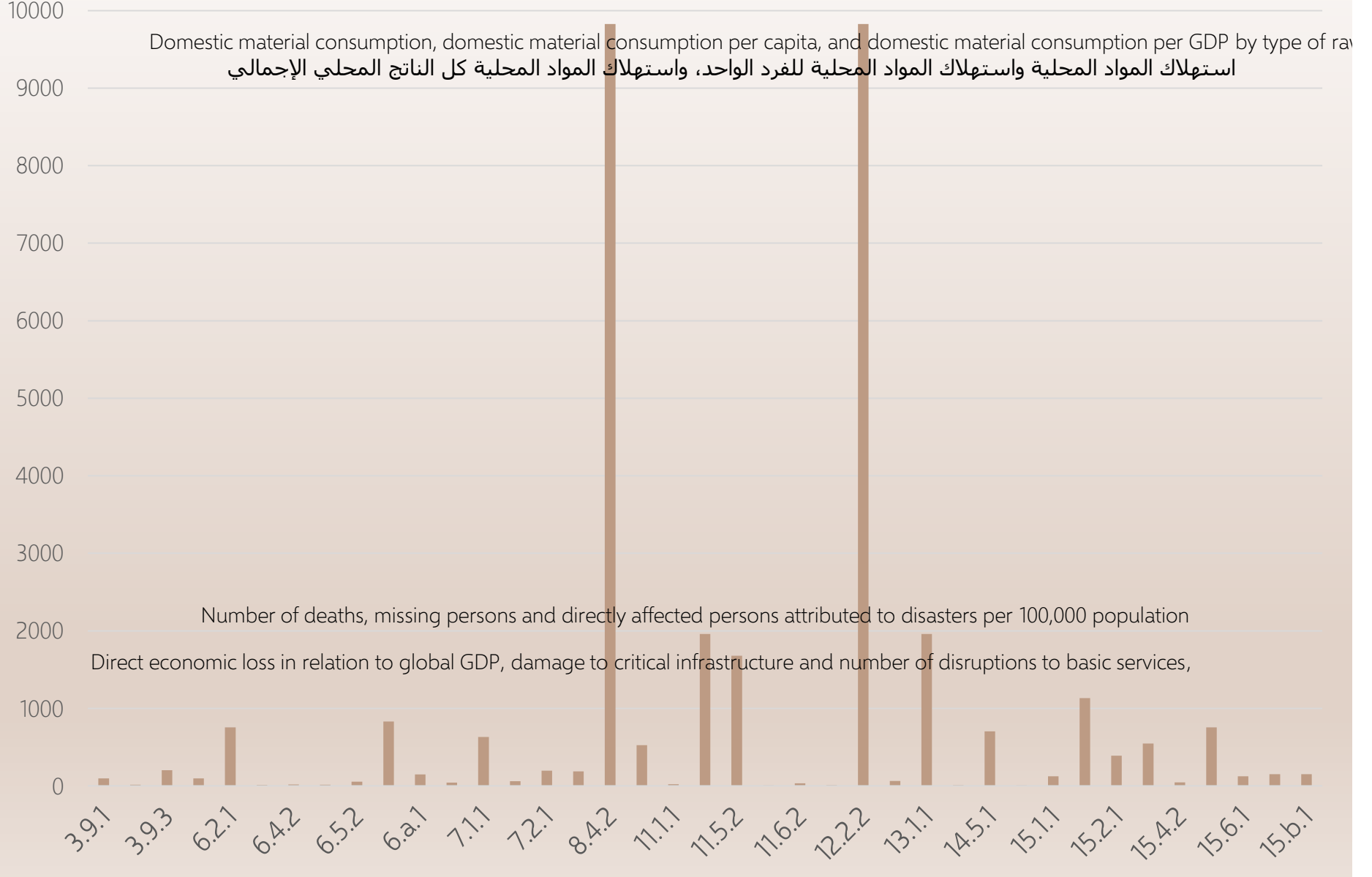
- [Regional Workshop on the Integration of Big Data and Geospatial Information for the Compilation of SDG Indicators in Arab Countries 13-15 Oct 2020](#)
- Google Earth Project with Egypt on Disaster Management
- **UN-ESCWA and ETC-UMA: 3 countries** geospatial information assessment, national workflows to monitor SDGs, challenges to SDG monitoring

