

Unit One : Sustainability of Ecosystems

- **Sustainability** means something has the ability to survive and maintain a good working condition as time passes. Natural environments have changed (evolved) because of creatures living in them, or changes the abiotic environment has forced on them, in order to remain stable over time....they are self sustaining. When faced with small changes, small readjustments are necessary to restore sustainability, but when faced with major changes, environments must make drastic readjustments or collapse altogether !!

- from a human point of view, we see these environments as sustainable if they are able to meet our present and future needs. Our attitudes have changed with time too....

Historically, we thought that earth's resources were limitless, and we could

take whatever we wanted when and where we wanted (**utilitarian**).....maybe could get away with it if our numbers were small and our harvest was inefficient or small !!!! (ex. Aboriginal harvest methods , forestry, fishing) But as technology and harvest levels changed, our impacts grow quickly, and environments / resources become depleted. When faced with crisis or evidence, we reluctantly have to change our way of acting and thinking.

Now, we realize that if we aren't careful, we run out of resources, like draining a bank account, and there's little or nothing left, and we face a socioeconomic crisis. Major changes in thinking is called a **paradigm shift**. Your **paradigm** about something is “everything you know or believe to be true” about a topic.....shaped by your values, culture, experiences, learning, and other people.

These “shifts” are usually slow, rare processes caused by new information or new attitudes on the part of a small number of people, then may spread (with or without protest) to more people. Some shifts are triggered by sudden events or discoveries, but the full effect of the change may not be felt for some time. Resistance to these changes is a natural human reaction (people fear or are more uncomfortable with whatever is new or different).

Many people have shifted from the traditional utilitarian perspective to a more **conservationist** perspective.

Ex. Big trout retention vs catch and release
 Global warming
 Use of pesticides
 (an issue related to sustainability file)
 (summary...tent caterpillar, pg 82)
 Forestry practices (commercial harvest, replanting)
 Disposal of garbage and hazardous materials
 Land clearing for “human development”

Are there any activities or attitudes you should change ?

Would you be willing to sacrifice something for the long term good of others and the environment ?

“Earth as a Closed System” file to read through