

*Sustainability: Theory and Practice**

Sabbatical, Fall 2010

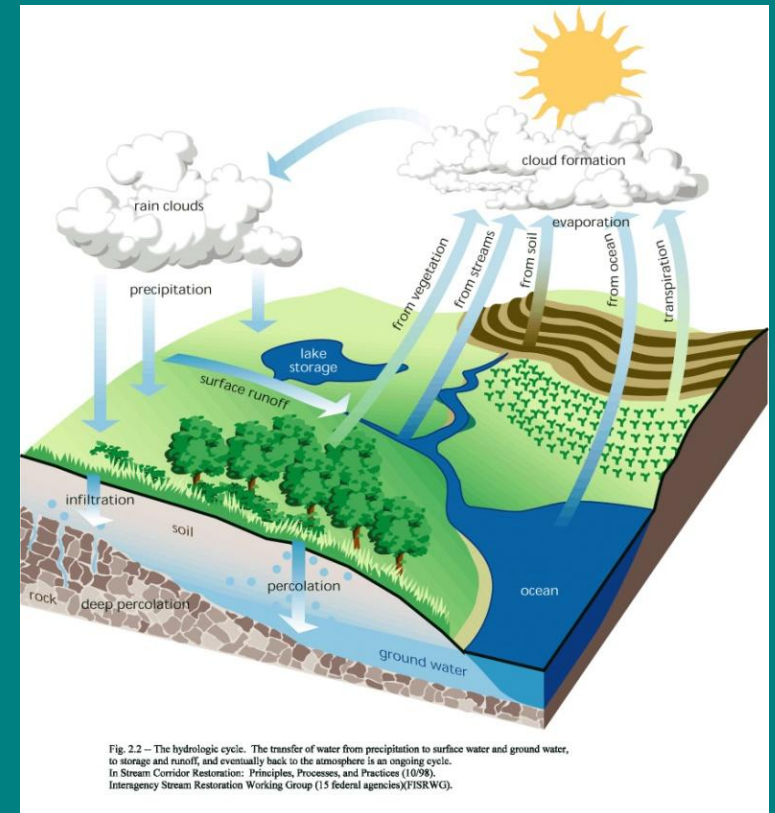
Margaret Robertson, ASLA



*a textbook for undergraduate sustainability students.
Pearson, 2012.

“Sustainability,” the idea:

