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**To what extent can Natural Capital
concepts enable ecological sustainability?
- An overview of current initiatives**

What is natural capital?

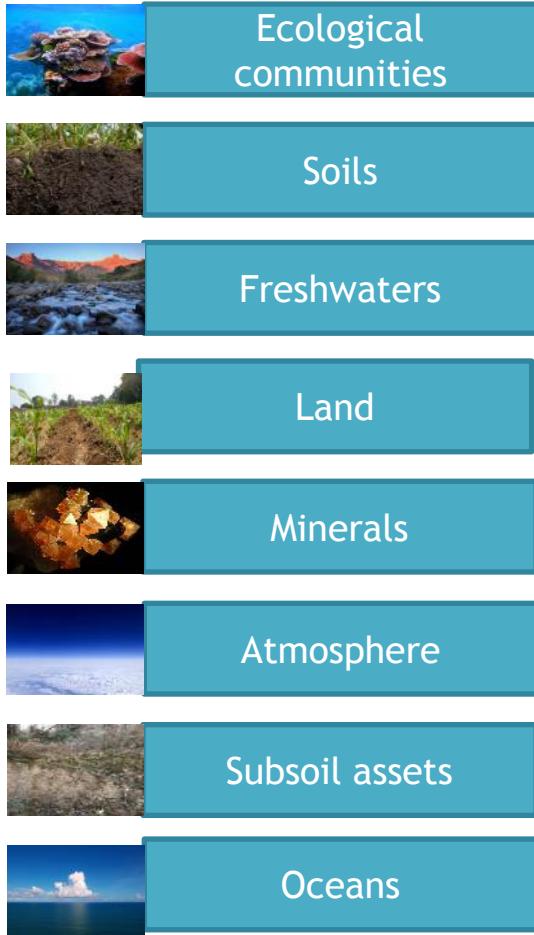


- The stock of natural assets upon which our economies and societies are built.
- These natural assets have the capacity to produce goods and services, both now and in the future.
- The notion of ‘capital’ emphasises nature as a source of value, so encouraging preservation and investment.

“The elements of nature that directly and indirectly produce value or benefits to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions” NCC 2014

Natural Capital Concept

Natural capital



Ecosystem Service Flows

Inputs from
other capital

Natural capital benefits



Natural capital - the challenge



- Current mainstream thinking neglects this important aspect of capital.
- As our demands on the natural world increase, so do the risks to; supply chains, capital base, future liabilities, reputation and customer base.
- Ultimately, better decisions need to be made:
 - be proactive and safeguard vital natural capital,
 - or remain exposed to external forces of natural depletion.

Overview

- UK NC Committee
- NC Accounting
- NC Declaration
- International Integrated Reporting
- NC Protocol

The Natural Capital Committee



Independent advisor to UK Government

- The main (only?) ‘green initiative’ from government
- Produced 3 “State of Natural Capital” Reports (2013-15)
 - Measurement
 - Accounting
 - Valuation
- Key recommendations:
 - 25 Year investment plan
 - Accounting for Natural Capital
 - Funding for Research

Corporate Natural Capital Accounts

1. What do we 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 to maintain these benefits?

Natural capital maintenance

Corporate Natural Capital Accounts

A means of demonstrating and tracking the value of natural assets:

Balance Sheet At 31 March 2016	Private Value (PV £m)	External Value (PV £m)	Total Value (PV £m)
Non-renewables			
Minerals	3	-	3
Total Non-renewables	3	-	3
Renewables			
Timber	207	-	207
Food	1	-	1
Plant & Seeds	-	22	22
Carbon	-	7,595	7,595
Recreation and Public Access	-	4,597	4,597
Total Renewables	208	12,214	12,422
Total Gross Asset Value	211	12,214	12,425
Maintenance Costs	(484)	(31)	(515)
Total Net Natural Capital Assets	(273)	12,183	11,910

FEE Summary Extract. Source: FEE Natural Capital Accounts 2016

Corporate NC Accounting

- Enables tracking of the health and benefits of assets owned
- Expands the scope of beneficiaries considered
- Doesn't explicitly analyse supply chain impacts and dependencies
- Understanding benefits and evaluating them is a major challenge for most organisations

National NC Accounts

ONS NC Accounting Road Map 2020

- Aggregate estimates of NC
 - Annual service flow estimates
 - Asset Valuations
 - UK nature worth at least £1,600bn
- Habitat-base ecosystem accounts
- Cross-cutting enabling accounts (e.g. carbon)

Table 5: Asset value by category environmental service, UK type, (£b, 2014 prices), 2007 and 2014

