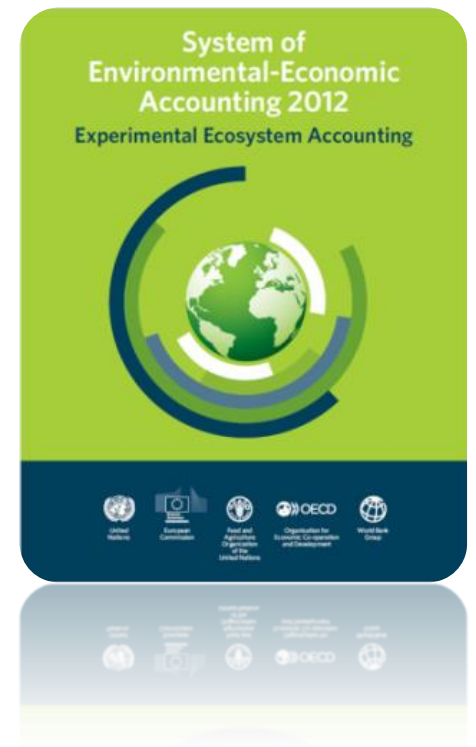


# Progress in Experimental Ecosystem Accounting in Mexico



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# Cuentas experimentales de los ecosistemas (SEEA-EEA) – México Proyecto Piloto





 **UNSD**  
United Nations  
Statistics Division

 **UNEP**  
United Nations  
Environment Programme

 **Convention on  
Biological Diversity**

 **NORWEGIAN MINISTRY  
OF FOREIGN AFFAIRS**

 **INEGI**  
INSTITUTO NACIONAL  
DE ESTADÍSTICA Y GEOGRAFÍA

# Cuentas experimentales de los ecosistemas (SEEA-EEA) – México

## Proyecto Piloto

México, DF  
Del 13 al 17 de julio de 2015



**Alessandra Alfieri**  
Chief Environmental Economic Accounts Section

**Rolando Ocampo**  
Vicepresidente

**Arturo Blanco**  
Director General



# Background



- With support from UNSD and UNEP, **Mexico** participates as **pilot country** together with Bhutan, Chile, Indonesia, Vietnam, South Africa and Mauritius.



- **Institutions from the Mexican environmental sector** participate: Secretary of Environment and Natural Resources (SEMARNAT), National Commission for Knowledge and Use of Biodiversity (CONABIO), National Commission of Natural Protected Areas (CONANP), National Commission of Water (CONAGUA), National Institute of Ecology and Climate Change (INECC);

- As well as **international organizations** with projects in Mexico: German Agency for International Cooperation (GIZ) and the Biodiversity Finance Initiative (BIOFIN).



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- Rolando Ocampo, Vice President of Geographic and Environmental Information of **INEGI**, was assigned as **focal point in Mexico**.



Stefan Van der Esch

Enrique De Alba

Eduardo Sojo

Rolando

UNCTAD  
UNEPA  
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### Cuentas experimentales de los ecosistemas (SEEA-EEA) – México

#### Proyecto Piloto

México, DF  
Del 13 al 17 de julio de 2015

# Work scheme

- After the **National Plan**, **SEEA-EEA** and the **Thematic Technical Guides** were used for the development of:
  - ✓ Ecosystem **extent** accounts (land cover).
  - ✓ **Condition** of **ecosystem components** accounts:
    - soil;
    - water;
    - biodiversity;
    - carbon.
  - ✓ **Ecosystem services supply and use** accounts (physical and monetary units).



