



Preventing Desertification

Desertification is the degradation of land in arid, semi-arid and dry sub-humid areas. It is caused primarily by human activities and climatic variations.

Over 250 million people are directly affected by desertification, and about one billion people in over one hundred countries are at risk.¹

In support of UNEP's 2006 World Environment Day, Clean Up the World encouraged people around the world to address land degradation issues in their local environment to help prevent desertification.

Did you know?

- Desertification occurs on all continents except Antarctica and affects the livelihoods of millions of people.²
- About 44% of all cultivated systems worldwide are located within drylands.²
- Approximately half of the people worldwide who live below the poverty line live in drylands.²
- Desertification makes 12 million hectares of land useless for cultivation every year.⁴
- A fifth of the world's drylands, or around a billion hectares, are thought to be affected by human induced soil erosion.⁴
- All over the world desertification is turning once fertile soils areas into wastelands with millions of tons of topsoil being blown away in dust storms each year.⁵
- In some countries up to 70% of the land is vulnerable to desertification and thousands of people are being forced to leave their homes in search of a better living.⁵

What is desertification?

Desertification is the degradation of land in arid, semi-arid and dry sub humid areas³ (known as drylands). Drylands occur on all continents except Antarctica.

The end result of desertification is barren and unproductive land that cannot be used for crop and food production or other agricultural purposes, and has little biodiversity value.

Causes

The causes of desertification are many and complex,³ and vary greatly from one location to another.

At a local level, causes may include unsustainable land management practices such as deforestation, overgrazing, and poorly managed irrigation.² Drought and other climatic conditions can also be contributing factors.²

Political and economic instability, government policies, lack of infrastructure and population increases at the local, national and international levels can all influence land management practices and therefore the potential for desertification to occur.²

Climate change can be both a cause and an effect of desertification. Human-induced climate change may contribute to desertification by producing extreme and prolonged climatic conditions, particularly droughts.² In turn it is believed that desertification can contribute to climate change by reducing vegetation and therefore an ecosystem's ability to absorb carbon dioxide.²

Effects

The complex nature of desertification results in varied and far-reaching effects. They include reduced viability for food and crop production, loss of biodiversity, dust storms, downstream flooding and climate change.² These effects can affect people living in non-dryland areas, making desertification an issue relevant to people everywhere.²

Loss of land productivity caused by desertification can result in the movement of people from drylands to other areas, contributing to urban sprawl and increased pressure on resources in other areas.²

Taking Action

The causes of desertification are complex and differ greatly from situation to situation so solutions will not always be simple.² Social, cultural and economic issues need to be addressed along with the physical aspects of land management.⁶

While cooperation at the national and international levels is required, action at the local community level has the power to immediately improve the state of the environment.

To be sustainable, changes to local land management practices should be accompanied by improvements in the social, cultural and economic issues affecting a community.

Decision makers can assist in this process by enabling policies that involve local participation and community institutions, that improve access to transport and market infrastructures, inform local land managers, and allow land users to implement new management practices.²

Factors such as political stability and economic prosperity are considered major contributors in enabling sustainable practices that will help prevent desertification.²

The United Nations Convention to Combat Desertification (UNCCD) is an international treaty that aims to promote effective action through innovative local programs and international partnerships.³ To find out which countries have joined, visit <http://www.unccd.int>.

Sustainable land management at the local level is crucial to preventing land degradation (such as soil erosion and salinity), which can lead to desertification.

What can you do?

- Maintaining vegetation cover helps protect soil from erosion and salinity. Wherever possible conserve existing vegetation. When planting new areas, select species that are native to your area.
- Reduce your contribution to climate change. Where possible use solar power or choose other clean, renewable energy options. Save energy through more efficient lighting, heating and cooling.
- Learn about organic farming and other sustainable land management practices that could be used in your area.
- Waste in the environment contributes to land degradation. Organise a clean up and look at ways to reduce the amount of waste you produce.
- Help prevent unsustainable water extraction by identifying ways to conserve water in your area.
- Learn about community initiatives that have successfully addressed desertification. Visit <http://www.unep.org/desertification/successstories/>
- Include desertification in environmental education programs for children.



Further Information

Clean Up the World
www.cleanuptheworld.org
Clean Up Australia
www.cleanup.com.au
United Nations Environment Programme (UNEP) www.unep.org
International Federation of Organic Agriculture Movements
<http://www.ifoam.org/>
UNESCO Environmental Education Kit on Desertification
<http://unesdoc.unesco.org/imagenes/0012/001258/125816e.pdf>

References

- 1 - United Nations Convention to Combat Desertification, information leaflet, viewed 28 May 2008, <<http://www.unccd.int/convention/text/leaflet.php>>.
- 2 - Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Desertification Synthesis. World Resources Institute, Washington DC., viewed 28 May 2008 (<http://www.inweh.unu.edu/inweh/MA/Desertification-Synthesis.pdf>)
- 3 - United Nations, United Nations Convention to Combat Desertification 2006, viewed 28 May 2008, <<http://www.unccd.int/main.php>>.
- 4 - Harrison, P & Pearce, F, American Association for the Advancement of Science Atlas of Population & Environment, viewed 28 May 2008, <<http://atlas.aas.org/index.php?part=2&sec=eco&sub=deserts>>
- 5 - United Nations, 17 June 2003, Annan calls on world to fight desertification to ensure long-term food supplies, United Nations, viewed 28 May 2008, <<http://www.un.org/apps/news/storyAr.asp?NewsID=7440&Cr=desert&Cr1=&Kw1=desertification&Kw2=&Kw3=>>>
- 6 - United Nations Environment Programme, viewed 28 May 2008, <http://www.unep.org/desertification/successstories/>