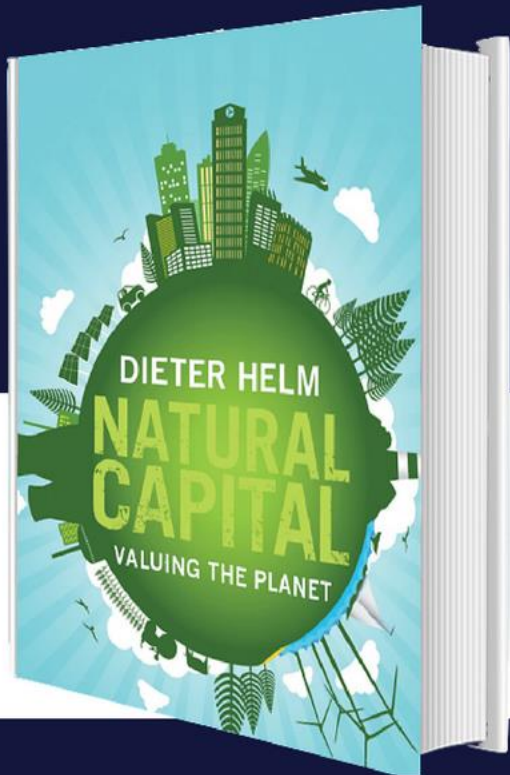


THE NATURAL CAPITAL APPROACH

22ND AUGUST 2017



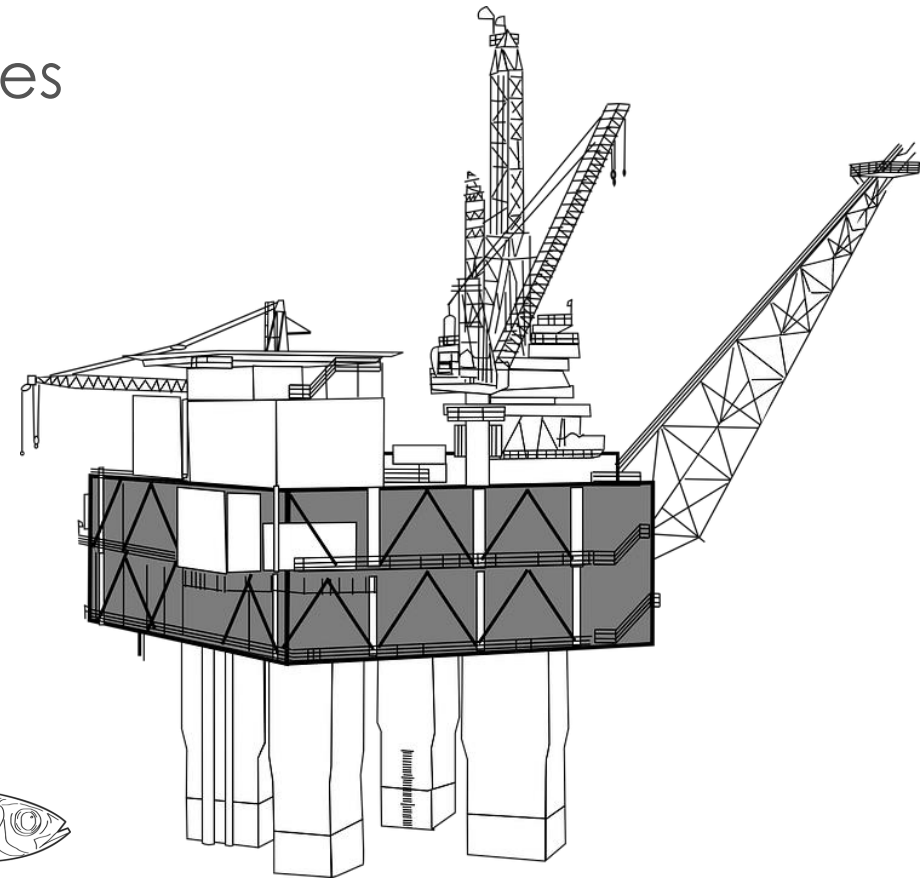
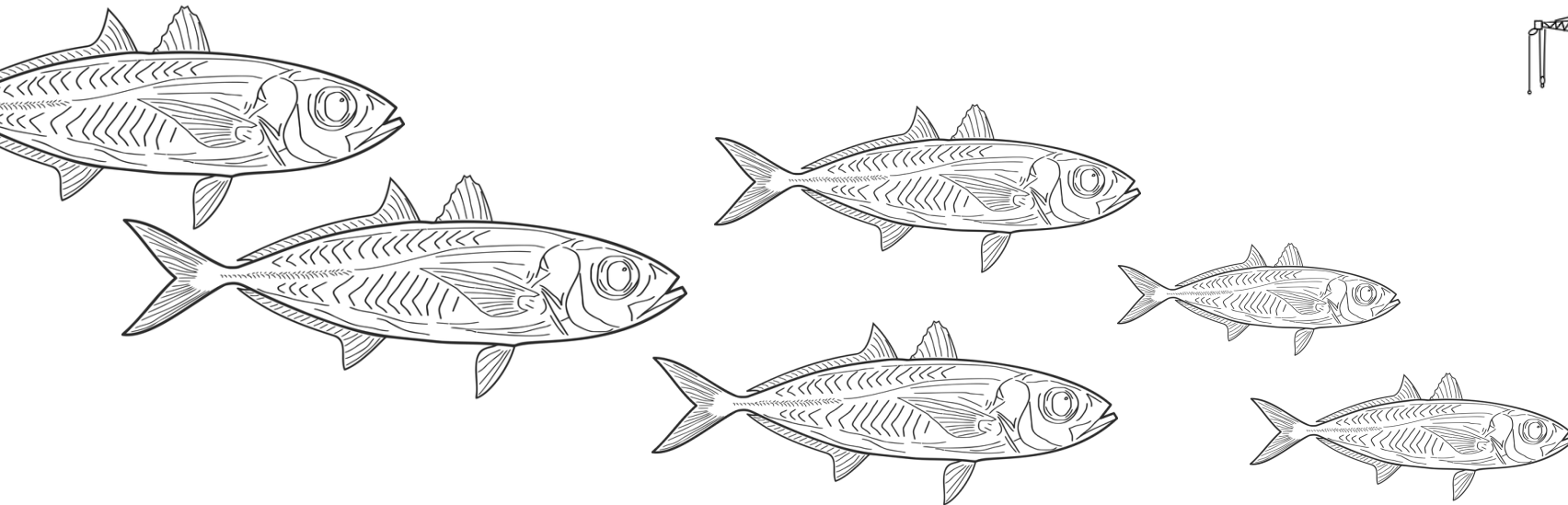
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KEY ISSUES

