

SOILS AND LAND USE

“Forests precede civilizations, deserts follow them”

Francois Rene de Chateaubriand 1768-1848

A. A Renewable Resource ?

B. Historical Effects of Soil Loss

1. Greece
2. North Africa
3. American Prairie: the Dust Bowl

C. Current Soil Loss in Asia and Africa

D. Causes of Soil Degradation

E. Tropical Deforestation

1. Rates of forest loss
2. Causes of deforestation
 - a) poor people clear land to grow food
 - b) poor harvesting fuel wood faster than regeneration
 - c) commercial logging
 - d) supplying fast food industry
3. Consequences of deforestation
 - a) increased greenhouse gases
4. Potential for agriculture in tropical areas
 - a) poor soil structure

b) low in soil nutrients due to:

- (1) location of nutrients
- (2) continuous respiration and decomposition
- (3) highly leached

5. Deforestation increases albedo

6. Moving soils reconnect Gondwana Land