

Lecture 2- Environment, Resources, and Society

1. The Global Picture
2. What is Canada's Impact?
3. Who is responsible for the Environment in Canada?

Key Concepts

- Impact of Population Growth
- Impact of Consumption
- Ecofootprint: what it is, trends
- Biocapacity and relation to Ecofootprint
- Canada's footprint and impact
- Jurisdiction over the environment in Canada, and trends

Key concepts are useful to study for the final exam; emphasis will be on key concepts

Clicker Question: How does Canada rank compared to other countries in terms of its ecological foot print

Answer: 3rd highest

1. The Global Picture

Extinctions and critically endangered species in numbers

Click on the circles to see more information

Extinct species Critically endangered species



SOURCE: IUCN RED LIST

*Red list count began in 1996 but includes extinctions going back to 1500

Text

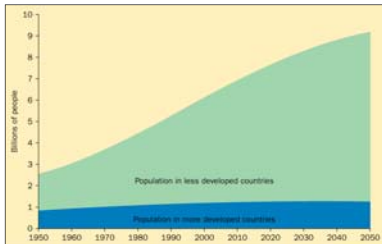






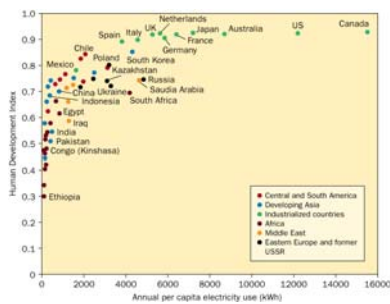
The Impact of Population Growth

- Less developed countries predicted to grow by 33% between 2005 and 2050



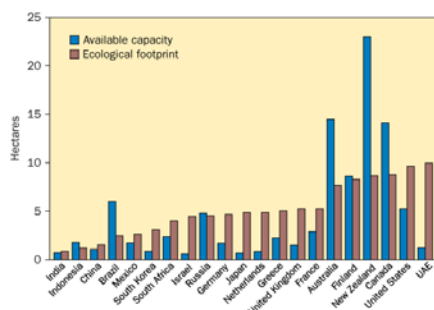
The Impact of Consumption

- Global energy consumption increased 12-fold between 1850 and 1970



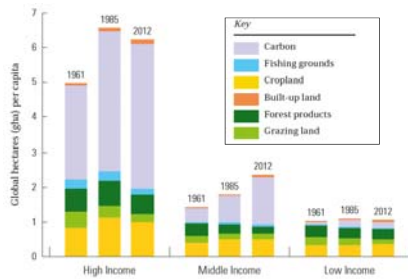
Ecological Footprint (by Country)

- Measures:

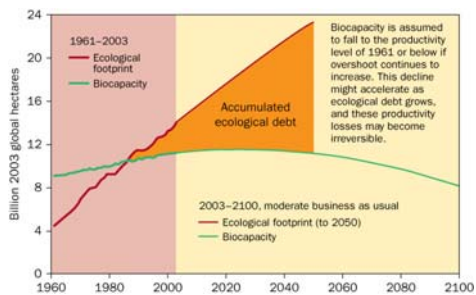


Ecological Footprint

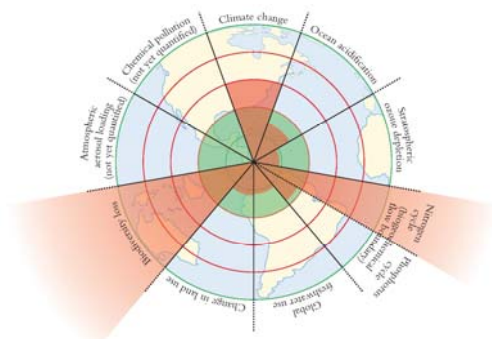
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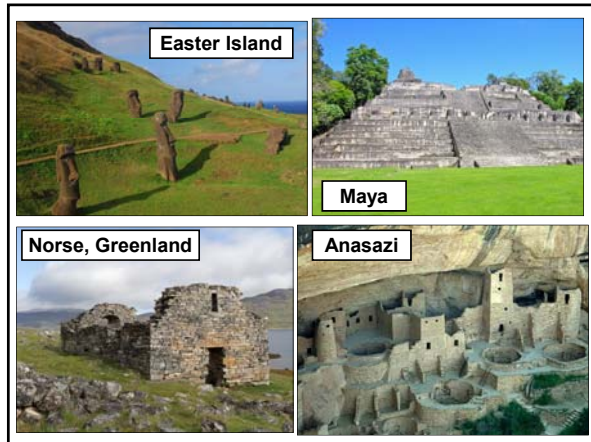


- Biocapacity:



Beyond the Boundary





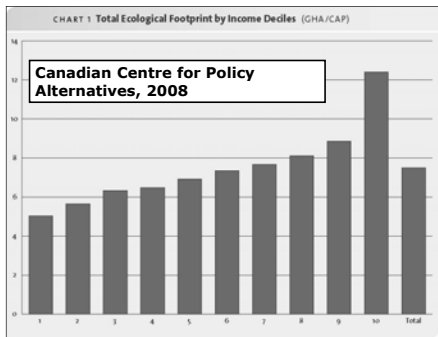


2. What is Canada's Impact?

Carrying Capacity

- Maximum population size that a given ecosystem can support for:

Richest Canadians: largest ecological footprint



3. Who is responsible for the Environment in Canada?

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Lack of Progress towards Sustainable Development in Canada

- **1997**: Commissioner for Environment and Sustainability noted aspects where improvement was necessary:
 - 1.
 - 2.
 3. Inadequate performance review
- **2016**: Commissioner's report indicated very little progress:

Plan for Hamilton's Randle Reef cleanup: Put coal tar 'in a big steel box'

Feds commit to Hamilton Randle Reef clean up project

The Canadian Press, Hamilton, Ontario, Canada, 2017-09-08 10:00:00



Conclusion

1. Due to human activity, our global support ecosystems are changing at fast rates
2. Accompanied by an increase of our global ecological footprint, the world's biocapacity is diminishing
3. In Canada, the responsibility of developing our country more sustainably is shared between a patchwork of governments – with little to show for it so far

Things to Consider

1. Canadians have one of the highest per capita ecological footprints on earth.
 - Is it acceptable or should we take steps to reduce it?
2. In your opinion, what are the top five environmental challenges today? What are the main causes of these problems?
 - How do you rank their importance relative to other major issues (e.g. political – race for nuclear weapons; e.g. economy – debates over NAFTA)

TO DO!

1. For next Lecture: material covered in Chapters 2 and 3
2. Podcasts: Ecosystems and Biodiversity – Units 1 to 5
