



DANE

SEEA-related indicators for the Global Biodiversity Framework (GBF)

Colombia

February 2026

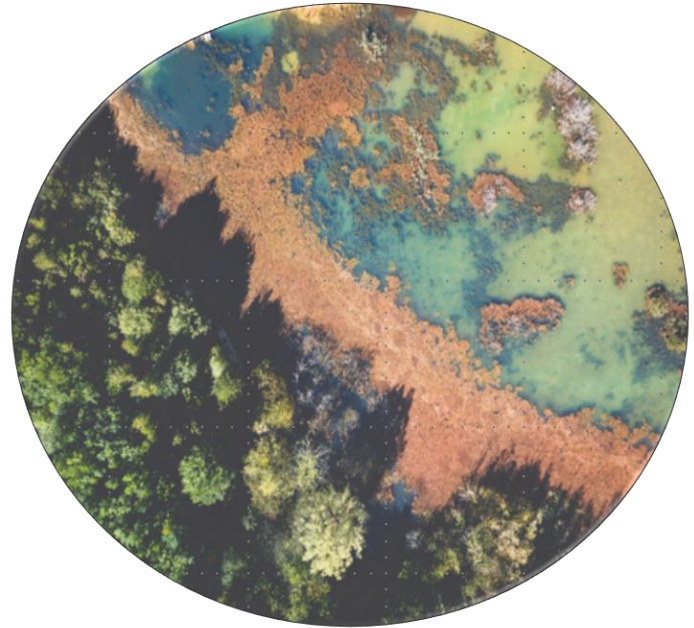
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Source: Oliver Sjöström / Unsplash

Integrated Statistical Framework of the National Accounts System

Environmental and Economic Accounting



Environmental
and Economic
Accounting

- ✓ The Environmental and Economic Accounting (EEA) is an **Extent** of the National Accounts System (**SCN - Spanish Acronym**) that **shares its accounting concepts, definitions, classifications and regulations**.
- ✓ The EEA **organizes and integrates environmental and economic data** within a consistent framework, in order to analyze in a structured manner, the interactions and interdependencies among economic, social and environmental dimensions
- ✓ EEA is developed under the **technical leadership of DANE** and through **inter-institutional cooperation**. Contribution of the institutions to the EEA:
 - Source Information
 - Conceptual and Methodological Support
 - Strategic Planning and Management

Integrated Statistical Framework of the National Accounts System

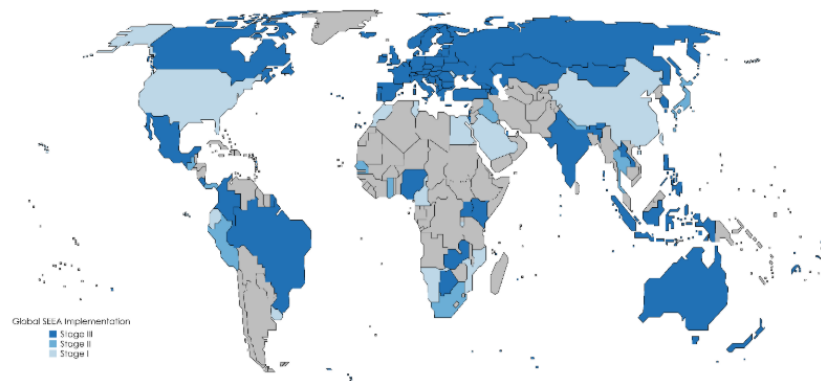
Environmental and Economic Accounting



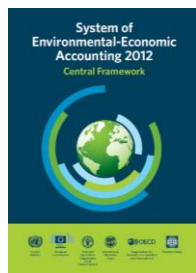
Progress in the implementation of the SEEA in Colombia



Results of the United Nations Global Assessment on Environmental-Economic Accounting 2024

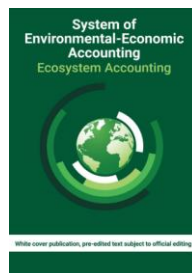


SEEA Central Framework



- ✓ **7 statistical operations**, with annual dissemination frequency
- ✓ **6 inter-institutional products**, without a defined dissemination frequency.
- ✓ **52 derived indicators**

SEEA Ecosystem Accounting



- ✓ **Strategic planning**: definition of roles and roadmap to initiate implementation processes.
- ✓ **Technical development**:
 - Publication of experimental results of the Environmental-Economic Account for Ecosystem Extent
 - Design of the Environmental-Economic Account for Ecosystem Services Flows
 - Identification and analysis of needs for the Environmental-Economic Account for Ecosystem Condition

Response to the Convention on Biological Diversity through the EEA

Indicators identified from Environmental-Economic Accounting (EEA)



