

# Toward the inclusion of ecological liabilities in the SNA: first proposals

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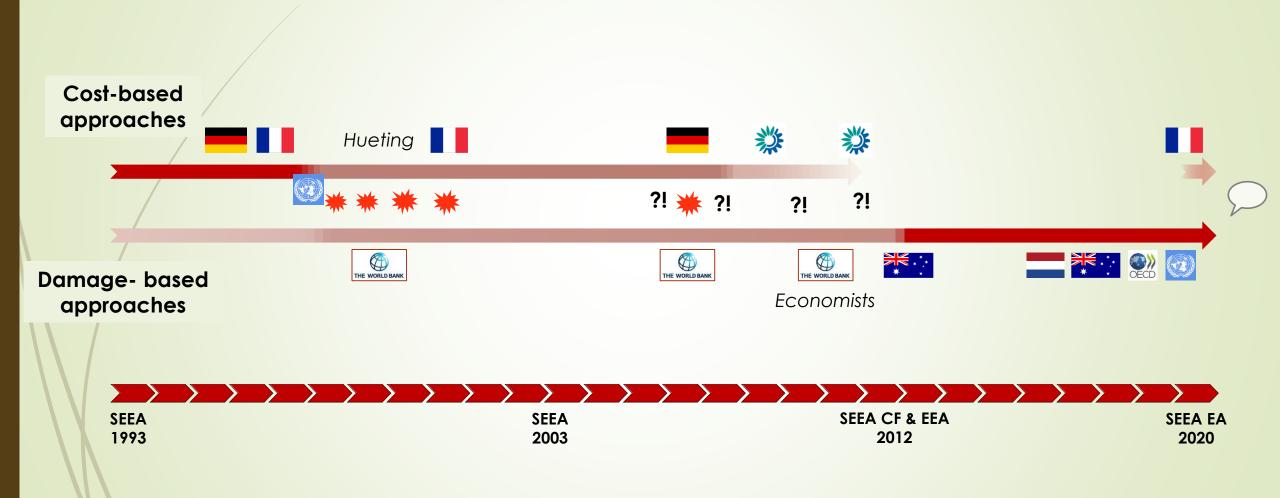






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## History of the valuation framing discussion





## Overview: main design choices

Design choice		SEEA EA	Unpaid Ecological Costs (Vanoli 2017)	Natural liabilities	
Unit		Φ & €	Ф & €	Φ & €	
Valuation framing	Focus on	Impacts on the economy	Impacts on the environment	Impacts on the environment	What's manageable with
	Degradation definition	Ecosystem services loss	Based on condition	Based on condition	monetary accounts?  What environmental
	Valuation method	Net present value	Preservation costs	Preservation costs	result?
Reality level of the figures		Modelling	Modelling	Modelling/Observation	External view or economic fact? Who publish the data?
Accounting structure	New institutional sector	« Ecosystem trustee »	« Nature »	« Ecosystem trustee »	Who to include in the governance?
	Main balance sheet account	Ecosystem assets	Ecological debt	Natural liabilities	Purely intrumental vision or not?
	Conterpart	Financial assets	Imputed costs to final consumption	Natural assets	

