Possible Pathway for Future Management of Ecosystems and their Services

Guidance from the TEEB Arctic Scoping Study

Joan Eamer and Tomasz Wlodarczyk

SLR Consulting (Canada) Ltd.

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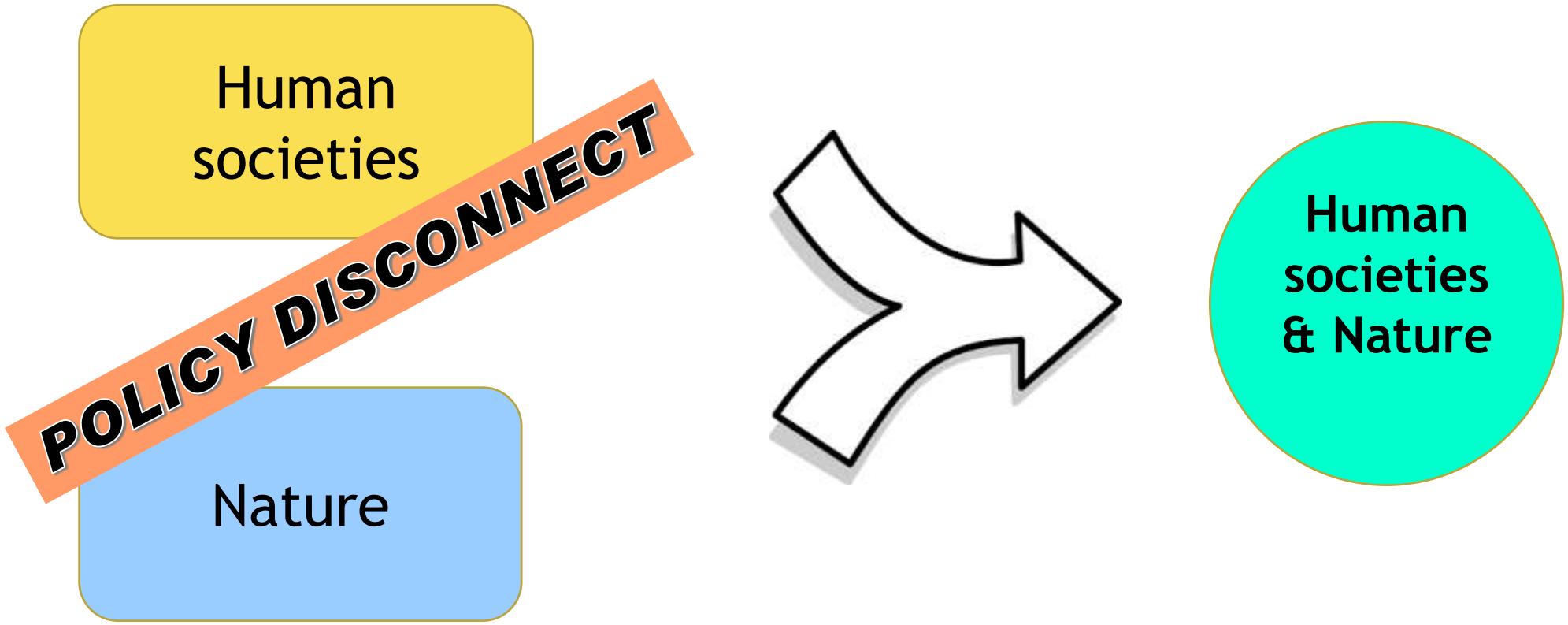
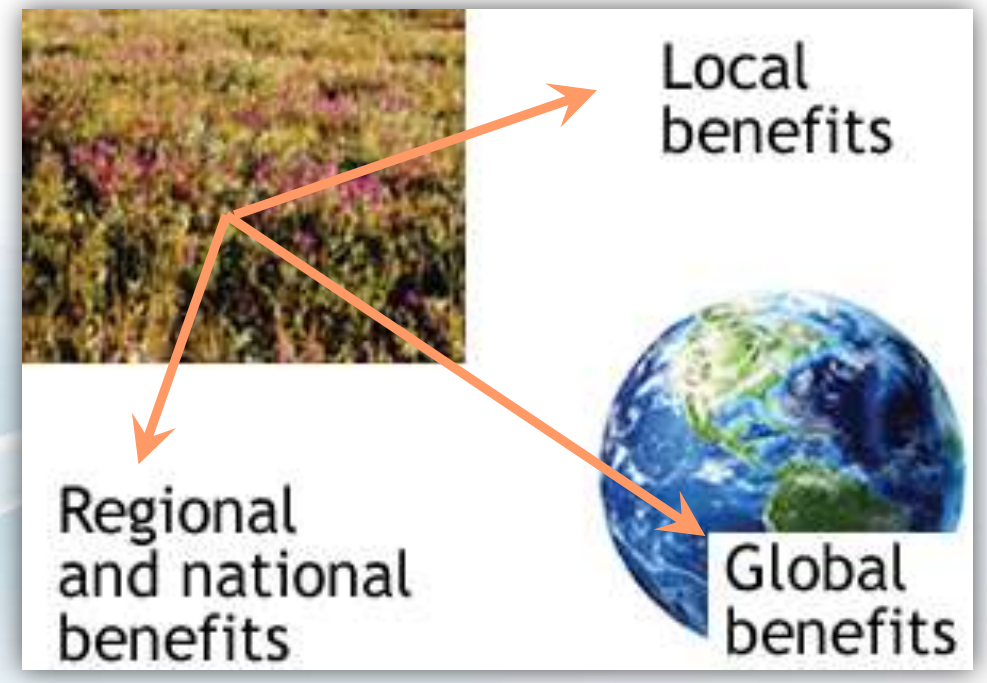
The Heart of the Matter



