



# Deserts and Desertification

In support of UNEP's 2006 World Environment Day, Clean Up the World encouraged people across the globe to conserve desert environments, and to address land degradation issues in their area to help prevent desertification.

## Did you know?

### Deserts

- 13% of the world's population live in deserts.<sup>1</sup>
- Deserts support a wide diversity of life with many flora and fauna species evolving in the dry conditions.<sup>6</sup>
- Desert can experience extreme temperature variations, ranging from 58 degrees Celsius to below freezing.<sup>1</sup>

### Desertification

- There are an estimated 1,200 plant species in the Sahara desert.<sup>1</sup>
- Desertification occurs on all continents except Antarctica and affects the livelihoods of millions of people.<sup>2</sup>
- Desertification makes 12 million hectares of land useless for cultivation every year.<sup>4</sup>
- In some countries up to 70 percent of the land is vulnerable to desertification and thousands of people are being forced to leave their homes in search of better living conditions.<sup>5</sup>

### Deserts...

Deserts are unique, naturally occurring environments characterised by low and irregular rainfall (less than 100mm a year on average) and extreme temperatures.<sup>1</sup>

Desert landscapes across the world vary greatly ranging from sand dunes, to gravel plains, rocky cliffs and salt flats.<sup>1</sup>

The dry conditions found in deserts have resulted in a limited number of human inhabitants.<sup>6</sup> Despite this, deserts sustain a diverse range of plants and animals as many species including reptiles and mammals have developed ingenious ways to cope with the extremes.<sup>1</sup>

Because of their delicate ecosystems, deserts are particularly vulnerable to habitat disturbance.<sup>6</sup> There is still a lot to learn about the world's deserts but we do know that they are under threat from human activity.<sup>1</sup> Current threats include deforestation, desertification, unsustainable water use, mining and unsustainable hunting.<sup>1</sup>

### Desertification....

Desertification is the term used to describe land degradation in its most extreme form. It can be further defined as land degradation that results in barren, desert-like conditions (this is not to be confused with naturally occurring desert habitats as described above).

It occurs in arid, semi-arid and dry sub humid areas (known as drylands) which can be found on all continents except Antarctica.<sup>3</sup>

The causes of desertification are many and complex,<sup>3</sup> and can vary greatly from one location to another. Causes may include deforestation, overgrazing, and poorly managed irrigation.<sup>2</sup> At a higher level, factors such as population increase, economic instability and government policies can increase the potential for these unsustainable land management practices to occur.<sup>2</sup>

Both natural and human induced climate change can compound desertification, and desertification is in turn thought to contribute to climate change.<sup>2</sup>

The end result of desertification is barren and unproductive land that cannot be used for food production or other agricultural purposes, and has little biodiversity value. This can affect people living in non-dryland areas, making desertification an issue relevant to people everywhere.<sup>2</sup>

# Taking Action

Promoting the diversity and importance of desert ecosystems, as well as awareness about the threats facing them can be an important first step in their conservation.

To prevent desertification – the unnatural spread of desert-like conditions<sup>1</sup>, cooperation at the national and international levels is required, while action at the local level has the power to immediately improve the state of the environment.

Visit the 2008 World Environment Day website at <http://www.unep.org/wed/2008> to learn more about deserts and desertification.

## Celebrate deserts....

- Include the study of desert environments and their unique flora and fauna in environmental education programs.
- Hold a photo exhibition to highlight the unique beauty of desert environments.
- Hold a desert film night - show desert documentaries and discuss threats to desert environments.
- Visit the World Environment Day website for a list of suggested activities and examples of what others are doing around the world.

## Help prevent desertification....

- The United Nations Convention to Combat Desertification (UNCCD) is an international treaty that aims to promote effective action through innovative local programmes and supportive international partnerships.<sup>2</sup> To find out which countries have joined the Convention, visit <http://www.unccd.int>.
- Maintaining vegetation cover helps to protect soil from erosion and salinity. Start a native plant nursery and involve the community in planting days.
- Waste in the environment contributes to land degradation. Organise a clean up and promote ways to reduce the amount of waste produced in your area.
- Include desertification in environmental education programs for children.
- Raise awareness about climate change (which contributes to desertification). Hold a walk/ride to work day or arrange an alternative energy demonstration.
- Hold a workshop for farmers to discuss organic farming and other sustainable land management practices that could be used in your area.
- Identify ways to improve water use efficiency in your home and tell all your friends.
- Learn about community initiatives that have successfully addressed desertification. Visit <http://www.unep.org/desertification/successstories/>



## Further Information

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

## References

- 1 - Oxfam Cool Planet, viewed 28 May 2008  
<http://www.oxfam.org.uk/coolplanet/online/explore/nature/deserts/climate.htm>
- 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.aaas.org/index.php?part=2&sec=eco&sub=deserts>>
- 5 - United Nations, 17 June 2003, viewed 28 May 2008, <<http://www.un.org/apps/news/story.asp?NewsID=7440&Cr=desert&Cr1=&KW1=desertification&KW2=&KW3=>>>
- 6 - UNEP, viewed 28 May 2008  
[http://www.unep.org/wed/2006/english/Information\\_Material/FactSheetWED2006.pdf](http://www.unep.org/wed/2006/english/Information_Material/FactSheetWED2006.pdf)