

State-of-the-environment Reports (SOER)

- Focused on specific topic
 - Eg. Climate change, aquatic life
- Used to measure and monitor changes in environment

Indicators

- Values that can be measured to help assess changes
 - Eg. Air quality index, greenhouse gas emissions
- Could be simple or complicated

5 Questions Intended to answer:

1. What is happening in environment?
2. Why is it happening?
3. Why is it significant?
4. What's being done?
5. Is the response sustainable?

Canada env. Policies influenced by neighbours

Influenced by US via:

- Trading relationship / NAFTA
- Environmental resources we share
 - Water, air, shared ecosystems

Influences around World

- UNEP
- World Bank
- WTO
- Others
- ENGOs
 - Environmental non-profit organisms

Factors that hinder applying Environmental Policy

- Most environmental policy is laws by Canadian govt.
- Env. Laws get challenged and activists are ignored/rejected

2012 Budget (Bill C-38)

- Weakened environmental laws
- Shifted energy from DFO (fishery/oceans)
- Didn't let scientists speak to media

Muzzling ENGOs:

- Limited international funding

Have things improved?

Trudeau Government

- Carbon pricing
- Undid Harper's policy

BUT..

- Support oil / gas development more than other G7 countries
- Supports pipelines
- Supports deep water drilling

Ecosystems - How the World Works

Ecosystems

- A distinctive biotic community and abiotic systems with which it interacts in a specific space

(biotic = living, abiotic = non-living)

- Biotic grouping reproduces and perpetuates itself
 - Eg. Tundra, desert, etc.

Biomes

- Large regions of similar biotic communities
- Energy flows in matter cycles
- Classified by major vegetation types

Influenced by climate mostly

Biotic community

Identifiable groupings of animals, plants, microbes etc.
(Things you would find together)

Associations

Feeding relationships: play large roles in determining ecosystem structure
Eg. Mosquitos eating us, bees eating flowers

Non-feeding relationships: important; can be symbiotic

- Mutual benefit
- Parasitism (one benefit at cost to other)
- Competitive relationships: species will compete to live

Ecological niche: particular sets of resources within given habitat that particular species of organism uses

- How it survives / reproduces / meets needs

Specialists - very used to 1 habitat

Generalists - can adapt to many habitats

- Species may have to compete for resources; limits niche they can occupy

Abiotic / biotic interactions

- Organisms can maximize niche by maxing / minimizing number of abiotic factors as required
- Adaptation - evolution

Eg. Desert plants (minimize light reaching leaves)

Marsh plants (maximize oxygen storage)

Evolution - gradual change in species over time

Species - group of similar organisms that mate with each other / produce offspring

DARWIN

- Went to Galapagos
- Saw different finches on different islands with diff. features
- Genetic evolution on these islands