# Climate Change Literacy to Combat Climate Change and Its Impacts

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# Definition of Climate Change Literacy

- competence in the area of climate change, its impacts, and its solutions
- the knowledge, skills/ability, and habits of mind and heart to "take urgent action to combat climate change and its impacts" (United Nations Sustainable Development Goal 13)
- understanding why it is important, who must be involved, what it includes, where and when it takes place, how to deal with challenges that arise, and what the end result, a climate change-literate citizen, will look like

### Who Is It For?

- Individuals, institutions, and society generally
- "Do we need climate literacy for all? If we look at the timescale, in the short term it is not a realistic objective to achieve. But, in the long term at least, basic climate literacy for all is crucial" (Miléř and Sládek 2011, p. 152)
- Three populations must be climate change literate in the short term if society-wide literacy is to follow. "If the society had climate literate leaders, journalists and teachers, the public would receive relevant information from them" (Op. cit., p. 153).
- Those whose jobs must transition to zero carbon

### What Does It Include?

- 1. knowledge of climate system science
- 2. understanding of the impacts and threats of climate change
- 3. motivation to make informed decisions to implement mitigative and adaptive solutions to the climate crisis

In short, what causes climate change, what climate change causes, and what can be done about it — from a systems-thinking perspective

# Where/When Does It Happen?

- formal education (K-12, post-secondary degree programs, technical and vocational training)
- nonformal education (non-credit courses, workshops, seminars, MOOCs)
- informal education (learning in the context of work, family, leisure; museums, libraries, zoos, outdoor recreation venues; citizen science; media)
- self-directed, face-to-face, or distance/online learning

## Challenges?

- Is denial the opposite of climate change literacy? (No, the issue is identification with cultural values.)
- Some of the terms and metaphors we use are inaccurate or misleading (e.g., global warming ⓒ versus global climate disruption ☺).
- Misconceptions or faulty prior knowledge (e.g., Earth's climate has changed in the past, so our current lifestyle can't be the cause)
- Gaps in knowledge (e.g., awareness of thermal expansion as a cause of sea level rise)
- Scientific illiteracy (e.g., lack of understanding of weight of evidence, shifting baselines, the carbon cycle/s)
- Leaders, educators, and journalists can be climate change illiterate
- Cognitive dissonance (when people learn the urgency but don't see urgent action taken by leaders)

## What is a Climate-Change-Literate Citizen?

#### Someone who:

- understands how our climate works
- knows how to distinguish fact from fiction
- talks about climate in a meaningful way
- makes informed and responsible decisions

(Climate Literacy, 2016, an e-learning program in Europe)

#### References

- Climate Literacy (2016) <a href="https://climate-literacy.eu/en/project">https://climate-literacy.eu/en/project</a>
- Miléř T, Sládek P (2011) The climate literacy challenge. Procedia Soc Behav Sci 12:150-156. <a href="https://doi.org/10.1016/j.sbspro.2011.02.021">doi.org/10.1016/j.sbspro.2011.02.021</a>
- See also my entry, Climate Change Literacy to Combat Climate Change and Its Impacts (2019), in Encyclopedia of the UN Sustainable Development Goals (Climate Action), Walter Leal Filho, Anabela Marisa Azul, Luciana Brandli, Pinar Gökcin Özuyar, and Tony Wall (Eds.). Springer Nature, Switzerland | 10.1007/978-3-319-71063-1\_31-1