

Forum: Environment Commission

Issue: Combating desertification in Sub-Saharan Africa

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Introduction

According to the United Nations Environment Programme, over 70 percent of the people living in Sub-Saharan Africa depend on forests and woodlands in their livelihoods. However, it is predicted that 50 million lives will be forced to leave their homes by 2020 because of their land being destroyed due to desertification. Additionally, it is found that worldwide, 12 million hectares of land are lost each year; this could have been land used to grow 20 million tonnes of grain instead.

The loss of forests and woodland isn't only caused by the cutting down of trees for industrial and modern purposes, but also by the spreading of deserts throughout a region, otherwise known as desertification. For example, the situation is particularly sensitive in Sub-Saharan countries, where over 80% of the economy relies on subsistence farming. The accelerated speed of desertification within Sub-Saharan Africa has created various issues apart from the evacuation of citizens from their homes which has caused even more issues for a mass majority of the population within the region, those who grow crops and work in the agricultural sector of employment.

Combating desertification in Sub-Saharan Africa will enable a growth of employment and jobs, as well as an increase in population, where the climate will be more suitable and comfortable for the development of a large town or city for citizens to live within. Preventing desertification will also help combat the wider issue of worldwide climate change. Nevertheless, despite the diversity and intensity of previous efforts to combat and prevent desertification, the challenges of land degradation in a time of climate change in Africa's dry, arid areas remain unresolved. The stakes of the environment and society are very large, including the health and safety of population within areas such as food security.

Definition of Key Terms

Combating:

Taking action to reduce, destroy, or prevent (something undesirable).

Desertification:

The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.

Sub-Saharan Africa:

The Sub-Saharan Africa is, geographically, the area of the continent of Africa that lies South of the Sahara.

Soil Erosion:

The displacement of the upper layers of soil, on form of soil degradation.

Key Players

Trees For the Future

On August 14th 1989, Trees for the Future was incorporated as a public charity and planted over 115 million trees and revitalized hundreds of thousands of acres of soil in countries worldwide. The charity organisation has a Forest Garden Program that plants specific types of fast-growing, fruit trees, hardwoods and food crops, positively changing people's lives who struggle for land and resources because of desertification.

Even though they have a goal to help families escape from extreme poverty, by planting fast growing trees, the roots are able to quickly grow into the soil and help prevent soil erosion. Their final goal is to plant 500 million trees with 125,000 impoverished families increasing land space and decreasing the spread of desertification.

Action Against Desertification

Launched in 2014, Action Against Desertification is an organisation in the African, Caribbean and Pacific Group of States (ACP) to restore dry lands and degraded lands to tackle the detrimental social, economic and environmental impact of land degradation and desertification. They have been a

key partner to the Great Green Wall initiative. The program in Africa helps combat the effects of desertification across North Africa, the Sahel and the Horn of Africa.

The organisation has supported local communities, governments and civil societies in six countries that are all in Sub-Saharan Africa - Burkina Faso, Ethiopia, The Gambia, Niger, Nigeria and Senegal - using a variety of activities to combat and bring awareness to the issue of land degradation and deforestation.

Land restoration

Putting rural communities at the center of restoration and increasing interventions to meet the major needs.

Non-timber forest products

Supporting economic growth and sustainable management of natural resources.

Capacity development

Strengthening capacities in sustainable land management and land restoration.

Monitoring and evaluation

Collecting data and information, keeping track of progress made, and measuring the impacts.

Information sharing

Knowledge exchange and awareness raising about land degradation and desertification.

South-south cooperation

Sharing lessons on how to reverse land degradation.

The Great Green Wall

The Great Green Wall initiative aims to create a barrier of vegetation in vulnerable areas across the continent of Africa from Senegal to Djibouti. It is said by the organisation that thousands of trees have already been planted throughout the region. In Senegal, the wall is intended to make 545 km of long curtain vegetation. The organisation also creates fodder banks (concentrated units of large legumes) for herders and farmers to prevent malnutrition, alongside teaching children how to protect the environment from issues such as desertification.

General Overview

Hot deserts are an important ecosystem with distinct components and adaptations, they provide opportunities for development, but also causing challenges like desertification, which is the process of deserts forming from land due to the declining quality of soil.

Causes of Desertification

Desertification has been spreading at an increasing rate, with the main causes driving and intensifying the issue as a whole. There are several aspects that cause and affect desertification in areas such as the Sub-Saharan Africa. Each cause affects desertification differently, however, every cause influences and affects yet another cause, further driving on desertification.

Population Growth

The population in some desert areas, such as Sub-Saharan Africa, is increasing. In places where there are developments in mining and tourism, people are attracted by jobs and employment. An increased population is putting greater pressure on the environment for resources like food and water which is hence, increasing soil erosion.

Removal of wood

In the development of countries and urbanisation, wood is used for many purposes, especially for cooking. As population has increased in Sub-Saharan Africa, there have been a greater need for fuel wood. When there is a clearance of trees in land, the roots are no longer there to hold the soil together, causing the land to be more vulnerable to soil erosion.