Total Number of Data Points per SDG Environmental Goal in Arab Countries



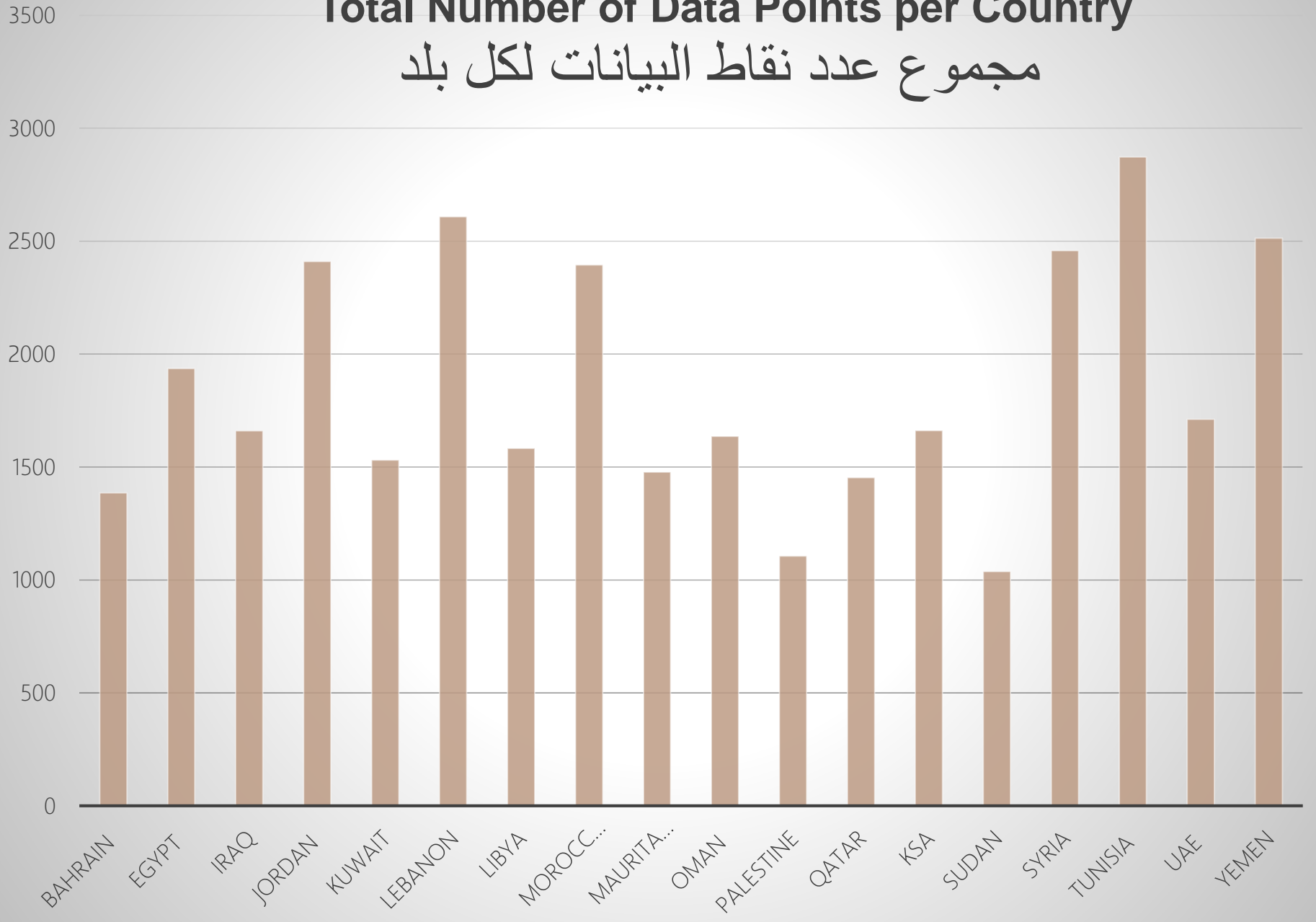
Total Number of Data Points per Indicator

مجموع عدد نقاط البيانات لكل مؤشر



Total Number of Data Points per Country

مجموع عدد نقاط البيانات لكل بلد



Source: Dissemination platform of the Global SDG Indicators Database. Link: <https://unstats.un.org/sdgs/indicators/database/>



Reference Material

- [The System of Environmental-Economic Accounting \(SEEA\)](#)
- [E-learning-Arabic on System of Environmental Economic Accounting](#)
- [FDES Framework for Development of Environment Statistics \(UNSD\) Ar Eng](#)
- [E-waste Statistics-Regional Workshop UNU-ITU](#)
- [Footprint Network](#)
- [Sustainable Development and Environmental Challenges in The Mena Region: Accounting For The Environment In The 21st Century. Sakmar, et al. 2011. ERF Working Paper 592](#)

ESCWA Publications, Workshops, Data and Dashboards

- [Environment Statistics for Arab Countries Database and Dashboard](#)
- [Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region \(UNSD UNESCWA UNEP and EEA\) 11-16 NOVEMBER 2018 Beirut, Lebanon](#)
- [Workshop on the System of Environmental-Economic Accounting Central Framework and Sustainable Development Goals indicators 26-29 March 2018, Amman, Jordan](#)
- [Consultative Meeting on the Implementation Framework for the Environmental Dimension of the 2030 Agenda in the Arab Region 18-21 September 2017](#)
- [Climate Change-Related Statistics in the Arab Region A Proposed Set of Indicators Special Issue of the Compendium of Environment Statistics in the Arab Region 2017 E/ESCWA/SD/2017/3](#)
- [Measuring sustainable development in the Arab region: A review of country experiences and recommendations for monitoring and evaluation Post-2015](#)

شكراً

اللجنة الاقتصادية والاجتماعية لغربي آسيا



الأمم المتحدة

الاسكوا

ESCWA