

THE 4 E'S AND HOW THEY ARE RELATED

ELEPHANTS

Elephants are a 'keystone' species. A keystone species is a species which has a large affect on its environment relative to its abundance. It is a species that plays an important role in maintaining and balancing the structure of an ecological community and affecting many other organisms within this community. The loss of elephants from one particular site would mean that all the biological interactions and ecosystem processes in which they are involved, would also be lost.

ENVIRONMENT

Elephants are responsible for keeping their environment in balance. They pull down trees and break up thorny bushes, which help to create grasslands in which other animals survive. They create salt licks by digging up earth that contains many minerals, thereby providing a food source for other animals, as well as dig waterholes in dry riverbeds that other animals use as a water source. They create trails that act as fire breakers and water run offs. Humans depend on the openings elephants create in the forest and the waterholes they dig. Elephant dung is important for the environment as birds spread undigested seeds and nuts. Their nutrient-rich manure replenishes depleted soils so humans have rich soil to plant crops. Some seeds will not germinate unless they have passed through an elephant's digestive system. Forest elephants may be responsible for spreading and planting more seeds in the Congo than any other species or genus.

ECOLOGY

Ecology is the study of environmental systems, or as it is sometimes called, the economy of nature. Elephants are the ecosystems engineers, gardeners and architects of the areas they live in. How the ecology of an area is maintained by a certain species can positively or adversely affect the environment.

ECONOMY

Tourism is a key component in the African economy. The ongoing poaching of elephants is having a tremendous impact on the global tourism industry and Africa's economy. In countries such as Kenya and South Africa, where tourism is vital, millions of people employed directly or indirectly in tourism risk losing their livelihoods. With no wildlife to view, travelers will disappear and subsequently, safari lodges and African tour operators will not be able to survive. Local communities, many of whom are reliant on funds from lodges, will suffer and be unable to protect whatever wildlife is remaining.