Overgrazing

Particularly in areas near the Sahara Desert, there has been an increase in land being used for farming and agriculture. Sheep, cattle, goats and other animals are overgrazing the vegetation, leaving soil exposed for erosion and other issues.

Soil erosion

Soil erosion refers to the wearing away of the topsoil from a field through forces for example wind, water or associated farming activities such as tillage. More specifically, soil erosion is the detachment, movement and deposition of soil which creates an easier space for desert sand

to be formed on. Shown in the causes above population growth, overgrazing and the removal of wood all causes soil erosion.

Climate Change

With global climate increasing, the conditions in hot deserts are not only getting warmer, but drier as well. On average there is less rain in desert regions than there was 50 years ago, worsening soil erosion and causing desertification.

Impacts of Desertification

Population support

Desertification has been decreasing the land suitable for population growth, overall reducing the ability of land to support life. If desertification continues to spread throughout the Sub-Saharan, a land where populations already struggle, then the continent of Africa will face challenges where there is a possibility that eventually, desertification will be able to take over land.

Agriculture

Agriculture in countries throughout Sub-Saharan Africa holds a large part of GDP, but a much bigger share of jobs for the majority of the poorer population. If the soil were to become infertile for crops to grow on due to desertification, the mass majority of people would fall into severe situations, and the development throughout the region would rapidly decrease.

..... Flooding

Desertification causes water to be lost off the land instead of soaking into the soil to provide moisture for plants. Long-living plants that would usually survive droughts die due to desertification. A reduction in plant cover results in a reduction in the quantity of humus and plant nutrients in the soil. As protective plant covers disappear, floods become more frequent and severe.

Soil erosion

Related to flooding, the reduction in plant cover that follows with desertification leads to accelerated soil erosion by wind and water. Not only is soil erosion a cause of desertification,

but desertification also creates soil erosion meaning that these two issues influence one another. By preventing soil erosion, the rapid spreading of desertification will weaken.

UN Involvement, Relevant Resolutions, Treaties and Events

Convention to Combat Desertification (UNCCD)

The UNCCD provides ‘advisory services, promote partnerships and demonstrate innovations at the country level’ according to the institutions official website. Although the convention is non-country specific, the UNCCD is not only a part of ‘The Great Green Wall Initiative’ but has many actions and activities that can be shown on the UNCCDs official website, which also has links and ways for people to help prevent the issue online or in an area near to them.

World Day to Combat Desertification

The World Day to combat Desertification is held each year to raise awareness about the issues and impacts caused by desertification, specifically looking at links and connections each year.

With more than 15 years of the ‘World Day to Combat Desertification’ and the rising number of international migrants from 173 million to 244 million, the 2017 WDCD examined the important link between land degradation and migration. The World Day looked at the specific ways local communities could build resilience against current development challenges through sustainable land management. The UNCCD day reminded everyone of land’s important role in food production and the generation of local employment, as well as its ability to help sustain, stabilise and secure desertification-affected locations.

General Assembly adopted resolution

In December 2010, the General Assembly adopted the resolution on “Implementation of the UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa” ([A/RES/65/160](#)).

Taking place within the UN Decade for Deserts and the Fights against Desertification (2010-2020), the General Assembly decided to convene a meeting on the topic of ‘*Addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication*’ in 2011. The high-level meeting has aimed to raise awareness for desertification, land degradation and droughts all at the highest level.

Timeline of Events

Date	Description of event
October 22-25th 2007	Africa Review Report on Drought and Desertification released by the Economic and Social Council
December 2010	General Assembly adopted resolution (A/RES/65/160): “Implementation of the UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification”
September 20th 2011	Meeting on the topic of ‘ <i>Addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication</i> ’
June 2012	UN Conference on Sustainable Development
June 17th 2019	World Day to Combat Desertification and Drought
June 17-19th 2018	International Soil Congress 2019

Possible Solutions

In order to combat and prevent the further spreading of deforestation, countries in Sub-Saharan Africa need to be able to create a sustainable environment that is strong enough to counteract desertification.

The first solution possible is with the **usage of trees**. Simply put, the roots of trees hold the soil together and help reduce soil erosion from wind and rain. By using the aid of both non-governmental and governmental organisations to plant trees, surrounding land will be harder for deserts to spread onto helping combat desertification.

Secondly, soil erosion is a major cause of deforestation, created by the weak top layers of soil breaking down. **Improving the quality of soil** can be managed by encouraging people to reduce animal grazing on the land to grow crops instead. By then using the animal manure to fertilise the crops grown can improve the quality of soil as it is held by the roots of plants, protecting the land from erosion.

Finally, another solution to help solve desertification in Sub-Saharan Africa would be the **conservation of water**. Water can be stored in earth dams in wetter seasons and used to irrigate crops during drier seasons. This is an example of using appropriate technology to manage water supplies in

the desert areas. By supplying these systems in areas throughout Sub-Saharan Africa, nutrients and water will create strong soil, making the land hard for desert land to spread.

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