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## Topic Guide

# “Human Impact on Wildlife”

### Introduction:

The human activity is highly responsible for triggering the habitats of other organisms, hence leading to the extinguishment of their biosphere by limiting its size and by cutting off its main characteristics. Oceanic wildlife has been generally subjected to overhunting, forced introduction of foreign species and marine pollution with poisonous substances which led to massive deaths within aquatic individuals.

Other severe consequences of human disturbment may include migration of the endangered animals, downsizing the local biodiversity and behavioral changes. Similarly, terrestrial organisms experience lower rates of reproductive success, increased mortality rates and increased change in distribution pattern resulting in a definite decrease in species richness and diversity, etc. Acting as disruptive factors we may account deforestation for commercial, agricultural and residential purposes and even tourism and leisure activities which may not necessarily alter the physical environment, nonetheless can affect wildlife drastically.

The poor interaction between humans and the wildlife can be defined as the "Human-wildlife conflict" which has an indirect impact on the society and its economic, social and cultural aspects.

### History:

During the long history of life on Earth, the generally slow pace of evolution has been punctuated by dramatic mass extinction events, during which, over a relatively short period of time, a very large number of species became extinct. There are thought to have been five such events, of which the most recent occurred at the end of the Cretaceous period,

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about 65 million years ago; it brought about the extinction of the dinosaurs. We are now entering what many biologists regard as the sixth mass extinction event. This one differs from the previous five in that it is being caused, not by natural events such as volcanic activity or a meteorite impact, but by the activities of one species, Homo sapiens.

One of the most significant ways in which humans have impacted on the lives of other species is by causing climate change. Many animals, including birds and frogs, now breed much earlier in spring in Britain than they did 20 years ago. The number of wild animals on Earth has halved in the past 40 years, according to a new analysis of WWF. But the big declines in wildlife in rich nations had already occurred long before the new report's baseline year of 1970 – the last wolf in the UK was shot in 1680.

## Past Actions:

Unfortunately, the greatest impact humanity has had on wildlife so far is a negative one - huge loss of natural habitats and species through our various activities.

The primary cause for this is farming and harvesting of timber for fuel and wood products as this requires for deforestation, with approximately 177,000 square kilometers of forests being cleared each year. To round it up, in 8000 years of our activity on Earth, half of its forests have been lost, 3% only since 1990.

Marine zones and oceans have also suffered great losses of biodiversity due to urbanization, industrialization and tourism. The greatest damage can be seen in rivers and lakes where agriculture and dams have resulted in the wildlife population falling by 83%.

At the same time, climate change has, for example, been altering the habitats of corals from the Great Barrier Reef, which led to a large-scale coral bleaching, thus weakening the Earth's ecosystems and ultimately posing a threat to human life itself. Additionally, it increases the occurrence of extreme weather conditions such as forest fires and flooding, damaging biodiversity.

To put things into perspective, 'humanity has wiped out 60% of mammals, birds, fish and reptiles since 1970'. Currently, 'figures from the International Union for Conservation of Nature (IUCN) suggest about 2,000 mammals around the globe are affected by habitat loss. It is the primary threat to 85% of species on the union's Red List which lists organisms whose existence is either vulnerable, endangered, or critically endangered.'

One way in which this issue has been tackled includes giving the protected area (PA) status to many regions around the world - 'It is essential that these PAs are sustained and used as positive models for including more and more areas under the conservation umbrella. Researchers show that PA management, although quite expensive, is an economically significant activity, [generating \\$600 billion USD a year in direct in-country expenditure alone](#), and attracting 8 billion visitors worldwide a year. The net positive economics of PAs surely generate incentives on governmental levels.' Also, there are organizations WWF which have been working hard to conserve nature and its diversity, focusing on a wide range of areas from wildlife, forests and oceans to climate and food.

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## Current Events

Due to the aforementioned history of human damage to natural habitats, there is a strong push to counteract the damage done and restore and maintain wildlife in order for the future existence of biodiverse ecosystems.

As such, there are a number of major organisations dedicated to assisting the reparation effort in order to ensure the future of biodiversity on Earth.

## CITES

One of the most prolific organisations focused on the maintenance of wildlife is CITES, established in 1973. CITES stands for Convention on International Trade in Endangered Species of Wild Fauna and Flora. It is a multinational treaty resulting from UN Resolutions, containing articles of law regarding the international trade of animal products, in order to combat poaching of endangered organisms.

However, adding an organism to CITES endangered list may have the adverse effect of stimulating poaching in the months before the law is enforced.

## WWF

The World Wildlife fund acts on the conservation and restoration of environments affected by human actions and natural catastrophes. WWF was established in 1961 and is currently focused on the conservation of oceans, coasts and other aquatic ecosystems, as those foster the most biodiversity.

