

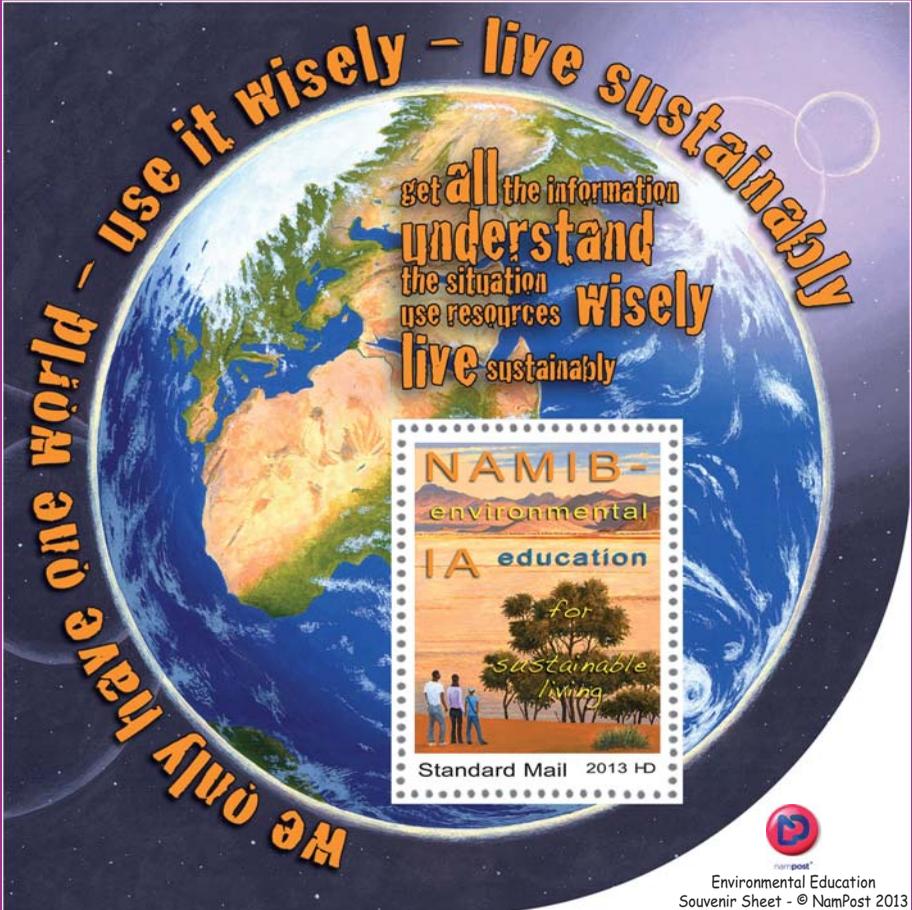


BUSH TELEGRAPH

Vol. 12 No. 1

2013

Environmental Education



*The Foundation of
Sustainable Development*

ENVIRONMENTAL EDUCATION (EE)



So, you want to know what is environmental education? It might seem like an easy answer. It is just "learning about nature", right? Well, not quite. Environmental education is a lot more than that. Let us define what the words mean.

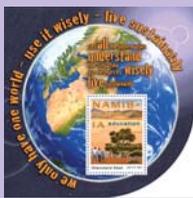
The **environment** is the physical surroundings including living, non-living and human-made things **AND** how they interact and depend on each other. **Education** is knowledge and skills developed through learning. Therefore, **environmental education** is a learning process to understand the environment and be able to protect it. It is not as easy as learning $2+2=4$ because there can be many answers. Environmental education, also called EE, has five main objectives:

1. **Awareness** and sensitivity to the environment and its challenges
2. **Knowledge** and understanding of the environment and its challenges
3. **Attitudes** of concerns for the environment and motivation to improve and maintain environmental activity
4. **Skills** to identify and help resolve environmental challenges
5. **Participation** in actions that address environmental challenges



As the Earth becomes more populated and developed, the impact on our environment increases. Around the world, people have recognised that we need sustainable development to ensure that the natural environment can continue to support our way of life. EE can therefore in certain situations also be called Education for Sustainable Development (ESD).

Below explains the "NamPost Souvenir Sheet for Environmental Education in Namibia" that celebrates EE in Namibia:



Environmental education helps children and adults in Namibia to understand their environment and its resources, and enables them to live in a sustainable manner.... The concept of sustainable living forms the essence of Namibia's foremost environmental education centre, the Namib Desert Environmental Education Trust, which celebrates its tenth anniversary in 2013. The souvenir sheet is at once a fitting tribute to NaDEET and a call to action for sustainable living in Namibia and around the world.

