7.3.2 HANDOUT

VOCABULARY OF SUSTAINABILITY

Conservation: Conservation is the wise and careful use of natural resources that does not jeopardize the long-term viability of the resource base or inflict undue or excessive damage. It is different from 'preservation' which refers to maintaining a pristine state of nature as it is or might have been before the intervention of human activities.

Energy conservation: Taking care to be efficient in the use of energy (usually in the form of electricity) so that it is not wasted. Some forms of energy production have significant impact on the environment. By becoming more efficient in the use of energy, the demand for energy can be reduced so that new energy production facilities are not required.

Globalization: It describes that idea that the planet as a whole, rather than individual continents or landscapes, is considered as 'our home' and that some human activities can have a negative effect on people and environments far from their source or have an negative effect on the planet as a whole.

Recycling: The reclamation of potentially useful material from household, agricultural and industrial waste. The goal is to reduce pollution and save energy and costs while slowing down the rate at which non-renewable resources are depleted. As concern for the environment spreads, especially in the industrialized countries, the value of recycling has become more accepted. Recycling is not only good for the environment, it also creates jobs.

The most effective way to reduce waste is to not create it in the first place. By reducing and reusing, consumers and industry can save natural resources and reduce waste management costs. Unfortunately, the amount of waste generated in the United States has been increasing. Between 1960 and 2009 the amount of waste each person creates increased from 2.7 to 4.3 pounds per day. This results in about 243 million tons of waste generated in the US in 2009.

Waste prevention, or "source reduction," is the strategy behind reducing and reusing waste. By designing, manufacturing, purchasing, or using materials in ways that reduce the amount or the toxicity of trash created, less waste is generated and fewer natural resources are used. Reuse is often part of the waste prevention strategy, stopping waste at the source due to preventing or delaying a material's entry in the waste collection and disposal system.

Source Reduction: refers to any change in the design, manufacture, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they become municipal solid waste. Source reduction also refers to the **reuse** of products or materials.

- There are reuse centers in most communities, ranging from specialized programs for building materials or unneeded materials in schools to Goodwill centers and the Salvation Army.
- Since 1977, the weight of 2-liter plastic soft drink bottles has decreased from 2.4 ounces each to 1.8 ounces. That means that 250 million pounds of plastic per year has been kept out of the waste stream.

Benefits of Reduction

- **Saves natural resources.** Waste is not just created when consumers throw items away. Throughout the life cycle of a product from extraction of raw materials to transportation to processing and manufacturing facilities to manufacture and use waste is generated. Reusing items or making them with less material decreases waste dramatically. Ultimately, fewer materials will need to be recycled, combusted for energy, or landfilled.
- **Reduces toxicity of waste.** Selecting nonhazardous or less hazardous items is another important component of source reduction. Using less hazardous alternatives for certain items (e.g., cleaning products and pesticides), sharing products that contain hazardous chemicals instead of throwing out leftovers, reading label directions carefully, and using the smallest amount necessary are ways to reduce waste toxicity.

- **Reduces costs.** The benefits of preventing waste go beyond reducing reliance on other forms of waste disposal. Preventing waste also can mean economic savings for communities, businesses, organizations, and individual consumers.
  - **Communities.** More than 7,000 communities have instituted "Pay-As-You-Throw" programs where citizens pay for each can or bag of trash they set out for disposal rather than through the tax base or a flat fee. When these households reduce waste at the source, they dispose of less trash and pay lower trash bills.
  - **Businesses.** When businesses manufacture their products with less packaging, they are buying less raw material. A decrease in manufacturing costs can mean a larger profit margin, with savings that can be passed on to the consumer.
  - **Consumers.** Consumers also can share in the economic benefits of source reduction. Buying products in bulk, with less packaging, or that are reusable (not single-use) frequently means a cost savings. What is good for the environment can be good for the pocketbook as well.

Renewable: Able to be replaced or replenished, either by the Earth's natural processes or by human action. Air, water, and forests are often considered to be examples of renewable resources. However, due to local geographic conditions and costs involved, strong arguments can be made that water may not be a completely renewable resource in some parts of the world, especially in developing countries or in areas with limited groundwater supplies. Minerals and fossil fuels are examples of non-renewable resources.

Standby Power: refers to the electric power consumed by electronic appliances while they are switched off or in a standby mode. Some such devices offer remote controls and other features to the user, while other devices, such as power adaptors for laptop computers and other electronic devices, consume power without offering any features. This latter case is sometimes distinguished as no load power.

Upcycling: The process of converting waste materials or useless products into new materials or products of better quality or a higher environmental value.

Sources:

Reduce, Reuse, Recycle. (n.d.) Retrieved from the U.S. Environmental Protection Agency: http://www2.epa.gov/recycle.

Teaching and learning for a sustainable future. (2006). Retrieved from United Nations Educational, Scientific and Cultural Organization: http://www.unesco.org/education/tlsf/.