

Climate and Vegetation

Causes for deforestation and management

Case Study - Borneo

The Borneo region of Indonesia has experienced the largest area of deforestation since the 1980's.

Reasons:

- Commercial logging, economic benefits of logging is exporting. Indonesia exports timber to furniture and paper industries.
- Palm oil, rubber and hardwood plantations, by 2004 - 1 million hectares in Kalimantan.
- 7 planned hydroelectric plants in Sarawak.
- Roads to logging sites also destroy forests.
- Forest cleared for housing due to population increase due to transmigration.
- Coal mining in Kalimantan.
- Oil mining in Balikpapan.

Problems:

- Deforestation is done by burning vast regions of forests. This results in large clouds of smoke causing respiratory illnesses that are responsible for 1 in every 3 deaths.
- Many animals like the orangutan, Sumatran tiger, Bornean pigmy elephant are all endangered due to loss of habitats, along with several species of birds and aquatic animals have also reduced in number due to deforestation.
- Soil fertility has been compromised due to leaching and due to absence of leaves that decay.

Solutions:

- Natural parks and resorts established to preserve the forest and its species to promote ecotourism. Eg. Kutai National Park - failed as only 200,000 hectares instead of 300,000 planned hectares. Illegal loggers cut off trees which were there (remaining).
- The Danum Valley conservation area contains more than 120 mammal species including 10 species of primates. It also has a restoration project for orangutans, Sumatran rhinos and over 350 species of birds.
- Selective logging has been implemented in which only mature trees are cut down.
- Forest restoration in Kalimantan - 900,000 hectares of trees planted.
- The government has started educating locals about the importance of forest conservation.
- North eastern edge of the Danum Valley conservation area is being used to promote ecotourism that helps raise revenue for local areas along with raising awareness internationally about the area being an important center of conservation and research.