

# Irrigation

- Adding water to dry areas to grow crops
- Irrigation accounts for about  $\frac{3}{4}$  of all water use worldwide!

# Irrigation Methods

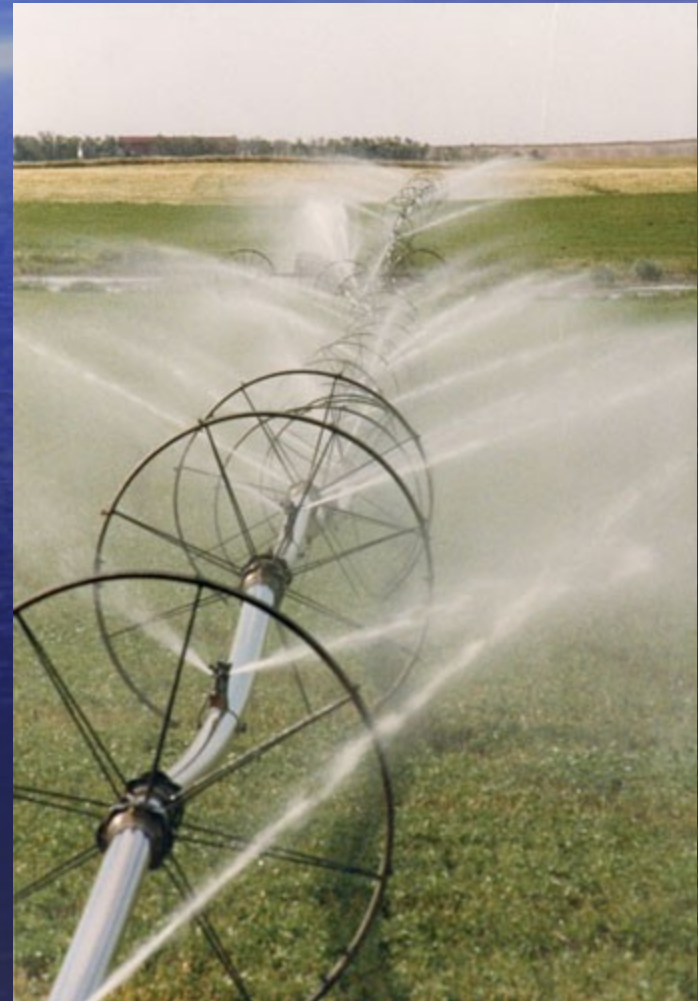
## Surface irrigation

- Ditches and canals divert water to fields
- Small walls called **bunds**
- Accounts for 96% of all irrigation
- Water loss from evaporation



# Sprinkler irrigation

- Accounts for the other 4%
- Pipes mounted on large wheels for easier movement
- Water loss from evaporation
- costly



# Pivot irrigation

- Type of sprinkler irrigation
- Rotates around a central pivot
- Only irrigates circular areas
- Water loss from evaporation
- costly



# Drip irrigation

- Water is dripped from pipes or hoses to roots of plants
- Less evaporation loss
- costly



# Environmental problems resulting from irrigation

- Other than the enormous demands it puts on the world's fresh water supply....

# Salinization

- Faulty irrigation
- Dissolved salts rise to the surface through capillary action
- Salt crusts left on the surface as water evaporates
- Makes soil infertile



# Damage to fisheries

- Irrigation dams trap silt and nutrients behind the dam
- Fish downstream have their food supply cut off

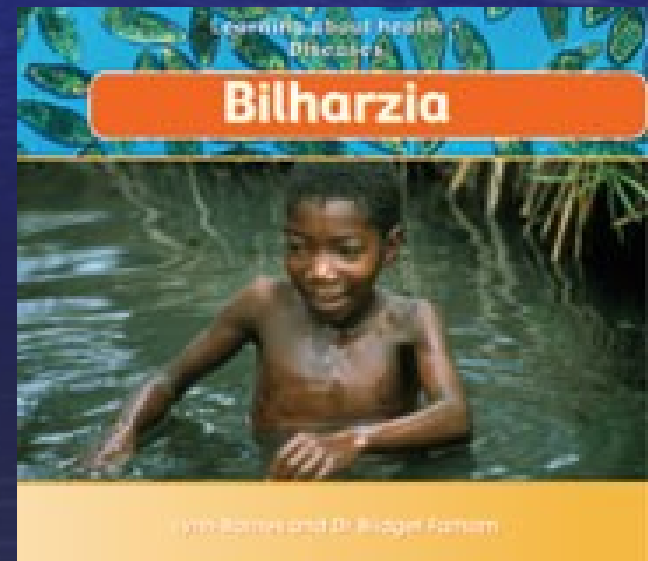


# Overuse of pesticides

- Irrigation leads to an increase in pests
- Stagnant water is breeding ground for insects and mosquitoes
- Pesticides are used to kill the insects
- It has harmful effects on farmers and consumers

# Health problems

- Diseases associated with irrigation
- Bilharzia
- A parasite in the human body from stagnant water
- Disease of the poor



# Health problems

- Malaria
- Mosquitoes act as a vector for this disease
- Mosquitoes breed in stagnant water
- Another disease of poor nations

