

HUMANS IN THE BIOSPHERE:

A.K.A. HUMAN IMPACT ON ECOSYSTEMS!!

CHAPTER 6.1 and 6.2

THE EFFECT OF HUMAN ACTIVITY:

- ✓ Humans like all organisms change and affect the ecosystem in which they live in. These changes are due to the way in which we obtain food (agriculture), eliminate wastes, build places to live and so on.
- ✓ We see these effects more on smaller ecosystems like islands than on larger continents like North America.
- ✓ Hawaii has been significantly affected by humans in many ways such as:
 - Tons of imported or introduced species (Remember “Strange Days on Planet Earth?”) (Also in 6.3)
 - Clearing natural habitats (like forests), to make room for agriculture.
 - Diverting natural resources that play a balancing role in an ecosystem for Human benefits, like housing and tourism.

AGRICULTURE:

- ✓ What is monoculture?
- ✓ Give two examples:
- ✓ How has agriculture affected human population growth?

DEVELOPMENT:

- ✓ What are the ecological impacts?
- ✓ Give one (1) example of how it has positively impacted our ecosystems:

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INDUSTRIAL GROWTH:

- ✓ Explain two (2) ways this has negatively impacted our ecosystems:

SUSTAINABLE DEVELOPMENT:

- ✓ What type of “goods or services” do wetlands provide?



RENEWABLE AND NONRENEWABLE RESOURCES:

KNOW THIS VOCAB:

RENEWABLE RESOURCE

NONRENEWABLE RESOURCE

SUSTAINABLE DEVELOPMENT

NATURAL RESOURCE

USING RESOURCES WISELY: CHAPTER 6.2

SOIL RESOURCES:

- ✓ Healthy soils support agriculture and forestry
- ✓ Is topsoil a renewable resource?
- ✓ Explain:



SOIL EROSION:

- ✓ What causes it?
- ✓ What human actions increase it? Decrease it?
- ✓ List the benefits of healthy forests:
- ✓ How are “Old-growth” forests different than those here in the North East?

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SOIL USE AND SUSTAINABILITY:

- ✓ If humans slow down and think, we can use the soil to our benefit, without destroying it and the ecosystem through careful agriculture and forestry management programs.
- ✓ List ways that humans can manage soils to help guard against erosion:

FRESHWATER RESOURCES:

- ✓ What goods and services do freshwater resources provide?
- ✓ What percent of water on Earth is fresh?
- ✓ Where is most of this fresh water found?



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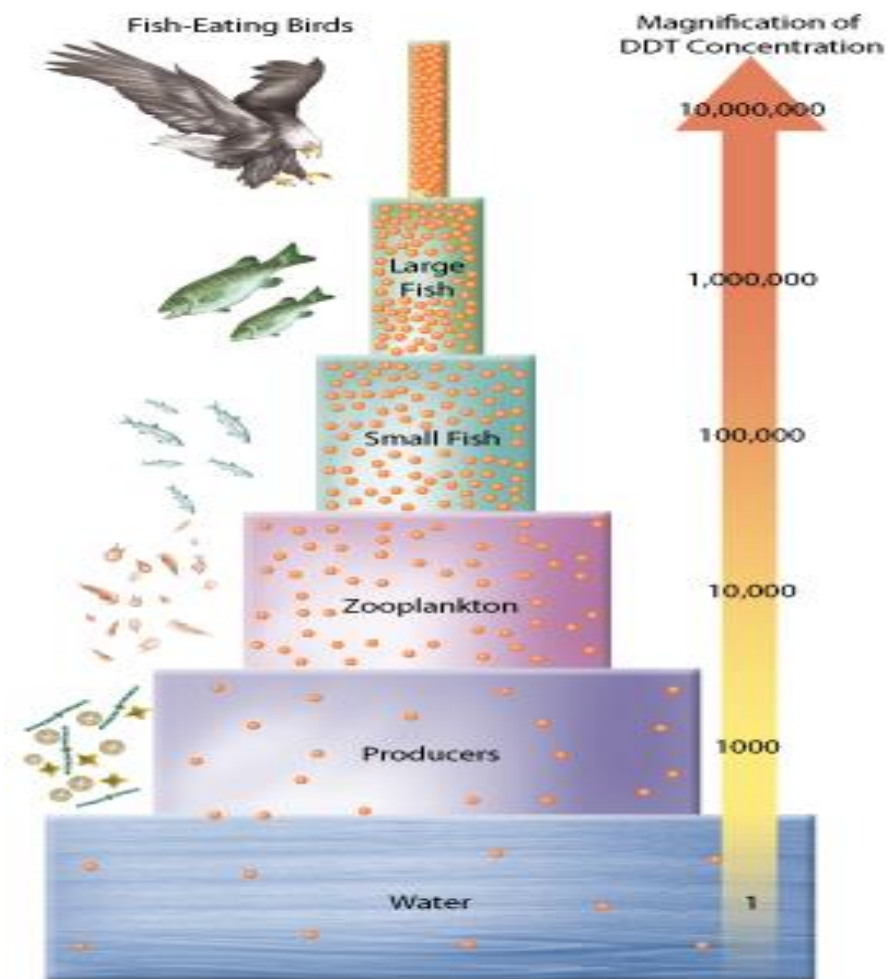
WATER POLLUTION:

- ✓ Explain the difference between “source” and “non-source” point of pollution
- ✓ What are the major sources of water pollution?

✓ **BIOLOGICAL MAGNIFICATION:**

Occurs when a pollutant is picked up by an organism and cannot be biologically broken down. Therefore the pollutant stays in the organism and will move up the food chain/web. As this pollutant is collected in body tissues it becomes MORE concentrated as it moves from one trophic level to the next. This increasing concentration soon reaches devastating levels. The result: mutations sickness and death.

- ✓ Give two (2) examples of pollutants that will cause biological magnification:



WATER QUALITY & SUSTAINABILITY

- ✓ Protect the natural systems involved in the water cycle.
- ✓ What is a watershed?
- ✓ Why is controlling pollution in a water shed difficult?
- ✓ Give one example of how natural ecosystems help to improve water quality.

ATMOSPHERIC RESOURCES

- ✓ Name three (3) benefits of our atmosphere

AIR POLLUTION:

- ✓ Common forms of air pollution include:
 - Smog from industry, homes and cars
 - Acid rain from Industry (mostly)
 - Greenhouse Gasses from Industry, cars home heating production of electricity..... Burning of fossil fuels!!!
 - Particulate matter from burning of fossil fuels
- ✓ List two (2) health concerns associated with air pollution

AIR QUALITY & SUSTAINABILITY:

- ✓ Why is control of air pollution difficult?
- ✓ Name two (2) things that can/have been done to improve air quality.

Shine up your trailer hitch.....



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[Gas Land](#)

[The Lorax](#)

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