



Using Climate Education - Carbon Literacy Training (CLT) - to address Global Sustainability Challenges

Dr. Alex Mifsud

Lecturer in Education for Sustainable Development (ESD)

Carbon Literacy Trainer

Carbon Literacy Project

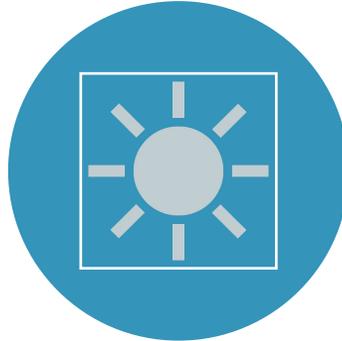


March 2023

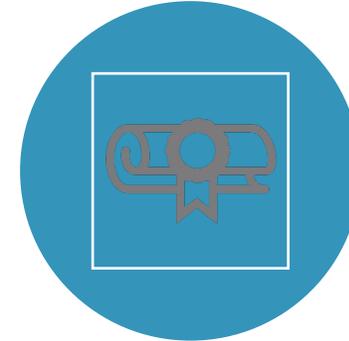
What is Carbon Literacy?



*“AN AWARENESS OF THE **CARBON DIOXIDE COSTS AND IMPACTS OF EVERYDAY ACTIVITIES AND THE ABILITY AND MOTIVATION TO **REDUCE EMISSIONS** ON AN INDIVIDUAL, COMMUNITY AND ORGANISATIONAL BASIS”.***



THE FOCUS OF THIS COURSE IS TO **EMPOWER YOU** TO CHOOSE YOUR OWN CLIMATE SOLUTIONS.



THE STANDARD REQUIRES **ONE DAY** OF TRAINING TO GET A CERTIFICATE.

NTU's Carbon Literacy Training for staff and students at universities: A Systems Approach

Part 1: The Problem

- Possible Future Scenarios
- Climate Justice
- The Science Behind It

Part 2: The Solutions

- Multiple Benefits
- Individual Strategies
- Group Strategies

Course Elements



4

Synchronous Sessions



2

Hours Per Session



1

Session Per Week



Adaptable Zoom & Teams



Trainer Manual

Total of Eight Hours Training

Pedagogical Approaches

The CLT Course design uses:

- Education for Sustainable Development (ESD) approaches to enable it to be embedded into a number of areas across the curriculum thus helping academic staff to integrate sustainability into scholarship and teaching practice; and supporting students to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future.
- a systems thinking approach to action planning by exploring the multiple benefits of climate action for all sectors of society and for all communities around the world.

NTU's Carbon Literacy Training wins global sustainability award



Poll

Please respond to these questions by participating in the polls.

How well do you understand climate change?

Would you be able to define 'carbon sink'?

Do you believe you/your team can benefit from becoming Carbon Literate?

How motivated are you to embed Carbon Literacy in your teaching and research?

Very Little 

Very Much

slido

How well do you understand climate change?

 Start presenting to display the poll results on this slide.

slido

Would you be able to define 'carbon sink'?

 Start presenting to display the poll results on this slide.

slido

Do you believe you/your team can benefit from becoming
Carbon Literate?

 Start presenting to display the poll results on this slide.

slido

How motivated are you to embed Carbon Literacy in your teaching and research?

 Start presenting to display the poll results on this slide.

What learners say about the course

“I really enjoyed the training and got a huge amount out of it. It is one of the best courses that I have ever sat, and I am really looking forward to learning more.”