Convention on
Biological Diversity



EL PLAN DE BIODIVERSIDAD
Para la vida en la Tierra

SEEA – Ecosystem Accounting

- Extent of natural ecosystems
- Benefits of the sustainable use of wild species
- Services provided by ecosystems

SEEA – Central Framework

- Private financing (national and international) for the conservation and sustainable use of biodiversity and ecosystems
- National public financing for the conservation and sustainable use of biodiversity and ecosystems

Bioeconomy Account (BA)

- Share of the biodiversity economy in GDP
- Jobs generated by the biodiversity economy



Progress on SEEA-related indicators for the Global Biodiversity Framework (GBF)

Colombia

February 2026





Indicator A.2. "Extent of natural ecosystems"

Colombia

February 2026



Progress on SEEA-related indicators for the Global Biodiversity Framework (GBF)



Institutional arrangements:

Technical dialogue spaces are being maintained among DANE (the national statistical authority responsible for SEEA implementation in the country), IDEAM (responsible for monitoring land cover changes and producing the Continental, Coastal, and Marine Ecosystems Map – MEC), and the Ministry of Environment (national focal point to the CBD).

- ✓ **Status:** Under national consultation.
- ✓ **Current situation:** There is an ongoing technical deliberation regarding the official reporting source. While IDEAM proposes reporting based on the Ecosystems Map (MEC), DANE proposes the use of the System of Environmental-Economic Accounting – Ecosystem Accounts (SEEA-EA).
- ✓ **Ongoing action:** Define the official reporting pathway to the CBD.
- ✓ **Request to the working team:** Issue a technical opinion on the reporting pathway for Indicator A.2 for the country.

Indicator A.2. “Extent of natural ecosystems”

Compilation Status



Statistical Production

Dissemination of preliminary results for the **Environmental and Economic Account for Ecosystem Extent (EEA-EE)**, following the **SEEA-EA** and the Generic Statistical Process Model (**GSBPM**)

Reference Period: 2007, 2011 and 2018 (based on source availability)

Source of information: Colombia Ecosystems Map (MEC, Spanish acronym) – Ideam

Statistical Classification

Global Ecosystem Typology (GET) of the International Union for Conservation of Nature (IUCN): progress in developing a **correlation table** between the ecosystem types of the Map of Continental, Coastal, and Marine Ecosystems of Colombia (MEC) and the functional groups of the GET.

Projected date of dissemination: fourth quarter 2026

Participants in the preparation of the correlative table






Indicator A.2. "Extent of natural ecosystems"

Key Results SEEA-EA

Based on the **Environmental and Economic Account for the Extent of Ecosystems (EEA-EE)**, preliminary results are available for the variables required to calculate the indicator: extent of natural ecosystems, according to functional group (EFG) of the **Global Ecosystem Typology (GET)** and ecosystem accounting area (EAA).

According to the **EEA-EE**, extent data are available for a total of 7 divisions, 15 biomes and **32 EFGs (of which 25 correspond to natural ecosystems)** of the GET

