Explain what is going on in the cartoon below:
As the human population grows, the demand for Earth's resources increases.
16.1 Human Population Growth And Natural Resources

- **Limiting Factors**
  - Birth & death rates eventually balance
    - **Factors**: Disease, food, predators, climate, space, mates
  - Populations become stable
  - **Carrying Capacity**: greatest number of individuals that a population can sustain
  - What stage is the human population in?
Earth’s human population continues to grow.

- Earth’s human carrying capacity is unknown.
16.1 Human Population Growth And Natural Resources

- Technology has helped to increase Earth’s carrying capacity.
  - gas-powered farm equipment
  - medical advancements
  - clean water
  - public assistance
The Big Problem: Overpopulation

- Over 6.6 billion people
- Many natural resources are nonrenewable
  - Fossil fuels take millions of years to form
- **More people means:**
  - 1) More forests removed
  - 2) More resources consumed
  - 3) More CO2 released

*Source: US Bureau of the Census.*
The growing human population exerts pressure on Earth’s natural resources.

- Nonrenewable resources are used faster than they form.
  - coal
  - oil
16.1 Human Population Growth And Natural Resources

- Renewable resources cannot be used up or can replenish themselves over time.
  - wind
  - water
  - sunlight
- Growing use of nonrenewable resources may lead to a crisis.
- Resources must be properly managed.
Effective management of Earth’s resources will help meet the needs of the future.

- Earth’s resources must be used responsibly.
- Careless use of resources makes them unavailable to future generations.
- Easter Island is an example of irresponsible resource use.
16.1 Human Population Growth And Natural Resources

- An ecological footprint is the amount of land needed to support a person.
- The land must produce and maintain enough
  - food and water
  - shelter
  - energy
  - waste
16.1 Human Population Growth And Natural Resources

- Several factors affect the size of the ecological footprint.
  - amount and efficiency of resource use
  - amount and toxicity of waste produced
16.1 Human Population Growth and Natural Resources

Lessons from China

- Encourage smaller families by:
  - 1) Free education for life to one child family
  - 2) Free birth control
  - 3) Financial: Salary, Pension, Housing, Medical

- 1970s = 5.8 children
- Today = 1.8
16.1 Human Population Growth And Natural Resources

What can you do?

- Act locally
- Reduce usage of natural resources
- Recycle at home
- Support Environmental Action Groups (Greenpeace, Sierra Club)