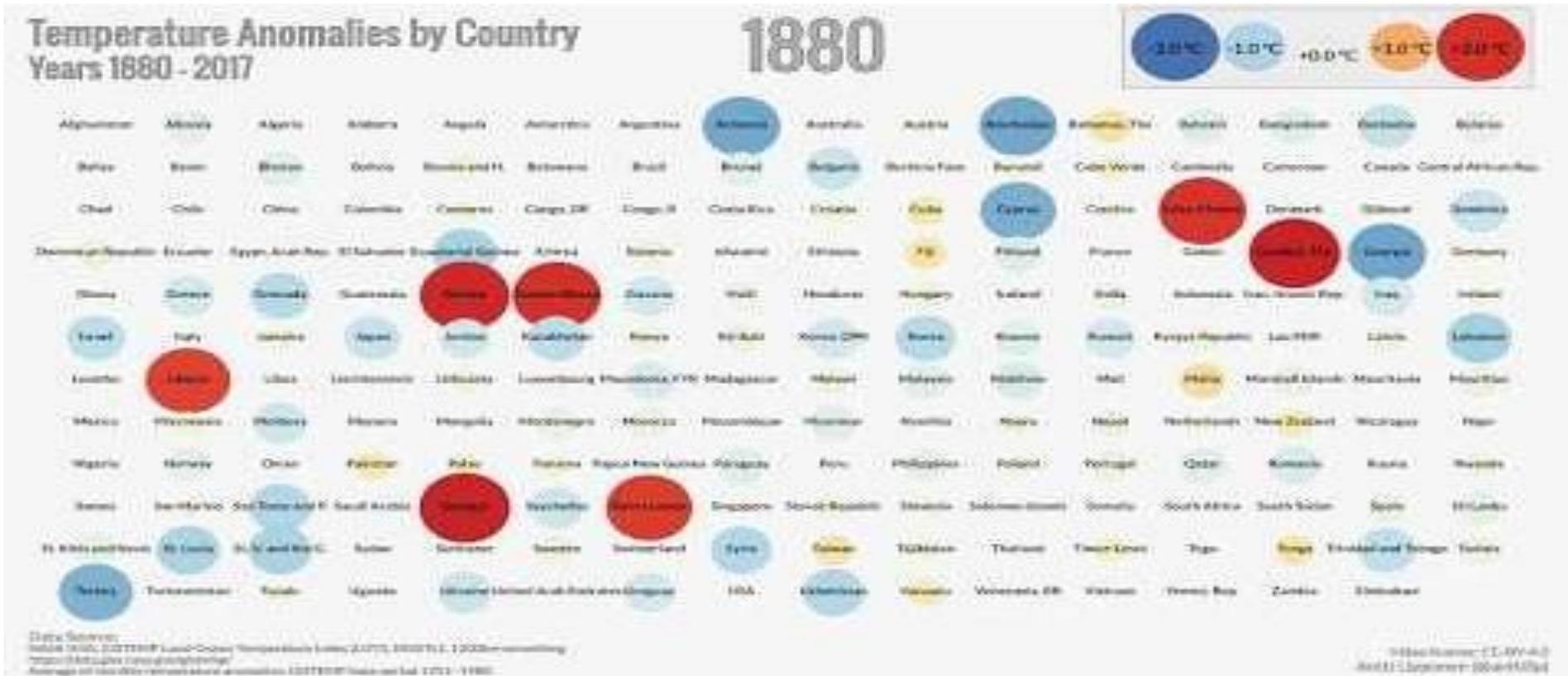
Andrew O'Loughlin, Professor of Management, Federation Business School, Federation University, Australia

What learners say about the course

“Although I’m not a total newbie to sustainability and climate change: The Carbon Literacy Training was a real eye-opener to me. Dr. Alex Mifsud did a tremendous job in making the consequences for global warming tangible when it comes to the way we live, how companies do business, and how politics is done. Getting a clearer picture of which measures have a strong and positive effect on the reduction of Green House Gases is key to understand what we as individuals can do. It is also super important to understand what society as a whole can do to keep global warming to below the well-known Paris-goal of 1.5°C compared to pre-industrial levels.”

Prof. Dr. Oliver Plum, Professor of Strategy & Innovation at CBS International Business School

Temperatures are increasing



UN Sustainable Development Goals



Climate solutions often have multiple other positive effects and solve multiple problems

Multisolving (v):
Changing lives for the better
while protecting the climate

Health. Social justice. Resilience. Economics.
Connection to people and the planet.



