

The issue of combatting the growth of deserts and uninhabitable land (Desertification)

Introduction

Desertification is a type of land degradation in drylands, in which habitable land is lost due to natural processes or induced by human activities. More specifically, fertile areas become increasingly arid and lose their capacity to support life. Desertification first became well known in the 1930s, when parts of the Great Plains in the US turned into the 'Dust Bowl' as a result of droughts and poor farming practices, however the term 'desertification' itself wasn't used until almost 1950. UNESCO estimate that around 1/3 of the world's land surface is currently threatened by desertification. The primary reasons for desertification include overgrazing, i.e. too many animals grazing in certain spots; deforestation; bad farming practices, such as stripping the soil of its nutrients, and also the excessive use of pesticides and fertilisers. Pesticides and fertilisers may increase short term crop yield, but in the long term they can actually damage the land and turn arable land into arid land, which is then unsuitable for farming.

168 countries struggle with desertification globally; 1.61 million square kilometers of land is degraded annually, 1/3 of land worldwide. Countries in Africa and Asia are affected the most by desertification. Notable afflicted areas include north-eastern Brazil, south-western Argentina, the southern Sahel, Zambia and Zimbabwe, Sub-Himalayan India, and north-eastern China. Desertification not only reduces the total habitable area for human life, placing a strain on the world as we face an exponentially rising population, but also has major implications for farming, hence also raising a cause for concern on the topic of food shortages. Furthermore, this issue significantly impedes process for the UN sustainable development goals 2030.

Impact

Habitat loss leads to subsistence farmers becoming much less able to make a living, and makes traditional methods of farming much harder, since animals and plants used to fertile soil and grazable land are unable to function in a newly formed desert, hence decreasing crop yield. Desertification and drought have major bearings on the potential of the arable lands to produce adequate food for human consumption. Depending on the source or the method of calculation, it is estimated that between 40 million and 115 million people are directly affected by food insecurity. A major consequence of a decreased crop yield in the long run is that it will significantly increase the problem of world hunger, as we can see that less food produced; by the law of supply, if there is less food then food prices will consequently rise, thus exacerbating problems related to hunger and poverty even further.

Furthermore, there has been a huge loss of biodiversity. At least three to four species of animals, such as the Indian Cheetah, pink-headed duck, and the Sumatran Rhino, have become extinct due to desertification in India alone, according to the UN convention. Biodiversity is essential for providing functioning ecosystems that supply so much, including a supply of oxygen, clean air, water, plant pollination, pest control etc. In May of 2019, a United Nations report stated that nearly one million plant and animal species are on the verge of extinction, many due to land degradation, which affects 30% of all land worldwide.

Desertification is also a cause behind vast amounts of refugees, as it lays waste to many agricultural economies and drives many from their homes, forcing them to seek new lives elsewhere. These refugees are referred to as 'climate change refugees. They are affected populations who sometimes

have no choice but to leave their homes in order to make a living elsewhere. This uncontrolled, large-scale migration of people from a rural to urban areas can cause strain in the social order in towns and cities, particularly causing a strain on the unemployed. Furthermore, such a mass displacement of people can also give rise to severe shortages of food.

Some strategies currently used to fight desertification include: the rapid planting of forests as a sort of geographical firebreak; using earth dams to store water from rainy seasons for drier spells; reducing the number of grazing animals and instead growing nourishing crops like peanuts; education, and even the use of modern technology plays an instrumental role. Policies such as laying or enhancing a legal framework for soil can also be implemented to try and achieve land degradation neutrality by 2030.

Australia have been commended by the UN for making indigenous people guardians of more than 40% of its national reserves. Jordan has also been commended for backing the sort of traditional farming pioneered by Bedouins, in order to tackle desertification. In addition to this, countries including Niger, Ethiopia, China and Brazil have also been commended either for projects that tackle the issue of land erosion, including deforestation and overgrazing, or for restoring land and soil to make farming more productive. India has taken a particularly strong stance on the issue, with their Prime Minister addressing the Conference of Parties in 2019 to talk about land degradation, water scarcity, and species loss. Although efforts are being made, sadly it is not enough, and member states could and should be doing more to combat this pressing issue the world is facing.

Present context

The United Nations Convention to Combat Desertification (UNCCD) in countries experiencing serious drought and/or desertification, particularly in Africa, is a convention that was drafted and signed in the mid 90s and its goals include the creation of a committee on science and technology to investigate and analyse the effects of desertification and advise national and regional actions within member states. The UNCCD is the **only legally binding** international agreement linking environment and development to sustainable land management. It is particularly committed to a bottom-up approach, encouraging the participation of local people in combating desertification and land degradation. The UNCCD secretariat facilitates cooperation between developed and developing countries, particularly around knowledge and technology transfer for sustainable land management.

The 17th of June is recognised as desertification day by the UN. They are actively trying to increase awareness and education surrounding the topic by providing initiatives for people to get involved in. In 2020 for desertification day, the UNCCD prepares several activities, including an online event, a YouTube short film series related to the theme, and a contest 'Become #UNCCDLandHeroes, whereby young candidates proposed specific solutions to limit the footprint that our production and consumption of food leaves on the land.

From all this, it is clear that awareness has increased massively about desertification in the last couple decades. However, all ventures taken have not been truly enough to slow the growth of deserts and so, in our debate today, we need pragmatically provide further solutions on how to solve desertification once and for all.

Points to Consider:

1. How was your member state been affected by desertification?

2. What role has your member state played in preventing desertification? Do you have any major technologies or policies regarding this issue and sustainable farming?
3. How could technology play a role in farming practices to mitigate the issue of desertification?
4. How will desertification hurt developing economies? Does aid need to be given to countries greatly affected by desertification – if so, in what form – food, crop, money?
5. How has the sustainable development goals of 2030 been affected by this?
6. How will we help the species left endangered? What can be done to stop desertification accelerating?
7. How can we address the desertification at the root- it's causes?
8. Is the UNCCD agreement still truly applicable to desertification today? What has changed? What are its flaws and how can we update it? How can we take a pragmatic hands on approach to solving desertification rather than just passing agreements that don't change anything?

Useful links:

<https://www.env.go.jp/en/nature/desert/download/p2.pdf>

<https://www.nationalgeographic.com/environment/habitats/desertification/>

<https://www.britannica.com/science/desertification>

<https://www.who.int/news-room/q-a-detail/climate-change-land-degradation-and-desertification>

<https://www.conserve-energy-future.com/causes-effects-solutions-of-desertification.php>