# Summary of Mexico's progress

	AGS	COL	VER	CHIH	CAMP	MOR	CHIS	BC	BCS
<b>1. Ecosystem extent accounts</b>	Finished	Finished	Finished	Finished	Finished	Finished	In process	In process	In process
<b>2. Ecosystem condition accounts</b>									
2.1. Soil	Finished	Finished	Finished	In process	In process	In process	In process	In process	In process
2.2. Water	Finished	In process	In process	To do	To do	To do	To do	To do	To do
2.3. Carbon	Finished	Finished	Finished	To do	To do	To do	To do	To do	To do
2.4. Biodiversity	Finished	In process	Finished	To do	To do	To do	To do	To do	To do
<b>3. Ecosystem services supply and use accounts (physical units)</b>									
3.1. Soil	Finished	Finished	Finished	To do	To do	To do	To do	To do	To do
3.2. Water	Finished	In process	In process	To do	To do	To do	To do	To do	To do
3.3. Biodiversity	Finished	In process	In process	To do	To do	To do	To do	To do	To do
3.4. Carbon	To do	To do	To do	To do	To do	To do	To do	To do	To do
<b>4. Ecosystem services supply and use accounts (monetary units)</b>									
4.1. Soil	Second Semester of 2016			To do	To do	To do	To do	To do	To do
4.2. Water	Second Semester of 2016			To do	To do	To do	To do	To do	To do
4.3. Biodiversity	Second Semester of 2016			To do	To do	To do	To do	To do	To do
4.4. Carbon	Second Semester of 2016			To do	To do	To do	To do	To do	To do

