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Environmental SDG indicators: progress and challenges in Latin America and the Caribbean

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Outline

1 Environment Statistics

2 Environment Statistics and SDG indicators

3 En donde estamos en la región

4 Como desarrollar/fortalecer indicadores ODS ambientales

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1. Environment statistics: weakest pillar of sustainable development

- Of the three pillars of sustainable development, monitoring/measurement of progress towards **environmental** sustainability is the weakest.
- Our capacity to inform about environmental sustainability is severely curtailed by the insufficient production of environment statistics.
- To inform about sustainable development, certain **environmental data** must be collected and **statistics need to be produced regularly**, as a key part of official statistics.
- Statistics can be further processed into indicators that support environment and sustainable development goals at the national level, as well as the SDGs.

Environment statistics (cont.)

- **Insufficiency** of timely and reliable environment statistics worldwide.
- Development of environment statistics **has advanced** over the past 2 decades in LAC region, though very heterogeneously.
- Economic, social, demographic statistics have been regularly produced for longer periods of time.
- Environment statistics is an **emerging** and still underdeveloped domain within sustainable development.
- Meanwhile, **demand** for robust environment statistics keeps growing.
- The SDGs include many indicators that require Env Stats to be compiled and sustained

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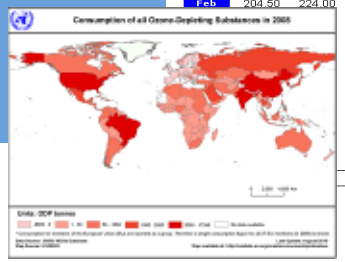
2. Contribution of environment statistics to sustainable development monitoring



LINK Transaction Volumes (millions)					
Month	2007	2008	2009	2010	2011
Jan	208.00	214.00	224.90	224.00	232.90
Feb	204.50	224.00	216.40	224.20	229.90
			245.20	253.90	259.79
			241.06	252.20	259.70
			255.19	262.00	262.20
			246.00	255.00	257.48
			251.30	266.70	268.04
			247.60	256.30	259.24
			244.00	253.30	260.52
			260.20	263.10	268.06
			241.00	246.60	
			244.00	242.00	
			2,916.85	2,999.30	2,557.83

- Any measure of **sustainable development** requires a strong foundation in **environment statistics.**
- More importantly, given the **importance of environmental issues** (e.g., climate change, biodiversity loss, soil/land degradation, ecosystem health, natural disaster frequency and intensity, pollution and environmental health), both **statistical and institutional capacities** for the systematic production of environment statistics needs to be strengthened.
- Securing the **political will and resources** necessary to ensure the production of these statistics is a clear signal of determined intent to measure and monitor progress in sustainable development.
- **There are available methodological guidance tools to start/strenghten Env Stats work at the national level**

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Environmental Statistics and SDGs

Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

	ES necessary for measuring substantive parts of the goal
	ES necessary for specific targets of the goal
	ES not necessary to measure the goal

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Environmental Statistics and SDGs

Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development

	ES necessary for measuring substantive parts of the goal
	ES necessary for specific targets of the goal
	ES not necessary to measure the goal

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Environment statistics and the SDGs

- Environment domain is **expanded** in the SDGs: environmental dimension of sustainable development is fully fleshed out in the goals on oceans and marine resources, ecosystems and biodiversity, land degradation and desertification, and are also mainstreamed/embedded under all other goals
- Almost **half of the SDG targets require environment statistics** in order to be able to compile its indicators and enable regular monitoring of progress.
- Need for **improvement in data and statistics** to monitor progress on the SDGs and the associated need for statistical capacity building is key for developing countries.

