

Valoración de servicios ecosistémicos

Muy breve introducción

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Distintos puntos de vista para la valoración

Economía clásica : poner un valor monetario en un bien o servicio

Filosofía moral: base para tomar la mejor decisión, la más ética

Economía ambiental: información sobre servicios ecosistémicos y su importancia en varios aspectos para la vida



Provisioning

Goods or products produced by ecosystems



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Regulating

Natural processes regulated by ecosystems



Cultural

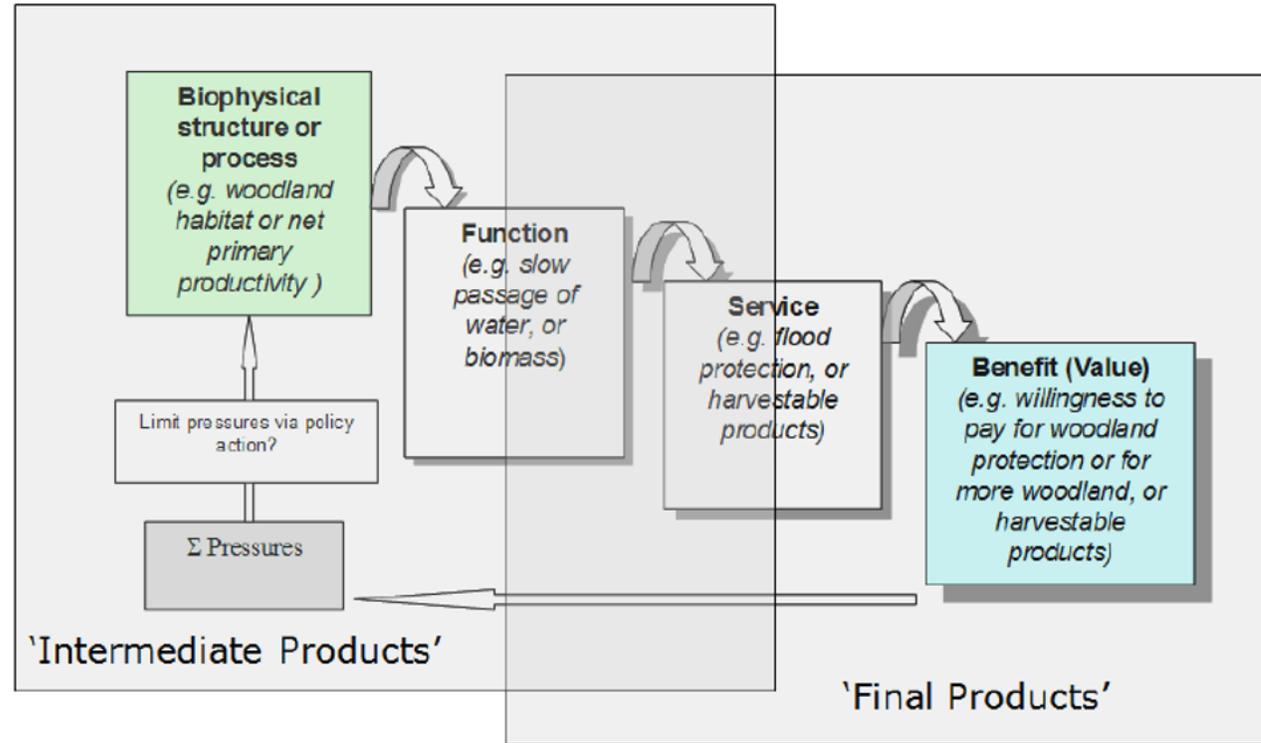
Intangible benefits obtained from ecosystems



Supporting: Functions that maintain all other services



Ecosystem Services Approach



Importance (and costs) of maintaining natural capital

Value of services often taken for granted:

- ❑ **Water supply/regulation:** Catskills Mountains \$2bn natural capital solution vs \$7bn technological solution (pre-treatment plant)
- ❑ **Pollination:** 30% of 1,500 crop plant species depend on bee and other insect pollination. Value of bees for pollination ~ Eur29 billion to EUR 70 billion worldwide per annum
- ❑ **Fish stock existence/productivity:** Global market \$80bn, 1.2 billion people reliant, stock collapses have major (local/national) implications
- ❑ **Flood control services of floodplain:** eg River Bassee floodplain: ~ 91.5 – 305 million EUR / year

Algunas definiciones relevantes

- El costo pagado (o beneficio recibido) por “alguien” quien no está involucrado en la transacción → efectos secundarios
- Puede ser positiva o negativa
- Los servicios ecosistémicos normalmente entran en esta categoría