The environmental education souvenir sheet depicts a typical Namib Desert scene of sand dunes, desert plains and mountains. The scene is framed like a magnified window on the continent of Africa and the Earth. The stamp highlights the word Namib within the name Namibia, to help draw attention to the important influence of the desert. In addition, the letters IA are an abbreviation for Impact Assessment - environmental impact assessments are a vital component of sustainable development, ensuring that development takes possible environmental risks into consideration and does not degrade the environment. As global and local environmental issues grow in complexity and urgency, environmental education is an ever more pivotal aspect of our ability to navigate the future.



SHORT HISTORY OF EE

In practice EE has been around for a long time. Only in the 1970s however did it become formalised and start to get the attention that it deserves. Since then there have been many activities from international global policy to local activities.



Here are some global and local highlights in policy and capacity building:

1970s



United Nations (UN) Conferences

- Response to growing environmental movement
- Declared EE as a tool to address issues
- Set guidelines for EE

1973



World Environment Day

- Celebrated for the first time on 5 June
- Today an annual event

1982



Environmental Education Association for Southern Africa (EEASA)

- Formation of network and coordination for the region

1990



Article 95 of the Namibian constitution

- State obliged itself to protect the environment and promote sustainable utilisation of natural resources

1990s



EE Centres established

- First government and non-governmental EE Centres opened

1992



UN Conference on Environment and Development

- Adoption of Agenda 21 calling for action on a local level

1994



Namibian Environmental Education Network (NEEN)

- Nationwide networking
- Developed the national EE policy

2002



World Summit on Sustainable Development

- Laid foundation for UN-DESD
- International framework for action
- Introduction of term Education for Sustainable Development (ESD)

2003



EEASA Conference

- Annual conference this time hosted in Windhoek

2005 - 2014



UN Decade of Education for Sustainable Development (UN-DESD)

- Period for education action
- Aimed to integrate principles of sustainable development into learning in order to address social, economic, cultural and environmental problems.

2009



Education for Sustainable Development Strategy

- Namibia's response to the global call to develop strategies for UN-DESD.

2012



World Summit on Sustainable Development

- Focussed on the concept of a "green economy" also named "Rio + 20"

2014



UN-DESD Conference

- Marks the official end of DESD
- Determining the way forward

EXPLORING EE: FORMAL EDUCATION



There are three main forms of EE: formal, non-formal and informal. In all of the forms EE is a process in which people gain awareness of their environment; and obtain knowledge, skills, values and experiences. There are many different stakeholders involved in teaching environmental education from government agencies to non-governmental organisations.

Let us explore more about these forms of EE.

FORMAL ENVIRONMENTAL EDUCATION

Formal EE takes place in the formalised, accredited schooling system from basic education to higher education. This can be done in many ways including through specific subjects, cross-curricular integration, theme-based lesson plans or school events, "greening" the facilities and through a "whole-school approach".

Cross-curricular

EE subjects:

Languages
Mathematics
Science
Biology
Agriculture
History
Geography

Lower primary...

...focuses on understanding the relationship between people and their environments.

Upper primary...

...focuses on learners improving their local environments.

Secondary level...

...focuses on identifying and investigating real life issues at local, national and global levels.



The Ministry of Education-National Curriculum for Basic Education (2010) states: "The aims of the curriculum in relation to developing an environmentally sustainable society are to provide the scientific knowledge and skills, and attitudes and values needed to ensure that the environment is respected and sustained; and to develop the ability to make environmentally wise choices in terms of family development, as well as in economic activities."

Higher Education and Further Training



This level includes vocational, tertiary and post-graduate education and training. There is a significant increase in the number of programmes offered that are directly related to sustainability. Many institutions are now mainstreaming sustainability across the institution. Some of the programmes offered in Namibia include:

- Natural Resources Management
- Environmental Science
- Environmental Education
- Environmental Health
- Community Based Natural Resource Management

MORE TO BE DONE

From the pre-primary level to post-graduate, there is still much more that can be done to improve and increase the quality and amount of environmental education in the formal sector. For example, even in the field of Accounting and Finance, learners need to understand environmental economics and the "cost to the environment" to achieve sustainable development.

