

- o Large amounts of precipitation that moves nutrients downward in the topsoil, potentially below the reach of plant roots

### Land Capability Classification:

- System of grouping soils on basis of capability to produce common cultivated crops + pasture plants without deteriorating over long period of time
  - o Class Codes: I (1), II (2), III (3), IV (4), V (5), VI(6), VII (7), and VIII (8)
  - o Subclass Codes: e, w, s, and c
    - Subclass represents dominant limitation that determines the capability class: erosion, excess water, root zone limitation, climate

### How Can Humans Repair & Sustain The Land?

- Human actions degrade land – erosion occurs as side effect of farming practices
- Degraded landscapes can be rehabilitated or restored after human use
- **Ways To Repair & Sustain The Land:**
  - o 1) Agriculture & Grazing
    - Farming practices accelerate soil erosion and degrade soil fertility
    - Tillage: preparing soil for planting by breaking it up + turning it over = weed control, but exposes soil to wind and water erosion
    - Overuse of pesticides, overirrigation, + overgrazing damage land
    - Terracing, no-till agriculture (increasing slightly), cover crops, windbreaks + hedgerows
  - o 2) Mining
    - Abandoned mine sites can be reclaimed + rehabilitated
      - Import topsoil, planting trees, + sustainable livestock grazing
  - o 3) Forestry
    - Deforestation global annual rate of 13 million hectares per year due to logging or burning
      - Removes primary source of organic material + soil-binding ability of tree roots
    - Tree harvesting from steep slopes leaves land susceptible to landslides following rain events
    - Sustainable forest management

### Food:

#### How Did Our Modern Agriculture Develop?

- Agriculture: System of land management used to grow plants and animals for food, fiber, or energy
  - o Began as hunter-gatherers
  - o 10,000 years ago humans began purposefully growing food
  - o Adaptation led to domestication
    - Herding animals
    - Tuber-producing plants
- Domesticated varieties of many crops: wheat, corn, bananas
- Domestication of animals began w/ dogs for hunting, then cattle, chicken, and pigs for consumption