

Ecosystem Services Accounting- comparative grid (ES A-grid)

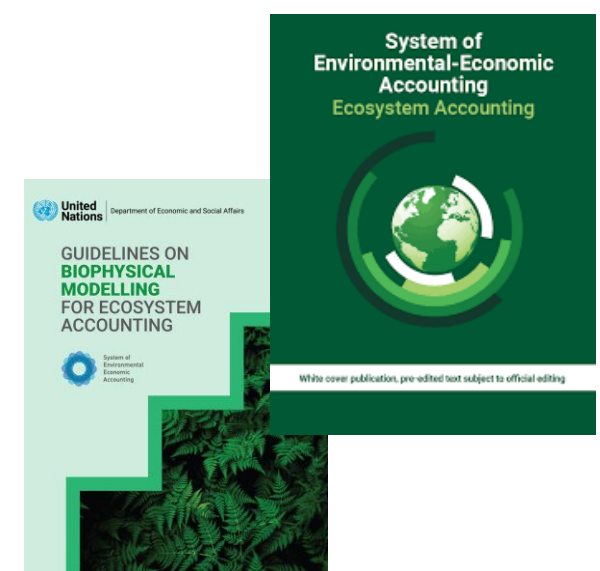
Draft proposal based on the work of

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30th Meeting of the London Group on Environmental Accounting, 1st October 2024

What is the issue...

- SEEA EA is a general framework
- It does not provide operational procedures to guide on what to do and how to do it
- The same ecosystem service can be calculated by using different methodologies



...and why this is an issue

For the same ES in the same area, we could have accounts:

- of different orders of magnitude;
 - having different (opposite) trends
- that cannot be consistently:
- aggregated (from regional to national to continental to global);
 - compared across regions, countries, etc.
 - interpreted over time

With respect to previous attempts...

...we are more humble because we **do not**

checklist all possible ES studies

checklist all ES mapping and assessment

set a standard metadata for ES modelling

Review Article

One Ecosystem 9: e120449
<https://doi.org/10.3897/oneeco.9.e120449> (14 Jun 2024)

Increasing uptake of ecosystem service assessments: best practice check-lists for practitioners in Europe

David N. Barton, Bart Immerzeel, Luke Brander, Adrienne Grêt-Regamey, Jarumi Kato Huerta, Conor Kretsch, Solen Le Clech, Paula Rendón, Joana Seguin, Martha V. Arámbula



Ecosystem Services
Volume 4, June 2013, Pages 4-14



A blueprint for mapping and modelling ecosystem services

Neville D. Crossman ^a , Benjamin Burkhard ^b, Stoyan Nedkov ^c, Louise Willemen ^{d,1}, Katalin Petz ^e, Ignacio Palomo ^f, Evangelia G. Drakou ^d,

A visualization and data-sharing tool for ecosystem service maps: Lessons learnt, challenges and the way forward

E.G. Drakou ^a , N.D. Crossman ^b, L. Willemen ^{c,d}, B. Burkhard ^{e,f}, I. Palomo ^{g,h}, J. Maes ^a, S. Peedell ^a

We focus ONLY on ES Accounting

Not all Ecosystem Accounting modules (Extent or Condition), but ONLY Ecosystem Services

Let's clarify some bias

- Accounting is not the END but a MEANS -> there is no pre-set purpose
- Accounting does not mean monetary valuation. Prior to any translation into monetary terms, it is important to undertake an initial assessment in physical terms.
- Accounting is neither a “project” nor a “policy”, it is a quantitative tool that can EVENTUALLY support projects and policies

How to address the issue

There are many forms of ES measurements; in some cases they can be used to compile accounts that are consistent with the SEEA EA standard

In addition, some ES measurements (depending on how they are assessed and accounted for) are suitable for more complex uses

The guidance purpose of the ES A-grid is to provide a concrete list of criteria that need to be met to be consistent with the SEEA EA standard

Compilers and users of the “ES A-grid”

- National Statistical offices (NSO) who have the mandate of creating the accounts
- Compilers of the ES accounts outside the NSO
- Users of ES accounts who want to check how trustworthy are ES accounts

