

Forests for People



People for Forests

Let's celebrate the UN International Year of Forests!



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T'S A FACT! - We need FORESTS

WHAT IS A FOREST? There are many different definitions for a forest. The Food and Agriculture Organisation defines a forest as:

.... an area of land (at least half a hectare) that is covered in trees. In that area, the trees must give more than 10% canopy cover, be more than 5 metres tall and be of various ages (old and young trees).

In Namibia, we do not really have forests, but rather woodlands. We consider any plants more than 3 meters tall to be trees.

Forests are complex ecosystems that provide us with many products and services. Explore the diagram to find examples of the many different "natural gifts" we receive from forests.

OILS, GUM

& CORK

OXYGEN



BIODIVERSITY

Forests support a large variety of different species

EDUCATION

Canopy Layer 5 metres +

Understorey



HOUSING & SHELTER FOR LIVING THINGS



MEDICINE Forests produce the ingredients for livesaving

medicine

TRADITIONS

Forests and trees are part of many cultural and religious beliefs and rituals.

RECYCLING OF NUTRIENTS

MAINTAIN STABLE SOILS

IT'S A FACT! - We need FORES

HEAT AND WATER PUMP

Rainforests absorb heat and moisture which creates rain

CLEAN AIR

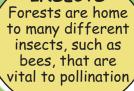
INSPIRATION.

PEACE & BEAUTY

REGULATE CLIMATE AND TEMPERATURE

ABSORPTION OF CARBON DIOXIDE

INSECTS



SEED BANK Genetic diversity provides solutions to famine, pests and disease

FOOD & DRINK



BUILDING MATERIAL



WATERSHED

Maintain and clean water quality and flow

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IT'S A FACT! - Forests need US

Around the world there are many different types of forests depending on the climate, landscape and types of trees growing in them. Some of the different forests are temperate forest, tropical forest, equatorial rainforest and taiga forest. Although none of these forest types exist in Namibia, all humans depend on their "natural services".











The forests that we do have are mostly in the north and north-east and are extremely important to us since we have so few.

These are called tree and shrub savannas and include the Mopane woodlands. Along westward flowing dry rivers, such as the Kuiseb, there are riverine woodlands and in the south Quiver tree forests.

Unfortunately, many forests and woodlands in Namibia and worldwide are threatened. Read on to learn why.



FORESTS AND WOODLANDS ARE THREATENED

Deforestation continues around the world. Approximately 7.3 million hectares of forest cover are lost each year! Although this is less than in the past years, it is still too much and too fast.

Study the human activities and lifestyles that cause the destruction of forests.

IT'S A FACT! - Forests need US

INCORRECT FIRE MANAGEMENT

In the past years numerous countries have suffered from "mega" forest fires. A variety of factors, including a build up of dead plant materials, are the cause.



POLLUTION AND DISEASE

Forests are suffering from pollution and pollution-related diseases. Trees are weakened and therefore more vulnerable to pests.



UNSUSTAINABLE HARVESTING

Trees are being cut down faster than they can grow back. This rate of harvesting cannot continue forever.

INCREASED HUMAN POPULATION

The human population will reach 7 billion people this year. All of these humans need food, water and shelter to survive.

CLEARING OF LAND

Forests around the world are being cleared for agricultural purposes to grow food or cash crops such as tobacco and biofuels.

INCREASED CONSUMERISM

To produce goods for people to buy, natural resources need to be used.



Damming and obstructing natural water courses damages tree growth further downstream. For example, the Rehoboth Camel-thorn Forest is dying due to the Oanob Dam.



People are the key to the sustainable management and conservation of our world's forests. Check out the following pages to see who is "Taking Action"!

KING ACTION: The United

The United Nations Educational, Scientific and Cultural Organization (UNESCO) contributes to build peace, eradicate poverty, promote sustainable development and intercultural dialogue through education, the sciences, culture, communication and information. The United Nations General Assembly declared 2011 🥒 as the International Year of Forests to raise awareness on sustainable management, conservation and sustainable development of all types of forests. UNESCO is supporting the International Year of Forests with "Celebrating Forests for People" as its theme. Around the world, including in Namibia, people are celebrating trees through various activities.



THE WORLD HERITAGE FOREST PROGRAMME



"Heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration." - UNESCO UNESCO encourages the identification and protection of culturally and naturally significant places throughout the world. The World Heritage Programme focuses on forests as important world heritage sites and has recognised already more than 100 forests worldwide. Although Namibia does

not have any forests that are registered as a world heritage site, other African nations do. Check out the unique Selous Game Reserve in Tanzania:

SELOUS GAME RESERVE, TANZANIA

The Selous Game Reserve in Tanzania is 50,000 km² in size. It has a variety of forest habitats, including the Miombo woodlands, riverine forests and swamps. There are more than 2.100 identified plant species. Selous' forest habitats and grasslands support large amounts of wildlife. Its dry riverbeds become raging rivers during the rainy season.





