

## What is use?



Since its origin, humanity has used the flora and fauna in various ways, as food, drink, medicine, clothing, building materials and fuel. However, from ancient times this use of nature has had positive and negative consequences at various scales.

Mankind has taken advantage of **genetic variability** to produce varieties of plants and animals with characteristics more suitable for use. We can identify maize, chile, beans, and squash as examples, along with the various animal species domesticated for heavy work, meat, and company. At present, knowledge about the genetic code has allowed the creation of genetically modified organisms (GMOs).

The use of wild **species** has resulted in changes in their abundance and distribution, to the point that some have disappeared. Many species endemic to islands were exterminated directly or indirectly by the Polynesian

colonizers, such as the giant birds known as moas (*Dinornis robustus*) in New Zealand. Conversely, other invasive species have been favoured and have increased their distribution and abundance, as in the case of the black (*Rattus rattus*) and grey (*R. norvegicus*) rats from Asia.

**Ecosystems** have been altered, first with the use of fire, and later with the advent of agriculture, large areas have been transformed into agricultural, livestock and urban areas. Others have been flooded by the construction of dams. Few ecosystems in the world have remained unaltered by the influence of human beings.

The exponential growth of the human population in the last 100 years, the expansion of cities and the development of road networks have transformed the **landscape** on a scale never before experienced on **Earth**. In fact, human activities are currently responsible for changes on a global scale such as **loss of biodiversity** and climate change.

### Sustainability

Sustainability is "meeting the needs of the present without compromising the ability of future generations to meet their own needs".

This definition of sustainability as applied to human development, was published in the 1987 report "Our Common Future" from the United Nations Committee on Environment and Development, also known as the Brundtland Commission, after its coordinator Gro Harlem Brundtland, Environment Minister (1974-1979) and Prime Minister of Norway (1981, 1986-1989, 1990-1996).