- How is natural capital defined
- Why it differs from conventional cost-benefit analysis
- How to identify key natural capital systems
- How to construct natural capital accounts
- How to deal with capital maintenance
- How to handle damage and compensation
- What the natural capital approach means for public policy

DEFINING NATURAL CAPITAL

- Assets not services
- Positive freedom and capabilities not utilities
- Renewables and non-renewables
- Thresholds, safe limits and benefits



NATURAL CAPITAL VS. CBA

- CBA is a partial equilibrium, marginal concept
- Natural capital is typically non-marginal and systems-based
- Natural capital starts with existing asset stock, not optimal capital
- Focus on value not utility



KEY NATURAL CAPITAL SYSTEMS

- **Infrastructure network systems**
- **Habitats and ecosystems not species**
- **Key infrastructures**
 - River catchments
 - Landscape corridors
 - Urban networks
 - Marine habitats

NATURAL CAPITAL ACCOUNTS

Risk register: renewables and non-renewables

Assets at risk

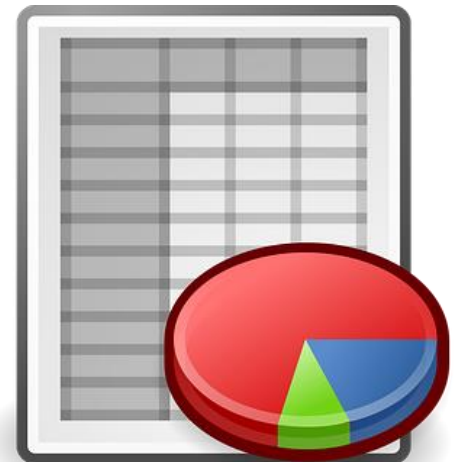
Capital register

- Non-renewables – depletion and hotelling rule for investing economic rents
- Renewables – assets-in-perpetuity