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In Sum:

- **103 SDG indicators include statistics from the enviornment statistics domain**

- **About a third still require internationally agreed methodological development**

- Para los sistemas estadísticos nacionales en ALC, la demanda de estadísticas básicas para calcular sostenidamente los indicadores ODS:
  - Oportunidad
  - Desafío
- Por su reciente desarrollo, el dominio estadístico con mayor necesidad de desarrollo/ reforzamiento: estadísticas ambientales

3. Donde estamos en la región

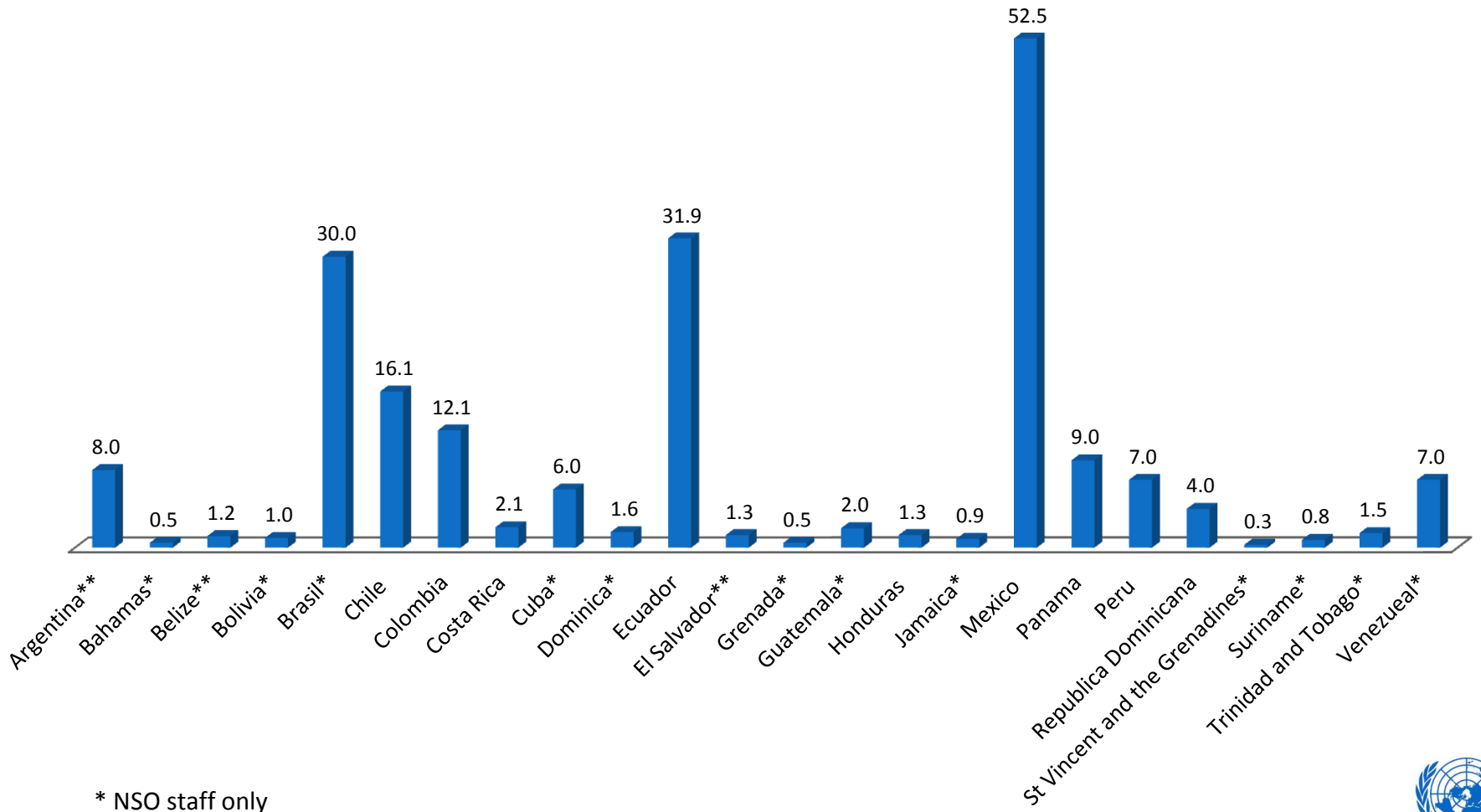
Lo que hemos aprendido

- Heterogeneidad en nivel de desarrollo de EA en países LAC
- Cuales son las áreas mas desarrolladas estadísticamente y las que requieren de asistencia técnica y capacitación para los indicadores ambientales ODS
- Para construir y sostener indicadores es necesario producir estadísticas básicas con calidad y regularidad
- Uso de marcos, definiciones recomendaciones estadísticas internacionales y metadatos que son útiles para reforzar estadísticas básicas y compilar indicadores