- Systems
- Processes that continue over very long periods of time

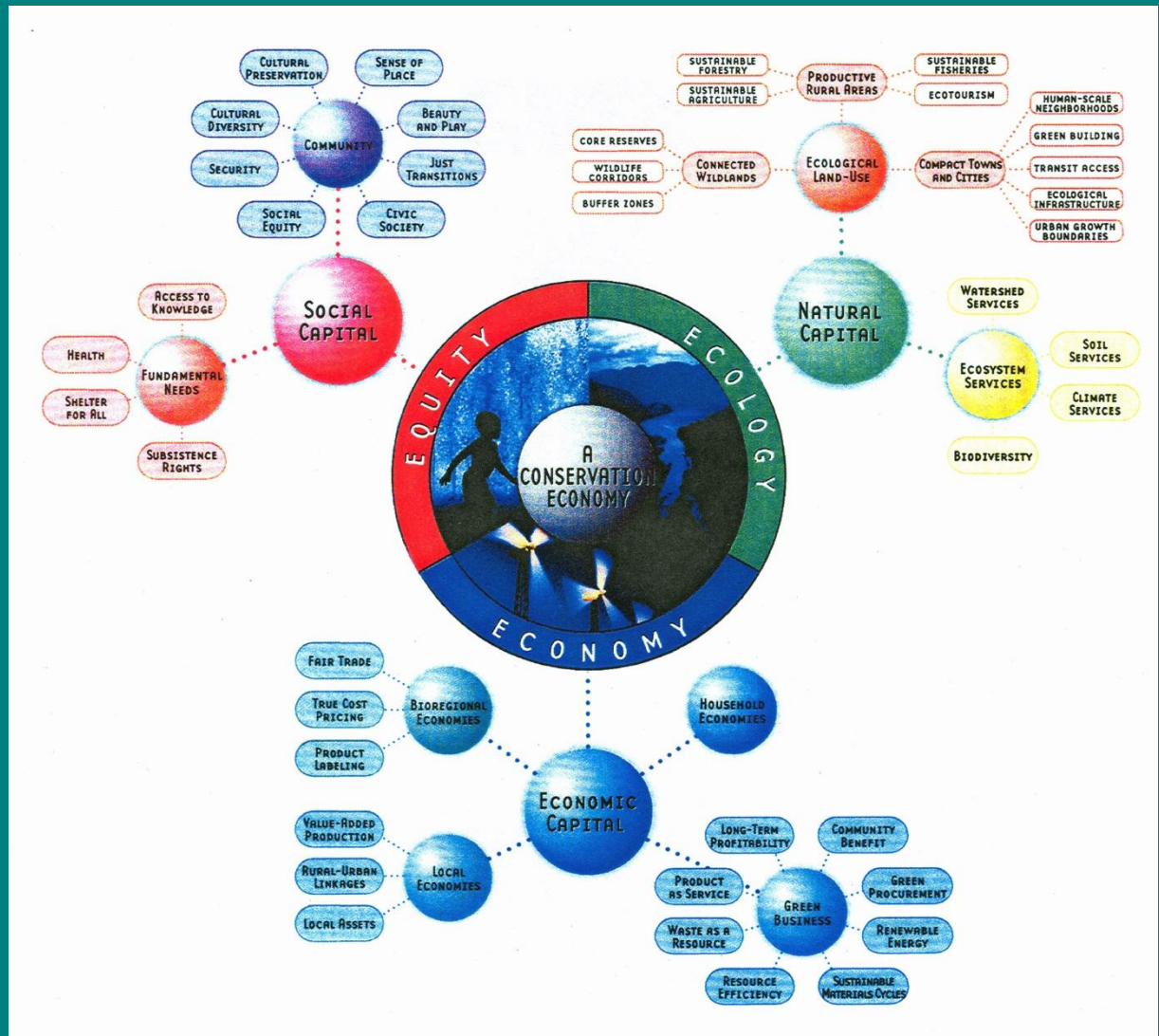


USDA / NRCS

“Triple Bottom Line”

- Environment
- Economics
- Equity

- (They are connected.)



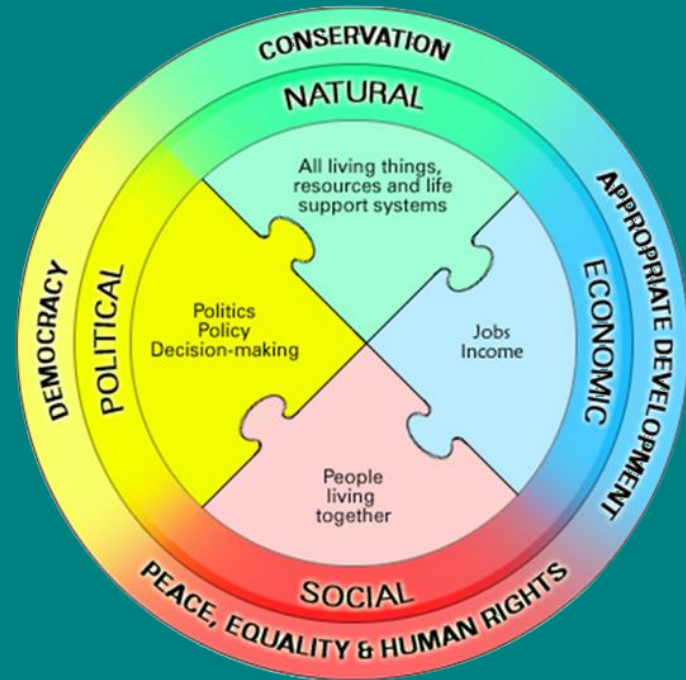
Ecotrust: Conservation Economy Pattern Map

“Sustainability,” the discipline:

- New field
- Interdisciplinary



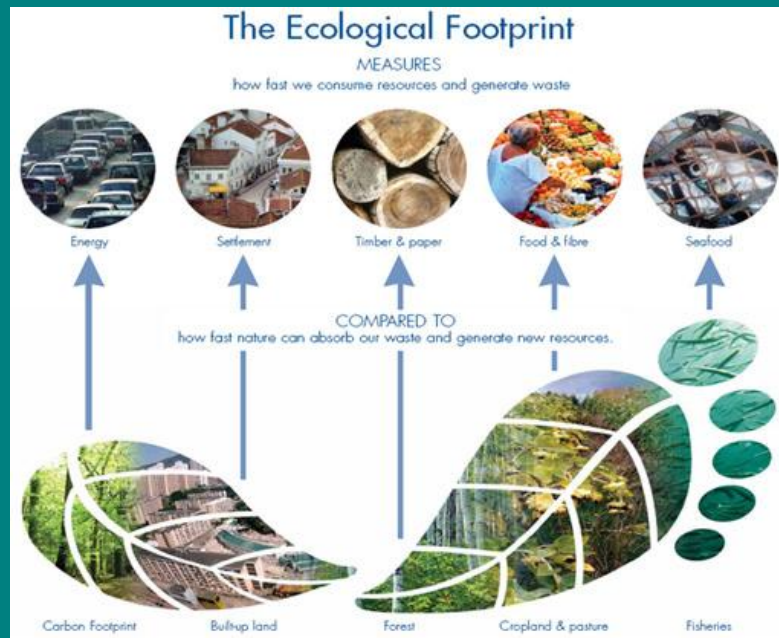
Information visualization –
Pathfinder citation analysis



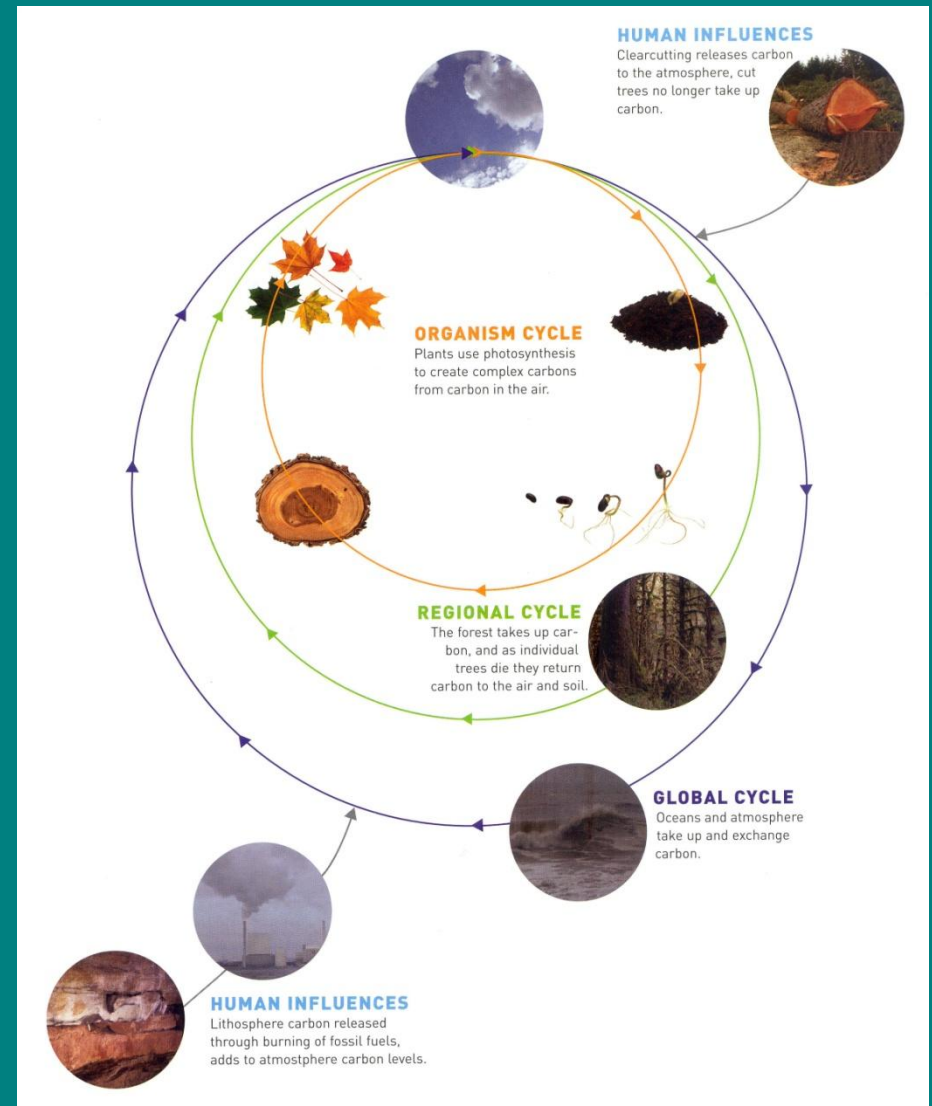
The Unesco model

Sustainability professionals need:

