



Economic valuation within Ecosystem Accounting

Francisco Guillén Martín

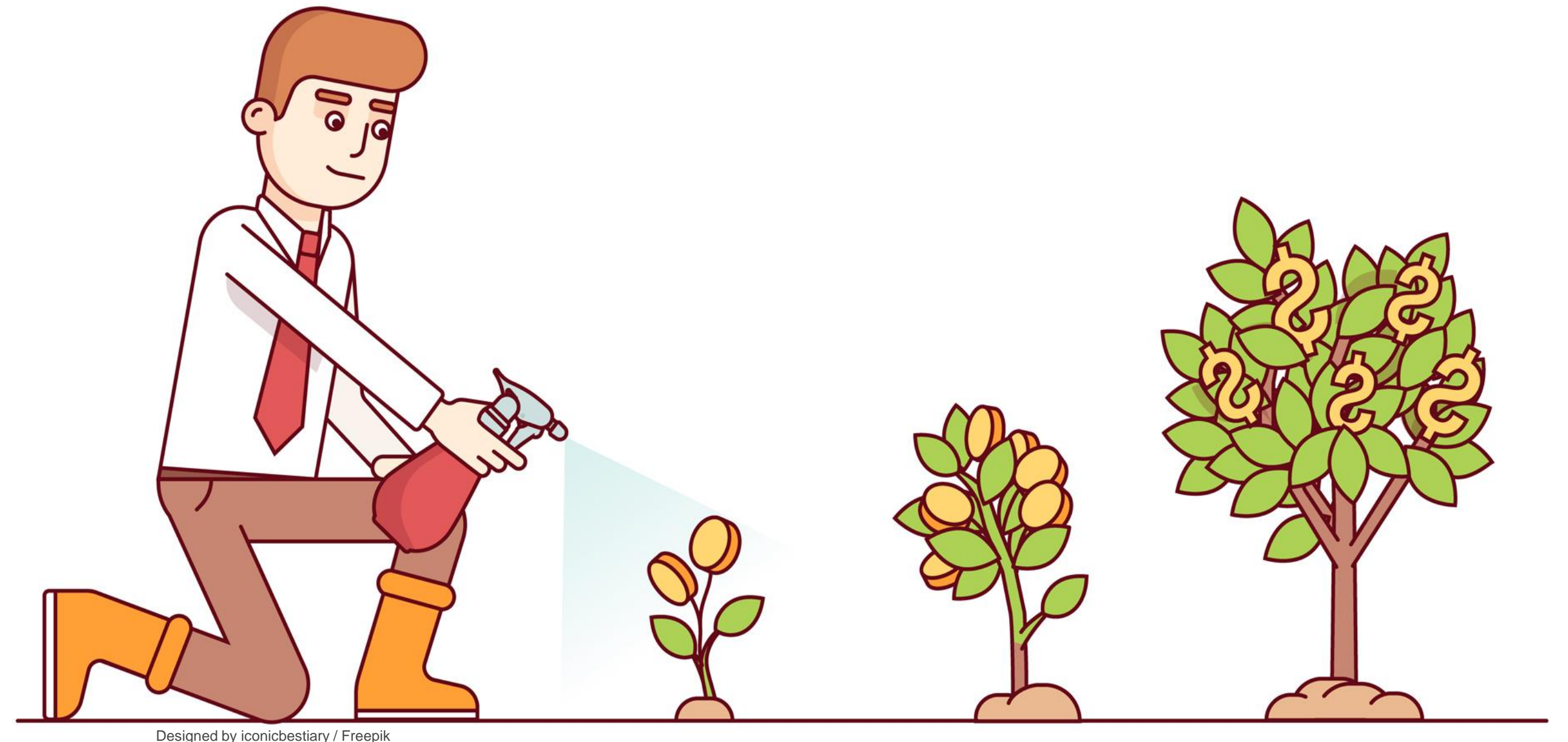
Index

1	SEEA Mx and public policy	6	SEEA-EEA Valuation
2	Mexican Environmental Accounting	7	Economic valuation pilot application in SEEA-EEA Mx
3	Valuation techniques in the Mexican Economic Accounting	8	Examples of economic valuation: Aguascalientes
4	Exploiting the road travelled...	9	Conclusions
5	Interinstitutional collaboration		

