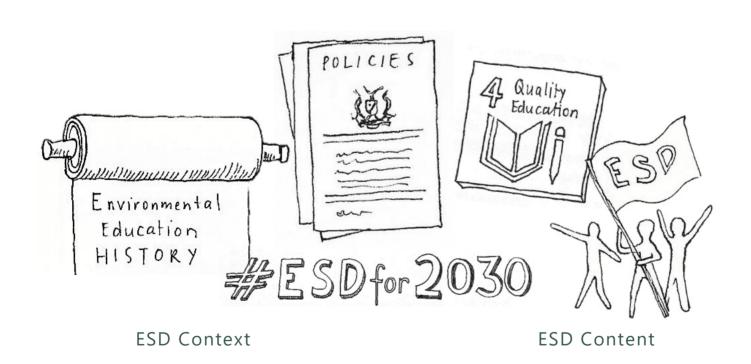


TEACH for ESD

EDUCATION FOR SUSTAINABLE DEVELOPMENT



TEACH FOR ESD TOOLKIT GUIDE 2

Teach for ESD - Toolkit Guide 2 **EDUCATION FOR SUSTAINABLE DEVELOPMENT**



Published in 2024 by the Namib Desert Environmental Education Trust (NaDEET).

Authors: Viktoria Keding & Alisa Volkmann

with contributions from NaDEET staff

Illustrations & Design: Alisa Volkmann

Printed in Namibia with the generous support of Bread for the World.



© NaDEET 2024

This Teach for ESD Toolkit guide may be reproduced for educational purpose as long as NaDEET is acknowledged.

Please take note of the copyright of each individual resource.

OVERVIEW

Environmental Education (EE) and **Education for Sustainable Development (ESD)** has a long **history** in Namibia and the southern African region. Education for the environment is recognised as an important component by governments, who have integrated it into laws, policies, and the curriculum on some level. EE/ESD has a solid foundation in Namibia with the National EE/ESD Policy, related Strategy & Action Plan and the technical ESD Task Force to guide implementation within all sectors, nationally and internationally, including formal education. It is important to develop a strong understanding of the **policy frameworks** and the concept of **sustainable development** and to learn how we, as educators, can incorporate it into our everyday teaching.

Education for Sustainable Development (ESD) is an integrated concept that combines a progressive approach to education with the universal purpose of protecting our Earth. ESD is hands-on, exploratory, and open-ended in nature. ESD teaching and learning is life-long and involves everyone. It presents the opportunity to use a variety of teaching methods in different **learning environments** and demands attention on the issues fuelling the global environmental crisis. This involves understanding our **environmental ethics** and the motivations behind our actions. Our **ESD methods and approaches** are key to creating the change that we want to see in the world.

TABLE OF CONTENTS

OVERVIEW	
ESD IN CONTEXT	2
HISTORY	2
GLOBAL EFFORTS TOWARDS SUSTAINABLE DEVELOPMENT	
NAMIBIA'S EFFORTS TOWARDS SUSTAINABLE DEVELOPMENT	6
RESOURCES FOR ESD IN CONTEXT	8
ESD CONCEPTS	12
WHAT IS ESD?	12
ESD EDUCATIONAL THEORIES AND ETHICS	14
KEY ESD THEMES	
ESD LEARNING ENVIRONMENTS	17
ESD APPROACHES & METHODS	
ESD ASSESSMENT	21
RESOURCES FOR ESD CONCEPTS	

ESD IN CONTEXT

HISTORY

The roots of Education for Sustainable Development (ESD) lie in environmental education (EE) and other conservation and nature-based education movements and approaches. Over the past 50 years various names have been coined to adjust to the ever-evolving *understanding* behind the term. These name changes reflect the dynamic nature of ESD as a **field that remains responsive to change**.

ESD is inclusive!
Climate Change
Education,
Biodiversity Education,
Conservation
Education and more
are all specific focal
areas within ESD.

In Namibia, the terms environmental education (EE) and Education for Sustainable Development (ESD) are often used interchangeably. There is a continued use of EE by many government ministries and non-governmental organisations alongside which the term ESD is also being adopted. In this Toolkit, ESD is used throughout and reflects its definition discussed under the next section.



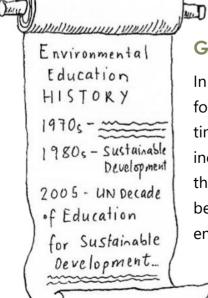
"Namibia embraces both the concepts of EE and ESD..."

NATIONAL EE/ESD POLICY



To learn more about the difference between Environmental Education (EE) and Education for Sustainable Development (ESD), read **pg. 39** of **UNESCO ESD Sourcebook**.

Namibia's ESD history is tightly inter-woven with the rest of the southern African region, especially South Africa, and is highly influenced by the region's struggle for Independence and social justice. This gave southern Africa an early recognition of the role of social, economic, and political issues in the protection of the environment, something that had not yet been realised by many countries in the Global North.