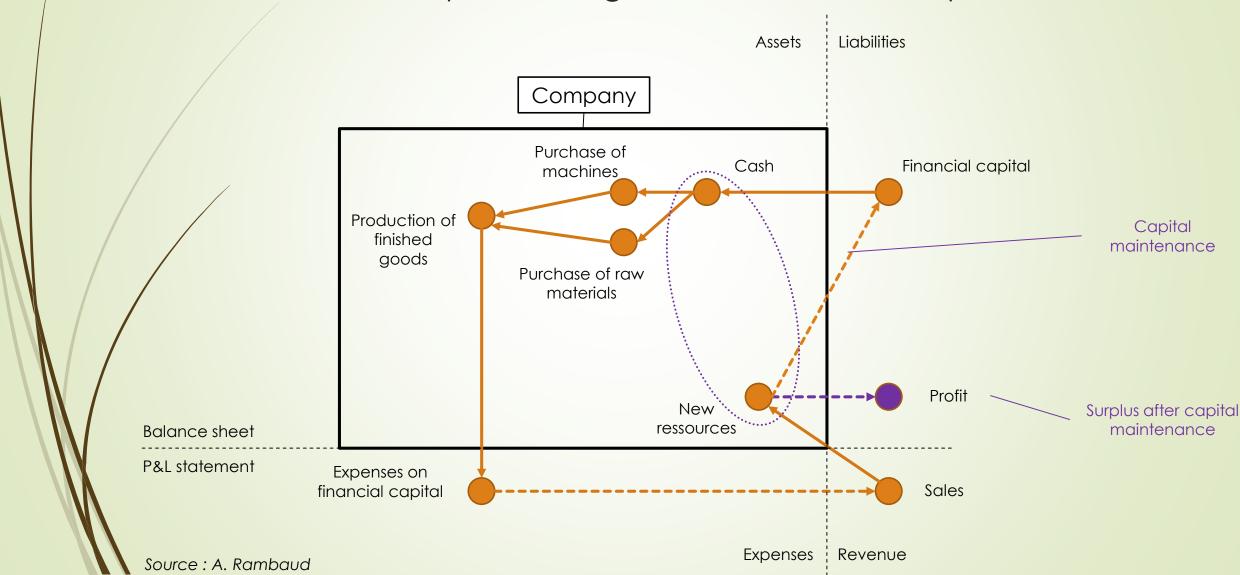


## The underlying theory: the CARE model

Comprehensive Accounting in Respect of Ecology

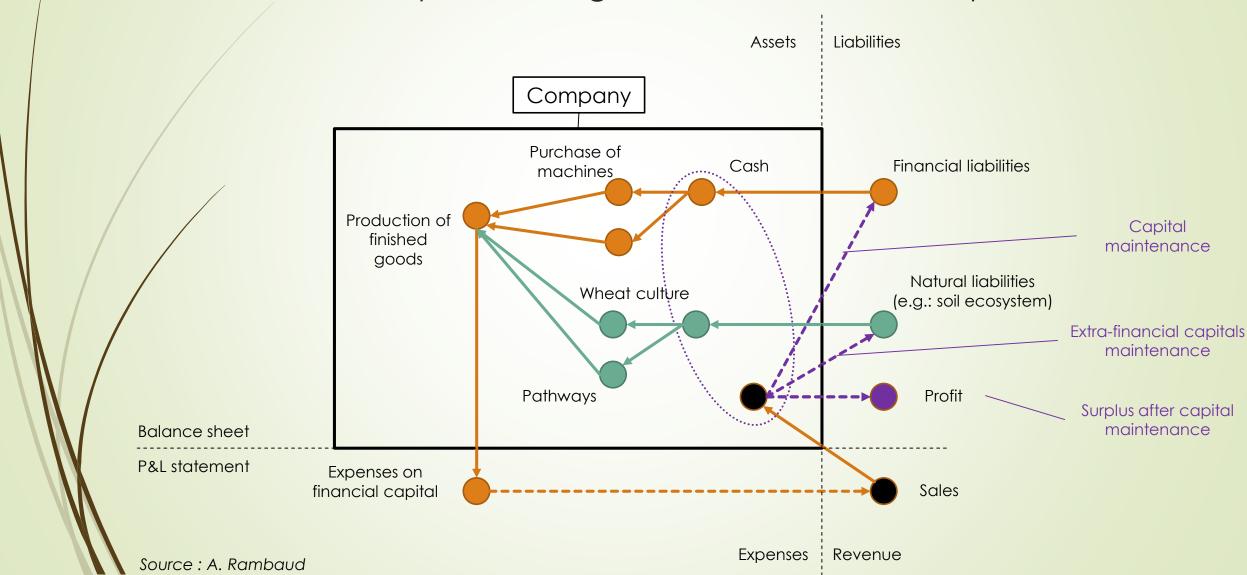
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## The historical cost accounting system: monitoring of financial capital through its use and consumption



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## **Extension of the HC accounting system:** monitoring of several capitals through their use and consumption





## Towards integrating ecological debts in national accounting?

What can CARE bring to the SEEA?

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## Defining the liabilities consistently with the SNA

Need for a legal contract/obligation



#### **SNA 2008**:

« 3.33. A liability is established when **one unit is obliged**, **under specific circumstances**, **to provide a payment** or series of payments to **another unit** (the creditor) »



Ecosytem trustee

<u>Valuation:</u> budgeted preservation costs to reach (back) a given reference level.

