

GLOBAL ECOLOGICAL PROBLEMS

Nataliya Mogilna, Abuubakar Kisia Almasi
Sumy State University, Sumy, Ukraine

An **ecological crisis** occurs when the environment of a species or a population changes in a way that destabilizes its continued survival. There are many possible causes of such crises:

- It may be that the environment quality degrades compared to the species' needs, after a change of a biotic ecological factor (for example, an increase of temperature, less significant rainfalls).
- It may be that the environment becomes unfavorable for the survival of a species (or a population) due to an increased pressure of predation.
- Lastly, it may be that the situation becomes unfavorable to the quality of life of the species (or the population) due to raise in the number of individuals (overpopulation).

The abiotic factors. With global temperature rising, there is a decrease in snow-fall, and sea levels are rising. Polar bears are being threatened. They need ice for hunting seals, their primary prey.

Biodiversity extinction. Every year between 17,000 and 100,000 species vanish from the planet. The speed in which species are becoming extinct is much faster than in the past. The loss of new species in an ecosystem will eventually affect all living creatures. In the U.S. and Canada, there was a dramatic reduction of shark population along the U.S. east coast. Since then, there has been an increase in population of rays and skates, which in turn has decimated the population of shellfish.

Overpopulation. In the wilderness, the problem of animal overpopulation is solved by predators. Predators tend to look for signs of weakness in their prey, and therefore usually first eat the old or sick animals. In the absence of predators, animal species are bound by the resources they can find in their environment, but this does not necessarily control overpopulation. In this case, starvation, thirst, and sometimes violent competition for scarce resources may effect a sharp reduction in population.

Examples:

- Deforestation and desertification, with disappearance of many species.
- Volcanic eruptions such as Mount St. Helens and the Tunguska and other impact events.
- The nuclear meltdown at Chernobyl in 1986 caused the death of many people and animals from cancer.