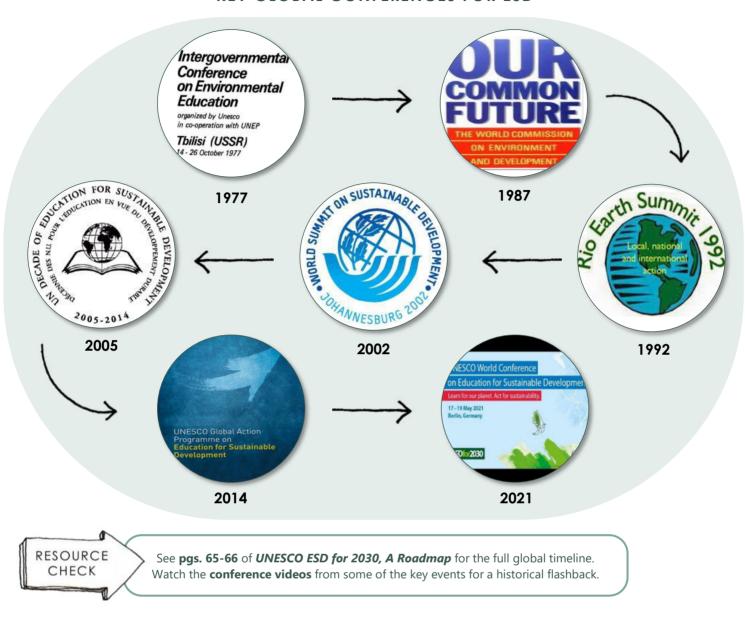


GLOBAL TIMELINE

In 1972, the first international conference was held that focussed on the human environment. The global timeline of events spans over a **long history** that includes many major events in ESD. More than half a century of commitments has been made towards addressing our environmental challenges.

What is your own personal history with EE/ESD?

KEY GLOBAL CONFERENCES FOR ESD



NAMIBIAN TIMELINE

Namibia's ESD timeline began with Independence in 1990 when our Constitution How will included the protection of the environment as a fundamental right. this timeline continue? EE/ESD RESOURCE Where will ESD See Namibia's EE/ESD Timeline to learn more about POLICY CHECK be in 2030? Namibia's journey with EE/ESD since Independence. 2020 2030 2020 WINITH WEST TO THE STREET THE STREET

GLOBAL EFFORTS TOWARDS SUSTAINABLE DEVELOPMENT



Numerous policies and strategies, especially from the environment *and* education sectors, shape ESD. Namibia, as an active member of the United Nations and international community, is a signatory of many international agreements that specifically address ESD or include it as a key strategy. The concept of **sustainable development** (see **Toolkit 1** – **Environmental Knowledge**) is at the foundation.

"We commit to quality education ... [which] develops the skills, values and attitudes that enable citizens to ...respond to local and global challenges through ESD..."

EDUCATION FOR 2030 INCHEON DECLARATION & FRAMEWORK FOR ACTION

There have been a series of significant international agreements on the protection of the environment and education. These include the three "Rio Conventions" established in 1992 at the Rio Earth Summit: the UN Convention to Combat Desertification (UNCCD), the UN Convention on Biological Diversity (CBD), and the UN Framework Convention on Climate Change (UNFCCC). At the World Education Forum to Education 2030 the Incheon Declaration on Education for 2030 was adopted which aims to transform education.



Watch this video on the **World Education Forum** to get a clear idea of the Incheon Declaration.

The **United Nation's Sustainable Development Goals (SDGs)** bring together these and many other agreements to address the environmental crisis we face today.



THE SUSTAINABLE DEVELOPMENT GOALS

The **SDGs** were agreed upon by 193 countries around the world in September 2015.

Also referred to as the **Global Goals**, they are a set of 17 goals that aim to end poverty, protect our planet and promote peace and prosperity for all by 2030.







































Watch the videos *Global Goals for Sustainable Development* and *17 Goals to Transform Our World*.

Read *The UN Sustainable Development Goals* for a brief explanation of each goal and/or the

2030 Agenda for Sustainable Development for the full policy document.

In Namibia, the SDGs are being implemented by a variety of stakeholders including government, NGOs, CSOs and international development partners. The United Nations, through its various divisions, is also **directly investing in Namibia** to address the SDGs.



Read about the *UN*'s SDG work in Namibia in the booklet *UN SDGs implementation in Namibia*, and on their website. See the list of actions on **pg. 20 – 26** and **pg. 30** in the *Communication Strategy on Sustainable Development Goals* for Namibia, to identify actions that we as educators can take for the SDGs.

THE SDGS AND ESD

Education for Sustainable Development (ESD) is a key strategy to achieving the SDGs. It is specifically included in **SDG4** on **Quality Education** in **Target 4.7**. ESD is also an important part of achieving all of the goals. Explore the 17 Sustainable Development Goals below and the **role of ESD** to achieve each one.

TARGET 4.7

"to ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable



ESD FOR 2030

The United Nations Educational, Scientific and Cultural Organization (UNESCO) is the **lead agency** in the United Nations for **ESD for 2030** and aims to mobilise action on all levels to achieve the SDGs.



Building upon the work done over the past decades, **Education for Sustainable Development: Towards achieving the SDGs**, also called **ESD for 2030**, is the new global framework for ESD implementation from 2020-2030. The goal is to build a more just and sustainable world through strengthening ESD and contributing to the achievement of the 17 SDGs, especially SDG4 on Quality Education. ESD for 2030 was officially launched at the World Conference on Education for Sustainable Development in 2021.

ESD aims to transform society through a mind-set shift by empowering learners of all ages with the knowledge, skills, values and attitudes to act for a sustainable and just society. Implementation of the **ESD** for **2030 Framework for Action** calls for countries to collaborate on a national level, harness partnerships, mobilise resources, communicate and monitor progress. It focuses on the following five priority action areas:



NAMIBIA'S EFFORTS TOWARDS SUSTAINABLE DEVELOPMENT

Namibia has a long history of considering the environment to be an integral part of our country's policies. The protection of the environment is present in the Namibian Constitution, **Article 95**, "**Promotion of the Welfare of the People**". It encompasses the importance of inter-generational equality. This has laid the foundation for Namibia's participation in international agreements and in the development of our own sector specific policies and strategies.