The UN Decade of Education for Sustainable Development (DESD) 2005-2014 believes that education is key to achieving the United Nations' Millennium Development Goals (MDGs). The DESD aims to equip learners to understand concepts and how to deal with environmental crises to promote sustainable lifestyles.

ERSONALITIES IN CONSER

Name: Isak Kaholongo Kaholongo

Organisation: University of Namibia, Faculty of Agriculture & Natural Resources, Ogongo Campus, Department of

Integrated Environmental Science

Number of Years on the Job: 3 years What is the Ogongo Campus? Ogongo Campus is about 4000

hectares of forest, including a 900 ha game park and arable land (100 ha) for training and research purposes on crop

production and forestry. With an emphasis on practical training, the forestry nursery gives excellent hands-on experience on nursery practices and tree planting and tending, while the natural forest provides experience on aspects of indigenous forest management. The game camp gives an opportunity to study and research wildlife management. Within the arable land, there is about 10 ha of fruit tree orchard planted with both indigenous and exotic fruit trees, as well as small woodlots of both indigenous

and exotic trees. The dominant indigenous tree species in Ogongo forest are: camel-thorn, mopane, variable Combretum and silver cluster-leaf.

What is the main aim of Ogongo Campus? To make Ogongo Campus a centre of excellence in training, research and community service in the area of forestry, wildlife management, environmental science, crop production and animal science. How does the Ogongo Campus benefit the community? The surrounding communities are given controlled access to forest resources like thatching grass and fire wood, especially for funerals and weddings. Many schools in the northern regions make use of these outdoor training facilities and through community service; the Campus, especially my department, provides extension services on tree planting activities.

What challenges are there with planting trees in Namibia? The most important challenge of tree planting in Namibia is our semi-arid environment as there is limited soil moisture and a short and variable rainy season. After trees are established, they will constantly make use of ground water for their survival. As a country, we need to safeguard our ground water resources, which could be depleted easily by forest plantations. Therefore, only trees that use little water and have a high socio-economic value with little negative impacts on the environment are ideal for Namibian conditions. Finding ideal tree species for Namibia is a challenge.

What message do you have for Namibian youth? There is a saying which states that "We borrowed the land from our new generations". Therefore, the onus is on the Namibian youth to rise and ensure that Namibian land resources are not depleted. If this is not done, then their children and children of their children will not have resources to drive the economic aspirations of the Land of the Brave. They need to be equipped with knowledge, skills and attitudes that promote sustainable development and wise use of natural resources.

TAKING ACTION: Directorate of Forestry



The Ministry of Water, Agriculture and Forestry's (MAWF) Directorate of Forestry is responsible for protecting Namibia's forests and people's right to use forests. The Directorate of Forestry aims to balance the protection of the forests and the needs of the people. Their main duties are to:



- Finforce property rights for people who benefit from forests.
- Praft regulations to enforce the Forest Act effectively.
- PDeliver help and advice to the public.
- Conduct research, education, training and national programmes on forest conservation/protection.
- Manage forests.
- Ensure fair prices for forest products to reduce rural poverty and recognise the value of forest resources.

MISSION: To promote a well organised forestry sector that is socially, environmentally and economically sustainable, while creating significant and equitable wealth and opportunities.



"to protect and make our forests productive to improve the economic welfare of rural communities"

Namibia's Forest Act gives regulations as to how forest resources may be used and the responsibilities of the users. It establishes a Forestry Council to be appointed to make recommendations for laws and all matters related to forests. The Forest Act provides for: community forests, state forest reserves, regional forest reserves and forest management areas.



Understand these forestry terms...

Deforestation - The removal of trees faster than they can be replaced.

 $\mbox{\bf Reforestation}$ – The replanting of trees in areas that originally had trees.

Afforestation - The planting of trees in areas that did not have trees before.



CALENDAR OF EVENTS UN INTERNATIONAL YEAR OF FORESTS

MAWF's Directorate of Forestry and the Ministry of Environment and Tourism are holding events throughout the year to celebrate.

ARBOR DAY - 14 October 2011 National Tree Planting

WORLD FOOD DAY - 16 October 2011 Establish new orchards

Visit your local office for more information.



TAKING ACTION: NaDEET'S 365 Trees Projec

Taking action for the environment is easy if you know how. A great way to help the environment is by planting trees. Thankfully many organisations in Namibia and around the world actively plant trees.