One thing is compilers and users of ES A-Grid.
Another are users of ES accounts

Who are the users of ES accounts? (a few examples)

Private sector for internal management and financial disclosures

PHILOSOPHICAL
TRANSACTIONS B

royalsocietypublishing.org/journal/rstb

Leveraging natural capital accounting to support businesses with nature-related risk assessments and disclosures

*Regional planners
Government departments
NGOs
International institutions*



Goal B

B.1 Services provided by ecosystems

Ministries of Economy and Finance



The key role of natural capital for economic activity

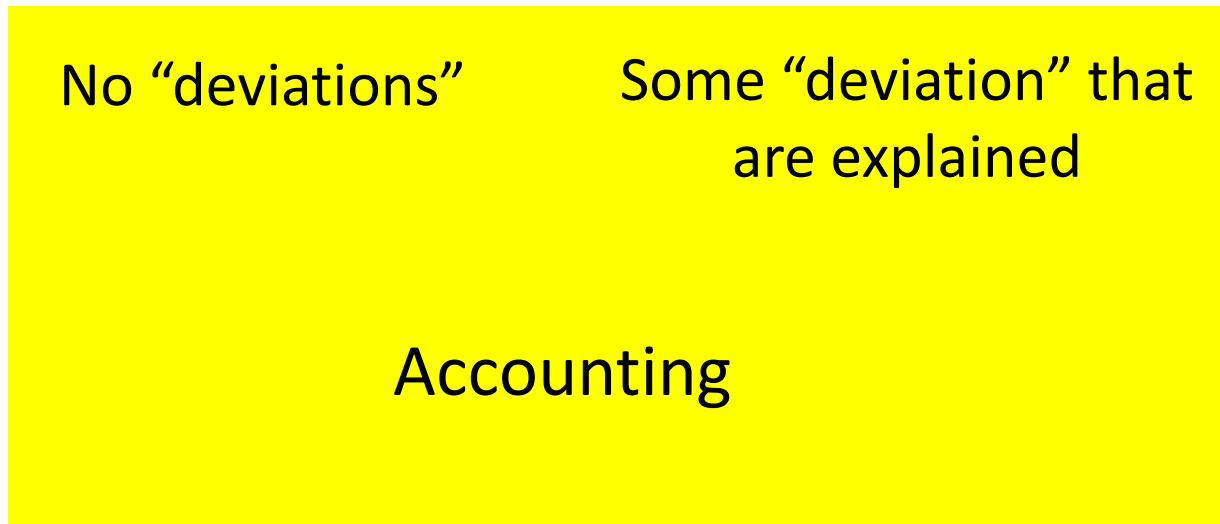
Spring 2024 Economic Forecast: A gradual expansion amid high geopolitical risks

What are the key elements of the “ES A-grid”?

1. the accounting rules and mechanisms

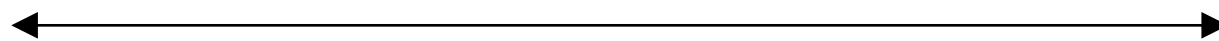
Accounts must comply with a standardized set of rules

