The following information corresponds to Chapter 13 in your textbook. Fill in the blanks to complete the definition or sentence. Note: All of the following information in addition to your reading is important, not just the blanks you fill in.

Environmental Change
- The ___________ of plants and animals occurs w/ or w/o human activity.
- More _________ = greater capacity for environmental change (e.g. deforestation was so severe in China that Mao Zedong ordered everyone to plant a tree).
- MDCs consume more __________ than LDCs; consumption is mostly _________ in LDCs & _________ in MDCs (a baby born in the US will consume _____ times more energy than a baby born in Bangladesh!)
- MDCs have more technology, and therefore a greater need for _________ (e.g. fossil fuels – cause pollution); tech. enables the population to alter large portions of the planet in a shorter amount of time

Trends in Human Consumption
- Consumption habits have changed as well; for example – the demand for low-cost hamburgers in US (McDonalds) has led to the cutting down of trees in _________ & _________ America to make way for pastures and cattle herds.
- * As you can see in the table, the production of meat requires much more water than for crops.
- Improvements in the technology of transportation over time have required more energy at each level:
  1. By ______ or ______.
  2. Domesticated _________.
  3. _____ boats
  4. _______ engine (invented toward the beginning of the industrial revolution)
  5. ____________ engine (invented toward the end of the industrial revolution)
- Today’s means of transportation causes more ____________(oil slicks) than ever before; moves species to new regions (e.g. Australian fir trees in West Palm Beach), diseases (SARS)
- Before the 1800s, humans relied on _________ energy, mostly through the consumption of plants & animals = wood & meat.
- Global energy production was ___% greater in 1999 than in 1971; and this rate has been steadily increasing.
- ________ power is largely reliable, but not 100% safe (e.g. Three Mile Island (*’79), Chernobyl (*’86)).
Environmental Policies in Response to Environmental Change

- Many environmental problems do not lie within a single ______________, or state; often times these difficulties cross political boundaries.
- Many international agreements have been spear-headed by ______________ ______________ (NGOs) that operate outside the formal political arena.
- One example of an NGO is the ______________ ______________ (GEF) – a joint project of the United Nations and the World Bank; the GEF funds projects related to four issues (since 1992):
  1. Loss of ____________ (plants & animals),
  2. Protection of the __________ layer,
  3. Global __________change (temperatures have been rising), &
  4. Protection of international __________.
- Although the GEF has been charged with protecting key elements of the world environment – it still functions in a ______-based world.

Specific Policy Examples

- ~170 countries signed an agreement proposed by the UN Environment Programme dealing with ____________ in 1993; the participating countries (168 today) work to establish a system to reduce activities that have a negative impact.
- It has been an ongoing struggle to find a balance between the need of _____ to promote local economic diversity & preserve biodiversity, which is the richest in the global economic ____________; there has also been controversy over the _____ sharing the costs for conservation.
- A naturally occurring ________ layer exists in the upper levels of the stratosphere (when O$_3$ is too plentiful in the troposphere (0-16 kilometer altitude), ______ can occur).
- The ozone layer protects the Earth from the Sun’s harmful ________ rays; ______ (chlorofluorocarbons) found in refrigerants, fire extinguishers, and aerosol cans used since the 1950s were found to be harmful in the ______; the image to the left shows a “hole” in the ozone layer over ______________.
- The __________ __________ was signed in 1987 to deal with CFCs.
- The __________ __________ was signed in 1997 by more than 80 countries; it laid out plans to reduce the emission of ________ gases; the ____ has decided to go its own course – and has actually abandoned it unilaterally under the current administration.

The Future

- Global conditions are ____________, in that future conditions cannot be reliably predicted; small actions today may impact the world greatly down the road.
- In the 1970s, ______ raised oil prices (gas lines, energy price hikes, increases in smaller automobiles, reduction in speed limits).
- Today, _____ (major “gas-guzzlers”) are more popular than ever, and gas is relatively cheap (~1/3 EU); but this poses the potential for another crisis – short memories.
- ____ is not a renewable resource, and as the world becomes more developed, it is consumed in greater quantities & demand increases.
- The ______may be a: “warmer, more crowded, more connected, but more diverse world.”