In honour of the UN International Year of Forests, NaDEET has pledged to plant 365 trees in the homesteads of our programme participants and their neighbours throughout southern Namibia. All trees being planted are indigenous to Namibia and include monkey thorn, bird plum and Moringa trees. We are growing some of our seedlings from seed and have received others as a donation from the Directorate of Forestry. To date we have planted 103 trees with 262 to go. Go to our website www.nadeet.org/trees.html to "plant" with us.



PLANTING TREES GOES HAND-IN-HAND WITH ENERGY EFFICIENCY

One of NaDEET's main objectives is to empower Namibians to save energy in their households. Participants learn the skills to cook using solar cookers and fuel-efficient stoves. The 365 Trees Project gets participants taking action to further reduce carbon dioxide through absorption by trees.



PLANT FOR THE PLANET: BILLION TREE CAMPAIGN

The United Nations Environment Programme (UNEP)'s Billion Tree Campaign aims to record tree planting projects worldwide. This campaign aims to have 13,000,000,000 trees planted.

NaDEET's 365 trees are registered with the campaign.

Every tree counts, so log on to their website and register your tree planting: www.unep.org/billiontreecampaign.html

Global tree plantings

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TAKING ACTION: Plant your own tree

Follow these easy steps to get involved and plant your own tree!

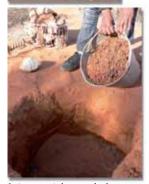


Grow or buy seedlings. You can get seedlings at your local forestry office for less than N\$20. Schools and other organisations can also apply to receive trees donated to them. Handle your seedlings with care.



Find a suitable location for your tree that will allow it to grow well. If you are living in an area with your own sewage, this could be a good place to plant as the tree will eventually soak up the water with its roots.





Dig a wide and deep hole to loosen up the soil. Add some compost or manure to the hole.





Carefully remove your seedling from its container or plastic bag and place it in the hole. Quickly cover it with wet soil and make sure the tree is firmly in the ground.

Build a small fence around the tree to protect it from livestock and other disturbances.

Water at least once a week for the first year.

Enjoy!



Add some compost and dead leaves around the plant to prevent moisture loss.





Dear friends,

We love answering your questions about the environment.

If you have any, send them to:

Chinga & Nzovu, NaDEET, PO Box 31017, Pioniers Park,

Windhoek

Dear Chinga and NZOVU

This year I went to the science fair with my project "Will ethanol replace petrol as fuel for cars?". Now I want to know: Do weeds contain enough carbohydrates to be used for fermentation and how?

Adrian in Walvis Bay

Dear Adrian,

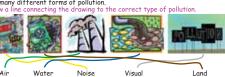
To answer your question, let's first quickly look at biofuels. Biofuel is the liquid fuel made from breaking down starches in plants. Plants that are mainly used are oil palm, sugar cane, corn, maize and wood. These can then be purified and used as fuel for vehicles. There are two common types of biofuel; ethanol, made from fermented vegetable oil and that can be mixed with petrol, and biodiesel, made with alcohol from fermented seeds. Biodiesel is used alone as fuel or with other diesel. Weeds are of course also plants and technically, if they produce enough seed, can also be used to make biofuels. However, how will weeds be harvested for mass production? Should we purposefully be growing weeds? There is lot more research that needs to be done about biofuels. Some of the issues that are being debated are how much biofuels really reduce carbon dioxide? Do we have enough land to grow biofuels or will it take away from valuable food crops? Will it contribute to further deforestation? Therefore your idea of using weeds might provide some possible solutions to these issues. One country that is leading the way in producing and using ethanol is Brazil. Their sugarcane ethanol is measured at having a total life-cycle reduction of greenhouse gas emissions of 61%. Keep on researching! Chinga and Nzovu

UPDATES FROM LAST ISSUES

WHAT IS POLLUTION?

Pollution is when humans add harmful things to the environment such as plastic, old batteries, engine oil, factory smoke, car exhaust and broken glass. There are many different forms of pollution.

Draw a line connecting the drawing to the correct type of pollution.



esent what you find. Take care not to cut yourself on any sharp edge

Write down anything else
that you find here:

1. milk cartons

₂ old food ₃ NikNak bags

5 plastic bottles

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1st place winner: Eco Media Awards "Publishers House" category 2010 Official youth magazine of the Roan News

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Tel: 063-693012 Fax: 063-693013 Email: admin@nadeet.org Web: www.nadeet.org NaDEET Centre offers week-long programmes for school, youth, educator and adult groups in the Namib Desert. The programme aims to engage participants in sustainable living through first-hand learning and living experiences.

Join the BUSH TELEGRAPH Reader Club The Bush Telegraph is a mini-magazine for Namibian youth. It aims to increase knowledge of and improve attitudes towards our environment through reading. It is distributed twice a year for free. Just fill in this form and send it to this address: Namib Desert Environmental Education
Trust (NaDEET), P.O. Box 31017, Pioniers Park, Windhoek
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