Lo que hemos aprendido

- Experiencias nacionales valiosas de incorporación de preguntas/módulos en encuestas y Censos para generar nuevas series estadísticas e indicadores
- Necesidad de explotar fuentes adicionales: registros administrativos, percepción remota y estaciones de monitoreo
- Importancia de trabajar juntos y compartir experiencias - cooperación regional
- Necesidad de desarrollar una estrategia regional y planes de acción nacionales

Total of staff working on ES in countries of LAC



* NSO staff only
** MoE staff only

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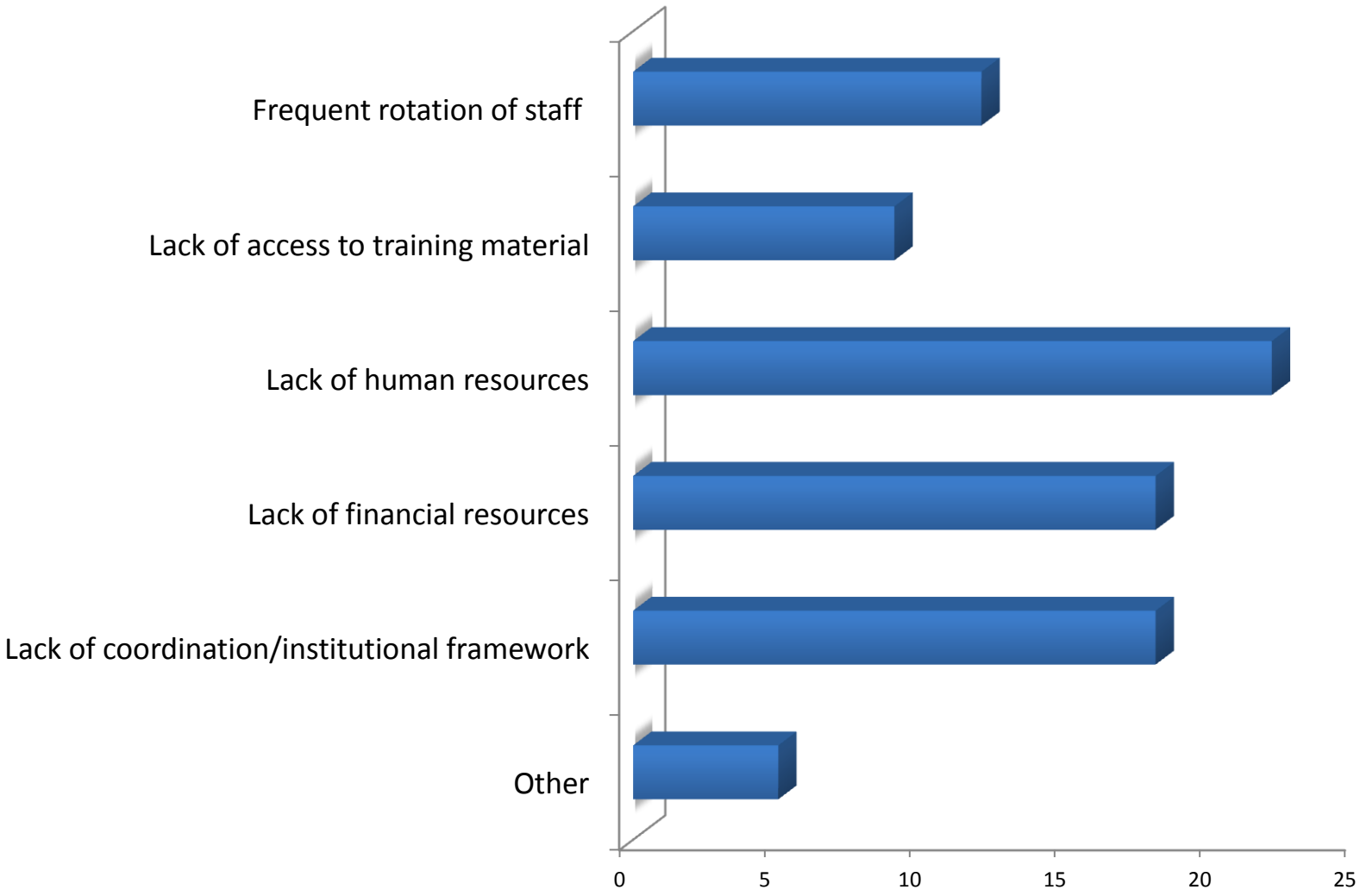
Biggest challenges when collecting ES



