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Subject: review
Date: April 6, 2020 at 11:31 AM
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Review for APES (Forestry)

- **Forests services**

-Photosynthesis, valuable products, habitat, forests offset high amounts of atmospheric carbon by converting CO₂ into O and trapping CO₂ it in their trees trunks, forests improve soil and water quality through percolation

- **Slash and Burn Clear Cutting**

- This technique is where people cut down a section of forest and burn down the trees after cutting them for farmland. This is done because the ash leftover is good fertilizer for the farms plants.

- **Old Growth Forest**

- These forests are places with high biodiversity that have not suffered major destructive changes in hundreds or even thousands of years. These forests have large closed canopies and shady understory.

- **Secondary Growth Forests**

- These are forests that have regrown after a natural or human disturbance. These forests have much more light in the overgrown understory, similar to jungle.

- **U.S. Forest Service**

- Main goal for them is to provide timber in a sustainable manner to the U.S.

- **Effects of Deforestation**

- Decreased soil fertility because of erosion, Runoff of eroded soil into water systems, Extinction of species with specialized niches, Loss of habitat for native and migratory species, Regional climate change from destructive clearing, Release of CO₂ into the atmosphere, Acceleration of flooding.

- **Pros and Cons of Clear Cutting**

- Pros: High timber yields, maximum profits in a short amount of time, able to reforest with fast growing trees, requires less skills and planning, good for tree species needing full or moderate sun. Cons: Reduces biodiversity, disrupts

ecosystem processes, destroys and splits up wildlife habitats, leaves large openings in canopy, increases water pollution, flooding, erosion, eliminates recreational value.

- **Pros and Cons of Selective Cutting**

- Pros: Reduces crowding, removes diseased trees, encourages growth of younger trees maintains a group of trees that are different species, allows forests to be used for multiple purposes. Cons: decreases biodiversity, leads to environmental degradation.

- **Surface Fires**

- These fires are often healthy for forests as they burn away undergrowth such as dead leaves and sticks, they spare most mature animals and trees and help prevent future more destructive fires, they also help to release nutrients from the ground.

- **Crown Fires**

- These are fires that start as ground fires but spread up trees destroying huge sections of vegetation, killing animals, and perhaps human structures. They also increase soil erosion.

- **Healthy Forest Restoration Act**

- This act gives timber companies permission to cut down trees in 71% of national forests in return for also clearing smaller more fire prone trees and bushes.

- **Preventing Deforestation**

- reduce poverty, slow population growth, reduce illegal cutting, reduce subsidies that encourage unsustainable forest use, protect diverse and endangered areas on a national level.

- **Restoring Forests**

- Have farms and ranches on already cleared land, reforestation, and attempts to rehabilitate damaged forest ecosystems are all ways in which people can help restore forest.

- **Debt for Nature Swaps**

- Debt can be paid back by the country that owes money by creating protected forest reserves.