Other ways to measure and report ES



Reporting

More structured

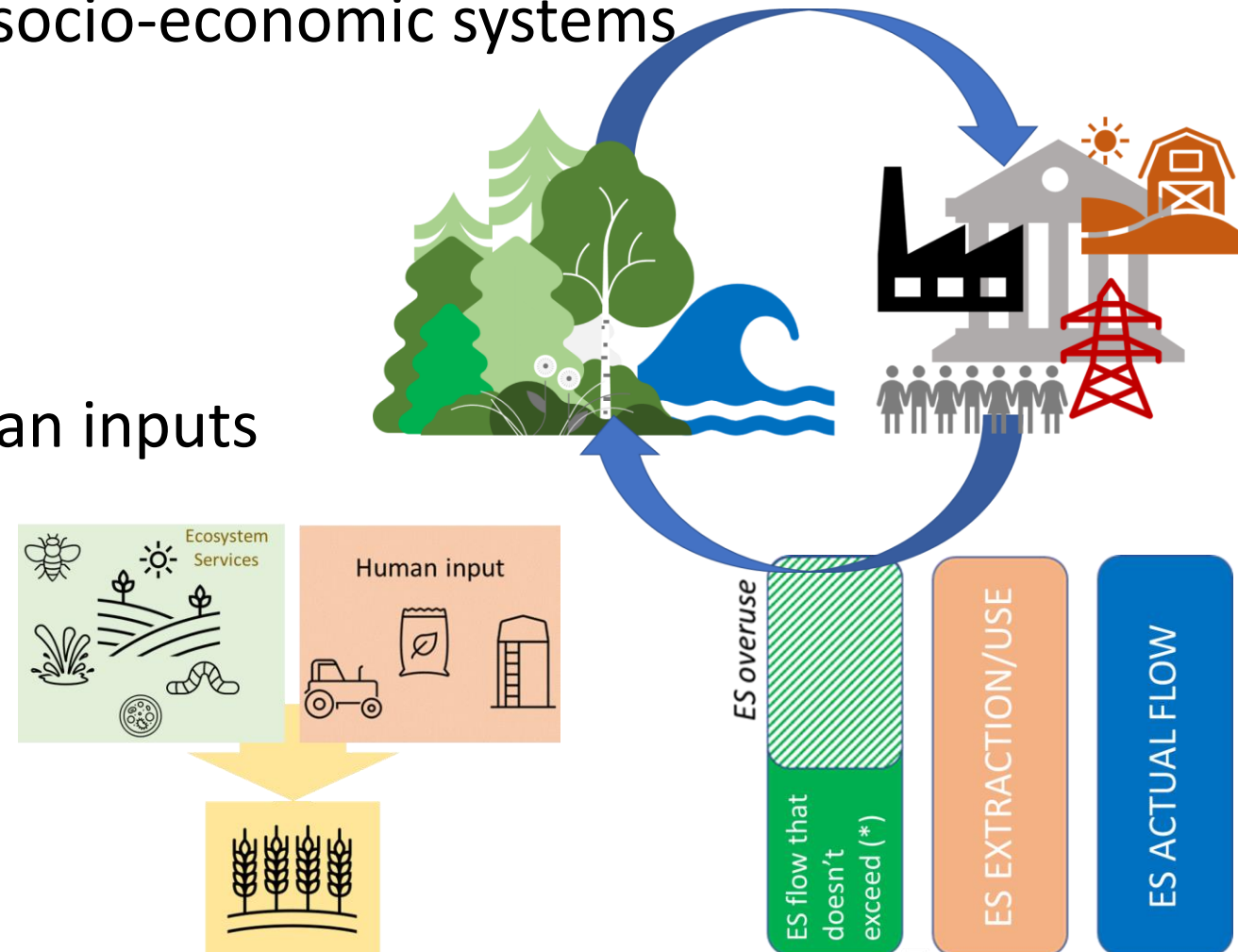


Less structured

What are the key elements of the “ES A-grid”?

2. The ecological meaning of measurements

- Interaction between ecosystems and socio-economic systems in generating the service flow
- Interaction between natural and human inputs in generating the service flow
- Sustainable use of ecosystem services



Three main groups of questions

FUNDAMENTALS ->

ES definition

ES accounting basics

ES measurement basics

APPROACH ->

ES delineation and proxy

ES co-production

ES sustainability

METHOD & DATA ->

Method

Data

Outcomes of the “ES A-grid”

- When the “RED FLAG” occurs, this means that ES measurements are not consistent with SEEA EA standards. This happens only if
 - A basic accounting rule is broken (Supply=Use)
 - There is a critical lack of consistency in the ES measurement
- When a “AMBER FLAG” occurs, this means that there are deviations from SEEA EA that need to be explained
- When a “YELLOW FLAG” occurs, that means that special care needs to be taken interpreting the accounts

* Inconsistencies or deviations are due to ACCOUNTING reasons

** Inconsistencies or deviations are due to Data Quality Assessment reasons

Some examples

ES accounting basics

The objective of this section is to ensure that the fundamental accounting principles are in place.

