



Linking Natural Capital & Productivity



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About the Project |

The goal of this project is to shed light on the relationship between economic activity and the environment by exploring the linkages between changes in our natural capital and our measures of productivity generally.

University of Ottawa

Natural Resources Canada

Environment Canada

OECD

The Forest Products Association of Canada (FPAC)

The Social Sciences and Humanities Research Council

Shell

Industry Canada

Midsummer Analytics

The Centre for the Study of Living Standards

Individual academics

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uOttawa



Project Rationale |

Like all forms of wealth, we must understand, measure and manage our natural capital in order to use it optimally.

With Canada's economy and Canadians' wellbeing closely linked to natural capital, there is an imperative – both environmental and economic – to sustain our natural capital.



Why Natural Capital |



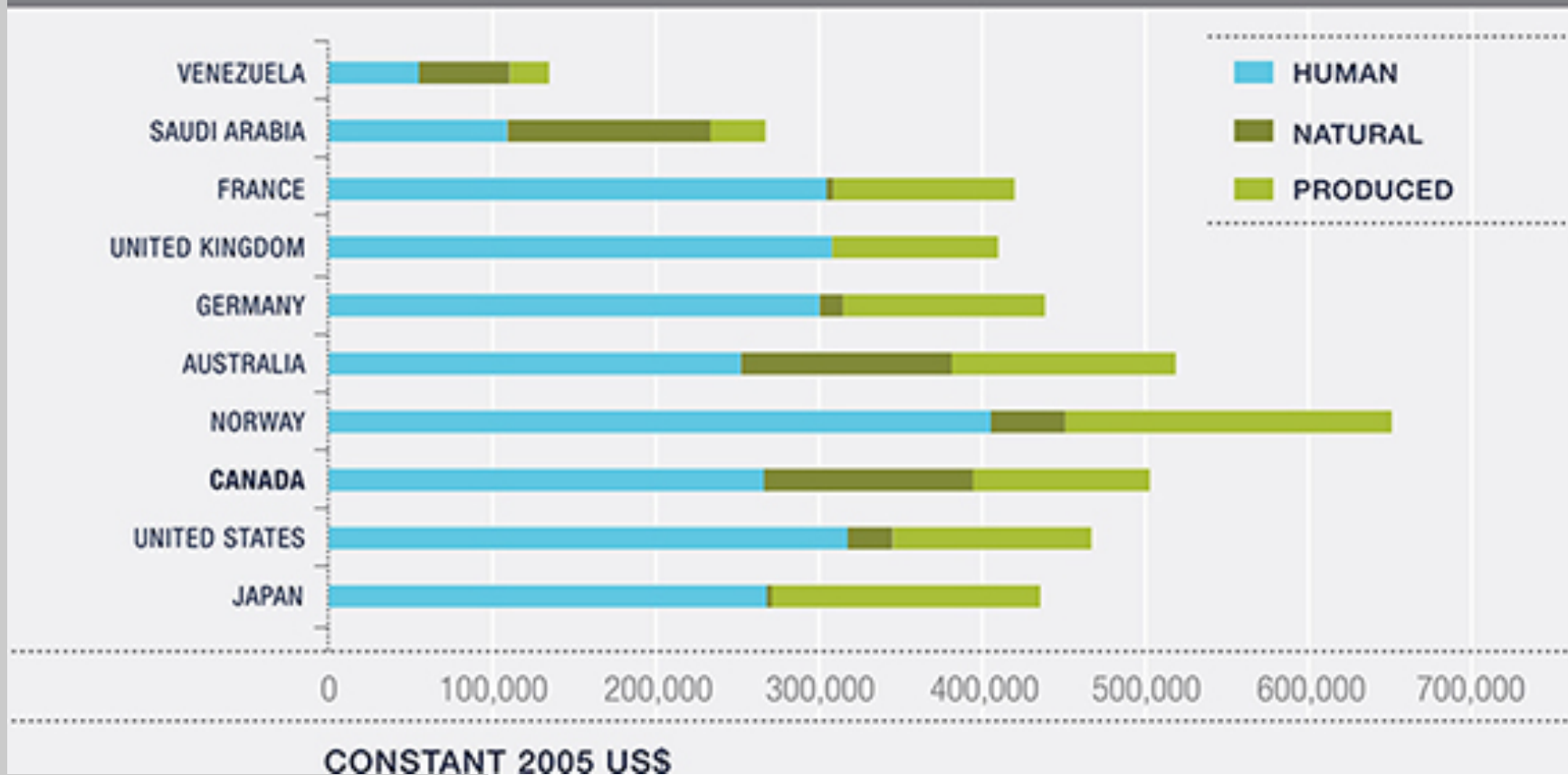
WHY IS NATURAL CAPITAL IMPORTANT?

If we extract too much from nature or cause environmental damage, we degrade our natural capital and put our economy at risk.

Why Canada

FIGURE 1

INCLUSIVE WEALTH PER CAPITA (2010)



Question



If we reconsider productivity, what will an environmentally-adjusted measure of productivity show us?

$$\text{Productivity} = \frac{\text{output}}{\text{input}}$$

Environmentally-adjusted measures of productivity incorporate environmental inputs and/or the output of pollution in their calculation.

Environmentally-adjusted

$$\text{Productivity} = \frac{\text{output} - \text{damage}}{\text{input (including natural capital)}}$$

This project looks at multifactor productivity (MFP)

Why Forest Products |



- 1 Economic importance – \$22.7 billion contribution to GDP (2014)
- 2 Big changes recently – in particular during the 2008-09 economic downturn
- 3 New innovations in products and processes – potential to continue analysis in the future
- 4 Environmental track record of the forest products sector has seen big improvement

Our Hypotheses



- 1 MFP will be underestimated in times of improved environmental performance
- 2 The Forest Products sector will show a greater rate of MFP growth in the environmentally-adjusted measure
- 3 This finding has potential policy implications
- * Our hope – others will see the value in doing similar/related research

Data & Analysis

Sectoral Data & Analysis

1971-2012 sectoral data

BC, Ontario and Quebec

Facility-level Data & Analysis

Mill-level data from 2005-2013

FPAC members

More?

International Comparisons? Links with the landmass? Others?



More Details |

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