Externalidad



- El costo o beneficio de producir una unidad adicional
- El valor disminuye y el costo aumenta
- Responde a la pregunta: ¿cuánto más estamos dispuestos a perder?
- Herramienta aplicada para medir el valor de ecosistemas:
- $\frac{1}{4}$ o $\frac{1}{2}$ del área se pierde → grandes cambios
- Las especies que se pierden antes son más valiosas que las que se pierden después

Costo/beneficio marginal



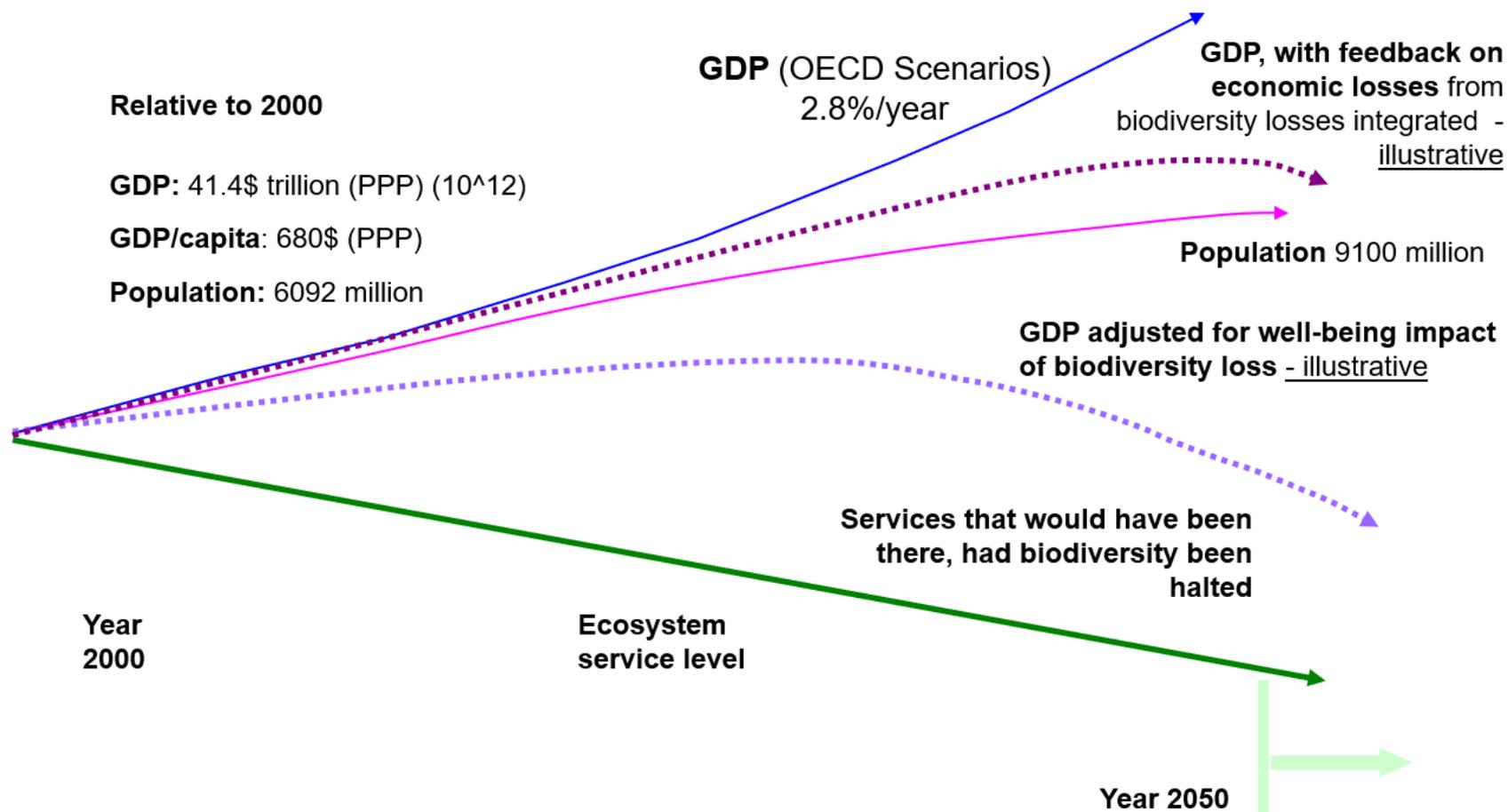
- Asignación inapropiada del valor de un bien. Se puede dar por:
 - ✓ Externalidades
 - ✓ Bienes comunes
 - ✓ Riesgo moral
 - ✓ Competencia imperfecta
 - ✓ Información asimétrica

