**Environmental Science Notes Chapter 1.2**

**“The Tragedy of the Commons”**

•In his essay, ecologist Garrett Hardin argued that the main difficulty in solving environmental problems is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the short-term interests of the individual and the long-term welfare of society.

•The solution may be to override the short-term interests of the individual and improve the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for everyone in the long run.

**Supply and Demand**

•**The Law of Supply and Demand** is a law of economics that states as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for a good or service increases, the cost for the food or service also increases.

•An example is the world \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_production.

**Costs and Benefits**

•The cost of environmental solutions can be high.

•A cost-benefit analysis balances the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of the action against the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one expects from it.

•The results depend on who is doing the analysis. For example, pollution control may be too costly to an industry, but to a nearby \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the price may well be worth it.

**Developed and Developing Countries**

•The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ distribution of wealth and resources around the world influence the environmental problems and solutions a society can make.

•Developed countries have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ incomes, slower population growth, diverse industrial economies, and stronger social support.

•Developing countries have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_average incomes, simple agriculture-based communities, and rapid population growth.

**Local Population Pressures**

•When the population in an area grows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, there may not be enough natural resources for the everyone to live a healthy, productive life.

•In severely overpopulated regions, forests are stripped bare, topsoil is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and animals are driven to extinction.

•In these areas, malnutrition, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and disease can be constant threats.

**Consumption Trends**

•To support the higher quality of life, developed countries are using much more of Earth’s resources.

•Developed nations use about 75 percent of the world’s resources, although they make up only 20 percent of the world’s population.

•This rate of consumption creates more waste and pollution per person then in developing countries.

**Ecological Footprints**

•An ecological footprint is one way to express the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in consumption between nations.

•**Ecological footprints** are calculations that show the productive area of Earth needed to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one person in a particular country.



**A Sustainable World**

•**Sustainability** is the condition in which human needs are met in such a way that a human population can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ indefinitely.

•Sustainability is a key goal of environmental science.

•Our current world is not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as the developed countries are using resources faster than they can be replaced.

•Achieving a sustainable world requires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ participation including individual citizens, industry, and the government.