EXPLORING EE: ALL AROUND US

NON-FORMAL & IN-FORMAL ENVIRONMENTAL EDUCATION

Outside of the formalised, accredited education system, there is also environmental education taking place. Actually it is "all around us" and is accessible to all. Non-formal EE refers to structured and planned programmes and in-formal EE tends to be for the general public and has less structure. These forms of education still aim to engage people of all ages in critical thinking about their environment and to take action to protect it. Are you involved in any of the examples below? Tick the boxes that apply to you:

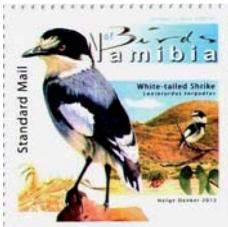
- | | |
|--|--|
| <input type="checkbox"/> Participating in environmental contests | <input checked="" type="checkbox"/> Reading environmental books, magazines , newspaper articles or websites |
| <input type="checkbox"/> Participating in environmental clubs or community service clubs | <input type="checkbox"/> Visiting a museum or exhibitions |
| <input type="checkbox"/> Attending lectures, talks or environmental activities in your community | <input type="checkbox"/> Participating in a tour to an Environmental Education Centre |



EE IN OUR DAILY LIFE

Actually, there are a lot of environmental awareness messages in our daily life. Look at these examples and have a look around in your community for more:

Sending a letter:



NamPost's postal stamps often have an environmental theme.

Eating:



Most food packages that can be recycled have a 'recycle me' sign on them.

Watching TV:



Some TV programmes and even ads are educational

Clothing:



Some t-shirts and clothing carry environmental messages.

On your favourite social media:



Search for environment or sustainability

Reading the newspaper:



The newspaper can carry important educational messages.

Visit the Namibian environmental directory for more EE opportunities:
www.nnf.org.na/ENVDIR/

GET AWARE & DEVELOP KNOWLEDGE

Awareness is knowing that something exists while **knowledge** is having the understanding and information about it. For example, awareness is knowing that littering is not good for the environment.



Awareness is knowing that off road driving is bad.

Knowledge is knowing that the litter can cause animals to choke and die on the litter.

Knowledge is knowing that off road driving can destroy nesting sites of endemic bird species such as the Damara Tern.

Awareness aims to get people active and thinking about an issue. In some cases this is enough to create changes in people's behaviour, but normally people then need more knowledge to really understand why.

AWARENESS ACTIVITY:

Do you know a real environmental problem when you hear it?

Decide which statements are true and which ones are false. Mark them with T or F. The first one is done for you.

- F Mosquitos are threatened with extinction.
- Erosion causes desertification and a decrease in agricultural production.
- Light pollution is on the increase due to unsustainable development.
- Plastic can take up to 500 years to decompose and is polluting our oceans.
- Mining causes genetically modified foods.
- Cars produce air pollution such as smog.
- The main problem with oil spills is that they cause rainbows.
- The annual harvest of mealies causes deforestation.

KNOWLEDGE ACTIVITY:

Do you know the facts behind environmental problems?

Match the correct information to the environmental problem. One is done for you:

Deforestation



One recycled tin can save enough energy to run a TV for three hours.

Off road driving



More than 1 in 6 people do not have access to safe drinking water.

Littering



Around the world 7.3 million hectares of forest cover are lost each year.

Water wasting



Lichens are slow growing and may need 10-500 years to recover if damaged.

BUILD SKILLS & CHANGE YOUR ATTITUDE

Once you have the awareness that a problem exists and you understand it, you might need some **skills** to know how to solve it. In addition to technical skills that may be needed to implement environmental solutions, there are many interpersonal and critical thinking skills that one needs. These include the ability to:



- work in a team,
- use a range of resources, communication skills and technologies
- apply reason and logic.

SKILLS ACTIVITY:

Do you have the skills to participate?

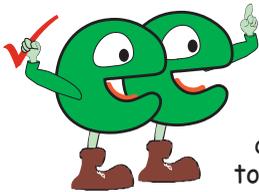
Are you able to match the cause and effect in the scenarios below? Draw a line to connect the correct cause and effect. The first one is done for you.

CAUSE

- ♦ No one recycles
- ♦ Leaking pipes are not fixed
- ♦ Energy saving cooking methods are not used
- ♦ Environmental Impact Assessment is not followed.