4 – Como desarrollar/fortalecer programas nacionales de estadísticas ambientales

Son igualmente importantes:

- **Institutional Dimension ES**
  - Legal framework for ES and NEIS
  - Institutionalization and strengthening of specialized ES units in NSOs and NSS
  - Cooperation and coordination between agencies and within each agency for ES data and statistics sharing
- **Specialized Technical Capacities in ES**
  - Internationally agreed methodological guidance, frameworks, classifications in Env Stats
  - Capacity Building:
    - Training in NSO, Env Ministries and other agencies that produce and use environment data and statistics within NSS
    - Technical Assistance
  - Horizontal cooperation

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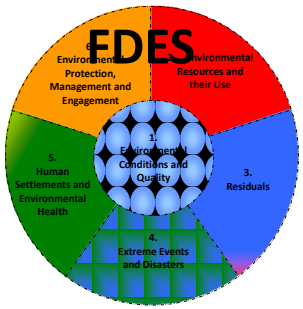
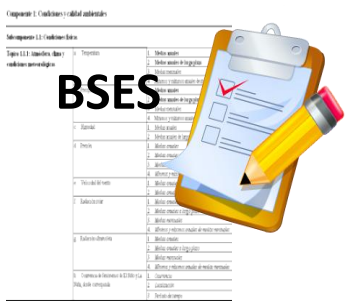
FDES: guidance for environment statistics development

- The UN Statistical Commission endorsed the revised FDES 2013 at its forty-fourth session in 2013 as the **framework for strengthening environment statistics programmes** in countries. SC also recognized the FDES 2013 as a **useful tool** in the context of sustainable development goals and the post-2015 development agenda.

- The FDES, the BSES and the ESSAT contribute to the production of environment statistics needed for compiling environmental indicators, SDG indicators and environmental-economic accounts.

- The BSES is a reference set of environment statistics corresponding to the 6 FDES components and its 60 statistical topics.





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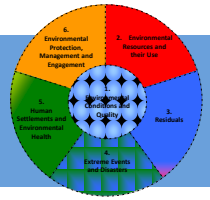
example 2: waste generation and management



SDGs			FDES	
GOAL	Target	Final list of proposed SDG indicators (wider UN System)	Location in the FDES: Component Sub-Component and Topic	Underlying statistics needed to compile the indicator FDES – Basic Set of Environment Statistics
Goal 12 Ensure sustainable consumption and production patterns	Target 12.5 By 2030, substantially reduce **waste generation** through prevention, **reduction**, **recycling** and **reuse**	Proposed Indicator 1: National recycling rate, tons of material recycled	Component 3: Residuals	3.3.1.a. **Amount of waste generated by source**
			Sub-component 3.3: Generation and Management of Waste	3.3.1.b. Amount of waste generated by waste category
			Topic 3.3.1: Generation of waste	3.3.1.c. **Amount of hazardous waste generated**
			Topic 3.3.2: Management of waste	3.3.2.a. Municipal waste
				3.3.2.a.1. **Total municipal waste collected**
				3.3.2.a.2. **Amount of municipal waste treated by type of treatment and disposal**
				3.3.2.a.3. **Number of municipal waste treatment and disposal facilities**
				3.3.2.a.4. Capacity of municipal waste treatment and disposal facilities
				3.3.2.b. Hazardous waste
				3.3.2.b.1. **Total hazardous waste collected**
				3.3.2.b.2. **Amount of hazardous waste treated by type of treatment and disposal**
				3.3.2.b.3. **Number of hazardous waste treatment and disposal facilities**
				3.3.2.b.4. Capacity of hazardous waste treatment and disposal facilities
				3.3.2.c. Other/industrial waste
				3.3.2.c.1. Total other/industrial waste collected
				3.3.2.c.2. Amount of other/industrial waste treated by type of treatment and disposal
				3.3.2.c.3. Number of other/industrial treatment and disposal facilities
				3.3.2.c.4. Capacity of other/industrial waste treatment and disposal facilities
				3.3.2.d. **Amount of recycled waste**
				3.3.2.g. Imports of hazardous waste