NAMIBIA VISION 2030

Namibia's national development framework, Vision 2030, acknowledges the importance of sustainable development and includes environmental protection. It provides an encouraging foundation for the country's development.

6

WHERE WE WANT TO BE: VISION 2030

"Namibia has a population of healthy, well educated, skilled, pro-active and financially stable people ...

Namibia maintains a healthy, productive land ... rivers run permanently and clear ... natural ecosystems are productive, efficient, diverse, stable and sustainable - socially, economically and ecologically."

NAMIBIA VISION 2030



Read Vision 2030 for Namibia's path towards sustainable development.

NAMIBIAN NATIONAL EE/ESD POLICY

The Namibian National EE/ESD Policy was officially launched in July 2020. It is the **first stand-alone policy on ESD in Southern Africa**. Spear-headed by the Ministry of Environment, Forestry and Tourism, the policy aims for national ESD implementation.

NAMIBIAN EE/ESD POLICY VISION

an educated and empowered Namibia with environmentally literate people taking responsibility and action for a sustainable future. The EE/ESD Policy is co-ordinated through a nationally established **ESD Taskforce** that acts as an inter-agency technical committee. The policy calls for a broad base of stakeholders to work together to reach the following goals:

- → QUALITY EE/ESD PROGRAMMES
- → PARTNERSHIPS
- → RESEARCH & INNOVATION
- → RESOURCE ALLOCATION
- → CENTRAL ROLE IN NATIONAL SUSTAINABLE DEVELOPMENT



RESOURCE CHECK

Check out Namibia's key strategies for implementation in the **National EE/ESD Policy** and the **National EE/ESD Strategy and Action Plan 2022-2026.**

NAMIBIAN NATIONAL CURRICULUM

The Namibian National Curriculum from the Ministry of Education, Arts and Culture includes **environmental learning as a cross-curricular issue** to be "dealt with in

each subject and across all phases". With the new national EE/ESD Policy, we expect the education sector to become more engaged with ESD by providing and supporting more professional development and training opportunities, such as Teach for ESD.

RESOURCE CHECK

Refer to the **National Syllabus** under "Links to other subjects and cross-curricular issues".

Teachers are key implementers of the EE/ESD Policy through curriculum and pedagogical innovation!

RESOURCES FOR ESD IN CONTEXT

Junior Primary



Senior Primary



Junior Secondary



Senior Secondary



Teacher







ESD Sourcebook

<u>BOOKLET</u>: A sourcebook for teachers and school decision makers to understand the development of ESD and its origins in environmental education. It also includes resources, lesson plans and how to integrate sustainability at a whole school level.

AUTHOR: UNESCO (2012)

Link: https://sustainabledevelopment.un.org/content/documents/926unesco9.pdf





ESD for 2030: A Roadmap

<u>BOOKLET</u>: The ESD for 2030 Roadmap outlines the ten-year strategy for ESD on a global scale. It provides policy context, action plans and the role of member states in implementation.

AUTHOR: UNESCO (2020)

Link: https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en





Conference Videos

<u>VIDEO</u>: The video *Intergovernmental Conference on EE 1977* highlight some of the main focal points and speakers of the historical Tbilisi Conference in 1977. The video *Closing Plenary UNESCO World Conference on ESD 2014* summarises the outcomes of this conference, such as the Global Action Programme. The video *Celebrating Environmental Education Tbilisi +40* reviews the history and progress of EE since the Tbilisi Declaration of 1977.

AUTHOR: UNESCO (2012) UNESCO (2014) NAEEA (2017)

Link 1: https://www.youtube.com/watch?v=ljDUKgL1sUI&t=282s

Link 2: https://www.youtube.com/watch?v=FO77EfBVD I

Link 3: https://www.youtube.com/watch?v=7wzIKwyYXlw





Namibia's EE/ESD Timeline

<u>PRESENTATION</u>: An overview of key events in Namibia's EE/ESD timeline, shaping what it is today.

AUTHOR: NaDEET (2021)





World Education Forum to Education 2030

<u>VIDEO</u>: This video presents the Incheon Declaration, as adopted in 2015 at the World Education Forum. It explains the purpose of the declaration, a commitment to Education 2030, and explores what that entails.

AUTHOR: UNESCO (2015)

Link: https://www.youtube.com/watch?v=0uneOexN9IA





Global Goals for Sustainable Development

<u>VIDEO</u>: This animated video introduces the Sustainable Development Goals. It explains what they are and why they came about, as well as their purpose and implementation strategy at a global and individual level.

AUTHOR: UNSW eLearning (2020)

Link: https://www.youtube.com/watch?v=5EW5vVCiXIQ





17 Goals to Transform our World

<u>VIDEO</u>: This video runs through the SDGs; what each of the 17 goals are with a short individual explanation.

AUTHOR: SDGCAfrica (2018)

Link: https://www.youtube.com/watch?v=HW76iOQ7qVQ





UN Sustainable Development Goals

<u>BOOKLET and WEBSITE</u>: This booklet is the overview document of the SDGs; describing their purpose as a whole and gives a brief outline of what each of the 17 goals entail. There are many websites that are databases of information about the UNDP formulated Goals, the link can be used as a great starting point.

AUTHOR: UNDP (2015) Link: https://sdgs.un.org/goals



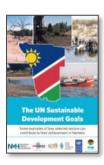


2030 Agenda for Sustainable Development

<u>BOOKLET</u>: This is the official publication from the UN detailing the declaration of sustainable development. The agenda explains the actionable points per SDG.

