

Climate Change & Disaster Risk Reduction

15:00-17:00, 23 November 2016

Moderator: Philip Vaughter (UNU-IAS)

Co-Facilitator: Betsan Martin (RCE Waikato) and Irina Safitri Zen (RCE Iskandar)

Objective

Contemporary education on climate change and disaster risk reduction (DRR) must shift from a knowledge banking system to one of action competence in developing curriculums and learning outcomes related to climate change. Learning environments must be transformed so that this action competence can be practiced and mastered, all the while minimizing contradictions between curriculum and operational policy. Also, adult and senior learners must be targeted for comprehensive action competence education relating to climate change and disaster risk reduction if there is to be any momentum on climate action in the coming decades.

The Climate Change and DRR working groups of the RCEs will begin to map synergies across the RCE network in relation to climate change education as it relates to climate change mitigation. The hope is that successful projects and good practices can be disseminated throughout the RCE network to scale up action competence in climate change education.

Discussion Issues

Presenters and discussants were invited to address how the RCE community can best engage with climate change through a number of initiatives including:

1. Successful examples of curriculum development on climate change within formal school systems, developed by educators and disseminated into local schools (UNFCCC- ACE; Sendai Framework)
2. Education initiatives developed by sub-national governments to promote public information on climate change mitigation strategies that can be promoted through the RCE network (Climate Chance)
3. Linking RCE actions to their nation's Nationally Determined Contributions (NDPs) as outlined in the Paris Climate Treaty
4. Coordination and communication within the climate change/DRR working group

Agenda

Introduction by moderator(s)

Presentation on UNFCCC initiatives related to climate change education & review of Paris Climate Treaty – connections to ESD

Presentation on non-state actors' education initiatives related to climate change education

(Climate Chance)

Presentation on ESD and low carbon cities and living labs – RCE Iskandar

Presentation on Disaster Risk Reduction Education – RCE Srinagar

Coordination and communication within working group

Open discussion

Wrap-up by moderator

Overview of Paris Agreement

- The backbone of the Paris Agreement is the implementation of Nationally Determined Contributions (NDCs) to emission reductions. NDCs must be:
 - Ambitious
 - Represent a progression over time
 - Be reported every five years
- However:
 - NDCs are set by each individual country
 - Contributions are not binding
 - Agreement provides no consequences if countries do not meet commitments

Even with a lot of the commitments to date, we are likely to see temperatures raised by three degrees, not the 1.5 desired under the agreement

US States with climate change policies with specific GHG emission reduction targets

- Over 50% of US population and majority of its emissions occur in states that have climate change policy mandating reduction targets
- Energy efficiency is improving in US, however, transport emissions remain large weakness across the board
- The majority of US states have state level reporting mandates in addition to any federal reporting requirements
- Redundant auditing culture of US is useful for getting accurate data
- Elephant in the room will be overseas activities if US federal government does not continue monitoring; However, China & EU may impose carbon tax on US goods

Education and the UNFCCC

- To understand climate change and also to understand what needs to be done to address it, a sharp and sustained focus on education, training and public awareness in all countries and at all levels of government, society and enterprise is required
- To achieve this, governments party to the UNFCCC are working with both the private sector and civil society stakeholders in six priority action areas: education, training, public access to information, public awareness, public participation, and international cooperation
- This objective is anchored in Article 6 of the UNFCCC, which has been renamed Action for Climate Empowerment (ACE)

UNESCO and climate change education

- Recently, the UNFCCC dedicated the day of November 14th to the critical role of education in responding to climate change
- During a high level panel discussion that day, UNESCO launched **Action for Climate Empowerment**, a website with new guidelines for policymakers seeking to use education, training, and public awareness to combat climate change
 - <https://engage4climate.org/ace-action-for-climate-empowerment/>
- UNESCO also took the opportunity to launch its' new publication – **PLANET: Education for environmental sustainability and green growth**, which showcases how education can shift people's behavior towards more sustainable ways of living.
 - <http://unesdoc.unesco.org/images/0024/002464/246429E.pdf>

** Need to share this information with RCEs, though focus is clearly on school curriculum and young people – how to fill gaps for older learners?*

Betsan Martin shared impressions from Climate Chance in France:

- When states negotiate, they tend to do so with less regard to the disenfranchised within their own borders and maintain the status quo rather than seeking transformation
- Furthermore, different regions will be disproportionately impacted by climate change due to geographic features outside of social or economic influences
- Climate treaties ask states to engage by vying for their own self-interest, and therefore, they do not negotiate for the common interest of the planet. Non-state actors may face the same challenge, however, forming alliances among non-state actors seems to present a way to balance the power of states and link communities engaged in climate action
- City/sub-national approaches highlight the importance of local context in fighting climate change – this is not a one size fits all solution, and so actions will need to be context dependent, more often locally than nationally.
- The idea of the city as a classroom or a 'living lab' was also proposed by RCE Skaneateles and RCE Iskandar at the conference
- The most well-educated are often the most ecologically illiterate – does academia and education have a responsibility to un-learn unsustainable behaviour?