**First Semester of 2016**

**Second Semester of 2016**

Finished


In process

To do

# PROGRESS

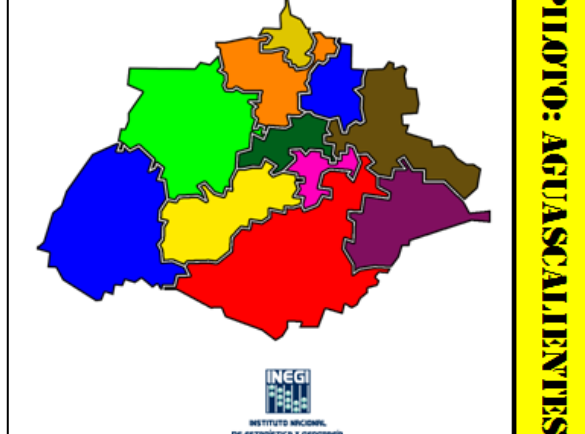
## EXAMPLE: AGUASCALIENTES

**CUENTAS EXPERIMENTALES DE ECOSISTEMAS**



**CUENTA DE EXTENSIÓN DEL ECOSISTEMA**  
ESTUDIO PILOTO: AGUASCALIENTES


**CUENTAS EXPERIMENTALES DE ECOSISTEMAS**



**ESTUDIO PILOTO: AGUASCALIENTES**

**CUENTA DE CONDICIÓN DEL ECOSISTEMA**

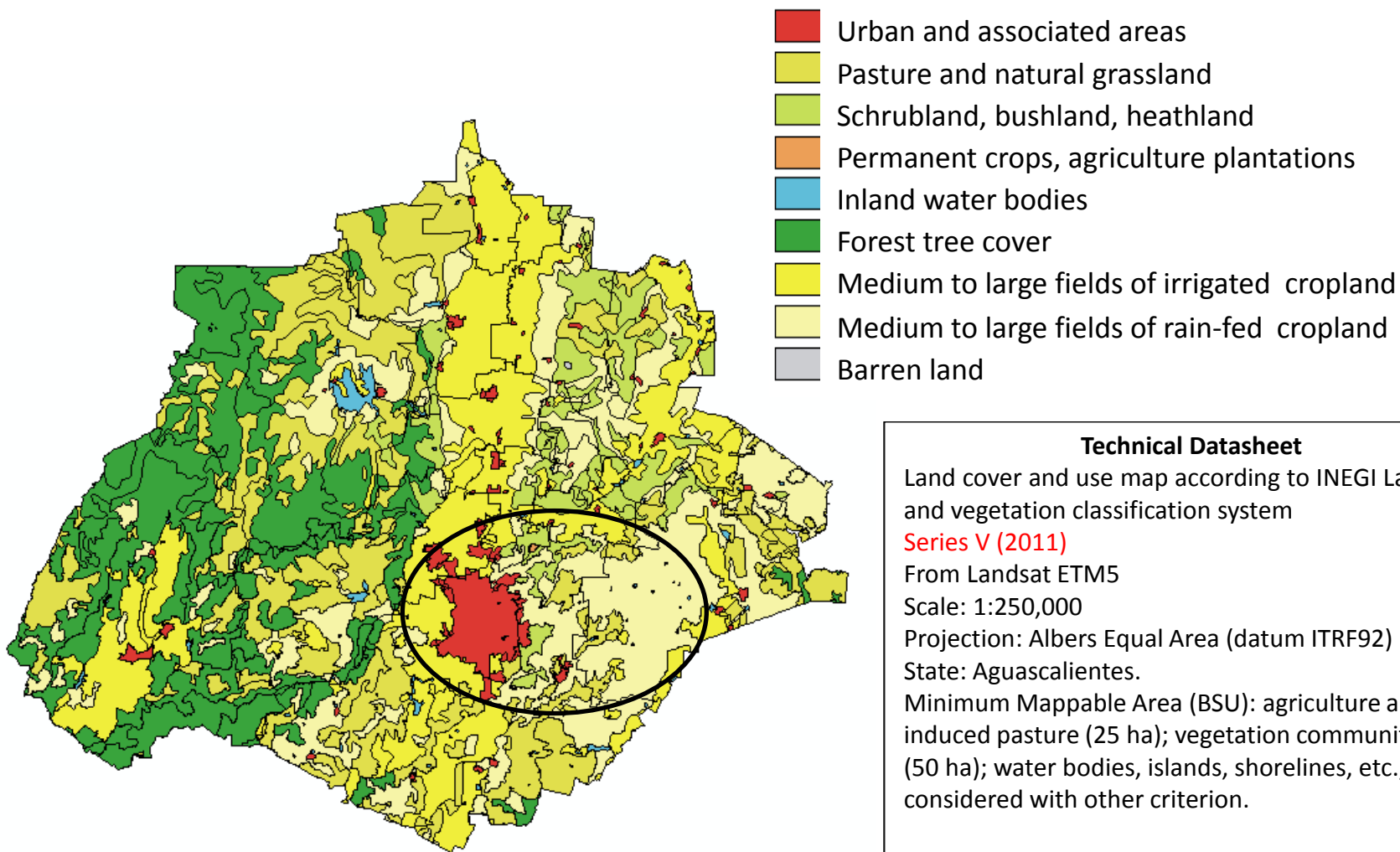
**CUENTAS EXPERIMENTALES DE ECOSISTEMAS**



**Cuentas Físicas de Oferta y Utilización de Servicios del Ecosistema**



# Extent Account



## Technical Datasheet

Land cover and use map according to INEGI Land use and vegetation classification system

Series V (2011)

From Landsat ETM5

Scale: 1:250,000

Projection: Albers Equal Area (datum ITRF92)

State: Aguascalientes.

Minimum Mappable Area (BSU): agriculture and induced pasture (25 ha); vegetation communities (50 ha); water bodies, islands, shorelines, etc., considered with other criterion.





# Cuentas experimentales de los ecosistemas (SEEA-EEA) - México

\* Inicio Contenido



## Cuentas experimentales de los ecosistemas (SEA-EEA) - México

### Presentación

La División de Estadística de las Naciones Unidas (UNSD), ha seleccionado a México para participar como país piloto junto con Bután, Chile, Indonesia, Vietnam, Sudáfrica y República de Mauricio, en la implementación del System of Environmental-Economic Accounting. Experimental Ecosystem Accounting. (SEEA-EEA).

Los objetivos principales del proyecto son: la medición en unidades físicas y monetarias de los servicios y los activos de los ecosistemas que contribuyen con el bienestar de la sociedad, integrados en el esquema actual de la contabilidad nacional y ambiental.

En este sentido el INEGI, como punto focal, junto con SEMARNAT y a la par con diversas instituciones del sector ambiental de México, ha iniciado desde el año 2014 los trabajos relacionados con el proyecto. Con el propósito de revisar los avances alcanzados, así como para planear los siguientes pasos, se llevó a cabo una Primera Misión de UNSD a México (octubre, 2014); una Segunda Misión se ha programado para la semana del **13 al 17 de julio** del año en curso.

En este contexto y como parte de los acuerdos del grupo de trabajo, se construyó la presente plataforma virtual, la cual constituye una herramienta de comunicación y coordinación entre los participantes del proyecto, con la finalidad de compartir en tiempo real todo tipo de materiales relacionados, incluyendo presentaciones, documentos, archivos de cálculo, información de foros internacionales relacionados, un directorio de contactos, entre otros elementos.

Se invita a los miembros del equipo a incrementar este acervo documental, además de dar sugerencias para mejorar este sitio de intercambio.

