

Wild animals generally have advantages (benefits) and Disadvantages (damage) to nature:

Benefits of wild animals:

There are direct benefits of wild animals such as (**economic benefits**) and indirect benefits, which is (**moral and biological benefits**).

A) Direct benefits (Economic benefits)

- 1- Access to provide food and meat for human, and domestic animals.
- 2- Access to clothing and leather industries (coat, jackets, gloves, hat, shoes and belts).
- 3- Access to different parts of home decorations and antiques such as furniture and mattresses.
- 4- Access to manufacture of medicines and medical supplies and sewing operations.
- 5- Benefits from bones and horns in the manufacture of buttons and knives handles.
- 6- Access to large amount of cash to the treasury of the public and private hunting areas. Then rental and sale them or export to animal parks for tourist purposes, to bring tourists and researchers, which lead to improve general economic of the country.
- 7- Increasing request for information about the country and its business and scientific research and scientific books and magazines about the wild animals found in a country.
- 8- Tax income from hunter's licence.

B) Indirect benefits:

1- Moral benefits including :

- Entertainment and mental worries and simplicity the problems of daily life difficult.
- Physical benefit as a result of walking.
- Feeling of wisdom, morality, and reduce the roughness and kindness to animals.
- Take advantage of the break time and remove the boredom and routine.
- Scientific benefit and curiosity and organization of research and writing.
- Benefits to encourage and overcoming fear.

2- Biological & and ecological benefits:

Animals have vital ecological roles: these include:

- 1- **pollination** (birds, bats, bees and other insects);
- 2- **Decomposition** (vultures, dung beetles, earthworms and other insects);
- 3- **Seed spreading** (birds, monkeys, rodents, fish, ants);
- 4- **Seed predation** (rodents, birds, beetles);
- 5- **Herbivory, or plant-eating** (insects, mammals);
- 6- Hunting of other animals (insects, mammals, reptiles, birds).

Through these roles, animals influence such forest characteristics as composition and structure of vegetation. They also influence the reproductive success of plants, contribute to soil fertility and serve as regulators of pest populations.

As against the benefits of wild animals, the dangers of wild animals for forest are very serious:

- 1- **Damage to forest seedlings**, whether in pure or mixed forests, as young seedlings are compacted by the animals and destroyed.
- 2- **Damage to mature trees as a result of peeling stem**. The stems are deformed from injuries inflicted by the horns of animals. The roots and trunk bases of older trees are injured by hooves. The injuries so caused facilitate attack by fungi or insects which may result in the death of trees.
- 3- **Browsing of young plants results in defoliation and removal of shoots and buds**. The most serious damage to forest crops is therefore caused by wild goats.
- 4- **Heavy grazing by wild animals causes a serious damage to the soil by trampling**. The soil is compacted and its water infiltration capacity is reduced which results in excessive runoff and accelerated soil erosion.
- 5- **Remove of herbaceous plant cover by grazing**, including grasses, as a result deprives the soil of the protective cover which results in washing away of soil.
- 6- **The deterioration of the forest soil**, resulting in the degradation of both of the forest stands and then migration wild animal of the place.
- 7- Damage to agricultural fields and vegetables, especially by wild pig, bear, and rabbit.
- 8- **Damage to wild fruits and wild honey by bears**.
- 9- **Damage seeds and fruits of trees** by squirrels, crows, monkeys and other birds.

- 10- **Break the branches of trees or uprooting the trees from their places**, especially by large animals (elephant, a gorilla, rhino, or a bear).

In general these above damages are not stable, but varies depending on the following points:

- 1- **Type of animal, natural, habit , and diet.**
- 2- **Season of the year**, For example, the damage will be increased after reproduction of any birth, due to increase numbers of animals. Also the damage increase in spring as a result of the existence of branch trees.
- 3- **Type of food or any evergreen trees or falling**, which is permanent vegetation affected more than falling trees.
- 4- **Near and farness of the damage location from population** and the degree of conservation and guard them.

The role of animals as a portion of the unit of life of the forest:

As we said previously, wild animals are part of the unity of life in the forest, whether small or large animals, which means every organism has a role in the forest either positively or negatively, and continuously within the natural balancing.

We can summarize the role of wild animals for Forest as followings:

- 1- **Transfer seeds whether by eating and then put them down in somewhere else**, or as result of their adherence to its body of wool or feathers then deliver them to other sites, thus leading to a **natural regeneration or natural distribution.**
- 2- **Contribute to the dismantling soil and mixing seeds with the soil during search for food**, in this case wild animals also lead to mix organic matter, which is accumulated on the surface with the ground soil, and

participate for natural regeneration. Also they assist to force moisture into soil.

- 3- **They have great role to Storage seeds for critical times**, especially by squirrels, for example they bury seeds of pistachio, nuts and oak trees, until a right condition time is coming, then the seeds are grow and access to the process of natural regeneration.
- 4- **They provide soil with organic matter continuously**, by some parts of dead animals, bones, and faeces, as the result the vegetation cover will change.
- 5- **Reduce the competition between exotic weeds with forest seedlings**, by grazing those exotic plants, and thus allow seedlings to grow better.
- 6- **They have role in ecological balance to continue the life cycle.**