



Land Management and Conservation

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- As populations grow we need more resources to support them.
- The condition of rural lands is important because of the ecosystem services they provide.



Farmlands

- Threatened by urban development
- Agricultural Conservation Easement Program (ACEP)
- Helps protect working agricultural lands and limit non-agricultural uses of the land.



Rangelands

- The most common use of rangelands is for grazing of livestock.
- Like farmlands, rangeland is essential for maintaining the World's food supply.



Problems on the Range

- Some rangelands in the U.S. Have become degraded by poor land management strategies.
- The most damaging is overgrazing: allowing more animals to graze in an area than the range can support.



Problems on the Range

- More desirable plants are eaten, leaving less desirable plants to invade the area.
- In severe cases, all the vegetation is eaten, leaving nothing to keep the soil from eroding.



Maintaining the Range

- Limit herds to sizes that do not degrade the land.
- Leave land unused so vegetation can recover.
- Killing invasive plants
- Planting native vegetation
- Fencing in areas so they can recover.
- Multiple water sources so livestock do not overgraze the vegetation around a single source.



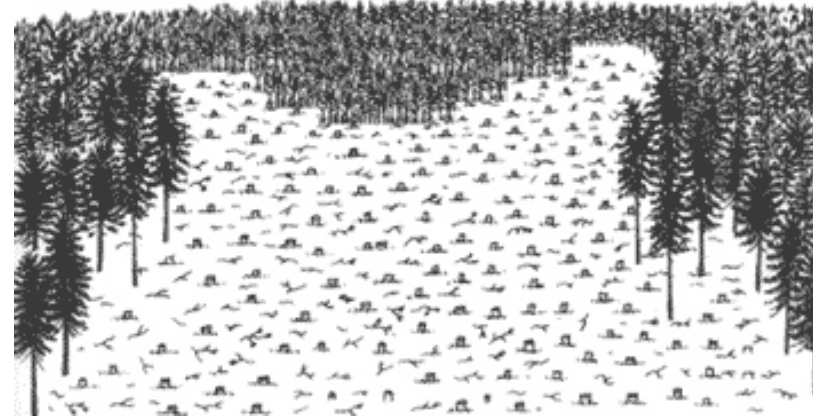
Forest Lands

- Trees are harvested for products like paper, furniture, lumber and plywood for homes, etc.
- Forests also produce products like maple syrup and turpentine.
- Removal of CO₂: carbon sequestration



Harvesting Trees

- Clear cutting is the process of removing all or most of the trees in an area of land.
- Can dramatically change an ecosystem, destroy habitats, and cause soil erosion.
- Selective cutting is the process of cutting and removing only certain trees.
- More expensive but is usually less destructive and can improve the health of the forest.



Deforestation

- The clearing of trees from an area without replacing them.
- Places become deforested as populations expand and the demand for forest products increase.
- Forests are cleared for farmland, roads, homes, factories, and office buildings.
- Causes loss of wildlife habitats, soil erosion, and reduction of soil nutrients.



Reforestation

- The process by which trees are planted to re-establish trees that have been cut down in a forest land.



Parks and Preserves

- A group of explorers explained to Congress that they found a magnificent expanse of land in Wyoming and Montana.
- They were concerned it would be damaged by development.
- Congress agreed to protect the land leading to the first national park: Yellowstone in 1872



Wilderness

- The U.S. Wilderness Act (1964) designated certain lands as wilderness areas.
- Wilderness is an area in which the land and the ecosystems it supports are protected from exploitation.
- Wilderness areas are open to hiking, fishing, boating (without motors), and camping.
- Building roads or structures and using motorized equipment are not allowed.



Cook Lake in the Bridger Wilderness, Bridger-Teton National Forest, Wyoming, U.S.

Benefits of a Protected Area

- Protect species (and their habitats) that would otherwise be extinct.
- Conserve precious resources.
- Provide recreation for people.
- Places for learning and researching.



Threats to Protected Areas

- More and more people visit parks and wilderness areas each year and leave their mark.
- “Loving our parks to death.”
- Some of the issues we face in the city, like litter and traffic, have affected our parks.
- Leave No Trace Outdoor Ethics



LET'S GO ON AN ADVENTURE!



Arches National Park in Utah



Crater Lake National Park in Oregon



Big Bend National Park in Texas



Big Sur National Park in California



Hawaii Volcanoes National Park in Hawaii



Denali National Park in Alaska



Grand Canyon National Park in Arizona



Olympic National Park in Washington



Zion National Park in Utah



Everglades National Park in Florida



Shenandoah National Park in Virginia



Acadia National Park in Maine



Carlsbad Caverns National Park in New Mexico



Red Woods National Park in California



Haleakala National Park in Hawaii



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