- Broad knowledge
- Systems thinking
- Critical thinking skills
- People skills



Footprint Network



Designer's Atlas of Sustainability

Body of Knowledge → contents of book

- I. Overview
- II. Issues
- III. Strategies
- IV. Organizational Skills



Body of Knowledge

I. Overview

1. Sustainability
2. History
3. The Living Planet
4. Gaia: Earth Systems Science

II. Issues

III. Strategies

IV. Organizational Skills



Body of Knowledge

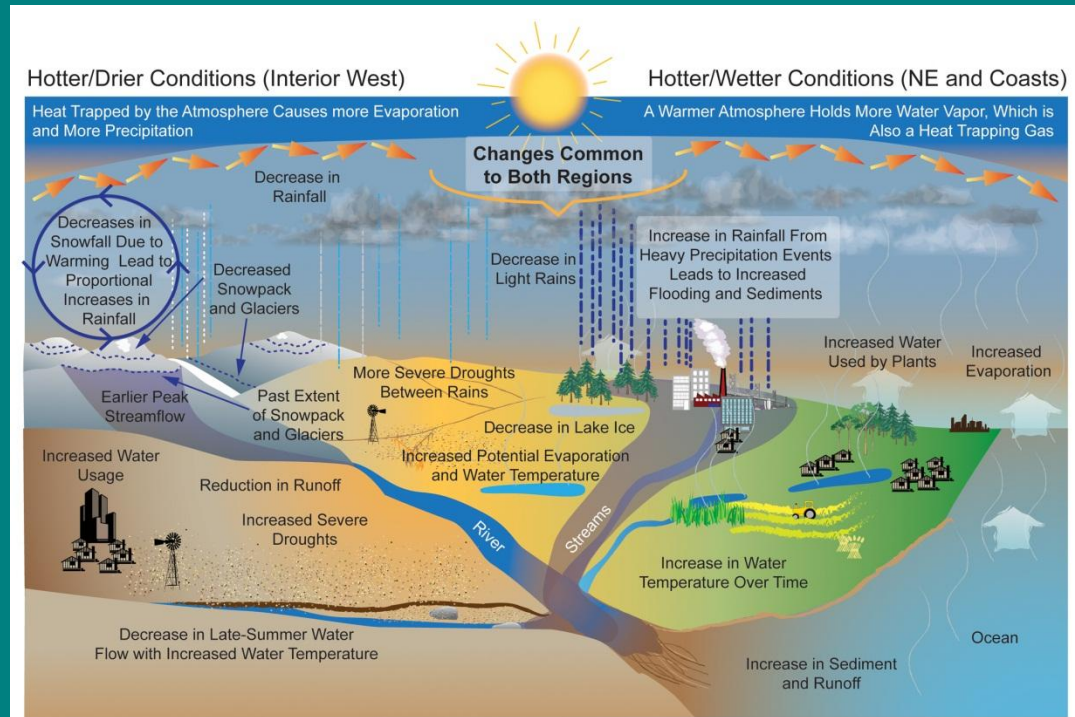
I. Overview

II. Issues*

5. Climate Change
6. Water Issues
7. Ecosystem Change
8. Human Health
9. Human Population Growth
10. Pollution
11. Fossil Fuels
12. Food Issues
13. Failing States
14. Economics

III. Strategies

IV. Organizational Skills



NOAA/NCDC

The water cycle exhibits many changes as the earth warms. Wet and dry areas respond differently.

*State of the planet: dire and getting worse.
We are nearly out of time.

