

Climate Change Education Inside and Outside the Classroom



UNESCO Course



United Nations
Educational, Scientific and
Cultural Organization



Module 1

OUR 1ST FOCUS: CLIMATE CHANGE

- Climate is defined as the average weather over 30 years or more.
- Climate change refers to any significant change in the measures of climate lasting for an extended period of time. This includes major changes in temperature, precipitation or wind patterns, among others, that occur over several decades or more. (EPA, 2013)
- Climate change may also be defined as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC)

CLIMATE CHANGE FOCUS

- Climate change has been described as “the defining challenge of our times” (United Nations, 2010)
- In May 2013, scientists announced that, for the first time in human history, the concentration of carbon dioxide in Earth’s atmosphere reached **400 ppm** (parts per million). 200 years ago, that number was 280 ppm. A major cause of these unprecedented CO₂ levels is the burning of fossil fuels which releases CO₂ into the atmosphere.
- We will discuss the basic science of climate change on Day 2 of this course.

OUR 2ND FOCUS: ESD AS A RESPONSE TO CLIMATE CHANGE

- ESD = Education for Sustainable Development
- In 2005, the United Nations declared the Decade of Education for Sustainable Development (UNDESD) – 2005 – 2014.
- This course is modelled on the UNESCO Course for Secondary Teachers on Climate Change Education for Sustainable Development (UNESCO, 2012)
- We will discuss the background and objectives of ESD and climate change education in more detail later in today's programme.

This course aims to:

- Support you to take **local, contextualised action** to mitigate and adapt to climate change.
- Extend your **understanding of climate change** and its relevance to where you live and teach.
- Introduce you to the **Education for Sustainable Development (ESD) approach** in the context of climate change.
- Introduce you to the **MAST (measure, analyse, share and take action)** approach in the context of climate change.
- Support you to include **rigorous scientific knowledge** and **ethical reflection** when teaching about climate change.
- Provide you with knowledge, skills and resources to **integrate climate change education in your curriculum work**.

Course Orientation

As we work together on this course, we are guided by the following 4 principles:

■ 1. Contextual relevance

‘Context’ refers to the situation in which we find ourselves; it is the milieu or circumstances in which we live and work.

By making links between the new knowledge gained from the course, and your own context, your learning will be more relevant and applicable.

Course Orientation [Continued...]

■ 2. Knowledge-based learning

There are many different forms of knowledge (* scientific knowledge *contextualised knowledge * local knowledge *indigenous knowledge etc.) and it is important for us to consider the contributions that each can make to an effective response to climate change.

On this course, we will work a lot with **scientific knowledge** and bodies of information about climate change. You also contribute your own **prior knowledge** and local, **contextual knowledge**. This will broaden the knowledge-base of the course and help you and your learners make more informed decisions.



Course Orientation [Continued...]

■ 3. Action-oriented learning

The challenges posed by climate change require that we use our knowledge to take action (at a small, local scale, or nationally or globally according to what we are able to do).

It also means that as we take an active approach to teaching and learning on this course.



Course Orientation [Continued...]

■ 4. Curriculum-linked

As this course is for classroom teachers and teacher educators, it emphasises the links between climate change and the school curriculum.

Climate change is a cross-cutting concern and can therefore be addressed across the school curriculum.

Throughout the course, you are encouraged to think about how climate change and education for sustainable development can be integrated in the subject(s) that you teach.



Course Structure

- Module 1 (1½ days):

“Understanding climate change and ESD”

- Module 2 (1½ days):

“Using the Sandwatch approach to understand the past and prepare for the future at the local level”

- Module 3 (1 day):

“Designing climate change teaching elements based on ESD and Sandwatch”