 SISTEMA DE CONTABILIDAD AMBIENTAL Y ECONÓMICA - CONTABILIDAD DE LOS ECOSISTEMAS (SCAE-CE) Cuenta Ambiental y Económica de Extensión de los Ecosistemas (CAE-EE)							
Indicador A.2 Extensión de ecosistemas naturales ¹ Hectáreas (ha) y porcentaje (%) Períodos de referencia 2007, 2011 y 2018							
Tipos de ecosistemas según grupo funcional del ecosistema ² de la Tipología Global de Ecosistemas (TGE)	Superficie (ha)			Proporción (%) en el Área de Contabilidad del Ecosistema (ACE): 114.407.692,163 (ha)			
	2007	2011	2018	2007	2011	2018	
Total ecosistemas naturales	81.158.726	79.897.818	77.910.742	70,9	69,8	68,1	
F1.1 Ríos permanentes de tierras altas	1.461.692	1.476.137	1.277.042	1,3	1,3	1,1	
F1.2 Ríos permanentes de tierras bajas	230.479	230.988	143.140	0,2	0,2	0,1	
F2.2 Pequeños lagos de agua dulce permanentes	760.598	834.429	501.370	0,7	0,7	0,4	
FM1.2 Estuarios fluviales y bahías permanentemente conectados	143.675	162.494	183.400	0,1	0,1	0,2	
M1.1 Praderas marinas	70.576	70.547	70.085	0,1	0,1	0,1	
M1.3 Arrecifes de coral fóticos	349.016	349.035	348.782	0,3	0,3	0,3	
M1.7 Lechos de arena submareales	53.965	53.993	51.502	0,0	0,0	0,0	
MFT1.1 Deltas fluviales costeros	102.414	102.693	105.291	0,1	0,1	0,1	
MFT1.2 Bosques y matorrales intermareales	341.069	331.151	276.320	0,3	0,3	0,2	
MT1.2 Litorales fangosos	65.576	59.305	67.117	0,1	0,1	0,1	
MT1.3 Litorales arenosos	4.683	7.257	7.496	0,0	0,0	0,0	
MT2.1 Matorrales y pastizales costeros	39.876	38.842	44.160	0,0	0,0	0,0	
T1.1 Bosques lluviosos tropicales y subtropicales de tierras bajas	40.233.673	39.932.951	39.216.415	35,2	34,9	34,3	
T1.2 Bosques y matorrales secos tropicales/subtropicales	299.786	330.151	425.903	0,3	0,3	0,4	
T1.3 Bosques lluviosos montaños tropicales/subtropicales	6.887.519	6.777.008	6.836.357	6,0	5,9	6,0	
T3.1 Matorrales tropicales estacionalmente secos	599.517	489.509	603.486	0,5	0,4	0,5	
T3.2 Brezales y matorrales templados estacionalmente secos	295.465	276.217	300.257	0,3	0,2	0,3	
T3.4 Pavimentos rocosos recientes, flujos de lava y pedregales	3.041.410	3.014.117	2.783.932	2,7	2,6	2,4	
T4.2 Sabanas de pastos piricos	7.280.011	7.070.153	6.337.983	6,4	6,2	5,5	
T5.2 Desiertos y semidesiertos suculentos o espinosos	1.217.647	1.164.052	1.116.081	1,1	1,0	1,0	
T6.1 Capas de hielo, glaciares y campos de nieve perennes	50.510	50.040	52.071	0,0	0,0	0,0	
T6.5 Pastizales y herbazales de altas montañas tropicales	2.359.643	2.365.243	2.207.194	2,1	2,1	1,9	
TF1.1 Bosques tropicales inundados y bosques de turba	9.039.522	8.777.950	9.163.999	7,9	7,7	8,0	
TF1.4 Ciénagas estacionales de llanuras de inundación	6.210.133	5.914.495	5.771.350	5,4	5,2	5,0	
TF1.6 Turberas boreales, templadas y montañosas	20.271	19.060	20.011	0,0	0,0	0,0	

Indicator A.2 “Extent of Natural Ecosystems Ecosystems Map results (example):



Based on the **Continental, Marine, and Coastal Ecosystems Map (MEC)**, results are available for the area variable and its variation, which are required to calculate the indicator on the extent of natural ecosystems, according to the Ecosystem Synthesis and **General Ecosystem levels of the national legend.**

According to the MEC, data on ecosystem extent are available for a total of **3 ecosystem types** (Aquatic, Coastal, and Terrestrial), **28 ecosystem synthesis categories, and 63 general ecosystems** (corresponding to the category of continental natural ecosystems).

Colombia. Variación de la superficie de los ecosistemas naturales continentales. 2005-2009, 2010-2012						
Tipo de ecosistema	Ecosistema síntesis ¹	Ecosistema general continental ²	Periodo 2005-2009	Periodo 2010-2012		
			Superficie del ecosistema - Línea base ³ (ha)	Superficie ⁴ (ha)	Variación absoluta de la superficie ⁵ (ha)	Variación de la superficie de ecosistemas naturales continentales (%)
Arbustal		Arbustal inundable andino	2.051,10	3.478,69	1427,59	69,60
		Arbustal inundable basal	152.069,40	102.270,46	-49798,94	-32,75
		Arbustal inundable subandino	509,64	181,74	-327,90	-64,34
Bosque		Bosque de galería inundable basal	1.832.458,56	1.695.944,25	-136514,31	-7,45
		Bosque inundable andino	6.364,94	6.264,87	-100,07	-1,57
		Bosque inundable basal	6.470.431,40	6.343.027,07	-127404,33	-1,97
		Bosque inundable subandino	7.734,70	7.629,64	-105,06	-1,36
		Bosque ripario inundable subandino	2.197,32	2.785,43	588,11	26,77
		Herbazal inundable andino	2.841,97	3.002,62	160,65	5,65
Herbazal		Herbazal inundable basal	255.559,30	296.383,94	40824,63	15,97
		Herbazal inundable subandino	268,30	172,29	-96,01	-35,79
Lago		Lago Tectónico	10.297,85	10.298,07	0,23	0,00
		Laguna Aluvial	744.947,97	818.433,19	73485,22	9,86
Laguna		Laguna Glacial	2.729,96	2.912,57	182,62	6,69
		Laguna tectónica	3.592,00	3.846,00	254,00	7,07
Rio		Río de Aguas Blancas	1.350.656,55	1.366.110,55	15454,01	1,14
		Río de Aguas Claras	117.365,89	116.567,01	-798,88	-0,68
		Río de Aguas Negras	232.151,80	232.663,79	511,99	0,22
Sabana		Sabana inundable	5.012.806,98	4.874.317,00	-138489,99	-2,76
Turbera		Turbera andina	73,52	73,28	-0,25	-0,33
		Turbera de paramo	20.210,44	18.998,14	-1212,30	-6,00