EFFECT

- ♦ Chronic water shortage
- ♦ Development project may become an environmental hazard.
- ♦ More land must be cleared for rubbish dump
- ♦ Trees are cut rapidly for firewood



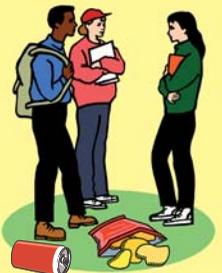
Do you have the **attitude** to get active in protecting our environment? Are you participating? Attitude is a way of thinking that affects your behaviour. If you have a negative attitude and think that nothing that you do will make a difference, then most likely you are not going to participate. People that have a positive attitude are ready to participate because they are willing to take action.

ATTITUDE TEST:

You and your friends are walking home after school on Friday. Everyone is excitedly talking about their weekend plans when your best friend litters the bag of chips that she just finished eating. You:

- A) also throw your empty chips bag on the ground.
What is wrong with that?
- B) are really embarrassed and surprised but keep on walking.
- C) tell your friend, hey, you dropped your chips bag and assume it wasn't on purpose.
- D) you quietly pick it up for your friend.

How does this story make you feel? Can you feel proud of your actions? Do you feel conflicted because you don't want to confront your friend, but you also know it is wrong? It isn't always easy, but having the right attitude helps.



PARTICIPATE

"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not." - Dr Suess from *The Lorax*



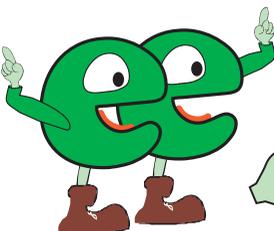
To participate is to join in. Every day you take actions that influence the environment. It is up to you to decide if these actions are "good" or "bad" and what the impact will have on the environment. Think about what you have done today? Compare with the list below and add more actions that are good for the environment.

PARTICIPATION STARTS AT HOME AND WITH YOU

- ▶ Be energy efficient at home
- ▶ Turn off the tap, install a low or dual flush toilet and fix broken pipes
- ▶ Reduce, reuse, recycle and rethink waste
- ▶ Buy local products and compost your food left overs
- ▶ Clean with non-toxic chemicals and don't use poisons
- ▶ Join an environmental club
- ▶ Cycle, walk and run more - get healthy!
- ▶ Encourage action at school or in your work place
- ▶ Read and learn more about the environment
- ▶ Appreciate nature and what the environment does for you!



- ▶ _____
- ▶ _____



These components of EE all go hand in hand. To successfully implement EE, people need to gain **knowledge** and **skills** so that they are **aware** of what is going on. If you get the right information and get the understanding, this will help you change your **attitude** towards the environment. With a positive attitude, you have the power to take action and **participate** to solve environmental issues.

PERSONALITY IN CONSERVATION

Name: Viktoria Keding

Organisation: Namib Desert Environmental Education Trust (NaDEET)

Position: Co-founder and Director

Number of years on the job: 10 at NaDEET, 14 in EE

What made you choose EE? I always had a passion for nature. As a student I participated in a wildlife semester programme in Botswana. During this time I realised that my interest is not as a researcher, but rather to work with people, as they are the custodians of our natural environment.



What are the challenges the EE sector in Namibia? There are many challenges. Often EE is a low priority for some sectors and therefore there is little funding. A main challenge is to coordinate EE efforts across the country to make the outcome more meaningful. There is a misconception that EE is just for little children when in fact it is something for all ages.

What are the challenges NaDEET is facing? To meet the demand for EE.



Our Centre is fully booked and we cannot accommodate all the groups that would like to come for our primary, secondary, community and educator programmes. We also have limited staff and funding to implement all the EE work that we could do in communities. To date we have hosted more than 7,500 participants.

NaDEET celebrates 10 years this year, what are some of your successes? We are proud that our programme speaks to our participants and that many schools and communities continue to come year after year. Our Centre is a model of sustainable living as the average water use is only 15 litres/day/person and we are almost 100% carbon-free. This is possible because we utilise solar energy for almost everything. We successfully solar cooked for large groups for ten years. Since we launched our community programme 3 years ago, we have distributed more than 250 solar cookers to households in southern Namibia to also solar cook at home. It is very satisfying to see our EE programmes turn into a real change for the environment and the quality of people's lives.

Looking back, would you have imagined the changes NaDEET went through? No. Although we have stayed true to our mission, we have expanded our environmental education services beyond what I imagined. This is evident in our ever-growing community based activities. We originally only planned to work with school groups but have seen that to actually help implement change we need to also engage older members of the community. We have also had to upgrade NaDEET Centre facilities to be able to handle the ever increasing number of visiting groups per year.