SEEA Mx and public policy

For a better **management** of the natural resources, mexican environmental sector **requires** a proxy of the **environmental damage and ecosystem services in monetary values.**

- General Law on Ecological Balance and Environmental Protection (LGEEPA)
- General Law on Climate Change
- National Development Plan
- Sectorial Program for the Environment and Natural Resources



Mexican Environmental Accounting

NEGATIVE EXTERNALITIES

Degradation:

- Air emissions
- Untreated wastewater
- Soil degradation
- Solid waste

Depletion:

- Forest resources
- Groundwater
- Hydrocarbons

POSITIVE EXTERNALITIES

Environmental Protection Expenditure:

- Public Sector

For more than 25 years, measurements have been carried out in physical units and **economic valuation**

Valuation techniques in the Mexican Economic Accounting

Shadow prices



Groundwater depletion

Technological change



Air emissions

Treatment costs



Water pollution

Reposition costs



Soil degradation

Net income



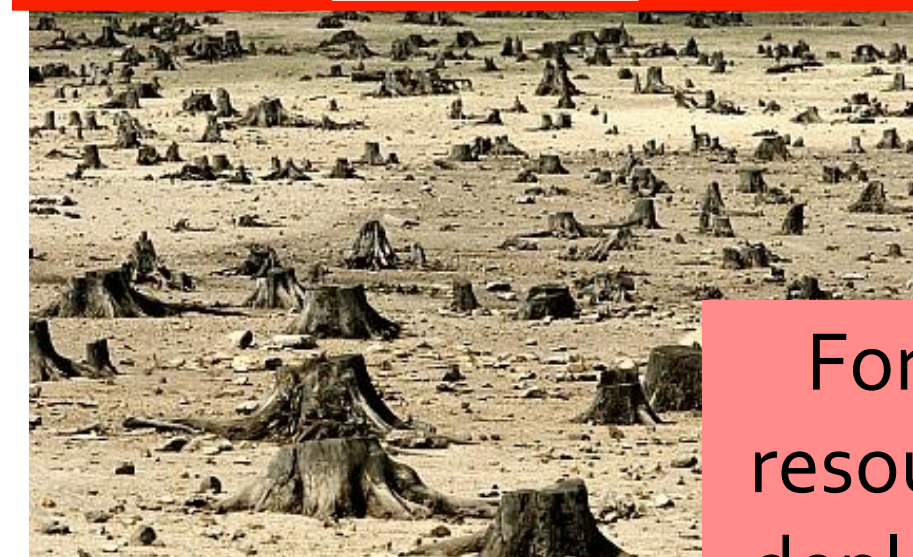
Hydrocarbons depletion

Waste management



Solid waste

Replacement costs



Forest resources depletion

Social costs

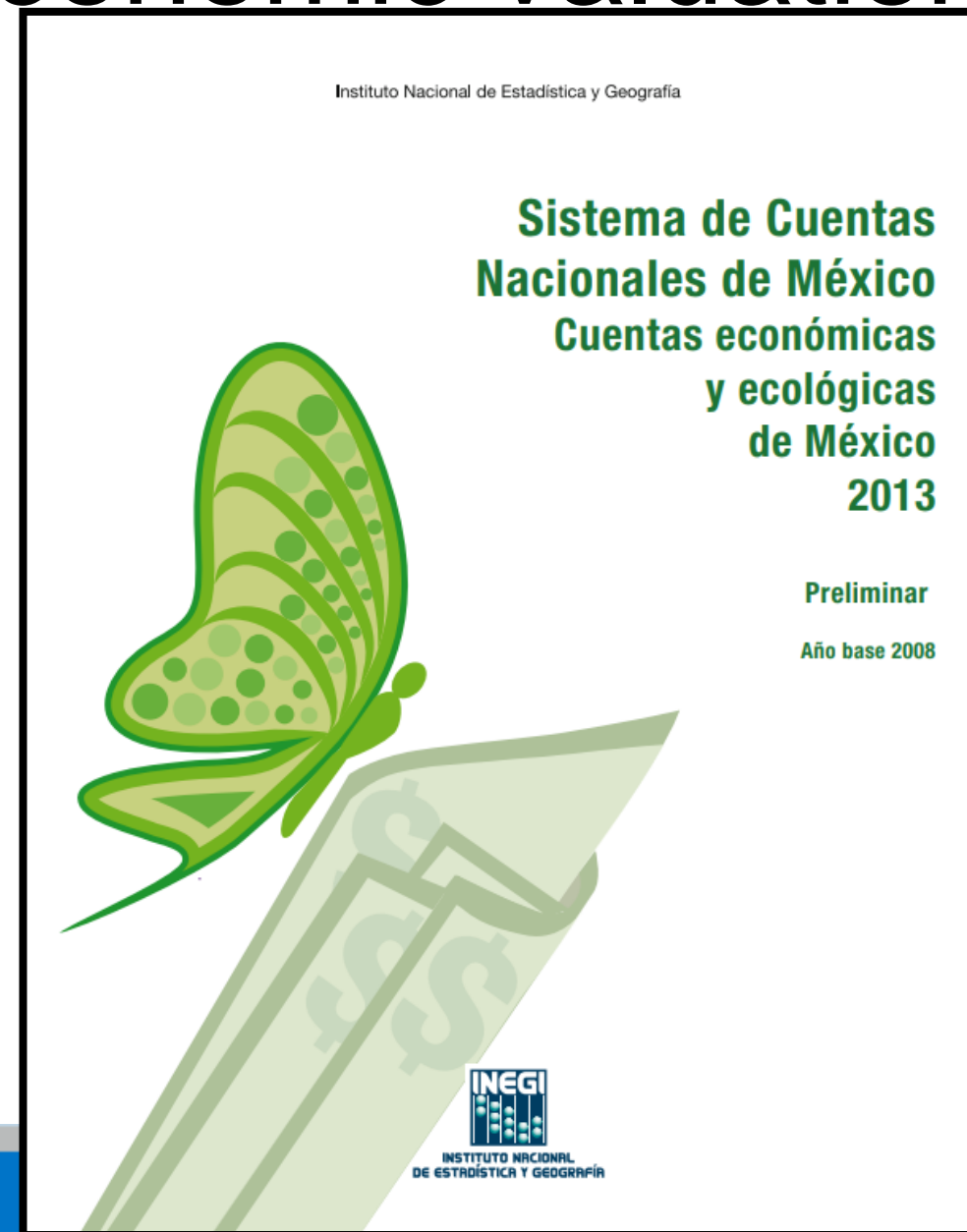


Soil carbon

Exploiting the road travelled...