Ecosystem Services

Benefits nature provides to people

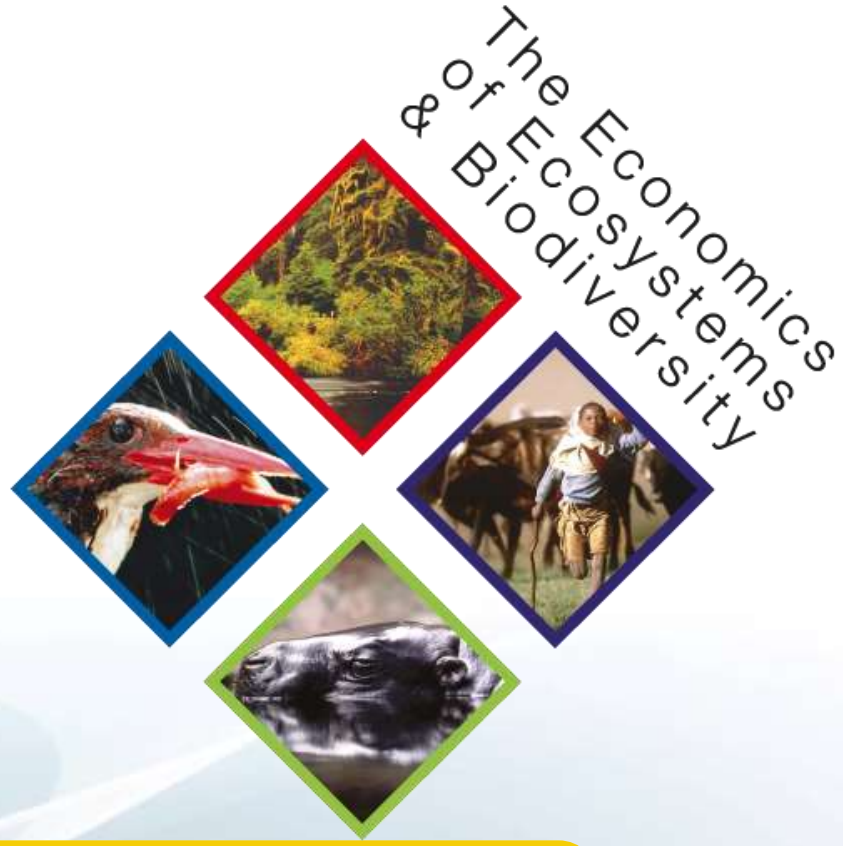
Type of Service	Examples
Cultural	Heritage, recreation, well-being
Habitat/supporting	Productivity, food web maintenance
Provisioning	Water, food, medicines
Regulating	Climate regulation, pollination, erosion regulation