Body of Knowledge

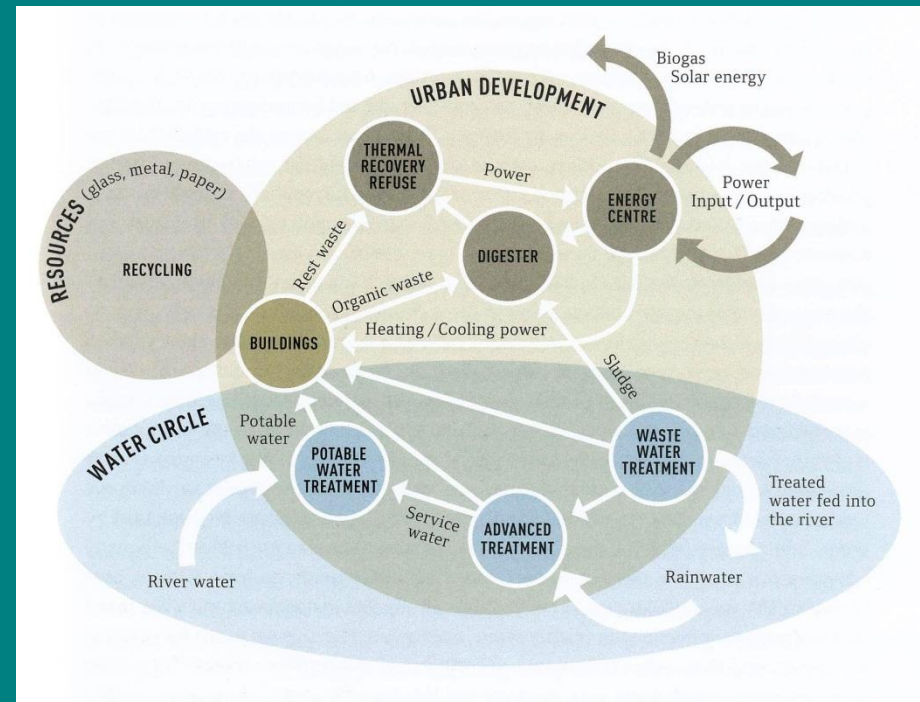
I. Overview

II. Issues

III. Strategies*

15. Climate Stabilization
16. Ecosystem Restoration
17. Stream Restoration
18. Stabilizing the Human Population
19. Pollution Remediation/Prevention
20. Renewable Energy
21. Energy Efficiency
22. Water Efficiency
23. Stormwater and Wastewater
24. Sustainable Sites
25. Soil Conservation and Renewal
26. Green Buildings
27. Green Manufacturing
28. Waste and Recycling
29. Food
30. Livable Cities

IV. Organizational Skills



* *There is hope.*

Threshold of a new, regenerative era?

Body of Knowledge

I. Overview

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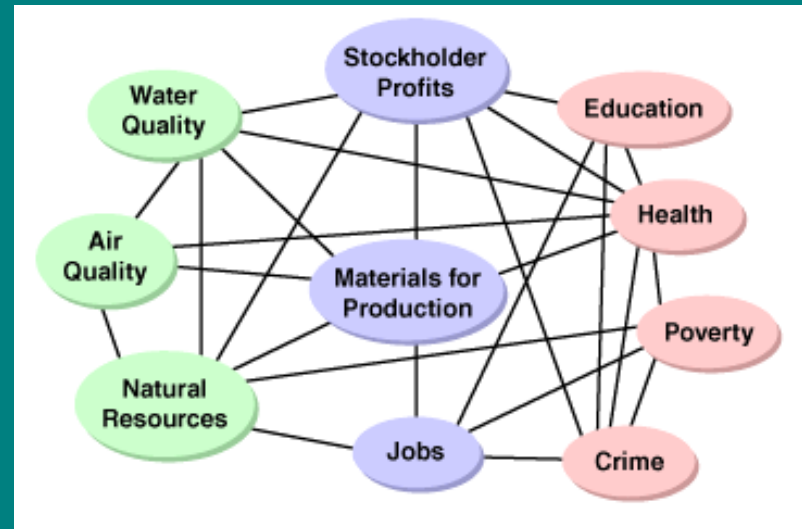
31. Certification Tools

32. Indicators and Measurement

33. Working in an Organization

34. Working with People

35. Education



Sustainable Measures

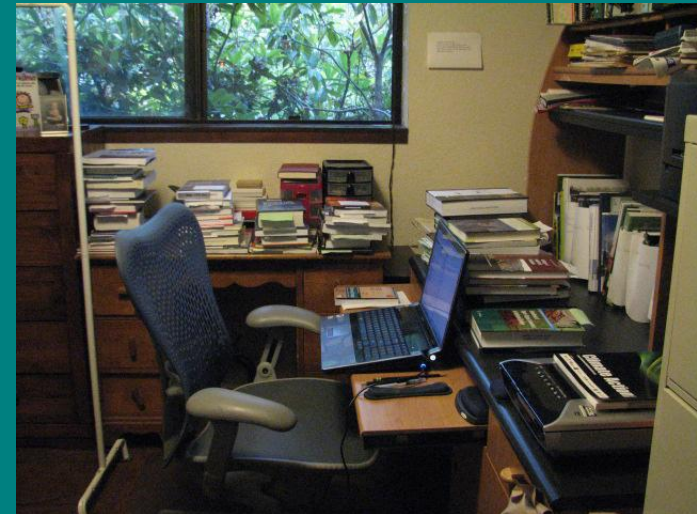
Challenge: comprehensive scope

Research Materials

- 100's of books
- 100's of articles
- LOTS of notes!



