United Nations Educational, Scientific and Cultural Organization

UNESCO Chair in Social Learning and Sustainable Development

Education, Learning and Capacity-Building in Times of Climate Change: towards and integrated strategy

By Arjen Wals

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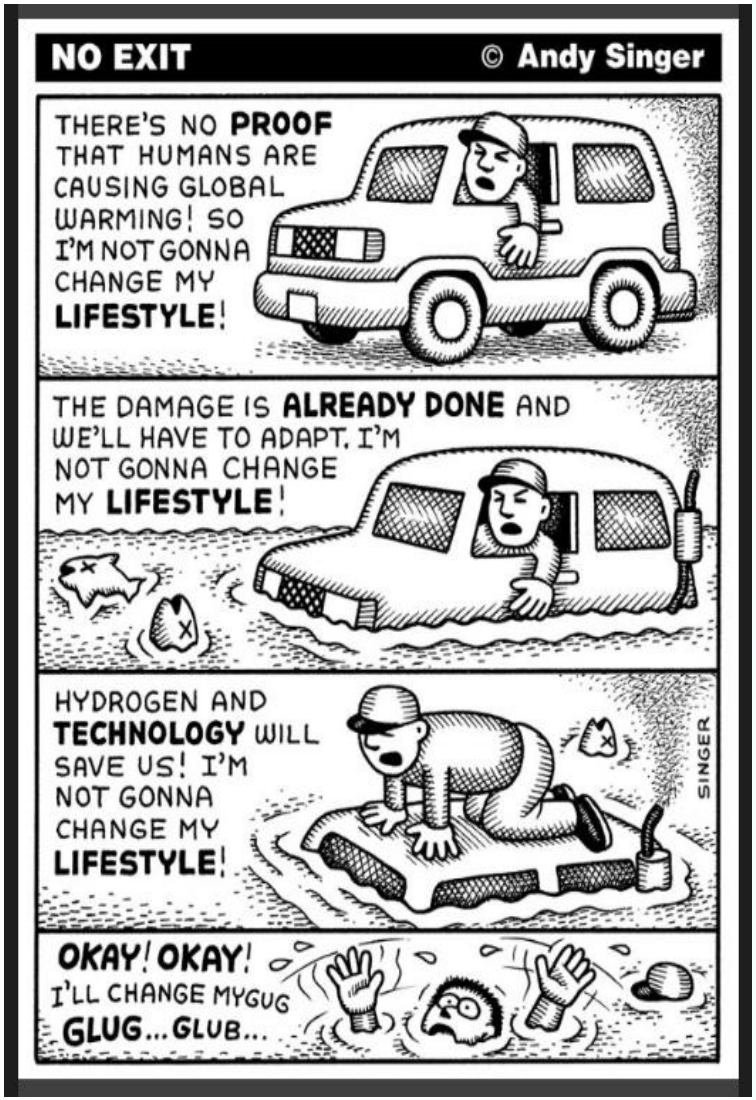

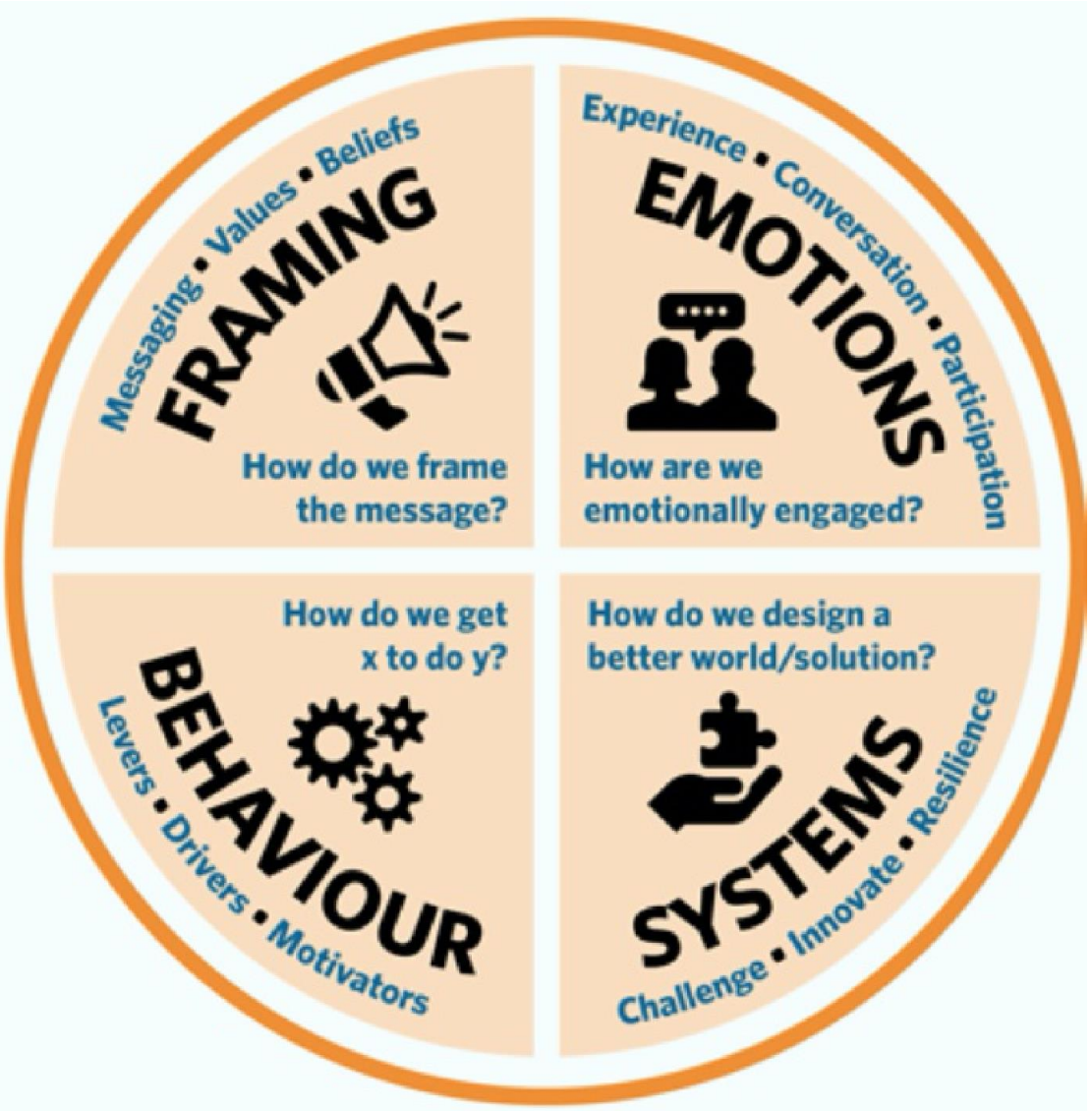

Source: www.climateaccess.org,
Rosemary Randall: Carbon Conversations

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THE SPECTATOR
11 July 2009 www.spectator.co.uk £2.95
RELAX: GLOBAL WARMING IS ALL A MYTH


MOST USED
Climate Myths
and what the science really says...
1 Climate's changed before
2 It's the sun
3 It's not bad
4 There is no consensus
5 It's cooling
6 Models are unreliable
7 Temp record is unreliable
8 Animals and plants can adapt
9 It hasn't warmed since 1998
10 Antarctica is gaining ice
View All Arguments...

