

The Effects of Deforestation

A

Every year it is estimated that roughly 5.2 million hectares (52,000 km² of the forest is lost worldwide. That is a net figure, meaning it represents the area of the forest not replaced. To put this size in context, that is an area of land the size of Croatia lost every single year. There is a wide range of negative effects from deforestation that range from the smallest biological processes right up to the health of our planet as a whole. On a human level, millions of lives are affected every year by flooding and landslides that often result from deforestation.

B

There are 5 million people living in areas deemed at risk of flooding in England and Wales. Global warming, in part, worsened by deforestation, is responsible for higher rainfalls in Britain in recent decades. Although it can be argued that demand for cheap housing has meant more houses are being built in at-risk areas, the extent of the flooding is increasing. The presence of forests and trees along streams and rivers acts like a net. The trees catch and store water, but also hold the soil together, preventing erosion. By removing the trees, the land is more easily eroded increasing the risk of landslides and also, after precipitation, less water is intercepted when trees are absent and so more enters rivers, increasing the risk of flooding.

C

It is well documented that forests are essential to the atmospheric balance of our planet, and therefore our own wellbeing too. Scientists agree unequivocally that global warming is a real and serious threat to our planet. Deforestation releases 15% of all greenhouse gas emissions. One-third of the carbon dioxide emissions created by human activity comes from deforestation around the globe.

D

In his book *Collapse*, about the disappearance of various ancient civilisations, writer Jared Diamond theorises about the decline of the natives of Easter Island. European missionaries first arrived on the island in 1722. Research suggested that the island, whose population was in the region of two to three thousand at the time, had once been much higher at fifteen thousand people. This small native population survived on the island despite there being no trees at all. Archaeological digs uncovered evidence of trees once flourishing on the island. The uncontrolled deforestation not only led to the eradication of all such natural resources from the island but also greatly impacted the number of people the island could sustain. This underlines the importance of forest management, not only for useful building materials but also for food as well.

E

Forestry management is important to make sure that stocks are not depleted and that whatever is cut down is replaced. Without sustainable development of forests, the levels of deforestation are only going to worsen as the global population continues to rise, creating a higher demand for the products of forests. Just as important though is consumer awareness. Simple changes in consumer activity can make a huge difference. These changes in behaviour include, but are not limited to, recycling all recyclable material; buying recycled products and looking for the FSC sustainably sourced forest products logo on any wood or paper products.

F

Japan is often used as a model of exemplary forest management. During the Edo period between 1603 and 1868 drastic action was taken to reverse the country's serious exploitative deforestation problem. Whilst the solution was quite complex, one key aspect of its success was the encouragement of cooperation between villagers. This process of collaboration and re-education of the population saved Japan's forests. According to the World Bank, 68.5% of Japanese land area is covered by forest, making it one of the best performing economically developed nations in this regard.

G

There is, of course, a negative impact of Japan's forest management. There is still a high demand for wood products in the country, and the majority of these resources are simply imported from other, poorer nations. Indonesia is a prime example of a country that has lost large swaths of its forest cover due to foreign demand from countries like Japan. This is in addition to other issues such as poor domestic forest management, weaker laws and local corruption. Located around the Equator, Indonesia has an ideal climate for the rainforest. Sadly much of this natural resource is lost every year. Forest cover is now down to less than 51% from 65.4% in 1990. This alone is proof that more needs to be done globally to manage forests.

H

China is leading the way in recent years for replenishing their forests. The Chinese government began the Three-North Shelter Forest Program in 1978, with aims to complete the planting of a green wall, measuring 2,800 miles in length by its completion in 2050. Of course, this program is in many ways forced by nature itself; the expansion of the Gobi Desert threatened to destroy thousands of square miles of grassland annually through desertification. This is a process often exacerbated by deforestation in the first place, and so represents an attempt to buck the trend. Forested land in China rose from 17% to 22% from 1990 to 2015 making China one of the few developing nations to reverse the negative trend.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from the passage for each answer.

The effects of deforestation are widespread and various. Some examples include flooding at a local scale to the wider effects of global warming on a worldwide scale. In Britain, for example, **1** people live in areas at risk of flooding. This risk is increased by deforestation. Trees catch and **2** water lowering the chance of flooding. By removing trees land erosion is also higher, increasing the chance of **3** Deforestation also affects global warming by contributing 15% of the **4** of greenhouse gasses. To make sure that the cutting down of trees is done in a sustainable way, good forestry **5** is important. In most countries, more trees are cut down every year than planted. One country that is reversing this trend is China, making it one of the few nations to **6** the more common negative trend.