

**Committee:** Ecology & Environment

**Topic:** The Question of Measures to Prevent Desertification

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## **Summary**

Why desertification needs to be prevented:

### **Land and Drought:**

Drought is a complex and slowly encroaching natural hazard with significant and pervasive socio-economic and environmental impacts. It is known to cause more deaths and displace more people than any other natural disaster

Fresh water is a vital and defining feature for sustainable development. Globally, over two billion people live in countries that experience high water stress (UN-Water 2019 from UN, 2018).

About 71 per cent of the world's irrigated area and 47 per cent of major cities experience at least periodic water shortages. If this trend continues, the scarcity and associated water quality problems will lead to competition and conflicts among water users.

By 2025, 1.8 billion people will experience absolute water scarcity, and 2/3 of the world will be living under water-stressed conditions

### **Land and Biodiversity:**

Land use change is the foremost direct cause of biodiversity loss with the largest relative global impact.

Land degradation has reduced the productivity of 23 percent of the global land surface, and up to US\$577 billion in annual global crops are at risk from pollinator loss.

Three-quarters of the land-based environment has been significantly altered by human actions. The average abundance of native species in most major land-based habitats has fallen by at least 20 per cent, mostly since 1900.

### **Land and Climate:**

Land matters for climate. Its rehabilitation and sustainable management is critical to closing the emissions gap and staying on target.

Restoring the soils of degraded ecosystems has the potential to store up to 3 billion tons of carbon annually.

## Land and Youth:

Today there are 1.8 billion people in the world between the ages of 15 and 35 — a quarter of the global population and the largest generation of youth the world has ever known. The youth are the future of our planet thus must be protected from desertification

In Africa, the young population is rapidly growing and expected to double to over 830 million by 2050 highlighting the growing need to protect more people

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## Definition of Key Terms

**Desertification:** Desertification is defined by the UN as the degradation of land in arid, semi-arid and dry sub-humid areas. It is caused primarily by human activities and climatic variations. Desertification does not refer to the expansion of existing deserts. It occurs because dryland ecosystems, which cover over one third of the world's land area, are extremely vulnerable to overexploitation and inappropriate land use. Poverty, political instability, deforestation, overgrazing and bad irrigation practices can all undermine the productivity of the land.

**Prevention:** the action of stopping something from happening or arising.

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## Background information

The UN describes desertification as a phenomenon that ranks among the greatest environmental challenges of our time.

It is the persistent degradation of dryland ecosystems by climate change and mainly human activities: unsustainable farming that depletes the nutrients in the soil, mining, overgrazing (animals eat away grasses and erode topsoil with their hooves) and clear-cutting of land, when the tree and plant cover that binds the soil is removed. It occurs when trees and bushes are stripped away for fuelwood and timber, or to clear land for cultivation.

Wind and water erosion aggravate the damage, carrying away topsoil and leaving behind a highly infertile mix of dust and sand. It is the combination of these factors that transforms degraded land into desert.

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## Major Countries and Organisations involved

Countries working on the Great Green Wall:

**Ethiopia** has produced 5.5 billion plants and seedlings for communities

**Senegal** has planted 18 million trees and restored 800,000 hectares of degraded land for communities

**Nigeria** has produced and planted 8 million trees and created 1396 jobs

**Sudan** has restored 2000 hectares of land

**Burkina Faso** has produced and planted 16 million trees and improved 50,000 households

**Mali** has planted and produced 135,000 plants

**Eritrea** has produced and planted 129 million trees

**Niger** has produced and planted 146 million trees

#### LDF fund

**Luxembourg** has invested heavily in the LDF fund

#### Organisations

**COP** stands for the Conference of the Parties and is a series of United Nations climate change conferences. The goal of these conferences is to review progress made by members of the United Nations Framework Convention of Climate Change (UNFCCC) to limit climate change.

**CRIC** stands for the Committee for the Review of the Implementation of Convention and is a subsidiary body to the COP to assist it in regularly reviewing the implementation of the Convention

**DLDD** stands for Desertification, Land Degradation and Drought and summarises the combined issues and impacts related to desertification, land Degradation and drought

**GEF** stands for the Global Environmental Facility. It is the largest multilateral trust fund focused on enabling developing countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification.