AUTHOR: UN (2015)

Link: https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20 for%20Sustainable%20Development%20web.pdf





UN SDGs Implementation in Namibia

<u>BOOKLET</u>: This booklet gives a simple overview of the 17 SDGs and presents examples of how selected sectors have, and can, contribute to their achievement in Namibia. This is a great read to see the implementation of the SDGs in Namibia so far.

AUTHORS: UNDP, K. Schade (2016)

Link: https://ean.org.na/download/the-un-sustainable-development-goals-some-examples-of-how-selected-sectors-can-contribute-to-their-achievement-in-namibia/





UN Work on the Sustainable Development Goals in Namibia

<u>WEBSITE:</u> This website on the SDGs relates specifically to the implementation of the goals in Namibia and what work the UN has been doing in this regard. It is a great source to track the progress of the goals and how each sector is doing so far.

AUTHOR: UN Namibia

Link: https://namibia.un.org/en/sdgs





Communication Strategy on Sustainable Development Goals 2020 - 2022

<u>BOOKLET</u>: This communication strategy aims to support Namibia's sustainable development agenda. Explore the key messages and stakeholders (including teachers) delegated to sensitising Namibians on this important topic.

AUTHORS: National Planning Commission (2020)

Link:: https://www.npc.gov.na/wp-content/uploads/2022/01/Communication-Strategy-on-Sustainable-Development-Goals-2020-%E2%80%93-2022.pdf





<u>VIDEO</u>: This animated video introduces the United Nations for Educational, Scientific and Cultural Organisation (UNESCO), showing its formation, structure, purpose and role in addressing global issues.

AUTHOR: France 24 English (2017)

Link: https://www.youtube.com/watch?v=kJHsjBvSv74





Education for Sustainable Development for 2030 Toolbox

<u>PORTAL</u>: The link below is a portal to a wealth of further resources and reading on all things to do with ESD, under the ESD for 2030 initiative. Explore for materials and sources that will broaden your ESD knowledge.

AUTHOR: UNESCO

Link: https://en.unesco.org/themes/education-sustainable-development/toolbox





Start Acting by Learning for Our Planet

<u>VIDEO</u>: This video illustrates the importance of education when it comes to being able to make considered, sustainable decisions for the future of humanity and the planet.

AUTHOR: UNESCO (2021)

Link: https://www.youtube.com/watch?v=n17Tl4EbdN8



Vision 2030

<u>BOOKLET</u>: This is the main document of Namibia's major development initiative. It stipulates the vision for the country (and how it fits into the national development process), whilst outlining the key themes and targets as well as approaches to achieve this.

AUTHOR: Government of the Republic of Namibia (2004) Link: https://www.namfisa.com.na/wp-content/uploads/2017/10/Vision-2030.pdf



National EE and ESD Policy

<u>BOOKLET</u>: This policy is a key document to understand Namibia's approach to implementing Education for Sustainable Development (key focus on strategies), and its guiding principles.

AUTHOR: Ministry of Environment, Forestry and Tourism (2019) Link: https://nadeet.org/sites/default/files/National%20EE%20ESD%20Policy.pdf



National EE/ESD Strategy & Action Plan (2022-2026)

<u>BOOKLET</u>: This document outlines the strategies and action plan for the implementation of the National EE/ESD Policy. It gives clear action areas for schools to implement ESD.

AUTHOR: Ministry of Environment, Forestry and Tourism (2022)
Link: https://nadeet.org/sites/default/files/National%20EE%20and%20ESD%20Strategy%20%26%20Action%20Plan%202022-26.pdf



Namibian National Syllabus

<u>WEBSITE</u>: The link below is to NIED where you will find the National Syllabus as well as curriculums and information about curriculum development and revision.

AUTHOR: National Institute for Education Development (various) Link: http://www.nied.edu.na/documents/syllabuses/

ESD CONCEPTS

We have so far looked at the origin of Education for Sustainable Development (ESD) by examining its context and aspects of why we are teaching ESD from a national and international policy framework. These provide us with the context of ESD teaching and learning. But what does the concept of ESD entail?

WHAT IS ESD?



EDUCATION FOR SUSTAINABLE DEVELOPMENT

"...Education for Sustainable Development (ESD) empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society for present and future generations..."

(UNESCO, 2017)



By further 'unpacking' this definition, ESD concerns itself with:

- → WHAT is being taught (content), and
- → **HOW** it is being taught (approach)





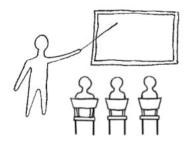


Read the brief article **What is Education for Sustainable Development?** and explore the UNESCO website to get an overview of the term and international work being done.

In many ways, ESD can be (and at times needs to be) confrontational. Educators - and adults in general- admittedly do not have all the answers to the many wicked problems that the environmental crisis presents. Thereby, teachers are also learners of ESD.

Focused on solving real-life problems in different cultural and value contexts, ESD presents the opportunity to use alternative forms of teaching such as outdoor learning, collaborative real-world problem solving and experiential learning.





Although there are exceptions, traditional teaching takes place indoors often includes rote learning (memorisation) and is teacher focused. Learning is predetermined by a set curriculum, that may allow for teacher creativity, but is mostly strictly followed. Examinations, being promoted to the next grade level and securing a place at university are the main focus for the typical learner.