Natural capital (assets) → Ecosystem goods and services that flow from these assets

TEEB

- Global initiative
- Make nature's values economically visible
- United Nations sponsorship & coordination
- Structured approach to valuation that builds and contrasts policy, planning and management scenarios:



BUSINESS AS USUAL vs ACCOUNTING FOR VALUES OF ECOSYSTEM SERVICES

NOT just about money!

arcticteeb.net

Full Report Summary

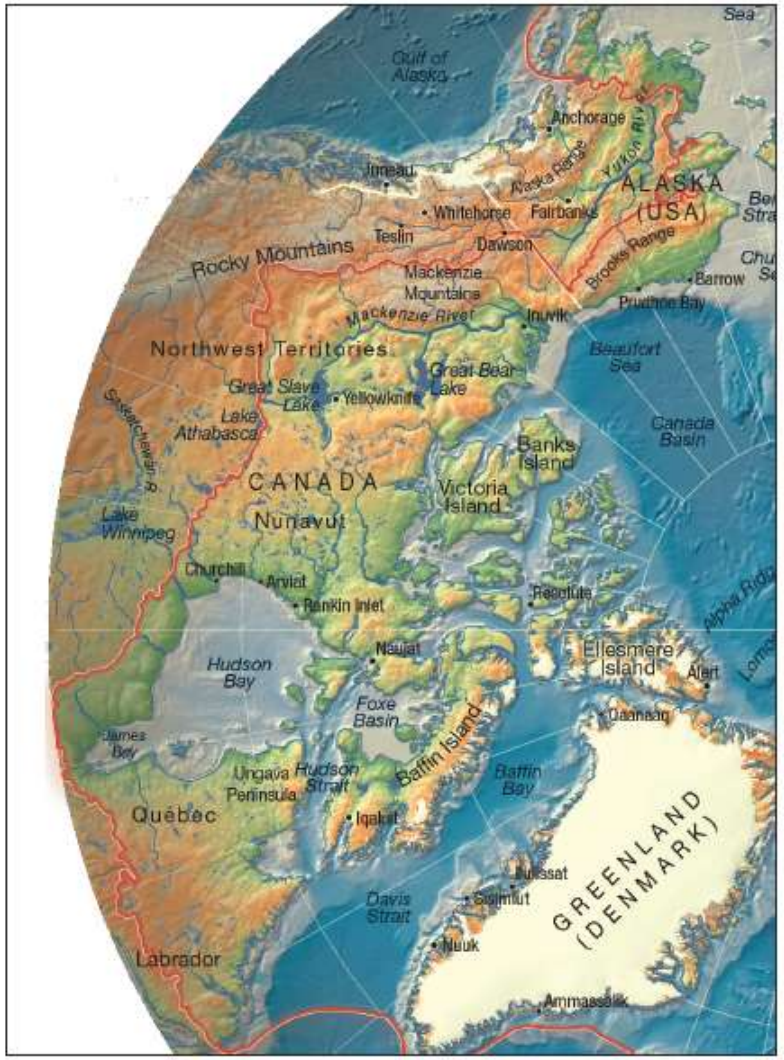
Valuing the Arctic

A Scoping Study exploring the Economics of Ecosystems and Biodiversity (TEEB) in the Arctic

- **PARTNERS:** Arctic Council, United Nations agencies and programmes, WWF
- **2015:** Report approved by the Arctic Council Ministers (Chair: Canada / Project lead country: Sweden)
- **SLR ROLE**: Project coordinator and editor + author contributions
- **CURRENTLY:** at early implementation phase