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## **Timeline of Events**

### **1973**

The 5-year Sahelian drought ended which resulted in the death of 200,000 people and millions of animals.

### **September 1973**

Inter-State Permanent Committee on Drought Control in the Sahel Established.

### **1974**

UN Sudan's-Sahelian Office Established.

### **August 1977 - September 1977**

UN Conference on Desertification held in Nairobi, Kenya where desertification was addressed as a worldwide problem for the first time. The Plan of Action to Combat Desertification (PACD) was established.

### **1978**

UNEP created a desertification branch.

### **1978 - 1984**

1st global assessment of PACD. Recommendations were made for countries to establish National PACDs.

### **1989**

A Consultative Group for Desertification Control was established.

### **1992**

UN Conference on Environment and Development in Rio De Janeiro, Brazil. Agenda 21 and The Earth Summit called on the UN General Assembly to set up an intergovernmental committee to prepare for a legally binding instrument that addresses the problem of desertification.

### **June 17, 1994**

UN Convention to Combat Desertification Adopted in Paris. Bo Kjellen of Sweden, the Chairman of the Intergovernmental Negotiating Committee for a Convention on Desertification passionately addressed the press on 26 October 1994.

### **September 29, 1997 - October 10, 1997**

UNCCD COP 1 in Rome, Italy, established rules governing the COP and its subsidiary bodies, setting forth the functions of the Global Mechanism and designating a permanent secretariat.

### **November 30, 1998 - December 11, 1998**

Consultations on the medium-term strategy of the secretariat were held and the declaration of the first trouble of Members of Parliaments on desertification was adopted.

## **1999**

Permanent secretariat of the UNCCD was established in Bonn, Germany

### **November 15, 1999 - November 26, 1999**

UNCCD COP3 held in Recife, Brazil. The 'Recife Initiative' was launched with commitments to enhance the implementation of the UNCCD.

### **December 11, 2000 - December 22, 2001**

UNCCD COP 3 held in Bonn, Germany. The implantation annex for Central and Eastern Europe (Annex V) was adopted. The 'Declaration on the commitments under the Convention' as a follow-up to the 'Recife Initiative' was adopted

### **October 1, 2001 - October 12, 2001**

UNCCD COP 5 was held in Geneva, Switzerland. CRIC was established as a subsidiary body of the COP. A reform of the CST was adopted and a Group of Experts was established

### **October 2002**

Land degradation was designated as the fifth focal area of GEF at the 2nd Assembly of The GEF in Beijing, China. GEF was established as a finanction me China's l'm of the UNCCD

### **August 25, 2003 - September 5, 2003**

UNCCD COP6 held in Havana, Cuba. CRIC2 recommendations on ways to improve implantation of the Convention are endorsed

### **May 2, 2005 - May 11, 2005**

CRIC 3 in Bonn, Germany found new ways to combat desertification

## **2007**

2010-2020 was declared the UN Decade For Deserts and the Fight AGainst Desertification

### **September 3, 2007 - September 14, 2007**

UNCCD COP 8 held in Madrid Spain. Report of the first Extraordinary Session of the Conference Parties to the UNCCD was produced. Country parties adopted the 10-year strategic plan and framework to enhance the implementation of the Convention

### **September 20, 2011**

UN General Assembly have a high level meeting on Desertification, Land Degradation and Drought (DLDD) addressing DLDD for sustainable development and poverty eradication

**September 6, 2017 - September 16, 2017**

UNCCD COP13 and CRIC16 were held in Oreos, China. The adopted new UNCCD 2018 to 2030 Strategic Framework framework became the most comprehensive global commitment to achieve Land Degradation Neutrality to restore the productivity of vast expanses of degraded land, improve livelihoods of more than 1.3 billion people and reduce the impacts of drought on vulnerable populations

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## **Relevant UN Treaties and Events**

### **UNCCD**

UNCCD stands for The United Nations Convention to Combat Desertification and seeks to improve land productivity, to restore (or preserve) land, to establish more efficient water usage and to introduce sustainable development in the affected areas and more generally, improve the living conditions of those populations affected by drought and desertification.

