

Corporate Natural Capital Accounting Expert meeting on Ecosystem Valuation

26 April 2015

 @Will_Evison

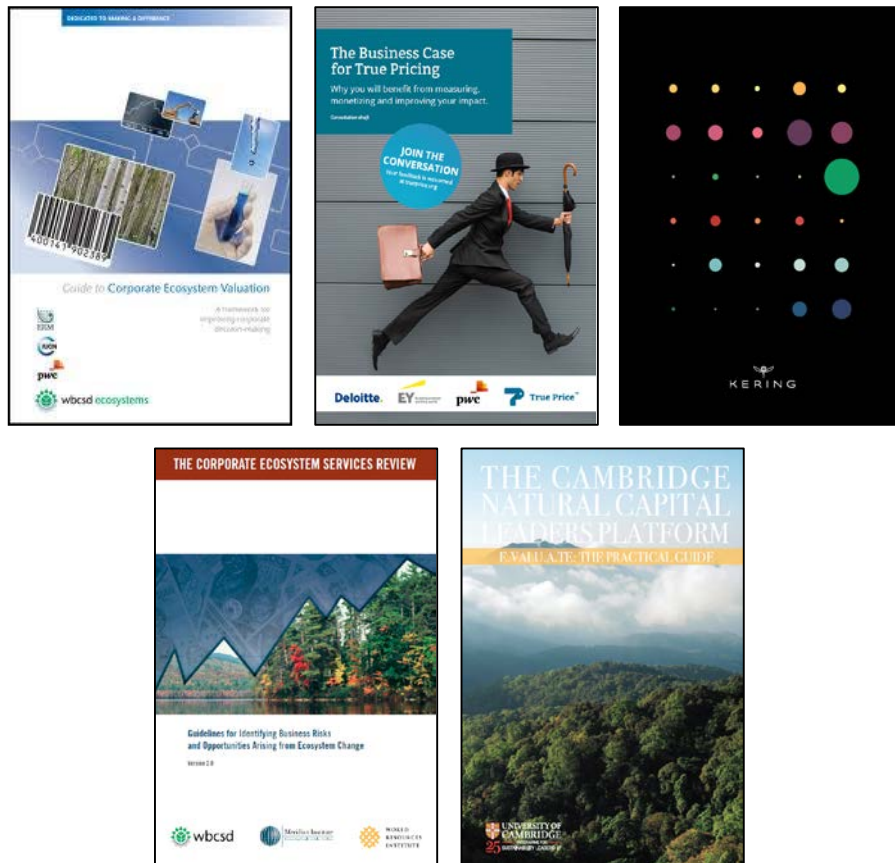
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(With thanks to Allan Provins, EFTEC and Pat Snowdon, Forest Enterprise England for their inputs to these slides)

Contents

1. Corporate Natural Capital Accounting in context
2. A brief intro to CNCA
3. An example from Forest Enterprise England

How CNCA fits in...



- Principally concerned with measurement and valuation of **flows** of ecosystem services or **indirect impacts** on natural capital
- Primary focus on **management** use rather than formal accounting and reporting

- Principally concerned with accounting for **directly managed** natural capital **stocks**
- Primary focus on **formal accounting** and **reporting** with consideration of management use

Why did we need a new accounting framework?

Conventional physical assets



- Benefits to the company (revenue streams)
- Benefits at a single, local, scale
- Depreciate in value over finite lifetime
- Exclusively owned and controlled by the organisation for entirety of useful life

Natural capital assets



- Benefits to the company and wider society
- Benefits at multiple scales (local, regional, global)
- Without intervention value may decline or remain stable
- Value may tend to appreciate over an infinite lifetime
- Often only partially 'owned' or controlled (e.g. certain use rights) for a defined period of time

What is CNCA all about?