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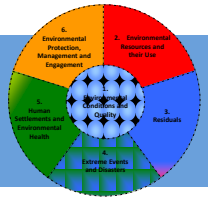
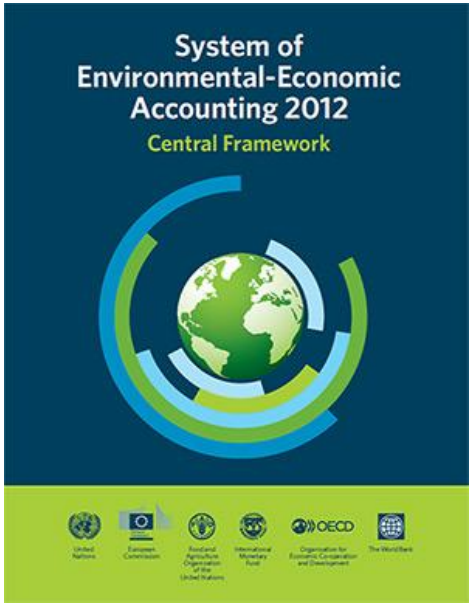
example 3: terrestrial and freshwater ecosystems



SDGs			FDES	
GOAL	**Target**	**Final list of proposed SDG indicators** (wider UN System)	**Location in the FDES: Component Sub-Component and Topic**	**Underlying statistics needed to compile the indicator FDES – Basic Set of Environment Statistics**
Goal 15 **Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**	Target 15.1 By 2020, ensure the **conservation, restoration** and **sustainable use** of **terrestrial** and **inland freshwater ecosystems** and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Proposed Indicator 1: Forest area as a proportion of total land area Proposed Indicator 2: Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Component 1: Environmental Conditions and Quality Sub-component 1.2: Land Cover, Ecosystems and **Topic 1.2.2: Ecosystems and biodiversity**	1.2.2.a. General ecosystem characteristics, extent and pattern [mountains, forests, wetlands, rivers, aquifers and lakes] 1.2.2.a.1. **Area of ecosystems** 1.2.2.a.2. *Proximity of ecosystem to urban areas and cropland* 1.2.2.b. Ecosystems' chemical and physical characteristics 1.2.2.b.1. *Nutrients* 1.2.2.b.2. *Carbon* 1.2.2.b.3. *Pollutants* 1.2.2.c. Biodiversity 1.2.2.c.1. **Known flora and fauna species** 1.2.2.c.2. Endemic flora and fauna species 1.2.2.c.3. Invasive alien flora and fauna species 1.2.2.c.4. Species population 1.2.2.c.5. *Habitat fragmentation* 1.2.2.d. Protected areas and species 1.2.2.d.1. **Protected terrestrial and marine area** 1.2.2.d.2. Protected flora and fauna species
			Topic 1.2.3: Forests	1.2.3.a. Forest area 1.2.3.a.1. **Total** 1.2.3.a.2. Natural 1.2.3.a.3. Planted 1.2.3.a.4. Protected forest area 1.2.3.a.5. Forest area affected by fire
			Component 2: Environmental Resources and their Use Sub-component 2.3: Land **Topic 2.3.1: Land use**	2.3.1.a. **Area under land use categories** [e.g., agriculture; forestry; land used for aquaculture; use of built-up and related areas; land used for maintenance and restoration of environmental functions; other uses of land not elsewhere classified; land not in use; inland waters used for aquaculture or holding facilities; inland waters used for maintenance and restoration of environmental functions; other uses of inland waters not elsewhere classified; inland water not in use; coastal waters (includes area of coral reefs and mangroves); Exclusive Economic Zone (EEZ)] 2.3.1.b. Other aspects of land use 2.3.1.b.1. *Area of land under organic farming* 2.3.1.b.2. Area of land under irrigation 2.3.1.b.4. *Area of land under agroforestry*

The System of Environmental-Economic Accounting Central Framework (SEEA) 2012



- was adopted in 2012 as an international statistical standard by the UN Statistical Commission
- adheres to the principles of the System of National Accounts (SNA)
- provides standard terminology, definitions and classifications for environmental accounting

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ECLAC: Regional methodological guidance and resources available

Comisión Económica para América Latina y el Caribe

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Disponible en: Español

Manuales ambientales y documentos metodológicos

En el ámbito de las estadísticas ambientales, la División de Estadísticas promueve el desarrollo conceptual y metodológico de las estadísticas, indicadores y cuentas ambientales en América Latina y el Caribe, divulga información comparable a nivel regional y provee asistencia técnica y capacitación a los países de la región.