### **PACD**

Stands for the Plan of Action to Combat Desertification. The plan called for action from rural populations, governments, sub-regional and regional institutions and the international community to help prevent the issue of desertification from growing

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## **Previous / Ongoing Attempts to Solve the Issue**

### **The Great Green Wall**

The Great Green Wall was launched in 2007 by the African Union and is an initiative to restore Africa's degraded landscapes and transform millions of lives in one of the world's poorest regions, the Sahel. Once complete, the Wall will be the largest living structure on the planet – an 8,000 km natural wonder of the world stretching across the entire width of the continent. It is being implemented in over 20 countries across Africa with more than 8 billion dollars being mobilised and pledged for its support.

By 2030, it is hoped that 100 million hectares of degraded land will have been restored as well as 250 million tonnes of carbon sequestered and 10 million green jobs created.

By 2030, it is hoped that communities who live along the wall can:

- 'Grow a new world wonder spanning 8000 km across Africa'
- 'Grow food security for the millions that go hungry every day'

- 'Grow fertile land, one of humanity's most precious natural assets'
- 'Grow climate resilience in a region where temperatures are rising faster than anywhere else on Earth'
- 'Grow economic opportunities for the world's youngest population'

### **Land Degradation Neutrality (LDN) Target Setting Programme**

- 120 countries have omitted to setting LDN targets
- More than 80 countries (over  $\frac{2}{3}$ ) have set their targets with many having secured high level government commitment to achieve LDN
- Countries setting LDN targets receive help from the UN through:
  - Leveraging LDN: facilitating the engagement of decision makers and stakeholders involved in land management and the LDN target-setting process
  - Assessing LDN: strengthening countries' capacities for making informed decisions on what action to take by assessing the current state of land and the drivers of land degradation, using the best available data
  - Setting LDN targets and associated measures: supporting countries to define country's ambitions in combating land degradation by defining LDN targets and measures, and
  - Achieving LDN: helping countries to create an enabling environment by integrating LDN into national policies and identifying investment opportunities along with transformative LDN programmes and projects

### **The LDN Fund**

- The LDN fund is an impact investment fund that blends resources from private, public and philanthropist sectors to support achieving LDN through land restorations projects and sustainable land management through the private sector.
- Investors include:
  - Anchor investors - the European Investments Bank
  - French Development Agency
  - North-American private investor Fondation
  - Fondation de France
  - Insurance companies BNP Paribas Cardif and Garance
  - Government of Luxembourg
- In total, investors have announced commitments of over USD 100 million out of a target of USD 300 million.

### **Possible Solutions**

#### **Preventing desertification**

Integrate land and water management to protect soils from erosion, salinisation and other degradation

Protect vegetative cover. This can be a major instrument for soil conservation against wind and water erosion

Integrated land use for grazing and farming where conditions are favourable. This will allow for a more efficient cycling of nutrients within agricultural systems

Apply a combination of traditional practises with locally acceptable and locally adapted land use technology

Create economic opportunities in dry land urban centres and in areas outside of dry lands

Create alternative employment opportunities that don't depend on traditional land use. Dry land aquaculture, greenhouse agriculture and tourism related activities for example are less demanding on local land and natural resources and provide sustainable income

### **Reversing land degradation**

Planting trees

Establishing seed banks

Reintroducing selected species

Enriching the soil with nutrients

Countering erosion through terracing

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### **Advantages**

Methods used to prevent desertification and reverse land degradation such as The Great Green Wall, initiatives already put in place by the UN and possible new schemes will all help combat the issues of drought, youth, biodiversity and climate detailed previously (in summary)

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### **Disadvantages**

#### **Cost**

As of 2020, despite an investment of more than \$200 million, only 4 million hectares have been planted in the past decade. To achieve the 2030 target, more than twice that area will have needed to be restored every year at an annual cost of \$4.3bn

#### **Time**

As of 2020, the Great Green Wall had only covered 4% of its target area despite being more than halfway towards its 2030 completion date

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