1. What do you have?

Stocks of natural assets

2. What does it produce?

Flows of ecosystem services

3. What is that worth?

Natural capital benefits

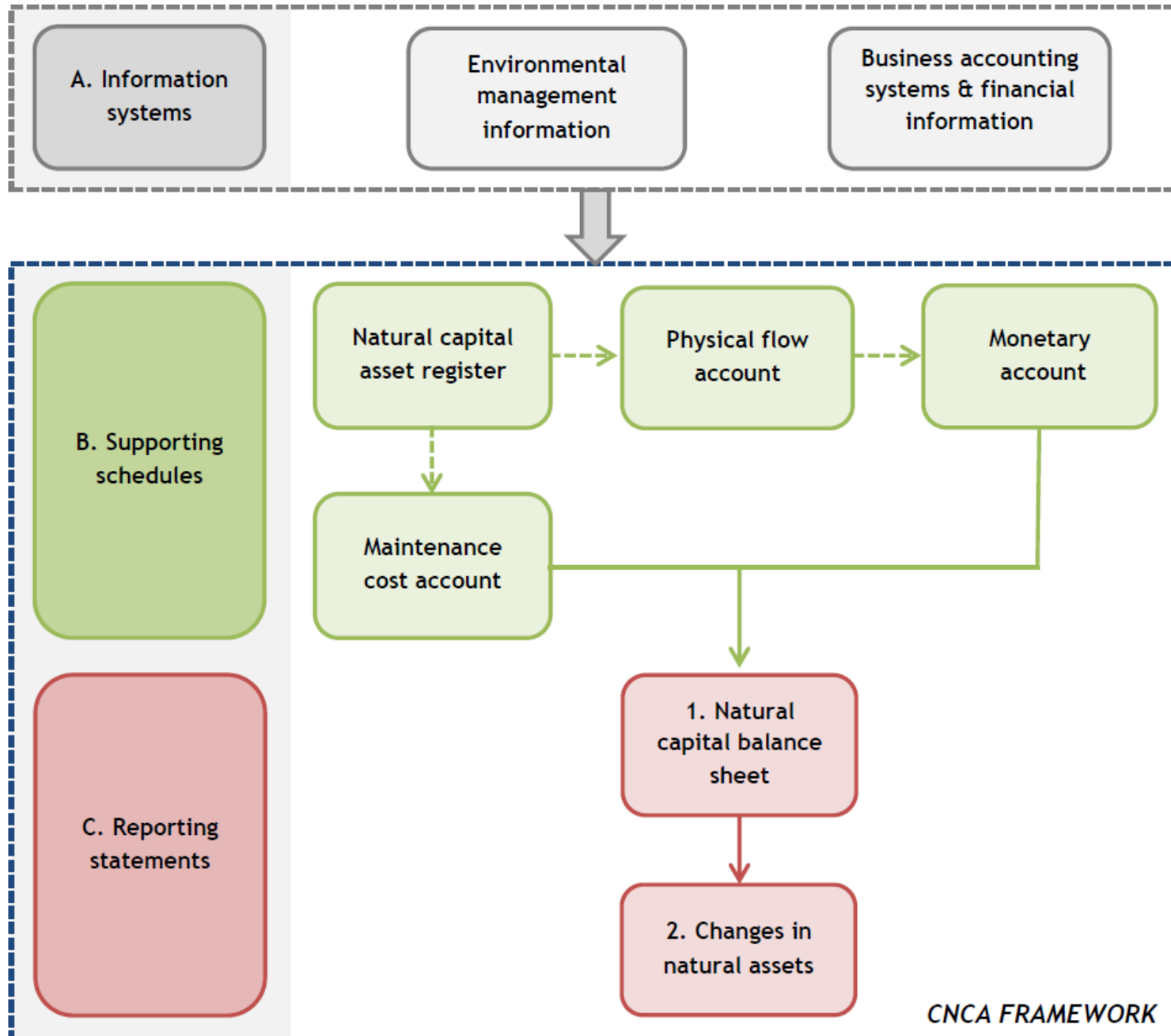
4. What does it cost?