Capital maintenance

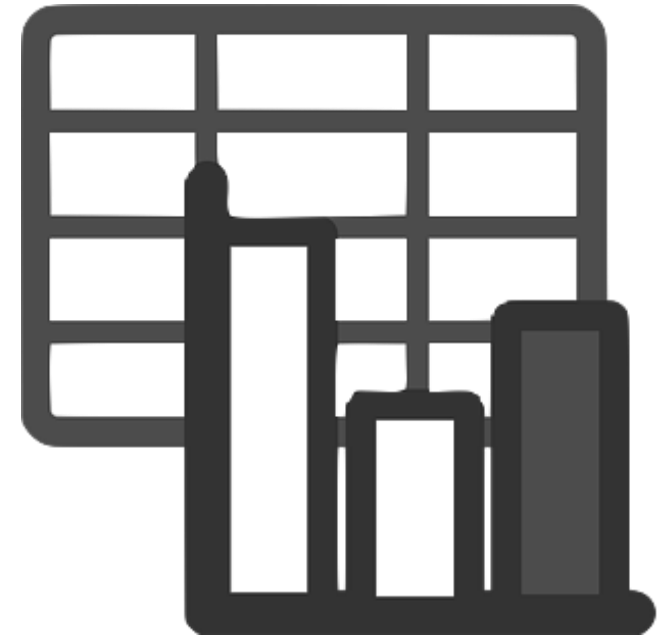
Capital enhancements

Balance sheet: set against liabilities



CAPITAL MAINTENANCE

- **Assets-in-perpetuity** – CCA accounting
- **No depreciation** – Services required forever
- **Physical or operational maintenance** – wholly physical
- **Capital maintenance is an operational cost** – charge to revenue line not capital charge



DAMAGE AND COMPENSATION

Weak aggregate natural capital rule:

The aggregate level of renewable natural capital should be kept at least constant, and there should be general capital compensation for the depletion of non-renewables.

Strong aggregate natural capital rule:

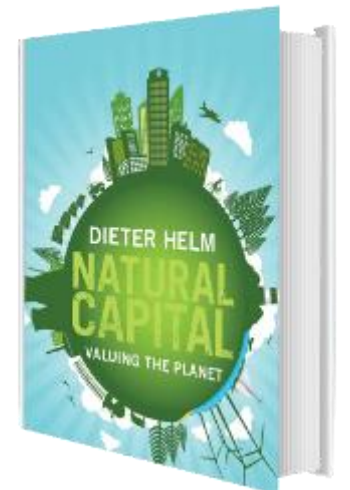
The aggregate level of renewable natural capital should be kept at least constant and the value of the economic rents from the depletion of non-renewable natural capital should be invested in renewable natural capital.

The valuation of damage

- Non renewables – economic rents to reinvest
- Renewables – where above safe-limits

The compensation principle

Implementation



APPLICATIONS TO PUBLIC POLICY

- Overall national balance sheet
- 25-year plan – generational accounting
- The key infrastructure systems and the pilots
- Enhancements and new systems opportunities
- Incorporation of land and agriculture

NCC
Annual Report 2017

Improving
Natural Capital

Jan 2017



MANCHESTER

CUMBRIA

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MARINE PILOTS

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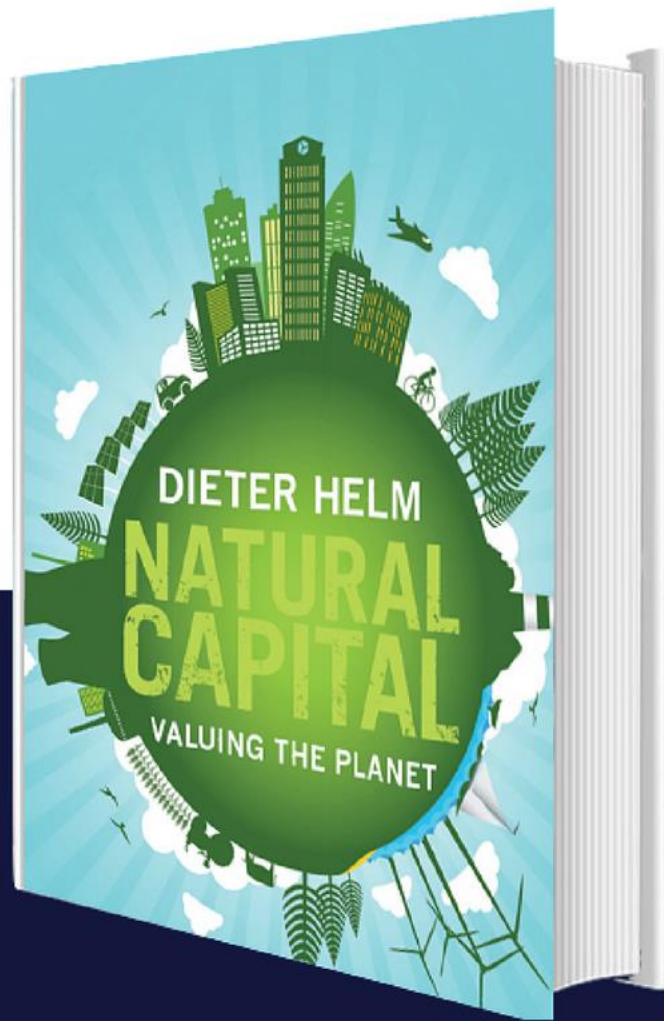
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