Falla de mercado



GDP & Natural Capital Loss

How they (don't) Fit

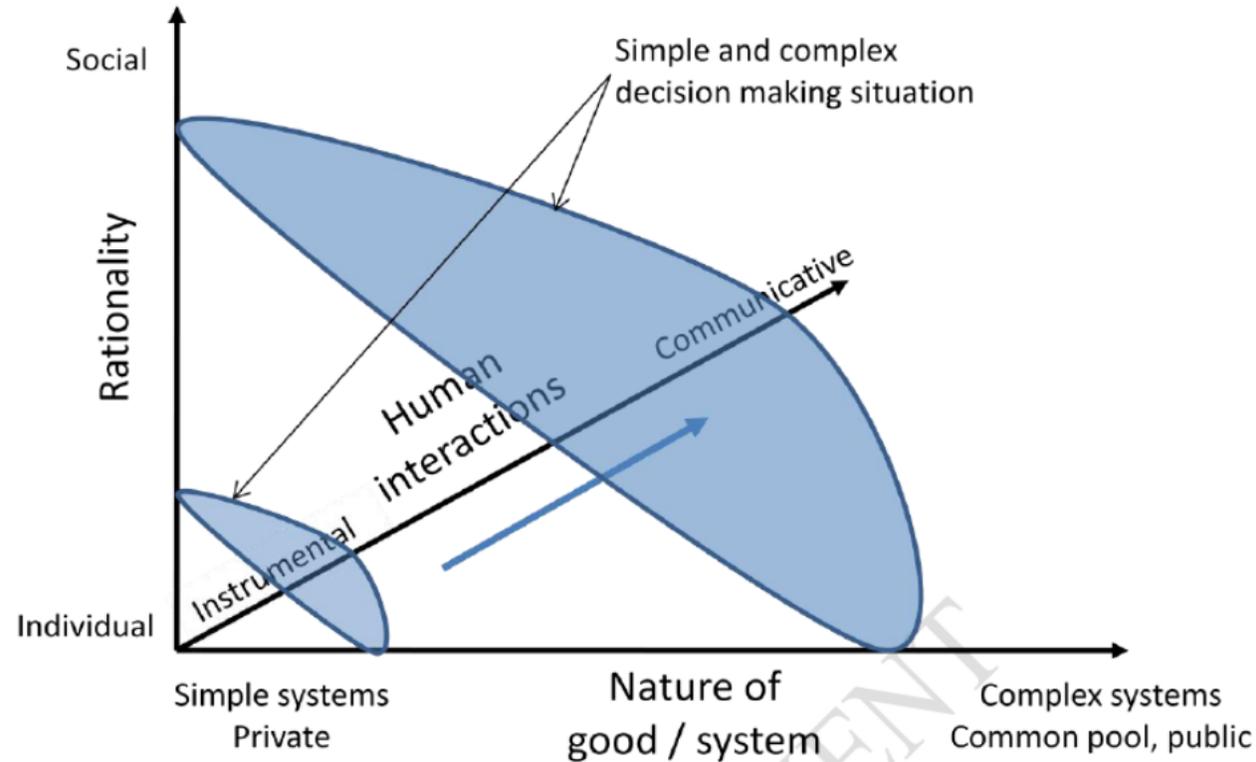


Responding to nature's Invisibilities; A Recap so far

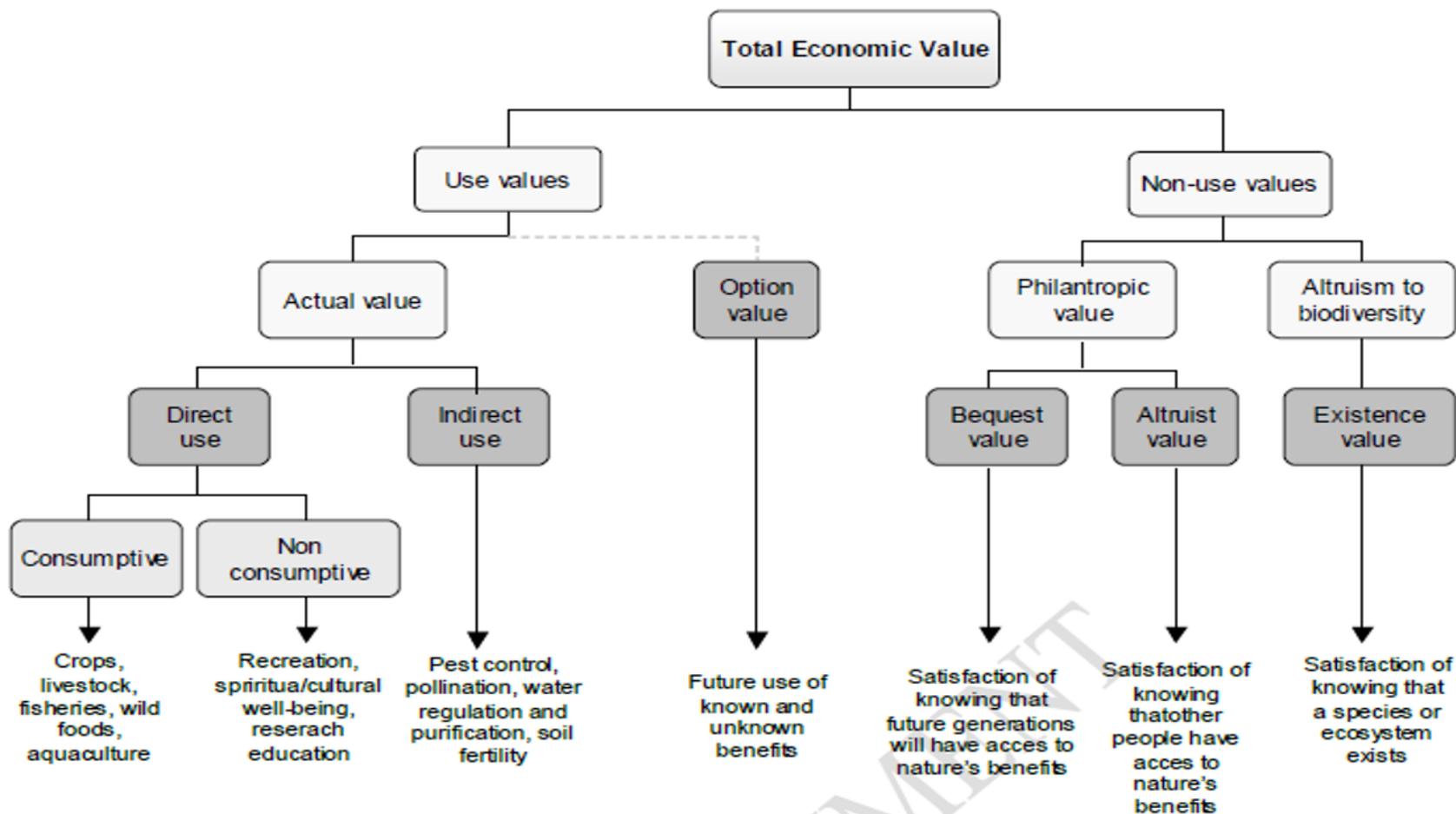
- ❑ The value of biodiversity and ecosystem services is **not being fully reflected** in the markets, price signals and policies
- ❑ Decision making (at company, policy & citizen level) often **fails to take into account** the local to global benefits of biodiversity and ecosystem services
- ❑ **Assessing ecosystem service benefits** is critical
- ❑ There is a **need to improve the economic signals** to help take the values of nature into account
- ❑ There is a growing recognition of the need to improve and **invest political capital in natural capital accounts** and integrated environmental and economic accounts

How to choose how to value

- The choice of valuation method will define the outcome of the valuation process (Vatn, 2005)