**Preservation costs** ⇔ **exchange value/market price** <u>only if</u> external validation (contract / obligation)



## What level of reality? Who make the disputable choices?

	Economic (modelling) approach	Accounting (observation) approach
Who produce the numbers?	Ministry services, researchers	Business accountants (-> row data for NSO)
What data?	<ul><li>State of the environment</li><li>Global / mean preservation costs</li></ul>	<ul> <li>Real uses of the environment</li> <li>Individual preservation budget</li> </ul>
Disputable choices	Hypothesis in the model	Actual institutional arrangements
Status	External estimates -> abstract models to imputations	Economic facts -> accounts



Towards a **satellite account** of financing needs for the ecological transition?



Towards **extended NA** based on observations?



## Defining the liabilities: examples

Scientifically informed, democratic and legal choices

Defined in public policies / laws

National targets
breakdowned by sector and
companies

Liability's name	Preservation concern	Condition indicator	Reference level	Usual asset (degrading use)
Climat	Paris Agreement; French Energy Transition Law	Carbon budget	Carbon neutrality (2050)	CO2 warehousing
Soil	French Climate and resilience law (EU directive on soil health?)	Surface area of natural, agricultural and forestry areas	Net Zero Artificialisation (2050)	Activity area
Biodiversity	Nature directives, Restoration directive	Conservation status	Favourable conservation status / No net loss	
Fresh and marine waters	WFD, MSFD	Water bodies status	Good ecological and chemical status	Metal warehousing Organic pollution warehousing,

				С	URRE	NT ACCOUNTS	3		CHAIR
	Uses	Cons	structio	n Nature		Nature	Construction	Ressources	COMPTAB ÉCOLOGIO
							297	Production	ECOLOGI
	Intermediate consumption	180							
	Preservation activities		1						
Production	GDP		117						
account	Consumption of fixed capital								
account	On non-financial assets		8						
	On natural assets		3						
	NDP		106				. 4	Decomption out the	
Generation		ļ	$\vdash$				<u> </u>	Preservation activities	
							117	GDP	
of income	Compensation of employees		73						
account	Op. surplus / Mixed income		44						
-	primary income account		$\vdash$						
	stribution of income account								
Use of disposa	able income account								
I	Savings		44						
1				CHANGES	IN AS	SETS AND LIA	BILITIES		
1	Changes in assets	Con	structio	n Nature		Nature	Construction	Changes in liabilities and net worth	
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Natural capital	Gross fixed capital formation Consumption of fixed capital  Net lending (+) / net borrowing (-)  Gross natural capital formation  Activities area  Consumption of natural capital  Activities area  Ecological loans  Net acquisition of financial assets  Monetary gold and SDRs		9 -8 92 -3			Nature	44	Natural loans - Natural, agriculture & forestry areas  Net acquisition of liabilities  Monetary gold and SDRs	
Natural capital  Financial account	Gross fixed capital formation Consumption of fixed capital  Net lending (+) / net borrowing (-)  Gross natural capital formation  Activities area  Consumption of natural capital  Activities area  Ecological loans  Net acquisition of financial assets  Monetary gold and SDRs  Currency and deposit		9 -8 92 -3			Nature	44	Natural loans - Natural, agriculture & forestry areas  Net acquisition of liabilities  Monetary gold and SDRs  Currency and deposit	



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Ecosytem trustee

<u>Valuation:</u> budgeted preservation costs to ensure the long term preservation of the capital under consideration.

Preservation costs  $\Leftrightarrow$  exchange value/market price only if external validation / contract

#### Quite a big "if"... unless...

- Mandatory rehabilitation costs already in the SNA
- Impact studies = proto-CARE accounting implemented today
- EU CSRD (double materiality)



#### Potential uses

- A new vocabulary (Desrosières, 2008) to identify economic-environmental imbalances and dependencies
- Analysing liabilities:
  - Ecological solvency ratios -> signals to investors and clients, new prudential rules
  - Balance between reduction, restoration + analysis of avoidance -> respect for the mitigation hierarchy
  - Transition risk
- Natural assets show environmental dependencies



## Key messages

- Complementary monetary accounts to manage condition directly
- Accounted as ecological liabilities, preservation costs:
  - Are closer to the SNA than expected
  - Could be "observed" (not only modelled)
  - Are a link between public policies and an accounting that identifies levers for action



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## Thank you for your attention

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