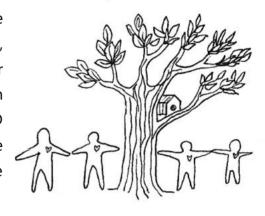
Contrary, the end goal of ESD is for learners (and educators) to become a *part of the solution* to our global environmental crisis. We must therefore **reorient our professional teaching practices** and transform our teaching perspectives using an ESD lens.



Watch the video **Learning to change the world! What is Education for Sustainable Development?**

ESD recognizes that learning is a **life-long process**; and that we are all learners with our own diverse backgrounds (i.e. age, gender, language, culture) contributing to the depth of ESD. It moves far beyond providing knowledge and facts, and instead, is **holistic** in its purpose and design. Closely linked with global citizenship, ESD has social, economic, and environmental justice at its core. The challenge for ESD is to remain responsive to sustainable development issues and the changing global context.

Education for Sustainable Development



Quality of life on Earth is the assessment. Everyone needs to do their part and work together. Sharing and collaboration is critical. This may seem daunting or not feasible, but a significant global (and local) network of ESD educators and learners has evolved, creating a wealth of experience and resources in ESD to share and learn from. ESD can be summarized in the five pillars of learning and quality education.



THE FIVE PILLARS OF LEARNING AND QUALITY EDUCATION

- LEARNING TO KNOW
- LEARNING TO DO
- LEARNING TO BE
- LEARNING TO LIVE TOGETHER
- LEARNING TO TRANSFORM ONESELF & SOCIETY



UNESCO 2018





Read ESD Expert-Net's article, **What is ESD?** to further your understanding. This article also explores the concepts of education, sustainability, and sustainable development.

ESD EDUCATIONAL THEORIES AND ETHICS

EDUCATIONAL THEORIES

As teachers we need to examine the principles or ideas that guide our practice. They are the underlying explanation for *how and why* something is done. Traditional **educational theories**, e.g. behaviourism, have not been successful in changing people's environmental behaviour. As such, educational theories for ESD needed to evolve. There is now a wealth of educational theories that have been tested and adapted to ESD that can greatly improve our teaching practices.

EDUCATIONAL THEORIES

Ideas about how we learn, how we retain information and how we apply it. They inform our educational approaches, curricula, and



Read the section "Theories Relevant for ESD" on **pgs. 54-56** in **Guidebook on Education for Sustainable Development for Educators**.

RESOURCE CHECK

An overview of different educational theories can be found in "What Kind of Education?" on **pgs. 4-6** in the *CAPE Conservation's* **Teacher Education Workbook for Environment and Sustainability Education**.



For more in-depth reading on how are learning and training environments are transforming with ESD see **Chapter 5** on pgs. 111-131 in *Issues and Trends in Education for Sustainable Development*.

ETHICS

As educators, we have a strong influence on the ethics conveyed in our teaching and learning environments. It is important to consider and reflect on the educational theories and personal ethics that shape our approaches and to avoid indoctrination or social marketing. To empower learners to become active global citizens, our teaching needs to be innovative and transformative.

ETHICS

Moral principles that govern a person's behaviour. Why do you want to become an ESD practitioner and protect the environment?
Why do you care?

"It is overly simplistic to think that, because we teach ecology, or citizenry ... students will realize their connection to their environment. Effecting changes in behaviour that have positive, significant impact on the environment will take much more than just curricula. Somehow, we must stimulate some relationship to nature that makes sense...

We need to care about the things we are asking ourselves to preserve"



SAYLAN & BLUMSTEIN, 2011

Striving to bring about sustainable development has at its core the necessity to face *ethical choices*. **Environmental ethics** inform part of the *why* in ESD. Environmental ethics - an important and expansive field of its own – for our purpose here can be divided into two broad categories:

HUMAN-CENTRED

ENVIRONMENTAL ETHICS

advocate the conservation of nature for *human use*. Nature needs to be protected so that the life-supporting *ecosystem services* that we depend on, can keep supporting us.

the focus is on nature's **instrumental value**: the value or worth of the environment in how it provides human needs and wants.

NATURE-CENTRED

ENVIRONMENTAL ETHICS

advocate the conservation of nature for the benefit of all life on Earth. The diversity, abundance and flourishing of life needs to be protected *for its own sake*.

the focus is on nature's **intrinsic value**: the value that all living beings have in and of themselves, regardless of their usefulness to humans.

What is *your* environmental ethic?



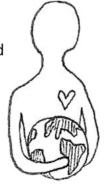
CHECK

Our environmental ethics are influenced by our upbringing, life circumstances, surroundings, traditions, indigenous knowledge, and our religious beliefs to mention a few.

Read "Ethics and the Environmental Educator" on **pgs. 2 – 3** in the UNDP's *Environmental Education, Ethics & Action: A Workbook to get Started*.

THE EARTH CHARTER

The Earth Charter is an **ethical framework** produced through a decade-long, worldwide dialogue on shared values, aiming to inspire a global movement for building a just, sustainable, and peaceful world. It calls for shared responsibilities and a global interdependence.





RESOURCE CHECK

Have a look at the *Earth Charter* document and the *Earth Charter website* to learn more about the guiding sixteen principles. For more resources on the Earth Charter, see *Toolkit 3.2*.

KEY ESD THEMES

As outlined in the previous section, Education for Sustainable Development (ESD) is not just in SDG4, but it is integrated into all the 17 SDGs. Although as educators we can teach many of the SDGs it is important to address the **key themes** in our schools as they **directly link to our curriculum**:



Many of these environment-related themes have been explored in **Toolkit 1 – Environmental Knowledge**. There are many ESD manuals and databases that provide teaching ideas. These are featured in **Toolkit 3 - Let's Get Practical**. Let's teach these themes using an *interdisciplinary* approach.