### Próximos eventos

## Segunda Misión de Naciones Unidas a México Implementación de las Cuentas Experimentales de Ecosistemas



- Reuniones bilaterales entre representantes de UNSD, el sector ambiental en México y otros organismos nacionales e internacionales.
- Taller técnico para la construcción de las cuentas de

## Steps forward

- To continue with the development of the accounts for **all entities and municipalities of the country**.
  - 32 federal entities in the country
  - 2,456 municipalities
- To evaluate the **minimum mappable level**. Each Federal Entity has different level of statistical and geographic information development.
- **Economic valuation** → Ecosystem services **supply and use** accounts in **monetary units**



# Uses of Information of SEEA-EEA Mexico

- **Strategic Plan for Biodiversity 2011-2020**  
“inclusion of biodiversity and ecosystem values in national accounts”

- **Sustainable development goals**

Objectives 2, 6, 14 y 15 (the nine targets)

- **Aichi Targets. (Target 2)**

“By 2020, at the latest, **biodiversity values have been integrated** into national and local development (...) planning processes and are being incorporated into **national accounting**, as appropriate, and reporting systems.”



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# Condition account (superficial water)

## AGUASCALIENTES (municipality)

AGUASCALIENTES (abstraction)	Groundwater abstraction		Surface water abstraction	
	2011 (m³)	2014 (m³)	2011 (m³)	2014 (m³)
<b>TOTAL</b>	<b>178,683,173</b>	<b>180,301,278</b>	<b>36,836,524</b>	<b>36,657,687</b>
Number of abstraction points	<b>1,257</b>	<b>1,301</b>	<b>313</b>	<b>315</b>

2014

**SUPERFICIAL WATER (AGUASCALIENTES)**  
(Percentage distribution of monitoring sites by water quality  
indicator)

Indicator	Excellent	Good	Acceptable	Polluted	Strongly polluted
DBO <sub>5</sub>	--	--	83.3%	16.7%	--
DQO	--	--	--	91.7%	8.3%
SST	--	--	--	91.7%	8.3%



# Supply and use account (water)

AGUASCALIENTES (USES)	Groundwater abstraction		Surface water abstraction	
	2011 (m <sup>3</sup> )	2014 (m <sup>3</sup> )	2011 (m <sup>3</sup> )	2014 (m <sup>3</sup> )
Agricultural	53,099,040	49,028,510	31,346,921	31,368,084
Agroindustrial	0	0	0	0
Households	297,000	297,000	0	0
Aquaculture	0	0	0	0
Services	2,593,455	3,597,655	1,892,160	1,892,160
Industrial	6,203,624	6,716,379	0	0
Animal breeding and production	327,852	327,852	1,428,689	1,428,689
Urban public	95,705,599	98,919,452	0	0
Multiple	20,456,603	21,414,430	2,168,754	1,968,754
Hydroelectric developments	0	0	0	0
Trade	0	0	0	0
Others	0	0	0	0
Thermoelectric plants	0	0	0	0
<b>TOTAL</b>	<b>178,683,173</b>	<b>180,301,278</b>	<b>36,836,524</b>	<b>36,657,687</b>
<b>Number of abstraction points</b>	<b>1,257</b>	<b>1,301</b>	<b>313</b>	<b>315</b>

# Sustainable Development Goals and Ecosystem Accounts

Goal	Target	Description
<b>2. Zero Hunger</b>	2.4	By 2030 ... implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems...
<b>6. Clean water and sanitation</b>	6.6	By 2020, protect and restore water-related ecosystems...
<b>14. Life below water</b>	14.2	By 2020, sustainably manage and protect marine and coastal ecosystems...





# Sustainable Development Goals and Ecosystem Accounts

Objetivo	Meta	Descripción
<b>15. Life on land</b>	15.1	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services...
	15.2	By 2020, promote the implementation of sustainable management of all types of forests...
	15.3	By 2030, combat desertification, restore degraded land and soil...
	15.4	By 2030, ensure the conservation of mountain ecosystems...
	15.5	Take urgent and significant action to reduce the degradation of natural habitats...
	15.6	Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources ...
	15.7	Take urgent action to end poaching and trafficking of protected species of flora and fauna ...
	15.8	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species ...
	15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning...