



Workshop 2

Strengthening the educational response to climate change internationally?

Time: 31 March: 15.00 – 18.00 h (first part), 1 April: 11.00 – 13.00 h (second part)

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Rationale

Science has now shown that:

- human activities are perturbing the whole Earth-system at a wide-scale and with extreme speed, affecting the cycles of all major components of life: water, carbon, nitrogen etc. In particular, the massive CO₂ emissions from burning fossil-fuel and deforestation is driving global warming (and thus increases in sea level), ocean acidification, and a wealth of inter-dependent effects that we are unable to predict with reasonable certainty.
- the risks involved for humanity range from massive loss of biodiversity, huge costs to the economy, and tragedy for billions of people unable to adapt due to poverty, loss of land, scarcity of drinking water and other related afflictions.
- the only way to stop taking such dangerous risks is to decrease and progressively stop emitting greenhouse gases (GHG) into the atmosphere.

The dominant development model in the world, based on continued industrialisation and economic growth, is characterised by massive use of fossil fuel, intensive agriculture and deforestation - which coupled with demographic growth lead to large increases in GHG emissions. It is therefore completely impossible to stop or drastically reduce our emissions from one day to the next. So the key question for society is: how to change this unsustainable civilization into a sustainable one without jeopardizing it, and at what pace? How can we progressively stop using fossil fuels, stop deforestation, stabilize population growth, and at the same time, ensure that basic living conditions are satisfied for all?

The changes required are not just minor adjustments to mainstream pathways nor reverting to a “stone-age society”, but rather a change of paradigm and culture **toward global citizenship**. A complete re-thinking of our production and consumption patterns, and lifestyles. A new society which addresses the issues of global justice and global commons (such as our shared atmosphere and water) which go well beyond the traditional boundaries of national interest and current environmental policies. The challenge is clear:

1. Ultimately, a sustainable world means a zero-emissions world, where use of non-renewable natural resources (e.g. coal and oil) has been replaced by use of renewable resources and all waste is recycled.
2. Several countries, including the EU, currently promote in international climate negotiations the goal of staying “below the 2-degree limit” – a level proposed as the threshold under which we could avoid “dangerous climate change”. Model projections indicate that this level can be obtained only by a reduction of the world’s greenhouse gas emissions to half of their 1990 levels by 2050. To achieve this, with a world population potentially reaching 9 billion by 2050, we will need to reduce emissions to about 2 tons of CO₂-equivalent per capita, which means **cutting them by a factor of 5 to 10 in the developed world**.

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3. In 2008, 20 years after the creation of the IPCC and 16 years after the United Nations gave a mandate to “achieve stabilisation of GHG concentrations”, humanity has not yet started to reduce its emissions. Instead, emissions are still growing exponentially. This discouraging situation is primarily due to strong growth in the developing world (particularly in nations experiencing rapid industrialisation, like China) and because industrialised countries, despite their previous commitments and initial efforts, are still continuing to increase their emissions (notably in the transport sector).
4. In 2007, the IPCC predicted that: in **Africa** by 2020, between 75 million and 250 million people are projected to be exposed to increased water stress. Agricultural production in many countries, including access to food, is projected to be severely compromised by climate variability and change. In **Asia** by 2050, decreasing freshwater availability in most areas could put more than a billion people at risk. Increased deaths and illness are expected from cholera and from diarrhoeal diseases, associated with increased flooding and drought that result from higher sea temperatures. In **Small Island Developing States**, rising sea levels and increased storm surges will threaten the homes and livelihoods of communities, and will force displacement and permanent migration.

The emission trends will most likely not go down before international agreements lead to ambitious policies combining incentives (taxes) and constraints (laws) on a global scale. But while governments are struggling with negotiations and policy, individuals can act immediately, and schools and community groups are undoubtedly one of the most critical link to families and young people. **It is the empowerment of the individuals that will drive the necessary behavioural change and enable higher level institutions to move forward with policies, strategies and incentives for industry and society to transform.**

Climate change education – from transmissive to transformative

The world’s population is young, with some 2.2 billion people under the age of 18. All over the world, these children and young people, representing nearly one-third of the global population, are concerned with the increasing threat posed by rising global carbon emissions and the changing climate. Many are already experiencing the impacts of the changing global environment in their communities. Despite all of this, to date children and young people have been relatively absent in climate change policies and plans which are being developed by many countries and regions in response to existing and emerging international agreements and protocols which support these initiatives.

Based on the premise that what children learn today will shape the world tomorrow, instilling environmental awareness at a young age is the best way, ultimately, to protect the environment. Adaptation and mitigation programmes that improve the availability and quality of environmental education are key interventions for long-term change. However, increasing environmental awareness is not enough. For children and youth to become effective agents of change, avenues must exist for their knowledge to be translated into advocacy and action.

In that respect climate change education needs to be transformative – in the sense developed in the UNESCO’s Policy Dialogue paper “ESD and CC” – and for this needs to integrate three pillars:

1. contents and knowledge: understanding the facts, the scale of the challenge, the potential consequences, the solutions available and the governance strategies that can lead towards sustainable development pathways. This relates in particular to interdisciplinary science education, where a key challenge is to make science learning more exciting, more concrete, more experimental, more connected to real-life problems.
2. values and representations: forging global citizenship and the feeling of belonging to one same planet and one same humanity. Understanding that it is not only nature and the planet which are



in danger, but the life conditions for a peaceful cohabitation of billions of humans.

3. behaviour change and citizenship competences: developing the capacity to take action for changing the course in society, both locally and globally.

The last two pillars are particularly challenging for schools who are traditionally (with variations depending on countries) less prepared to work on values, behaviours and competences than on transmitting knowledge and facts. However, such values and behaviours are often developed and encouraged in community and youth group settings. The workshop should identify strategies for strengthening the capacity of school systems in these domains and the possible links with non formal education mechanisms.

Ultimately, the key question for climate change education is the same one as for ESD at large: **in a society still broadly dominated by a non-sustainable culture, how can schools contribute to promoting safe, healthy and sustainable lifestyles?**

The workshop shall bring new creative and daring ideas for changing the scale of action for ESD in daily classroom practice, from marginal to mainstream, from sectorised to integrated, towards a deep transformation of education systems to train future citizen equipped with the understanding, values and skills to achieve sustainability. In that respect the outcomes of workshop will constitute a direct input to the Kyoto-2 negotiation roadmap, in full line with the statement expressed by the Education Caucus of the United Nations Commission on Sustainable Development (CSD) at the recent COP14 meeting in Poznan:

»INVESTING IN A WELL-PREPARED SOCIETY: ENVIRONMENTAL EDUCATION, IS THE CRUCIAL BUILDING BLOCK IN KYOTO 2

It is clear in the Bali roadmap that much attention has been given to the four building blocks – adaptation, mitigation, finance, technology – as the basis of the policy framework for the second set of Kyoto commitments. However, given the complexities of the current global challenges, mitigating climate change can

exacerbate or worsen biodiversity loss, water shortages, food security, and poverty reduction. As we look to Copenhagen, the fifth building block is missing. It is time to ask, »What are Stakeholders, Governments and Civil Society Organisations doing about Environmental Education and Sustainability?«

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