GLOBAL CITIZENSHIP EDUCATION

esp is closely related to **Global Citizenship Education (GCED)** and, therefore, both are part of SDG#4 Target 4.7 and often discussed together. The main components of GCED are focussed on civic responsibilities, cultural awareness, human rights, and peace. These are key underpinnings of achieving global sustainability.



ESD LEARNING ENVIRONMENTS

A learning environment refers to *where* our teaching and learning takes place. The **physical setting** and **context** play a significant role in how learners experience sustainability and therefore understand the aim of ESD: a sustainable world. We can begin to achieve this on different levels in our classrooms and our schoolgrounds.



The value of the ESD learning environment is well illustrated at NaDEET's environmental education centres where sustainability is not just theoretically presented, but taught using all types of teaching methods, with an emphasis on **experiential learning**. For example, the NaDEET Centre kitchen is centred around solar cookers (instead of a stove or traditional open fire) where food is prepared *by the learners*. using solar cookers. Teaching and learning at NaDEET is not just *about* SDGs such as climate change, but it *practices* mitigation measures and contributes to the solution. NaDEET uses a *whole-institutional approach*.



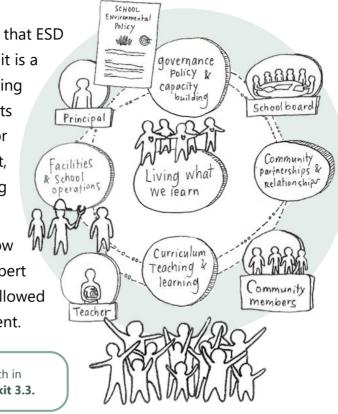
Watch this video about **NaDEET Centre** to learn more how the centre's facilities integrate sustainable solutions to energy, water, and waste.

WHOLE-INSTITUTION APPROACH

The **Whole Institution (or School) Approach** identifies that ESD does not just take place in the classroom alone. Rather, it is a *transformational change* to the entire school, connecting the classroom learning content and reinforces its relevance to the real world. It gives a framework for integrating the running of the school (management, building, policies, community) together with teaching and learning.

Some programmes provide a very structured plan on how to achieve the Whole School Approach. The ESD Expert Network proposes that it is not a structure to be followed alone, but rather as a basis for continuous self-assessment.





ESD APPROACHES & METHODS

Teaching methods that we may be familiar with include presentations, demonstrations and experiments, hands-on learning, project-based learning, field work and storytelling. These are examples of **how** we teach. Let us reflect on our own schooling or adult learning experiences. Is there anything that stands out that we enjoyed as a teaching method from the perspective of a learner that we can reflect on and integrate in our own teaching?



Listen to this TedTalk by Bandile Phiri, **Connecting Nature and Education**, as she advocates for the education model to be in connection with our natural world, learning from and about it.

It is important to use a variety of methods as **everyone learns differently**. Some people need to listen and watch while others need to read and write to understand and process information. Developing activities that incorporate these different approaches to learning is important for engaging our learners. Methods can generally be categorised, although many are overlapping. By using different methods in ESD we can improve the quality of teaching and learning and address the ESD challenges of the SDGs.



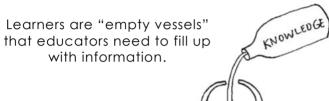
See the *Fundisa for Change* guide on *Methods and Processes to Support Change-Oriented Learning* to understand the terminology and for further explanation of different ESD methods.

TEACHING APPROACHES

Many of us have been taught in a teacher-centred way and keep teaching in this way as it is familiar to us. There are times when a teacher-centred approach is appropriate, however, we must not get "stuck" in this approach. The National Curriculum requires a **learner-centred** approach to teaching and learning. ESD too advocates for learners to be the focal point, not the teacher.

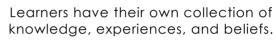
HOW DO WE VIEW OUR LEARNERS AND LEARNING?

OR



We learn by only using our head.

We learn in isolation.





We learn with our whole bodies: head, hand & heart!

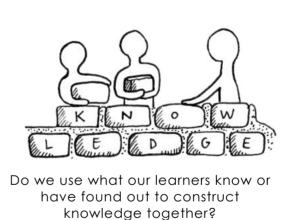
We learn and solve problems together.

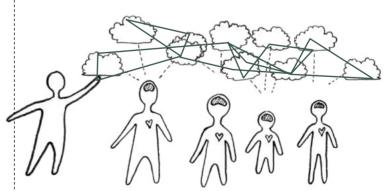
WHAT IS OUR ROLE AS A TEACHER?

OR



Are we doing most of the explaining?





Do we allow our learners to first share what they know? And then make the connections and fill in the gaps within their knowledge?

TEACHING METHODS

In the past, and still today, teacher-centred approaches to learning and methods such as direct instruction, dominate our classrooms. We can incorporate a **variety of teaching methods** into our classrooms to take responsibility for their learning and to connect it to their own lives.

For our purposes here, we can group different types of teaching methods into five broad groups:

INFORMATION TRANSFER



The learner **receives information about a topic from a direct source**, such as an educator explaining a topic (listening); an article (reading); a poster (seeing & reading); and/or a video (listening & seeing). This is a **one-way "flow" of information**: the learner receives the information without further reflection or reviewing.



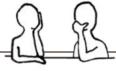
EXPERIENTIAL LEARNING

The learner is **physically doing an activity and/or experiencing something**, for example: physically sorting waste into different recycling bins, working in the school garden, or sitting outside observing and connecting with nature.