Associated environmental service type	Natural Capital asset category	Opening stock, year end 2007	Closing stock, year end 2014
Provisioning services	Agricultural biomass	14.9	32.4
	Fish	7.9	9.1
	Timber	3.3	4.2
	Water	31.9	29.2
	Minerals	1.6	3.7
	Oil, gas and coal	190.2	22.6
	Wind energy	11.0	45.3
	Hydropower	10.2	9.2
Regulating services	Carbon Sequestration	51.1	60.7
	Air pollution removal	129.0	114.2
Cultural services	Recreation	213.5	166.3

Source: Office for National Statistics

National NC Accounts - *some key challenges:*

- Developing accounts that have early policy and practical application
- Understanding how accounts can inform sustainability
- Developing and refining accounting principles in the light of experience
- Medium-term planning for evidence and research to support the improvement and timeliness of the accounts
- Building analytical and institutional capacity for natural capital accounting
- Increased user engagement to ensure greater awareness and use of the accounts

Natural Capital Declaration

- (now NC Finance Alliance)



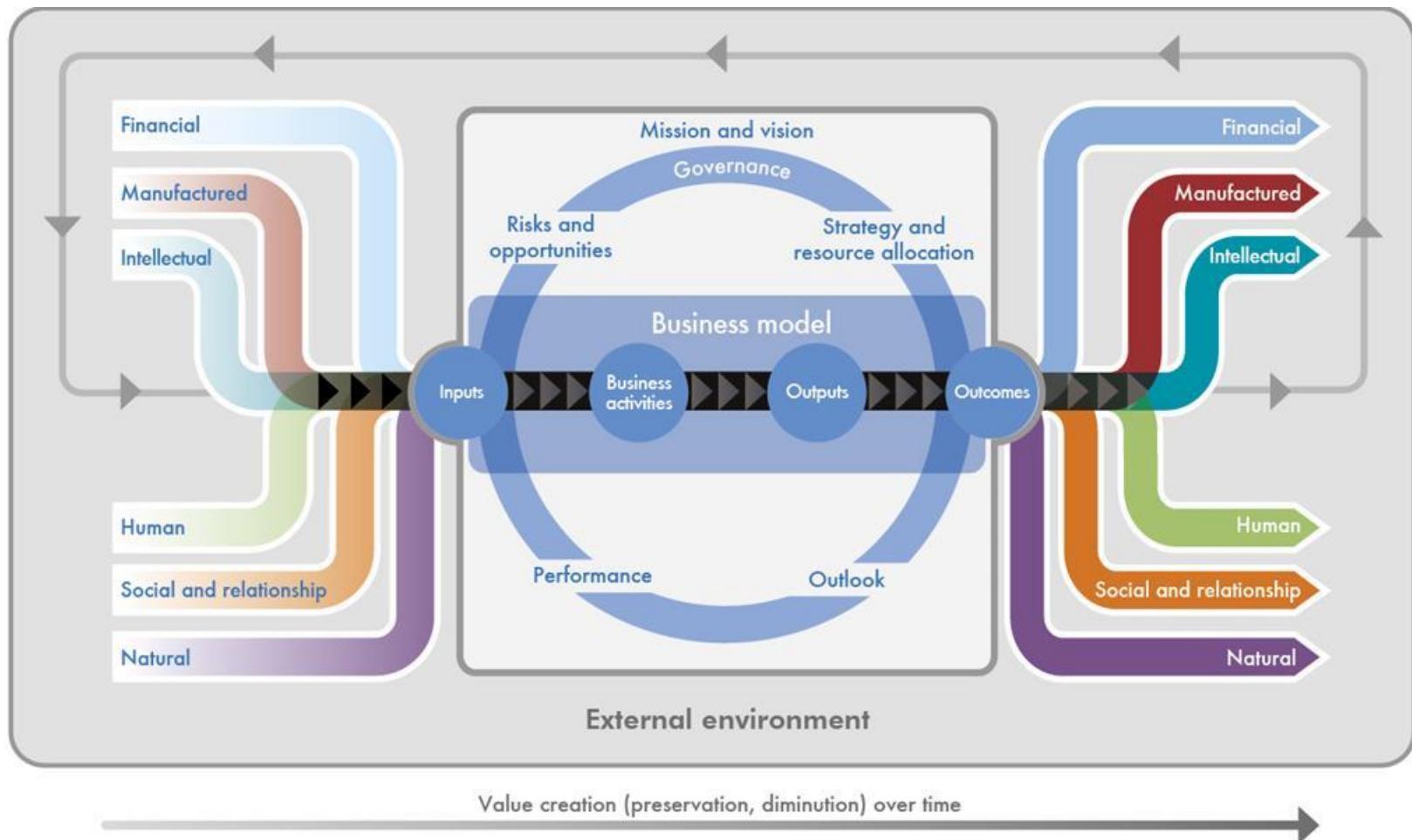
Natural
Capital
Declaration

- Initiative for finance sector convened by Global Canopy programme and UNEP Finance Initiative since 2012.
- Committing to integrate natural capital risks and opportunities into their products and services, 4 commitments:
 - Build an *understanding of the impacts and dependencies* on natural capital
 - Support the *development of methodologies* that can integrate natural capital considerations into the decision making process of all financial products
 - Work towards building a global consensus for the integration of natural capital into private sector *accounting*
 - Collaborate to build a global consensus around the development of Integrated *Disclosure and Reporting*