Indicator A.2. “Extent of natural ecosystems”

Challenges and Lessons Learned

Challenges

- ✓ Decreased lag in the preparation of the Ecosystem Map. **Current period: 2018**
- ✓ Determination of the preparation frequency of the Ecosystem Map and the indicator report. **Currently, no defined periodicity is available.**
- ✓ Overcoming the lack of consensus on the reporting authority for Indicator A.2 to ensure interoperability between biotic monitoring and environmental-economic accounting.

Lessons Learned

- ✓ Inter-institutional cooperation and articulation are critical
- ✓ Defining roles, according to institutional competencies, promotes articulation processes
- ✓ The indicator report of the EEA-EA implementation processes ensures its comparability and its consistency across time and space, based on the use of standardized concepts and classifications as well as the application of accounting rules (e.g. area control), among others.



Indicator B.1 “Provision of ecosystem services”

Colombia

February 2026



Progress on SEEA-related indicators for the Global Biodiversity Framework (GBF)

Institutional arrangements:

Technical dialogue spaces are being maintained among DANE (the national statistical authority), IDEAM and the Humboldt Institute (entities responsible for monitoring and generating scientific information on biodiversity), and the Ministry of Environment (national focal point to the CBD).

- ✓ **Status:** Definition of the scope of measurement.
- ✓ **Current situation:** The country has prioritized global climate regulation services and pollination services. There are not yet any formal discussions with the national focal point
- ✓ **Ongoing action:** Consolidation of the technical roadmap and validation of data sources.
- ✓ **Request to the working team:** Issue an opinion on the suitability of the identified sources and the feasibility of the measurement, based on the availability of information sources.

Indicator B.1 “Provision of ecosystem services”

Compilation Status

Statistical Production

Design of the Ecosystem **Services Flow Environmental and Economic Account (CAE-FSE, Spanish acronym)** measurement, following the **SEEA-EA** and the Statistical Process Generic Model (**GSBPM**), for ecosystem services (ES) prioritized according to the SEEA-EA Selected ecosystem services reference list.

Reference Period: To be determined


Source of information: To be determined

Selection of the ES to be measured within the framework of the project

Used criteria

1. Priority order based on available information¹
2. Natural ecosystem ES offering²
3. Availability in ARIES
4. DANE-Ideam-Humboldt Alignment

Selected services

- 
1. Global climate regulation
 2. Pollination

¹Based on the classification of the characteristics (availability of physical units, scale, series, and periodicity, among others) pertaining the available information

²According to the considerations for the selection of SE included in the indicator B.1 metadata. Provision of ecosystem services

Indicator B.1 “Provision of ecosystem services”

Key Results



Information available for measurement of selected ecosystem services (ES)

ES	Source	Information description
1. Global climate regulation	Institute of Hydrology, Meteorology and Environmental Studies (Ideam) – Forest and Carbon Monitoring System (SMbyC, Spanish acronym), Monitoring of carbon in natural forests	Available Series: 2013-2024 Information Periodicity: annual
	Artificial Intelligence for the Environment and Sustainability (ARIES) – Carbon Abduction and Storage Model	Available Series: 2012-2023 Information Periodicity: annual
2. Pollination	Alexander von Humboldt Biological Resources Research Institute – Development of the Multivariate Biodiversity Index (MBI) for Colombia, Pollination Potential in Family Farming Areas	Available Series: 2001-2023 Information Periodicity: annual
	ARIES - contribution of pollination to agricultural production	Available Series: 2012-2023 Information Periodicity: annual

Indicator B.1 “Provision of ecosystem services”

Challenges and Lessons Learned



Challenges

- ✓ Define clear responsibilities between scientific production and official reporting, ensuring a continuous and validated flow of information that streamlines the measurement of Indicator B.1.

Lessons Learned

- ✓ Inter-institutional cooperation and articulation are critical
- ✓ Defining roles, according to institutional competencies, facilitates articulation processes
- ✓ The indicator report from the SEEA-EA implementation processes ensures its comparability and consistency across time and space, from the use of standardized concepts and classifications (e.g. reference list of selected ecosystem services), among others.



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