The objective of this section is to ensure that the fundamental accounting principles are in place.				Instructions on how to proceed
5	Is the ES accounted in a Supply and Use table? If NO, insert a RED FLAG	yes	no FLAG*	if YES go to 6, if NO stop reason: Supply and Use Table (SUT) is the required accounting table
6	Do the totals reported in the Supply table equal the totals reported in the Use table? If NO, insert a RED FLAG	yes	no FLAG*	if YES go to 7, if NO stop reason: this breaks the basic rules of SUT accounting
7	Is the Ecosystem Service measured first in biophysical terms? if NO, insert a AMBER FLAG	yes	no FLAG*	if YES go to 8, if NO go to 7.1 reason: in principle the assessment of ES is in physical terms
7.1	Please explain why this Ecosystem Service is measured in monetary terms	long text		after compiling go to 8
8	Has the Ecosystem Service flow a positive sign? if NO, insert an AMBER FLAG	yes	no FLAG*	if YES go to 9; if NO go to 8.1 reason: only positive transactions enter SNA
8.1	Please explain the interpretation of the negative flows in your accounts	long text		after compiling go to 9
9	Is the Ecosystem Service treated as a final service? if NO, insert an AMBER FLAG	yes	no FLAG*	if YES go to 10; if NO go to 9.1 reason: this may lead to double counting
9.1	Please describe whether the intermediate flow works as an intra-ecosystem or an inter-ecosystem flow, and explain its relevance	long text		after compiling, go to 10

The objective of this section is to examine the interplay between ecological and human inputs in the generation of some ES				Instructions on how to proceed
28	Does this ecosystem service contribute directly to a good or service that is already part of the SNA?	yes	no	if YES go to 29; if NO go to 31
29	Is there consistency between ecosystem service supply and use and SNA product supply and use? if NO, insert an AMBER FLAG	yes	no FLAG*	if YES go to 30, if NO go to 29.1 reason: this may lead to inconsistencies in the overall integrated accounting framework
29.1	Explain how you tackle the use of this ecosystem service measurement when/if in combination with SNA	long text		after compiling, go to 31
30	Explain how the consistency with SNA is assured	long text		after compiling go to 31
31	Is this ecosystem service generated by natural inputs only?	yes	no	if NO go to 32; if YES go to 34
32	Do you disentangle the natural input from the human input? if NO, insert a YELLOW FLAG	yes	no FLAG	if YES go to 33; if move to 32.1 reason: this may lead to inconsistencies in the interpretation of the service flow
32.1	Explain how you avoid misleading interpretations on the trend over time of this ecosystem service	long text		after compiling, go to 34

	QUESTION	Accounting*	Quality**	Interpretation	
RED FLAG	#	...			If there are RED FLAGS, ES measurements are not consistent with the SEEA EA for the explained reasons
	#		...		
	#		...		
AMBER FLAG	#	...			If there are AMBER FLAGS, ES measurements are consistent with SEEA EA, but with the explained DEVIATIONS
	#		...		
	#	...			
YELLOW FLAG	#			...	Where there are YELLOW FLAGS, ES measurements are consistent with SEEA EA, but care should be taken when interpreting, aggregating and comparing for the reasons explained
	#		...		
	#		...		
	#		...		
		Each question corresponds to OR "accounting" OR "quality"			
		Not possible			

Possible uses of the “Comparative Grid”

Ex-ante:

- NSOs and practitioners will be provided with guidance on the critical accounting rules and the ecological meaning of the ES measurement they are undertaking
- NSOs are supported in evaluating ES accounts provided by third parties/partner organizations
- NSOs are made aware of the range of possible limitations that may occur

Ex-post:

- NSOs and practitioners that needs to aggregate and compare ES accounts coming from different sources can check their degree of comparability
- NSOs and practitioners can check the feasibility of interpreting and analysing trends over time in a consistent way
- ES users who needs to find out how trustable ES accounts are

Questions for the London Group:

What do you think about the ES A-grid?

*Are you willing to test it on you ES accounts?**

* If “yes” get in touch: alessandra.la-notte@ext.ec.europa.eu