A crude "cataloging" system



The rest of the process

- Reviews
- Pedagogical devices
 - Questions
 - Think-about-it boxes
 - Summaries
 - etc., etc.
- Glossary, index

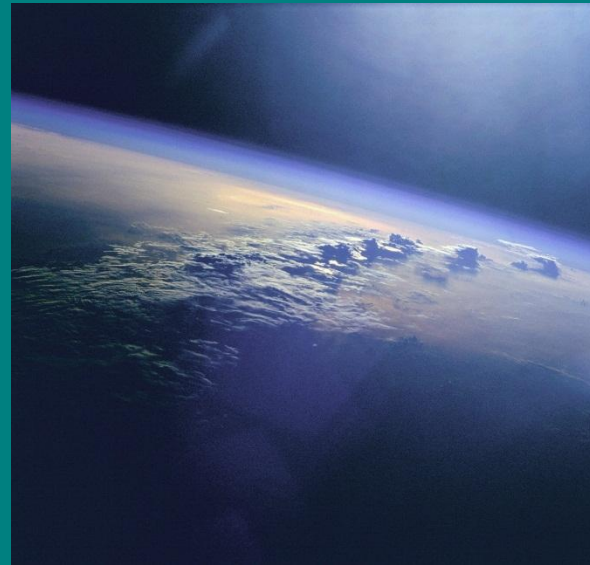


My editor at work

Illustrations

Photos:

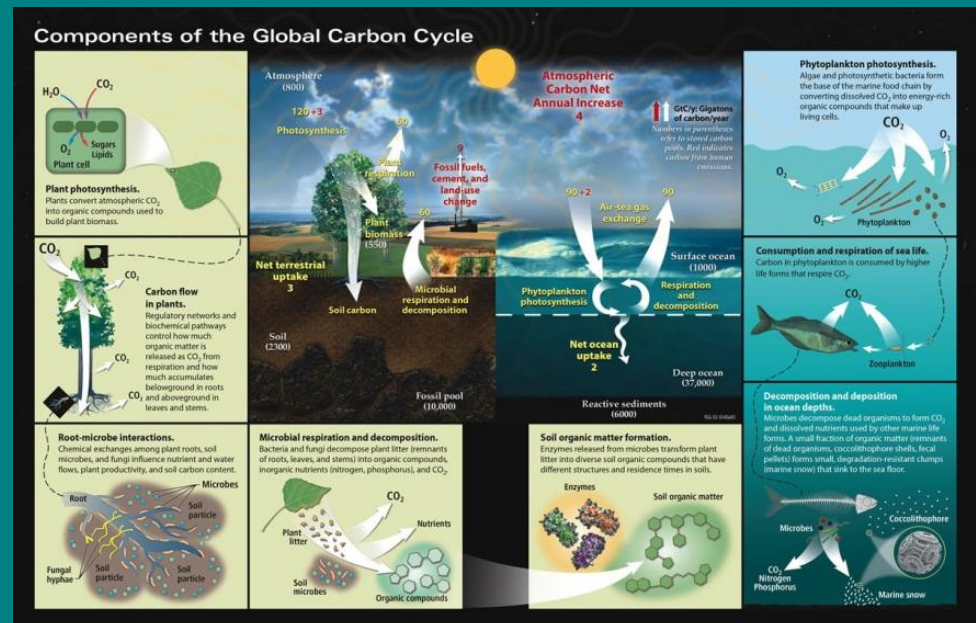
- Me and my camera
- Federal government
= public domain = free



The atmosphere – NASA

Diagrams (if needed):

- Sketches from me
- → Pearson graphics dept.



The carbon cycle – Dept. of Energy

Final Stages

Publishing today:

- Editor = subcontractor
- Indexer = subcontractor
- Production house = subcontractor

January 2012?

- Roll the presses!



Moonrise. U.S. Global Change Research Program