What is your message to the Namibian youth? Just as our philosophy says, "practice what you teach". There is nothing that is more effective or speaks louder than your daily actions.



NaDEET CENTRE TURNS 10 YEARS!



On the 24th October 2013 NaDEET Centre officially celebrates 10 years of environmental education. This issue of NaDEET's Bush Telegraph celebrates NaDEET's work in non-formal environmental education and the importance of EE to achieve sustainable development. From only four groups in 2003 to over thirty groups per year in 2013, we believe that there are many more people today living sustainably. Thank you to all of our supporters. Enjoy looking at some photos from over the years.



TEST YOUR NaDEET CENTRE KNOWLEDGE*!

Write down the answers to the questions below on a separate paper or postcard and send, email or fax it to us before the 16 August 2013. The winner drawn from all the correct entries will win a **NaDEET 10 year buff!** See contact details on back page to send us your entry. (*answers are found in interview on page 9)



- 1) About how many participants have been at NaDEET Centre in the past 10 years?
a) 75 b) 750 c) 7,500 d) 75,000
- 2) Which of the following programmes does NaDEET Centre not offer?
a) primary b) pre-primary c) secondary d) community
- 3) Due to use of solar energy, NaDEET Centre is almost 100%:
a) water-free b) sunlight-free c) carbon-free d) nitrogen-fixed
- 4) Our community programme has helped community members to become owners of approximately how many solar cookers?
a) 10 b) 250 c) 2000 d) 0
- 5) The average water used at NaDEET Centre per person per day is:
a) 1 litre b) 5 litres c) 15 litres d) 50 litres

HOLDEN'S HANG-OUT



Holden Mole is the name. NaDEET's my hangout spot. I love Namibia. My number one job is to get the basics - my food, water and shelter. "Education is the key"- I know everyone says it, but it is true. So if you don't know, ask me.

Holden Mole, NaDEET, PO Box 31017, Pioniers Park, Windhoek
email to admin@nadeet.org or post them on NaDEET's Facebook page

Dear Holden

How many animals are there in the whole wide world?

Learner from Rietoog

Dear Holden

Why is the Milky way called milky?
Jennevive, Mariental

Dear Learner from Rietoog

No one knows exactly how many individual animals (mammals, birds, arachnids, amphibians, fish, reptiles, insects etc.) there are but it is estimated that there are about 7.77 million animal species. So far only about 950,000 species have been described and documented. A species is a group of individual organisms with the same characteristics. We still have a lot to learn!

Holden Mole

Dear Jennevive

The Milky Way is a name given to our galaxy by some cultures.

Some believe that early star gazers

saw that that group of stars looks like a big streak of milk and therefore named it the Milky Way.

Other cultures however have different names and explanations for it. For example, the Khoisan people say that long ago there were no stars and the night was pitch black. A girl, who was lonely and wanted to visit other people, threw the sparks from a fire into the sky and created the Milky Way to light her way at night.

Holden Mole



UPDATE FROM LAST ISSUE

Page 3.

1. Europe
2. Many answers are acceptable including Namib, Thar, Mojave

Page 6.

- revisr..... rivers
sinbelrge..... inselberg
afuan....fauna
pedsalnac..... landscape
mabin.....namib

Page 10

Across

5. Parabolic
8. Succulent Karoo
9. Orange river
11. Climate
12. Youth
13. Improve

Down

1. Gobabeb
2. Desert
3. Eroded
4. Conservation
6. Gravel plains
7. Polar Deserts
10. Rain shadow

Taking action against: **LAND DEGRADATION**

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

Writer: Viktoria Endjala

Co-writer & editor: Viktoria Keding

Graphics: NamPost (H.Denker), NaDEET, DHPL, M. Bridgeford & G. Tucker

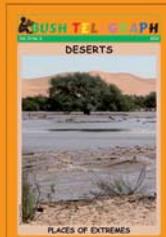
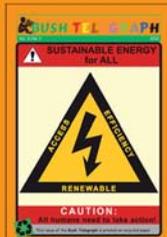
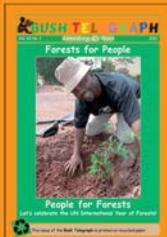
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Did you know that these Bush Telegraph's were all supported through NaDEET's EE action 2011-13 supported by the European Union and various co-financers?



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