Multiple Impacts of Climate Solutions

London Transport Scenarios

More efficient engines and fuel switching. 

Some car travel replaced with walking and cycling. 

Reduction in transport CO₂ emissions:

35%

38%

Reduction in premature deaths per million people:



17



530

Lancet 2009; 374: 1930-43

CLIMATE INTERACTIVE

Case studies: Japan

Green Curtains



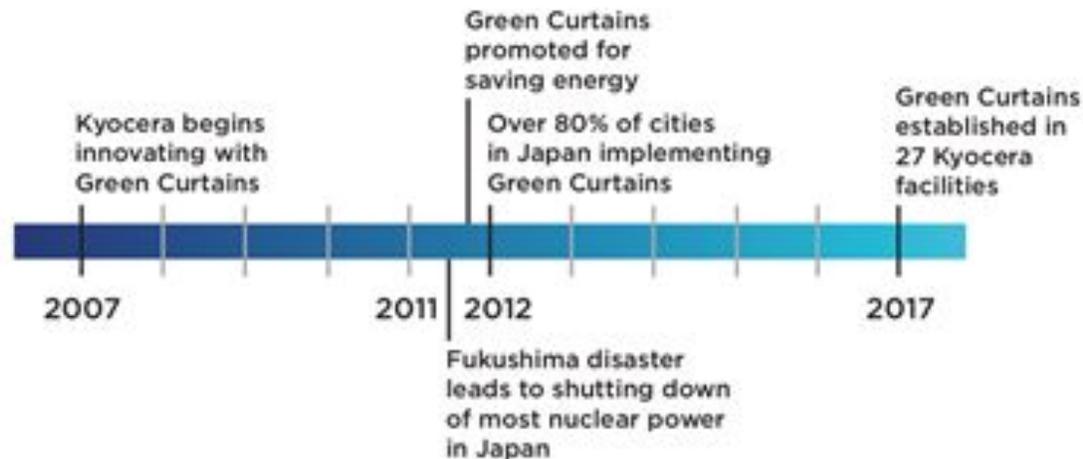
Regulates indoor air temperatures, reduces energy use, promotes healthy diets, and reduces pollution by growing decorative and edible climbing plants on the exterior walls of buildings.

• Goals

- Reduce energy consumption
- Promote healthy diets
- Reduce CO₂ emissions

• Collaborators

- Kyocera, Japanese government, environmental NGOs, schools, restaurants, residents



Designing your Action Plan: Learning Outcome

Learning Outcome:

- You will learn how to use systems thinking to design climate solutions that also solve multiple problems.
- You will learn how to effectively communicate your action plan to others.

Resources:

- Using the Flower framework Video
<https://www.youtube.com/watch?v=byxgfQT8d0I&feature=youtu.be>
- The Flower
<https://www.climateinteractive.org/ci-topics/multisolving/flower/>
- Your Action Plan Document
- 6 Sets of Problem Cards



Climate solutions: Project Drawdown

- Please take the quiz and make a note of the solutions which are new for you.
- <https://edition.cnn.com/interactive/2019/04/specials/climate-change-solutions-quiz/>
- After going through the set of 8 questions, identify one 'right now' solution that:
 - you can take; and
 - your organization can take.

+

○

**With many
thanks for
the
support
from the...**

●

- NTU Green Academy
 - Professor Petra Molthan-Hill - Professor of Sustainable Management and Education for Sustainable Development
 - Dr Alex Mifsud – Education for Sustainable Development
 - V. Odell - Education for Sustainable Development Coordinator
 - K. Butt-Bethlendy - Education for Sustainable Development Coordinator
- Dan Jackson – Writer/Producer
- Students at Oikos International
- And to everyone that has helped in the creation of these materials.



Thank you

Alex Mifsud

To request a free copy of NTU's Carbon Literacy Training Toolkit, please send an email to: education@carbonliteracy.com