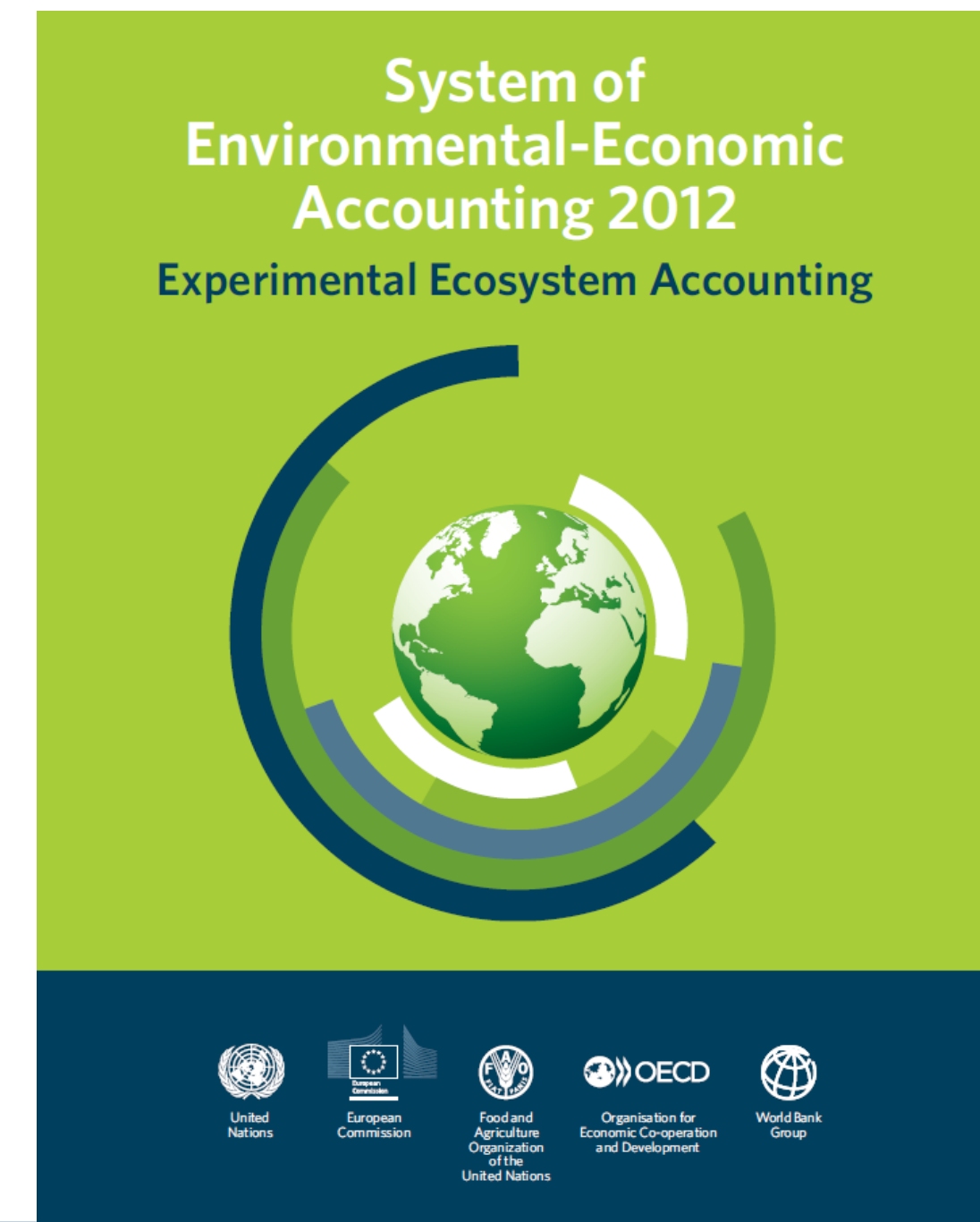
Environmental accounting of Mexico

- Physical units
- Economic valuations



SEEA-EEA Mx

Economic valuation of ecosystem services



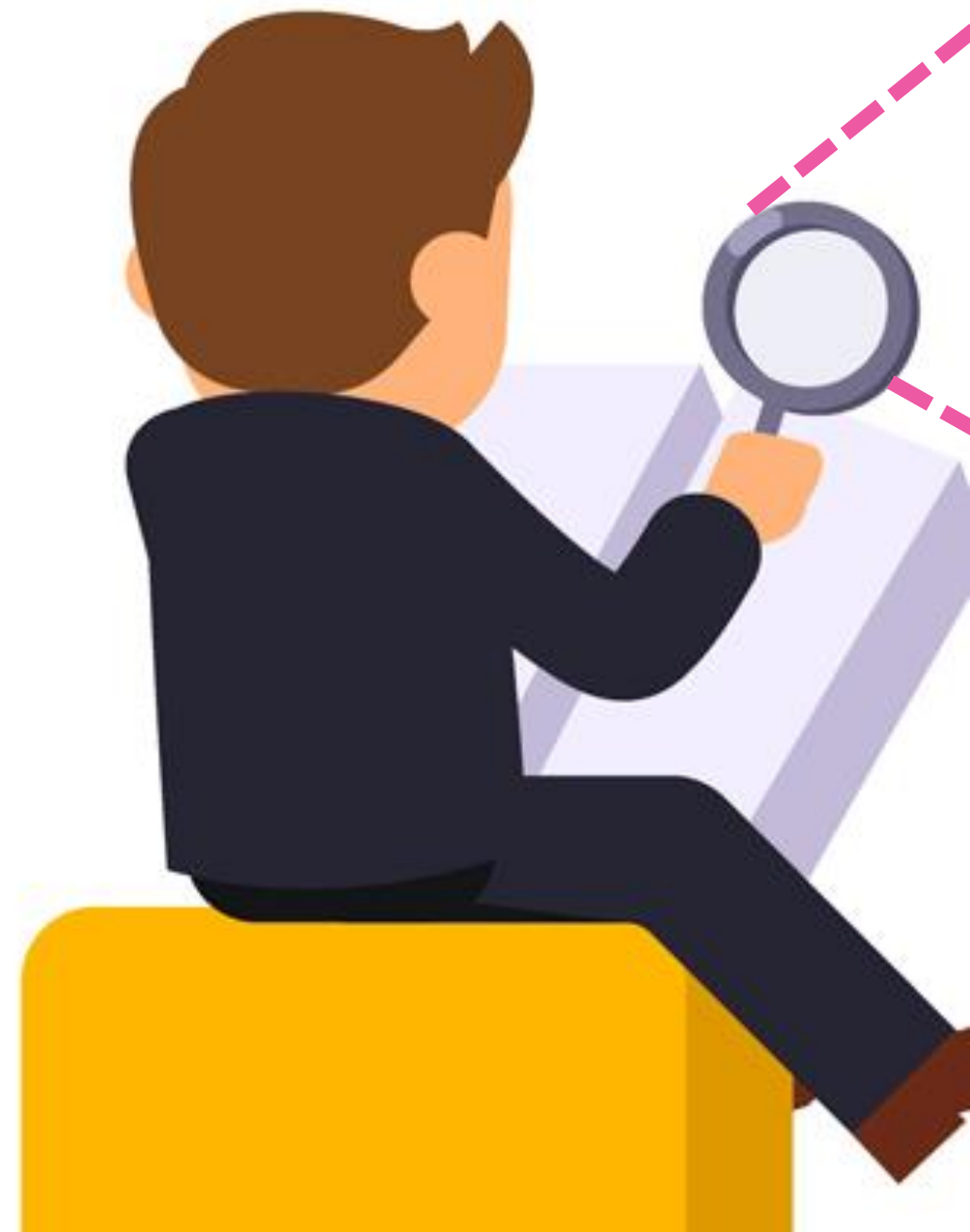
Interinstitutional collaboration



SEEA-EEA Valuation

According with SEEA-EEA...

(Page115)



Designed by iconicbestiary / Freepik

... valuation approaches should focus on **determining the contribution** of the ecosystem service to the market price of the relevant product rather than on valuing the ecosystem service directly.

Economic valuation pilot application in SEEA-EEA Mx

• Costs of soil remediation	What it is?	Costs to redeem soil damage caused by anthropogenic and natural activities.
	What does it mean?	The minimum cost required to return to the ground some original features.
	Ecosystem services involved	<ul style="list-style-type: none">• Food supply.• Species habitat.
• Social cost of carbon	What it is?	Social costs avoided by respiratory illnesses in the population.
	What does it mean?	Avoid health expenses, as carbon is stored in the soil.
	Ecosystem services involved	<ul style="list-style-type: none">• Carbon capture.• Carbon storage.