- Acerca de
- Manuales y documentos metodológicos
- Clasificaciones
- CEPALSTAT

Esta sección presenta manuales y documentos de carácter metodológicos elaborados para orientar la producción y utilización de las estadísticas, indicadores y cuentas ambientales.

Conceptos y métodos de las estadísticas del medio ambiente: estadísticas del medio ambiente natural (Agosto/1992)

Contabilidad ambiental y económica integrada. Manual de operaciones (Agosto/2002)

Glosario de estadísticas ambientales (Agosto/1997)

Guía metodológica para desarrollar indicadores ambientales y de desarrollo sostenible en países de América Latina y el Caribe (Junio/2009)

Integrated environmental and economic accounting, 2003 (August/2003)

Methodological Guide for developing Environmental and Sustainable Development Indicators in Latin American and Caribbean countries (June/2009)

Propuesta metodológica para el desarrollo y la elaboración de estadísticas ambientales en países de América Latina y el Caribe (Octubre/2005)

Recomendaciones internacionales para las estadísticas del agua (Noviembre/2012)

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manuals

Methodological Guide for developing Environmental and Sustainable Development Indicators in Latin American and Caribbean countries

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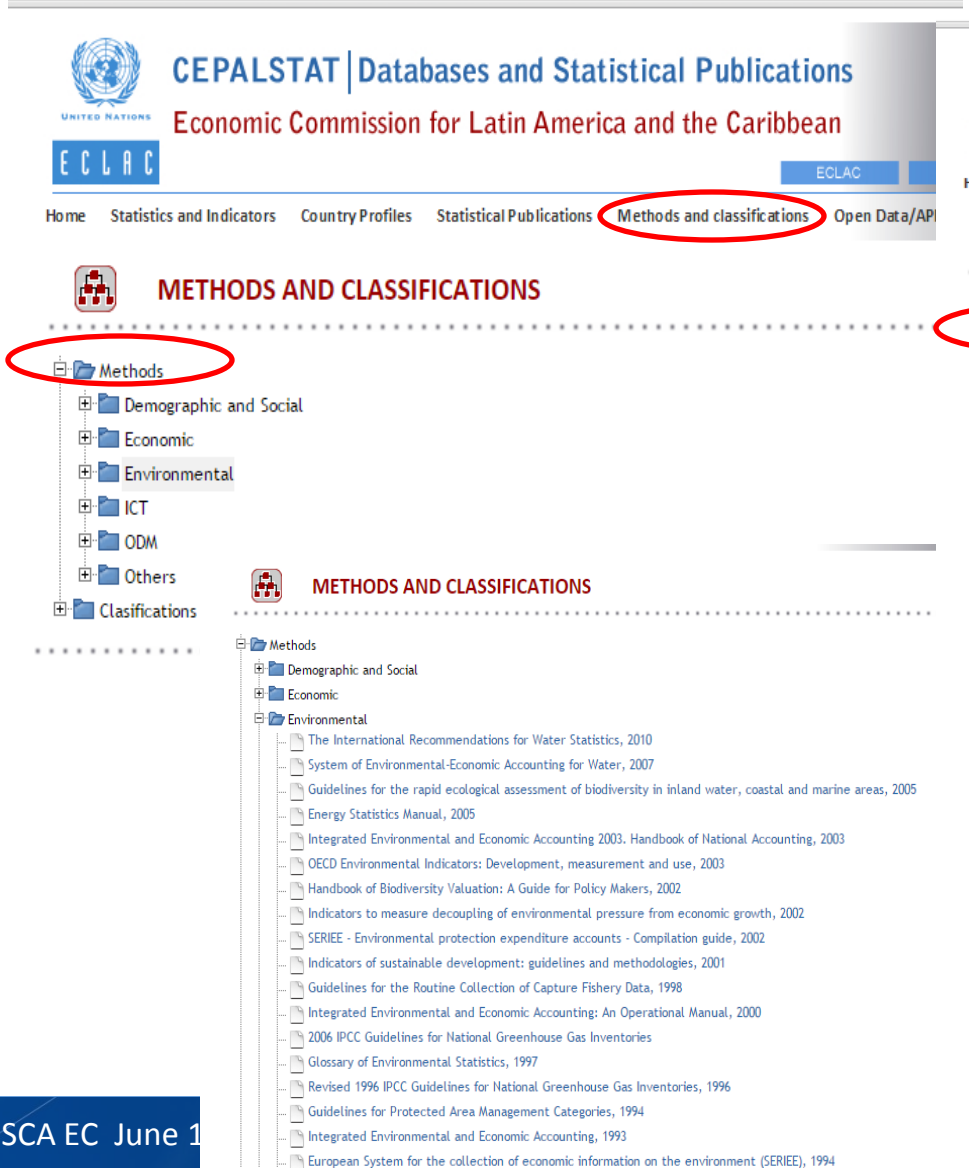
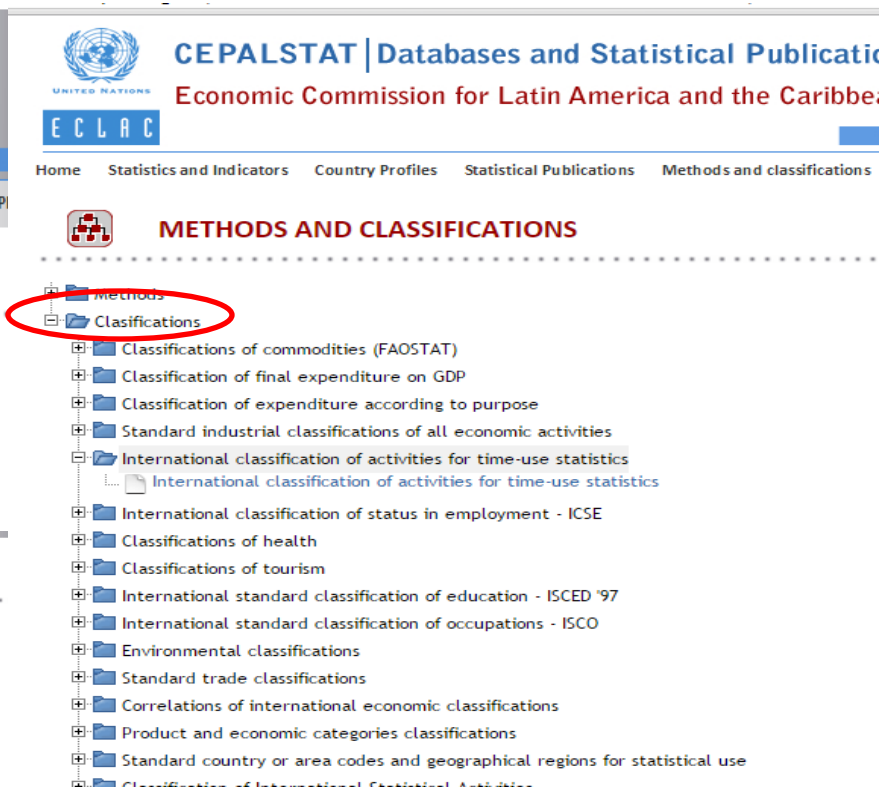
Regional resources available - ECLAC





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Principales actores que operan en la región

Nivel Global

DENU/ UNSD

UNEP/ PNUMA

FAO

ONUDI

Otros

OIT

IEA

Nivel Regional

CEPAL DE

PNUMA Reg

OLADE

PNUD LAC

FAO LAC

BID

Organismos subregionales: CARICOM, CAN, CA, Mercosur

Nivel Nacional

Sistema Estadístico Nacional

INE

MMA

Ministerios y Autoridades Sectoriales: Agua, Energía, Agricultura, RRNN, Atmósfera, Océanos, etc.

El equipo de estadísticas ambientales de la División de Estadísticas se encuentra listo para continuar su trabajo ayudando a los países de la región en el desarrollo y fortalecimiento técnico de sus estadísticas ambientales a través de actividades de capacitación y asistencia técnica!

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