More about the Scoping Study

- **"Arctic"** includes northern parts of taiga/boreal ecozones in Canada
- **Circumpolar**, little that is country-specific
- **Policy case studies:** 1 marine, 1 terrestrial



- Includes overview of Arctic ecosystem services and a (very preliminary) **INVENTORY**

Service	Ecosystem it depends on	Scale	Who benefits?	Why import-ant?	Status, trends	Threats	Valuation examples	State of know-ledge

Policy case study: Industrial development activity in terrestrial ecosystems, with a focus on cumulative effects (North American Arctic)

Authors: J. Eamer, L. Wakelyn and S. King
Contributing authors: G. Bussidor, A. Gunn and A. Medeiros

CONTENTS

1. Ecosystem services potentially affected
   Who affects them? Who benefits, loses?
1. Current governance and policy settings (Business as Usual)
2. Possible future pathways: What would explicit recognition of ecosystem service values contribute?
   (Marginal values of alternative policies)

Regional focus on Beverly and Qamanirjuaq caribou ranges and Co-management

Four types of policies recommended for further analysis

Method is scenario analysis

BUSINESS AS USUAL vs ACCOUNTING FOR VALUES OF ECOSYSTEM SERVICES

Next four slides: policy types and some initial ideas on how accounting for values of ecosystem services can improve decision-making

1. PLACE GREATER EMPHASIS ON SPATIAL PLANNING AND STRATEGIC ASSESSMENT

- Strategic assessment of policies, plans, programs
- Plan at a regional scale in order to be ready for local decisions
- Assess and plan at scales that are ecologically meaningful (caribou herd range, watersheds)

DESIRED OUTCOME: IMPROVED CAPACITY TO

- Set priorities for action to preserve key/threatened ecosystem services
- Protect important habitats
- Set thresholds, such as for linear development
- Take mitigation measures to reduce impacts at regional scale

EXAMPLES AND OPPORTUNITIES

Peel Watershed Plan

Emerging directions through Canadian Environmental Assessment Agency: regional plans, limits to growth

2. INCORPORATE ECOSYSTEM SERVICES INTO ENVIRONMENTAL IMPACT ASSESSMENT

- Build in consideration of values of nature for all activities subject to EIA in the Arctic
- Policy tools: guidelines, procedures, methodologies, regulations

DESIRED OUTCOME: IMPROVED ANALYSIS OF TRADEOFFS

- Better ability to set priorities
- Better analysis of costs and benefits
  - What timeframes? (Are the benefits short-term and the costs long-term?)
  - What scales? (Are the benefits regional and the costs local?)
  - Who wins, who loses, who carries the risk?

3. IMPROVE PARTICIPATORY PROCESSES

Especially capacity for meaningful participation by communities and Indigenous Peoples

- Arctic-wide issue

DESIRED OUTCOME

Improved ability to protect ecosystem services valued and depended on by communities

EXAMPLES OF POLICY DIRECTIONS

- Strategic approaches to consultation
- Front-end investment in education, training, process improvements
- Systematic application of measures to improve current practice

4. APPLY FINANCIAL POLICY INSTRUMENTS

- Caveat: Assigning dollar value is only applicable to some ecosystem services
  - also must identify ‘valuable’, but not monetized, services
- Point is to improve assessment of trade-offs by making marginal change to ecosystem services visible

When ecosystem services are not visible in policy, they have a default value of $0.

EXAMPLES OF OPTIONS

- Instruments related to infrastructure and project financing
  - International Finance Corporation (IFC) Performance Standard 6 (PS6)
- Subsidy reform (“perverse”)
- Ecosystem service offsetting

The Economics of Ecosystems and Biodiversity (TEEB) for the Arctic: A Scoping Study

Some issues, challenges

- Human-centred lens on nature
- "Putting a price on nature"
- Difficult terminology
- Information / knowledge limitations

NEXT?

Pan-Arctic scale general guidance → analysis of policy alternatives at scale that works for

1. natural capital and ecosystem services
2. governance jurisdictions