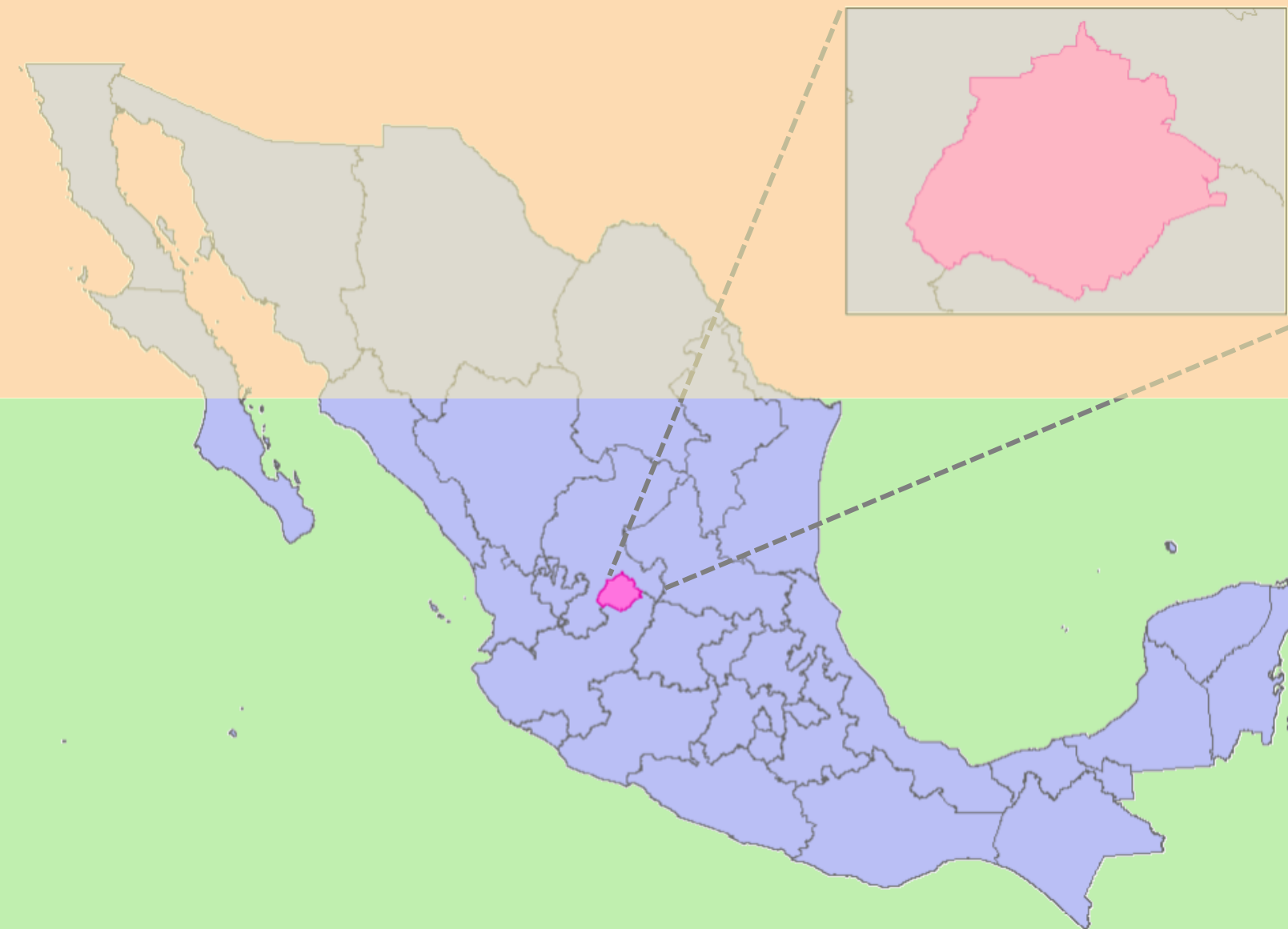
Examples of economic valuation: Aguascalientes

- Costs of soil remediation

For the year of 2011 was estimated a requirement of 50 million dollars to compensate for erosion damage in the state.

- Social cost of carbon

For the 2002, a social cost of \$171 million dollars was estimated, while for the 2014 it was 169 million of dollars (approx. 1% of the state's GDP).



Conclusions



The realization of economic valuations is important to emphasize the value or the cost of a ecosystem service.



The indicators generated are relevant for the generation and support of public policies.



It is recognized that the valuation of ecosystem services is a minimum approximation of its actual cost.



Dialogue with experts helps to refine the vision of the application of the SEEA-EEA.



The work with scientists allows to know other approaches in the economic valuation in the ecosystems accounts.



The opinions of the scientists should be reflected in the results of the pilot exercise.

Conociendo México

01 800 111 46 34

www.inegi.org.mx

atencion.usuarios@inegi.org.mx



INEGI Informa