

**Module 6: Community Health**  
**Topic 1 Content: Land Quality and Health**

**Introduction**

# Land Quality and Health

There are numerous threats to human health related to the use of land. Fortunately, communities can take steps to minimize their negative impact on land resources and their risk to human health. In this interactivity, take a moment to learn about hazardous waste and urban development. Click each of the tabs below to learn more.

**Hazardous Waste**

**Urban Development**



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#### Waste Disposal

# Waste Disposal

Waste disposal is an important problem in society. Before the advent of modern waste management systems, people often threw their garbage out in the street, or anywhere; think of the streets of London in Shakespeare's time. Living among trash creates unsanitary conditions that can spread disease and infection. The trash that society creates today often contains toxic substances, so it is even more essential that waste is disposed of safely. Such hazardous wastes that are harmful to human health include industrial waste (chemical byproducts and wastewater from factories), household waste (cleaning fluids and batteries), and radioactive waste (spent fuel from nuclear power plants). These hazardous wastes must be treated before being discarded at special disposal sites.

An illustration at the bottom of the slide shows a landscape with a factory on the left, a row of green trees in the center, and a roll of paper on the right. The background is a light blue sky with a few clouds.

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**Waste Disposal**



You can minimize land pollution and its negative impact on human health by making sure you dispose of hazardous materials safely. Contact your community municipal waste management office for information on how to properly dispose of hazardous materials, such as paints, batteries, electronic devices, and pesticides. Often, these materials are banned from landfills and must be disposed of at special collection sites.

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#### Reduce, Reuse, Recycle



Of course, reducing the amount of waste you produce helps reduce the need for waste disposal. Below are some steps you can take.

- **Reduce:** Opt for reusable products, such as canvas tote bags to carry home your groceries instead of disposable plastic bags.
- **Reuse:** Consider donating items before throwing them in the trash, and reuse items if it is safe and possible to do so. A coat that no longer fits you might be appreciated by a friend, sibling, or local charity.
- **Recycle:** Recycle items made of paper, plastic, glass, metal, and other materials to reduce the trash that goes into landfills and the need for natural resources to make new products. Check with your local recycling center to find out what materials are accepted for recycling in your location.

## Module 6: Community Health

### Topic 1 Content: Land Quality and Health

#### Demands on Resources

# Demands on Resources

In the year 1900, the world population was approximately 1.6 billion people. In the year 2000, it had grown to approximately 6.1 billion. In 2015, it had already reached 7.2 billion. As human population continues to increase, the demands on land resources and potential negative impact to human health and safety are also growing. Explore why deforestation and urban sprawl are health-related environmental issues.

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**Deforestation**

# Deforestation

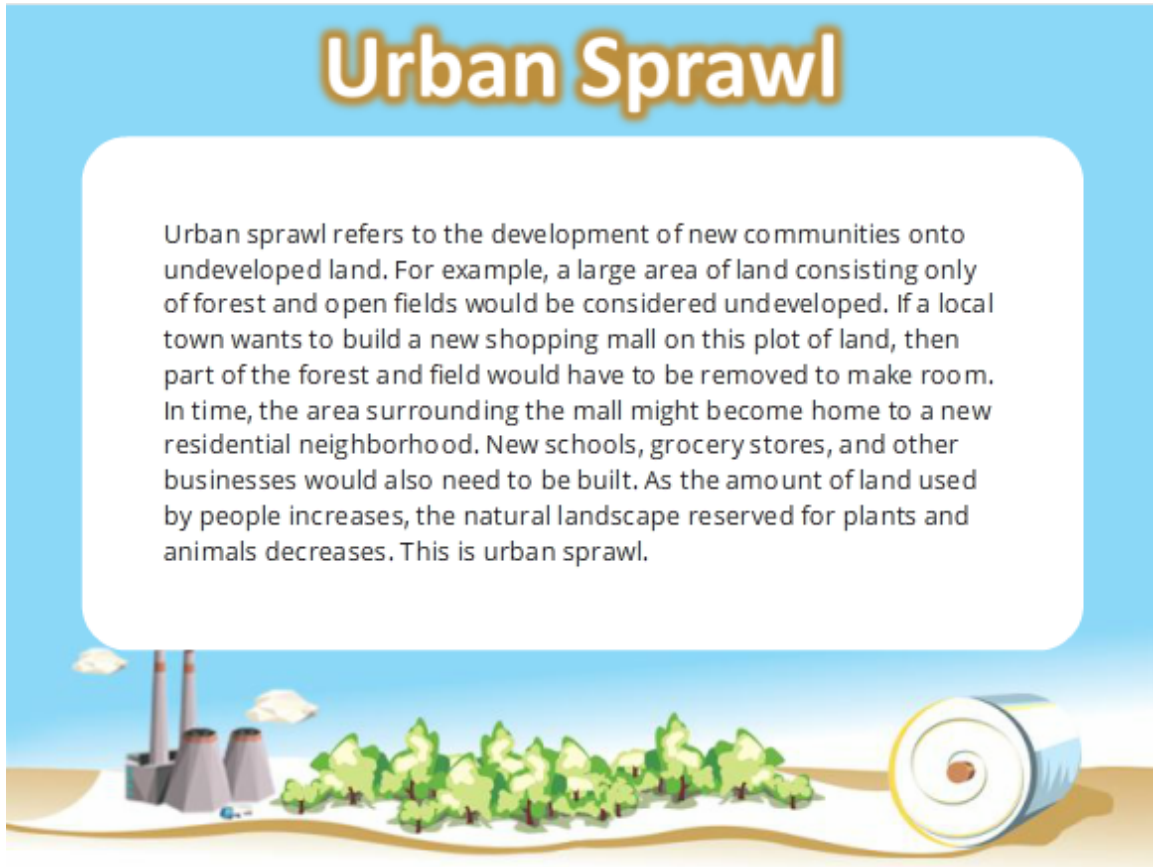
Deforestation is the destruction of forests to clear land for human use or to harvest wood for manufacturing or fuel. Deforestation is problematic for several reasons. The destruction of habitat for both plant and animal species disrupts the delicate balance of the natural ecosystem. Likewise, the destruction of trees contributes to global warming because trees remove carbon dioxide, a major greenhouse gas, from the air. Also, the removal of trees means there are fewer roots in the ground to hold soil in place and absorb water, increasing the risk of soil erosion and major flooding.

An illustration at the bottom of the slide shows a factory with two smokestacks on the left, a line of green trees in the center, and a large roll of paper on the right. The background is a light blue sky with a few clouds, and the ground is a simple brownish-yellow color.

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**Urban Sprawl**



Urban sprawl refers to the development of new communities onto undeveloped land. For example, a large area of land consisting only of forest and open fields would be considered undeveloped. If a local town wants to build a new shopping mall on this plot of land, then part of the forest and field would have to be removed to make room. In time, the area surrounding the mall might become home to a new residential neighborhood. New schools, grocery stores, and other businesses would also need to be built. As the amount of land used by people increases, the natural landscape reserved for plants and animals decreases. This is urban sprawl.

**Module 6: Community Health**  
**Topic 1 Content: Land Quality and Health**

**Urban Sprawl**



There are several environmental problems with urban sprawl. For example, land covered in pavement does not filter rainwater as adequately as natural soil does, so runoff water can carry pollution into the water supply. Of course, urban sprawl also destroys natural wildlife habitats and reduces air quality. Today, city planners try to combat urban sprawl by building more compactly to preserve open land or by planning new communities that use fewer resources and create less pollution.