ASKING QUESTIONS & INVESTIGATIVE LEARNING



The learner **investigates a topic to answer certain questions** about the topic. Investigating can be done by collecting information such as through fieldwork, research, interviews and reading case studies.



THINKING & REFLECTION

The learner **reflects on information** / experiences / research / games and how this applies to the real world. Reflection can be done by learners alone (e.g. thinking or **writing**) or in a group setting (e.g. **discussions** or **debates**).

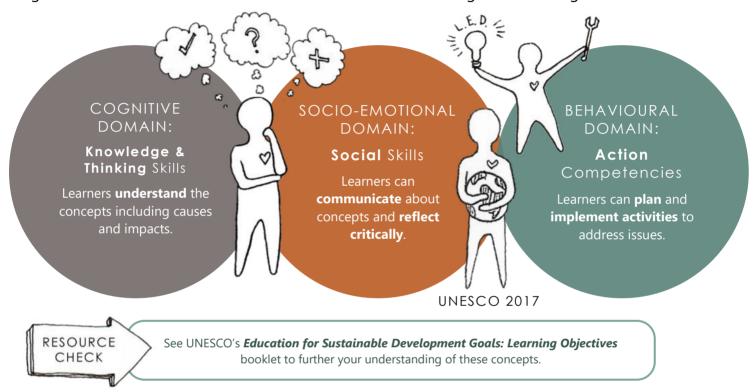
LEARNING THROUGH PLAY & CREATIVITY

The learner gains new information or reviews/assesses what they have learned through fun or creative activities. This can include singing/ drama/ artwork as well as environmental games such as a nature scavenger hunt or environmental quiz.

ESD ASSESSMENT

As we implement ESD in our schools, it is important to consider the topic of assessment. If we have begun the journey to re-orient our approaches to teaching, then we must also reflect on *what* and *how* we assess learning. By having a better understanding of evolving assessment approaches, we can ensure that ESD becomes mainstreamed in our schools and is not considered an add-on activity as we can provide **evidence of the outcome of ESD** activities.

To guide us with assessment of ESD we can consider the following three learning areas:



Our National Curriculum provides opportunities for us to assess the various aspects of ESD learning using class and homework assignments. These can include the more traditional tests and written or oral assignments but can also include many other approaches such as self or peer assessment and project-based assignments. ESD assessment is looking to find evidence that learners have acquired knowledge, developed attitudes and skills and the values and motivation to implement sustainability practices. This assessment should include the multi-dimensional nature of learning and not just foundational knowledge.

"Significant learning is when a learner has knowledge and can see connections and application, can see and care about the human dimension and the planet that is his or her home."

SUSTAINABILITY STARTS WITH TEACHERS



ASSESSING SUSTAINABILITY PERFORMANCE

Referring back to our understanding of ESD, our ultimate achievement is an improvement of the quality of life on Earth for all living beings. For this we can apply systems thinking as a vital skill to be able to look at sustainable development in its totality and its complex relationships and not just individual parts. How do we transition from our current state to the world that we envision?

Looking at this diagram of sustainability performances, there are three key areas that need to work together to be successful. On the one side, is the development of our **knowledge and skills** which include areas such as foundational learning and 21st-century skills. On the other side is the necessity for the **values and motivations** that propel us towards sustainable behaviours. These however are not enough, as we know from *critically reflecting* on our own (in)actions, we need to also be given and take **opportunity**. What can be meant by this? We can understand this to be the conditions/situations/context that enables action to take place. In our assessment practices of ESD, we can use this to guide us.

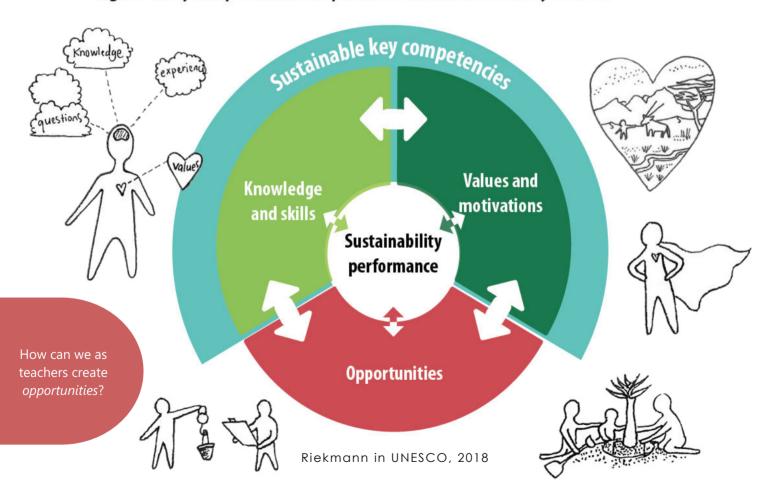


Figure 1: Key competencies and performance of sustainability citizens

We have explored (environmental) knowledge through **Toolkit 1 – Environmental Knowledge** and considered different aspects of ESD in **Toolkit 2 – Education for Sustainable Development**. Now, for learners - and teachers - to take action (sustainability performance) let us embark on **Toolkit 3 - Let's Get**

22

Practical to create opportunities!

RESOURCES FOR ESD CONCEPTS

Junior Primary



Senior Primary



Junior Secondary



Senior Secondary



Teacher







What is Education for Sustainable Development?

<u>ARTICLE and WEBSITE:</u> UNESCO's explanation of ESD, its objectives and the role it plays in sustainable development (including the SDGs). The website links to ESD articles and resources from UNESCO on ESD.