Natural capital maintenance

Some key principles of CNCA

- 1. The long-term value of natural capital assets**
 - ⇒ Assess future flows of costs and benefits to monitor sustainability of natural capital
- 2. Both private and external values**
 - ⇒ Capture ‘full’ value associated with natural capital
- 3. Changes in natural capital**
 - ⇒ Measures change in value over time, relative to an ‘opening value’
- 4. Changes in value, by cause**
 - ⇒ Quantity, quality, beneficiaries, and internal/external factors

Key components of the CNCA framework




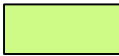
Captured in financial reporting

	Aesthetics	Clean Air	Clean Water	Energy	Climate Regulation	Fibre (timber)	Food	Hazard Protection (flooding)	Recreation	Wildlife
Woodland	○	●		●	●	●		○	●	○
Grassland	○				○				●	○
Mountains, moors & heath	○				●				●	○
Enclosed farmland	○						●			
Freshwater	○		○					○		○
Urban	○	●						○	●	○
Coastal margins	○				○					○

Initial natural capital account

	Aesthetics	Clean Air	Clean Water	Energy	Climate Regulation	Fibre (timber)	Food	Hazard Protection (flooding)	Recreation	Wildlife
Woodland	○	●		●	●	●		○	●	○
Grassland	○				○				●	○
Mountain, moors & heath	○				●				●	○
Enclosed farmland	○						●			
Freshwater	○		○					○		○
Urban	○	●						○	●	○
Coastal margins	○				○					○

- Significant service flow by habitat
- Potentially significant service flow by habitat

-  Included in account
-  Partly included in account

Extent (quantity)

- Majority of estate is woodland (83%)
- Size of the estate broadly stable

Condition (quality)

- Over 44m tCO₂ equivalent stored in PFE woodland
- 35% of SSSIs in favourable condition and 64% unfavourable recovering

Location (spatial configuration)

- Most of the PFE is located in rural areas (82%)
- 7% is in urban locations

		Total					
Condition	Condition of SSSIs	% in favourable condition					.. %
		% in unfavourable condition					..
		% in recovering condition					..
		% in other condition					..
Spatial configuration	Woodland location by ONS land class	Rural					.. thousand
		Rural					.. metric
		Urban					.. tonnes
		Urban					.. ha

Spatial accounting unit by		Indicator	Units	Baseline year	Reporting year
Physical account			Monetary account		
<ul style="list-style-type: none"> 1.4m m³/yr timber 1.3m tCO₂/yr carbon sequestered 73m visits/yr to PFE woodland 15.8m plants produced by FE nurseries 			<ul style="list-style-type: none"> £7.3m/year net timber revenue £83m/year in carbon benefits £148m/year in recreational benefits £3.9million in other benefits (plants and seeds, minerals, wild game) 		
		Seed production weight	kg/yr		
Food provision					
	Whole estate	Wild game carcass numbers	number/yr		
		Livestock production from tenant farmers	kg/yr		
		Crop production from tenant farmers	kg/yr		
Minerals					
	Whole estate	Mineral production volume	tonnes/yr		

At 31 st March 2016		Financial
Assets		£m
Baseline	■ £230m in private value to Forest Enterprise	
Gain/Loss	+	
Addition/Disposal	■ £12.2bn in external value to society from PFE assets	
Revaluation	-	
Gross Asset Value	■ £515m in maintenance costs	
	=	
Liabilities	■ <u>£11.9bn</u> net natural capital value of PFE	
Legal		
Other		
Total Maintenance		
Total Net Natural Capital Assets		

At 31 March 2016

	Non-Renewables		Renewables		Total Value (PV £m)
	Private Value (PV £m)	External Value (PV £m)	Private Value (PV £m)	External Value (PV £m)	
Assets					
1 Baseline Value	4	-	363	11,611	11,978
2 Cumulative Gains/Losses	-1	-	-225	240	15
3 Additions/Disposals	-	-	-	-	-
4 Revaluations and Adjustments	-	-	101	-	101
Gross Asset Value	3	-	239	11,851	12,093
Liabilities					
5 Legal Maintenance Obligations			-86		-86
6 Other Maintenance Provisions			-485	-30	-515
Total Net Maintenance Provisions	-	-	-570	-30	-600
Total Net Natural Capital Assets	3	-	-331	11,821	11,493

Thanks

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