Value Types within the TEV Approach

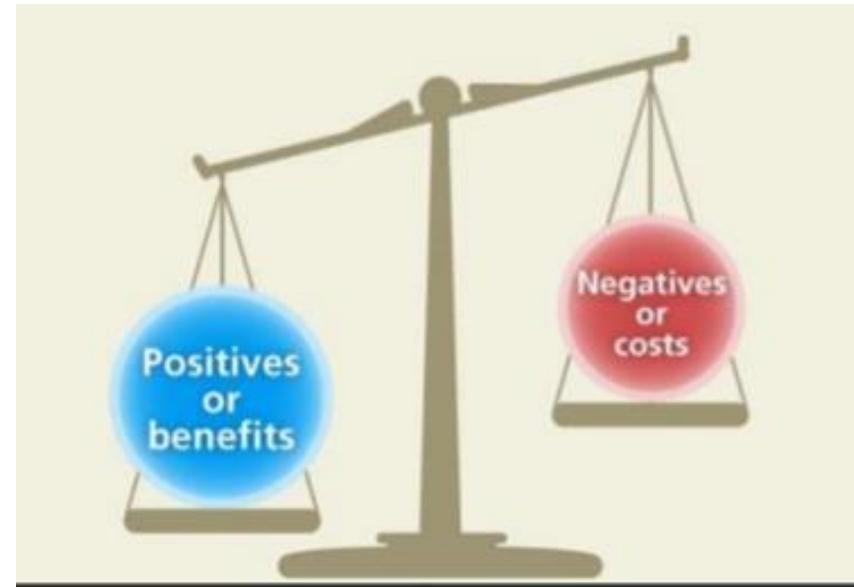


Métodos de valoración económica



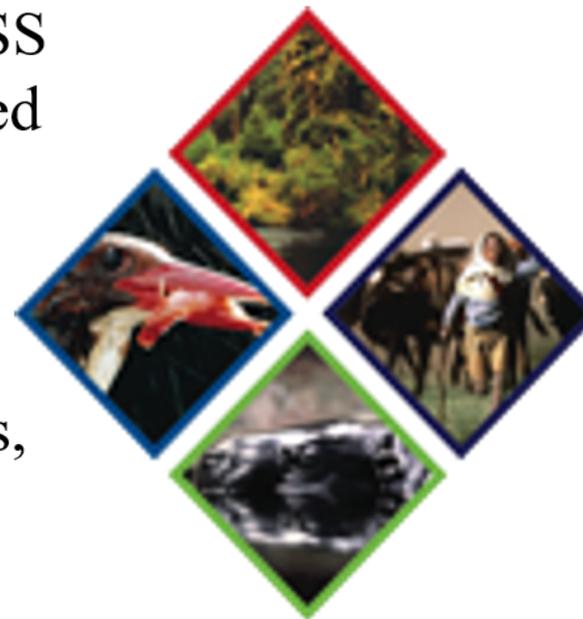
Análisis costo beneficio

- Calcular el valor total y comparar los costos y los beneficios de las diferentes opciones
- Asume que el proceso de toma de decisión es racional (razón/lógica, voluntad de pago)
- Usa la forma en que tomamos decisiones como muestra del valor que damos a las opciones



PUTTING THE TIERED APPROACH INTO PRACTICE

- **Recognizing Value** - IDENTIFY and ASSESS the full range of → *ecosystem services* affected and the implications for different groups in society
- **Demonstrating Value** – *estimate* and *demonstrate* the value of ecosystem services, using appropriate methods.
- **Capturing Value** – *capture* the value of ecosystem services and seek *solutions* to overcome their undervaluation, using economically informed policy instruments



CAPTURING VALUE:

Costa Rica's experiences with market for ecosystem services, focus on "Programa de Pagos de Servicios Ambientales"



❑ Despite the policy of protected areas creation, deforestation trends during the 20th century were alarming: Costa Rica experienced one of the highest rates of deforestation worldwide during the 1970s and 1980s

❑ Nearly 60% of forests are privately owned land, and are not included in the system of protected areas

❑ The deforested areas were converted into other land use, mainly agricultural use (crop production and pasture)

The 1996 Costa Rican Forestry law recognizes four services provided by forests:

watershed protection

scenic beauty



carbon
fixation/sequestration

biodiversity conservation.

Costa Rica Payments for Ecosystem Services (PES) scheme



Ecosystem Valuation; The Challenges

Moral/Ethical challenges:

- ❑ The idea of placing monetary value on ecosystems buys into the free-market system

Technical challenges:

- ❑ The difficulty to account for inter-linkages between different ecosystem services
- ❑ Lack of information about the economic value of ecosystem functions and tools for cross-level valuation
- ❑ Dealing with incomplete, inaccurate and/or changing data

Ecosystem Valuation; The Opportunities

- ❑ Valuation **creates a framework** that can help nature's values become more economically visible and accounted for in decision making
- ❑ If properly used, valuation can **contribute to economic accounting** and planning creating more **effective strategies** for natural resource management
- ❑ Valuation of biodiversity can **contribute towards alleviating poverty**
- ❑ Valuation does not always necessarily mean monetization and have to lead to marketization of nature. It relies heavily on what the policy is at hand



...THESE SPECIES ARE UNPROFITABLE, SO THEY WILL BE LAID OFF.

GLOBAL ECONOMY

CONSULT

UH... CAN EVERYTHING BE MEASURED IN MONEY?

YEAH, MAN... FOR EXAMPLE, IF IT WASN'T FOR US DUNG DECOMPOSERS, THE WORLD WOULD DROWN IN SHIT.