Other actions currently being taken to ensure the protection of at risk habitats is the establishment of national parks. These delimited areas are patrolled in order to ensure the limitation of human activity in the area, due to the risk posed by human actions to wildlife, such as in the case of the Chinese Panda Reservations or the African Game Parks. Marine parks are the aquatic equivalents of these areas and protect against actions such as the spillage of oil or trash and overfishing.

The main challenge, and the reason these establishments are necessary to the cause of remediating human impact are the threats posed to the key element of any ecosystem- biodiversity.

## **Biodiversity is at risk due to the following factors:**

### 1. Habitat loss

The exploitation of habitats by humans for commercial reasons. These include deforestation, which can lead to landslides and the further destruction of terrain for other plant species as well as being a direct fragmentation of habitat for tree-dwelling species, from the birds and critters of the forests of Europe and North America to the highly diverse jungles of South-East Asia.

### 2. Competition

Humans often compete for resources with animals, such as terrain and primary food sources. Furthermore, household animals introduced in new habitats by humans act as invasive species and imbalance ecosystems.

### 3. Climate change

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The emission of greenhouse gasses due to the consumption of fossil fuels has led to global warming, changing weather patterns and rising sea levels. This is highly dangerous for all ecosystems, but most of all Polar Regions and most recently Australia, where raging bushfires threaten both plant and animal species.

4. Other factors

Humankind tends to have perceptions about the danger posed by certain animals. Film media has made sharks out to be bloodthirsty killers, when in reality, they pose little threat to human swimmers out in open waters. Many species of animals have been driven to extinction due to wars waged by humans, and the associated use of biochemical and nuclear weapons. Lastly, pollution is rampant in all areas inhabited by humans and oftentimes leads to animal death and displacement.

**Possible considerations for the future:**

As our species continues to evolve and innovate, there are a few possibilities in how the future will unfold. Climate change has been a topic of discussion that has attracted media attention throughout the world, meaning that more and more people are aware of the crisis at hand. Depending on the decisions of our world leaders, factors such as CO2 levels in the air may continue to rise. Based on a business-as-usual trend, global carbon dioxide emissions are forecast to increase to some 43.08 billion metric tons in 2050, in comparison to 35.3 billion metric tons of carbon dioxide in 2018. There is little time to act, as if the temperature of the earth increases by 1 degree Celsius, then the changes to earth's climate and subsequently to wildlife will be irreversible.

However, there are positive signs to look forward to as well, as renewable energy sources continue to increase in percentage of the total amount of energy produced globally. Renewables made up 17.1 percent of electricity generation in 2018, with hydro, wind, and biomass making up the majority. That's expected to rise to 24 percent by 2030. Most of the increase is expected to come from wind and solar.

**Conclusion:**

Acknowledging the delicacy of such issues, management and conservation techniques must be approached in such a way the least further damage should be done to the wildlife.

**Bibliography:**

<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=2ahUKEwjKjZqO0f7mAhVU86YKH WVCCGUQFjAJegQIARAC&url=https%3A%2F%2Fwww.wwf.org.au%2FArticleDocuments%2F355%2Fpub-fact-sheet-what-impacts-do-human-activities-have-on-habitats-and-wildlife-23may17.pdf.aspx&usg=AOvVaw2aQpR2c6o7cKoRQInkoBS3>





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<https://www.theguardian.com/environment/2018/oct/30/humanity-wiped-out-animals-since-1970-major-report-finds>

<https://faunalytics.org/human-expansion-and-its-effects-on-wildlife/>

<https://www.worldwildlife.org/>

[https://www.google.com/url?q=https://nhpbs.org/natureworks/nwep16b.htm&sa=D&ust=1578859554093000&usg=AFQjCNH17BV-LtrcVslAe\\_RzLPKYtml2nA](https://www.google.com/url?q=https://nhpbs.org/natureworks/nwep16b.htm&sa=D&ust=1578859554093000&usg=AFQjCNH17BV-LtrcVslAe_RzLPKYtml2nA)

<https://www.sciencelearn.org.nz/resources/144-human-impacts-on-marine-environments>

<https://dosits.org/animals/effects-of-sound/potential-effects-of-sound-on-marine-mammals/behavioral-changes-in-mammals/>

<http://www.georgewright.org/232steidl.pdf>

[https://en.wikipedia.org/wiki/Human%E2%80%93wildlife\\_conflict#Meaning](https://en.wikipedia.org/wiki/Human%E2%80%93wildlife_conflict#Meaning)

<https://www.c2es.org/content/renewable-energy/>

<https://www.statista.com/statistics/263980/forecast-of-global-carbon-dioxide-emissions/>

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