AUTHOR: UNESCO

Link: https://www.unesco.org/en/sustainable-developmen/education?hub=72522





Learning to change the world! What is ESD?

<u>VIDEO</u>: This short video explains ESD and the power it has to change the world. It also references how ESD fits into the SDGs and why education is such a crucial part of a sustainable future for all.

AUTHOR: UNESCO (2021)

Link: https://www.youtube.com/watch?v=YUFqamr78Xk





What is ESD?

<u>ARTICLE</u>: This article breaks down each component of ESD – "Sustainability", "Sustainable Development" and "Education for Sustainable Development," explaining how they fit together and why it is important.

AUTHOR: T. Hoffmann and H. Siege (2017)



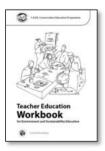


Guidebook on Education for Sustainable Development for Educators

GUIDEBOOK: This guidebook has been created as a tool for teacher training on how to stream sustainability into all aspects of education. It includes useful information concerning teaching, learning and assessment approaches to help achieve the ESD goals and learning outcomes.

AUTHOR: UNESCO (2018)

Link: https://unesdoc.unesco.org/ark:/48223/pf0000367474?posInSet=39&gueryId=55cb2ac4-0a2a-4421-9304-f1b1670d1a3e





Teacher Education Workbook for Environment and Sustainability Education

<u>BOOKLET:</u> This workbook gives a great background to ESD and provides lesson plans on how to incorporate environmental education into the South African CAPS curriculum.

AUTHOR: E. Rosenberg (2009)

Link: https://www.sanbi.org/wp-content/uploads/2018/03/conservation-ed-teacher-ed-workbook-environment-and-sustainability-education.pdf





Issues and Trends in Education for Sustainable Development

<u>BOOKLET:</u> This booklet reviews treads and challenges in education, and potential challenges to come. These will be important to understand when making sustainable education decisions for the future. Chapter 5 explores how ESD transforms learning and training environments.

AUTHOR: A. Leicht, J. Heiss and W.J. Byun (eds) (UNESCO) (2018) Link: https://ensi.org/global/downloads/Publications/433/Issues%20and%20trends%20in%20Education%20for%20Sustainable%20Development.pdf





Environmental Education, Ethics & Action: A Workbook to Get Started

<u>WORKBOOK</u>: To understand the role of ethics in the ESD field, this workbook provides explanations and a breakdown of what environmental ethics are, including how to bring them into your teaching.

AUTHOR: B. Jickling, H Lotz-Sisitka, R. O'Donoghue, A. Ogbuigwe (2006) Link: <a href="https://wedocs.unep.org/bitstream/handle/20.500.11822/7719/-Environmental%20Education%2C%20Ethics%20and%20Action %20A%20Workbook%20to%20Get%20Started-20063918.pdf?sequence=3&isAllowed=y





<u>BOOKLET & WEBSITE</u>: This is the primary Earth Charter document. It outlines the sixteen principles that are the result of a worldwide, collaborative dialogue addressing a sustainable future.

AUTHOR: Earth Charter International

Link: https://earthcharter.org/





What is a Global Citizen?

<u>VIDEO:</u> In this video people from around the world and with different backgrounds are asked what they think it means to be a global citizen. The varying answers give a broad overview of the concept, and the general attitude towards global citizenship.

AUTHOR: UNESCO (2015)

Link: https://www.youtube.com/watch?v=XVSqbU6WVSk





NaDEET Centre

<u>VIDEO</u>: Namibia's NaDEET Centre is explored as a groundbreaking education base for teaching on the environment and sustainable development, from a whole institutional approach.

AUTHOR: Nadeet

Link: https://www.youtube.com/watch?v=illJYLEP Xw





Connecting Nature and Education

<u>VIDEO</u>: In this video Bandile Phiri talks on how although humans come from and are nature, we are not adequately learning how to live - in connection with it. She suggests changing the education model to be more nature-centric, ultimately changing human advances to be more considerate of our living planet.

AUTHOR: TEDx (2016)

Link: https://www.youtube.com/watch?v=nVj3gizoWS8





Methods and Processes to Support Change-Oriented Learning

<u>BOOKLET:</u> This is a course guide from the South African Fundisa Programme, which outlines the various ESD teaching methods, which are classified into the five categories of: Information Transfer, Experiential, Investigative, Learning by doing, and Deliberative methods.

AUTHOR: E. Rosenberg, R O'Donoghue and L. Olvitt (2013)

Link: https://www.fundisaforchange.co.za/wp-content/uploads/2013/08/Methods-

Processes.pdf





Education for Sustainable Development Goals: Learning Objectives

<u>BOOKLET:</u> UNESCO recognises that ESD is fundamental to achieving the SDGs and as such, this publication is created as a guide that both identifies ESD's role in each of the SDGs and how it can be implemented (i.e. learning objectives including activities, course design and national strategies).

AUTHOR: UNESCO (2017)

Link: https://unesdoc.unesco.org/ark:/48223/pf0000247444





Sustainability Starts with Teachers: Assessment Guide (Learning Action 4)

<u>BOOKLET:</u> This booklet focusses specifically on the assessment of ESD. It identifies why the nature of assessment needs to be shifted from outdated traditional methods, suggesting alternatives that are in line with ESD principles.

AUTHOR: UNESCO (2019)

Link: https://sustainabilityteachers.org/wp-content/uploads/2020/05/Learning-Action-4-Sustainability-Starts-with-Teachers.pdf



is part of the TEACH FOR ESD TOOLKIT





Improving ESD Teaching & Learning Experiences in Namibia