International Integrated Reporting Council (IIRC)

- Global Coalition for improving corporate reporting
- Promotes understanding of long term value creation and dependencies upon capitals
- Over 300 global corporations are declared IR reporters
- Framework issued 2013

IIRC Framework



IR Summary

- Expands business view - long term, strategic, relationships to capitals.
- Promotes sustainability considerations by link to value creation.
- Expands the sphere of stakeholder considerations
- Still very difficult to articulate and process.

Natural Capital Protocol

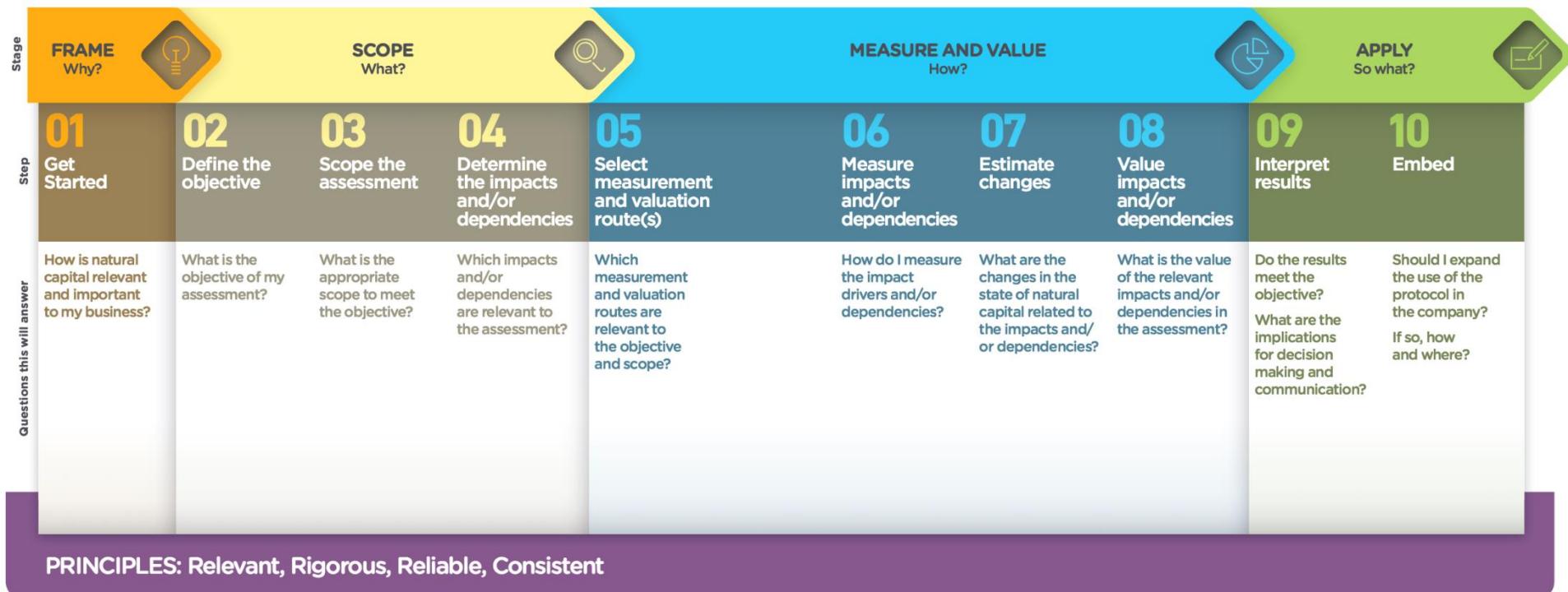


NATURAL
CAPITAL
COALITION

Framework designed by Natural Capital Coalition in 2016

- Initiated to address the standardisation of approaches
- It is general in application
- Does not prescribe any tools or techniques
- Reflects the multiplicity of problems, decisions, and knowledge gaps that organisations face.

NC Protocol - The Framework



Summary

- NC concepts have an inherent appeal to businesses, governments and NGO's
 - Partly because it frames natural resources within the prevailing economic decision making paradigm.
 - Partly because it has scope to act as a common language across stakeholders and players.
 - Plus it can bring in non-market considerations to decision-making.
 - And because it emphasises the fundamental reality that economic well-being depends upon healthy natural resources (as well as other capitals).
- Some progress is being made in; understanding relationships, quantifying, valuing, accounting and reporting for NC. However it is 'early days':
 - Difficulties arise from the complexities of NC role in generating benefits
 - Many benefits are still difficult to evaluate
 - Finding effective ways of communicating with stakeholders is a challenge