Irina Safitri Zen shared RCE Iskandar's Living Lab approach to climate change education:

- Emerging in late 1990s, the development of Living Labs has been used to test new technologies in a designed home-like constructed environment
- A TEST BED.
- Used as a mechanism to innovate technology and organizations for practical purposes (Veeckman, Schuurman, Leminen, & Westerlund, 2013, Almirall, Lee, & Wareham, 2012, Schliwa, 2013).
- *"Physical regions or virtual realities where stakeholders form public-private-people partnerships (4Ps) of firms, public agencies, universities, institutes and users, all*

*collaborating for creation, prototyping, validating and testing of new technologies, services, products and systems in **real-life contexts***" (Westerlund and Leminen 2011).

- This definition has broadened the living lab as a potential platform for **partnership** with other stakeholder in creating and developing the product, **transforming** the organization and creating **open innovative environment**.

LINKING - Government and Academia *Low Carbon Cities Framework (LCCF) 2012 – 2014*

- As Strategic Partner to develop a model of Low Carbon Campus Model (Living Lab Approach)
- Research & operation data (OAD UTM).
- Using LCCF & Assessment System (indirect approach).
- Using remote sensing approach (direct approach)
- Consist of 4 elements; environment, building, transport and infrastructures.
- Classification of Low Carbon Cities

Sustainable & Low Carbon School Exhibition

- This exhibition is organised by UTM in collaboration with JPNJ to give recognition to schools that have put in many efforts to promote climate change and education for sustainable development (ESD) especially LCS. In this exhibition, schools presented their green efforts and they are judged and awarded based on their activities and projects related to ESD.
- During the exhibition, talks and workshops were organised for school students and public to learn about SD and LCS which involved speakers from the governmental agencies, NGO and academia. More than 500 participants visited the exhibition.

Low Carbon Village Felda Taib Andak

- The Low carbon community programme incorporates the *Low Carbon Lifestyle* in a village community such as practice of *energy saving*, *3-Rs (reduce, reuse and recycle)*, *creation of green products* and others as a form of low carbon mitigation measures. This low carbon community is one of the strategies to guide the local communities at FELDA Taib Andak on journey to low carbon lifestyle living.
- The LCS Low Carbon Eco-Village programme was initiated by UTM, IRDA and the Japanese partners of the SATREPS project in 2012 and several programmes that was carried out included composting, 3R awareness and competition, planting of bamboo trees, provisional of pedestrian path and cycling activity. The LCS team with the local communities revisited the low carbon Eco-village programme in December 2014 whereby the communities of FELDA Taib Andak agreed to carry out new activities that are in line with the focus on economic inclusions in all the LCS programme. The economic inclusion is crucial in order to sustain the green community for FELDA Taib Andak.

Abdhesh Gangwar from RCE Srinagar shared an approach for climate change and disaster risk reduction in education

- Organized four capacity building workshops for media members on how to communicate about climate change and development in the Indian Himalayan Region
- Created a “Science Express” mobile multimedia exhibition on climate action in the Indian Himalayan Region
- Worked to equip educators with knowledge for working on climate change and disaster risk reduction.

Closing thoughts from breakout sessions:

- It would be good to create a library of climate change curriculum that can be shared – too much time is spent re-inventing pedagogies that already exist in some form or another
- If cities and sub-national governments are the actors that are really moving on climate change, RCEs should engage with these as entry points into the education system where possible
- Need to “reach out, ramp up, and rehearse” actions, otherwise knowledge alone will not be enough to prevent climate change in the long term
- There is a big difference between climate change and disaster risk reduction in education – while sometimes they intersect, combining the two can create confusion within the community
- It is critical to engage youth in climate action education
- However, we need to keep in mind that the bulk of emissions are still coming from adults and elders – lifelong learning is needed to address this now and in the future

Key Discussion Points

- 1) Climate Change is a common responsibility for all of humanity, but will have a disproportionate impact on poor and marginalized communities.
 - When states negotiate, they tend to do so with less regard to the disenfranchised within their own borders and maintain the status quo rather than seeking transformation.
 - Furthermore, different regions will be disproportionately impacted by climate change due to geographic features outside of social or economic influences.
- 2) Non-State Actors are emerging as some of the most important actors in implementing action:
 - Climate treaties ask states to engage by vying for their own self-interest, and therefore, they do not negotiate for the common interest of the planet. Non-state actors may face the same challenge, however, forming alliances among non-state actors seems to present a way to balance the power of states and link communities engaged in climate action

- City/sub-national approaches highlight the importance of local context in fighting climate change – this is not a one size fits all solution, and so actions will need to be context dependent, more often locally than nationally.
 - The idea of the city as a classroom or a ‘living lab’ was also proposed by RCE Skane and RCE Iskandar
- 3) The idea that rights have a property focus needs to be re-examined both in terms of climate change and disaster risk reduction. The idea of rights should be maybe more focused on the concept of responsibilities as a citizen.
- The most well-educated are often the most ecologically illiterate – does academia and education have a responsibility to un-learn unsustainable behaviour?

Action Points

- 1) Because there is so much focus on cities as actors in climate change mitigation, the RCE community should develop a **policy brief** with UNU-IAS about how cities can use ESD to educate and inform on actions to mitigate climate change.
- 2) Need a more **centralized database** of climate change and disaster risk reduction curriculum and resources. UNESCO and UNFCCC provide good starting places, but too much of these sites are devoted to primary education and case studies with little application in other contexts.
- 3) Most vulnerable group globally are youth and future generations: need to find a platform to **link RCE youth** to enable capacity development to reach out, ramp up, and rehearse action competency in climate change and disaster risk reduction education.