Source: www.eavi.eu

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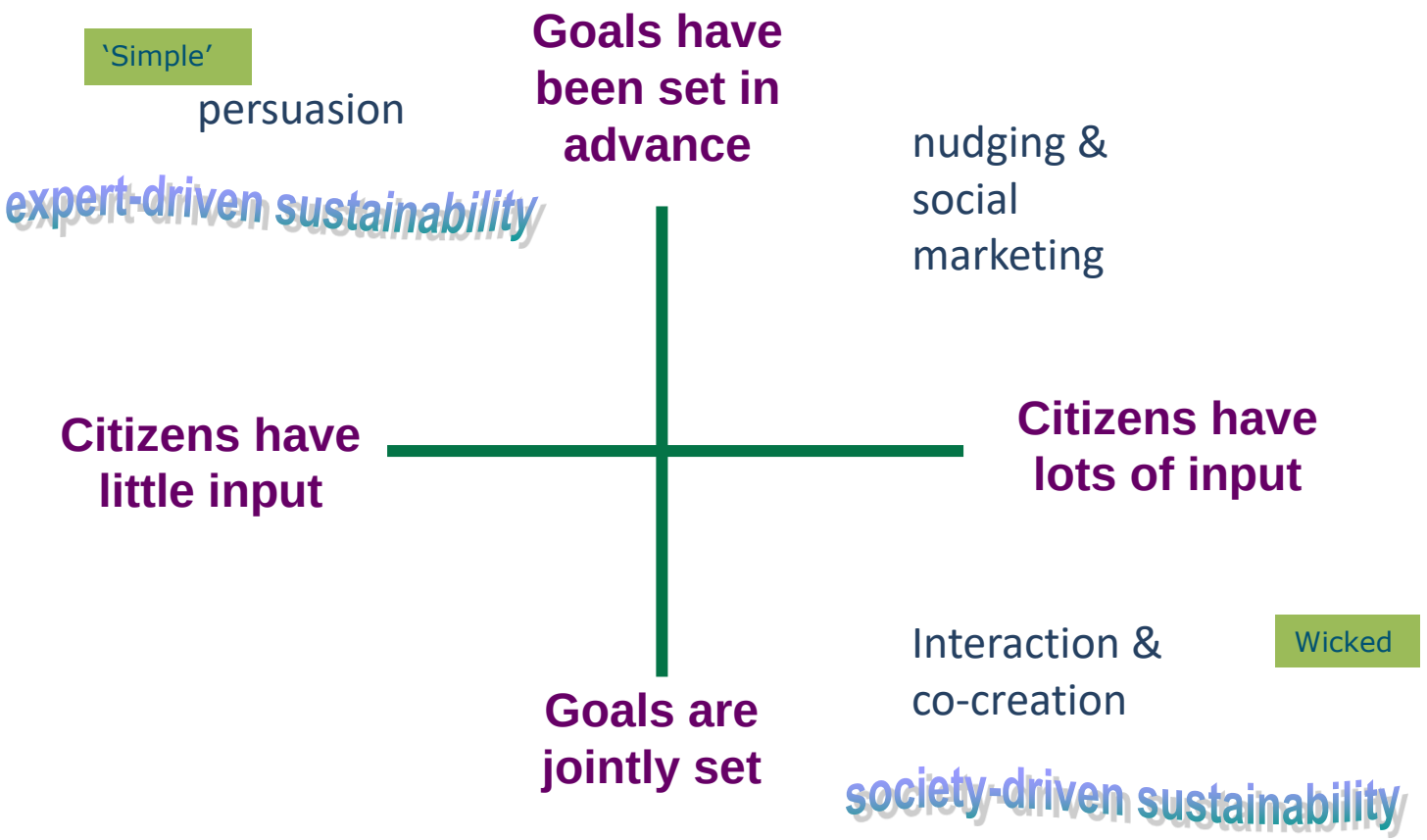
Mix of strategies to change and engage citizens

- Co-creative



Based on Wals & Jickling, 2002;
Jickling & Wals, 2008

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Educating for Climate Action (goals)

Table 1.2.13. Learning objectives for SDG 13 "Climate Action"

Cognitive learning objectives	1. The learner understands the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases. 2. The learner understands the current climate change as an anthropogenic phenomenon resulting from increased greenhouse gas emissions. 3. The learner knows which human activities – on a global, national, local and individual level – contribute most to climate change. 4. The learner knows about the main ecological, social, cultural and economic consequences of climate change locally, nationally and globally and understands how these can themselves become catalysing, reinforcing factors for climate change. 5. The learner knows about prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.

Source: Source: UNESCO, 2016

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Educating for Climate Action (goals)

Socio-emotional learning objectives

1. The learner is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.
2. The learner is able to encourage others to protect the climate.
3. The learner is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change.
4. The learner is able to understand their personal impact on the world's climate, from a local to a global perspective.
5. The learner is able to recognize that the protection of the global climate is an essential task for everyone and that we need to completely re-evaluate our worldview and everyday behaviours in light of this.

Source: Source: UNESCO, 2016

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Educating for Climate Action (goals)

Behavioural learning objectives

1. The learner is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.
2. The learner is able to act in favour of people threatened by climate change.
3. The learner is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.
4. The learner is able to promote climate-protecting public policies.
5. The learner is able to support climate-friendly economic activities.

Source: Source: UNESCO, 2016

Educating for Climate Action (goals)

Box 1.2.13a. Suggested topics for SDG 13 "Climate Action"

Greenhouse gases and their emission

Energy, agriculture and industry-related greenhouse gas emissions

Climate change-related hazards leading to disasters like drought, weather extremes, etc. and their unequal social and economic impact within households, communities and countries and between countries

Sea-level rise and its consequences for countries (e.g. small island states)

Migration and flight related to climate change

Prevention, mitigation and adaptation strategies and their connections with disaster response and disaster risk reduction

Local, national and global institutions addressing issues of climate change

Local, national and global policy strategies to protect the climate

Future scenarios (including alternative explanations for the global temperature rise)

Source: Source: UNESCO, 2016

Citizen Science can help...

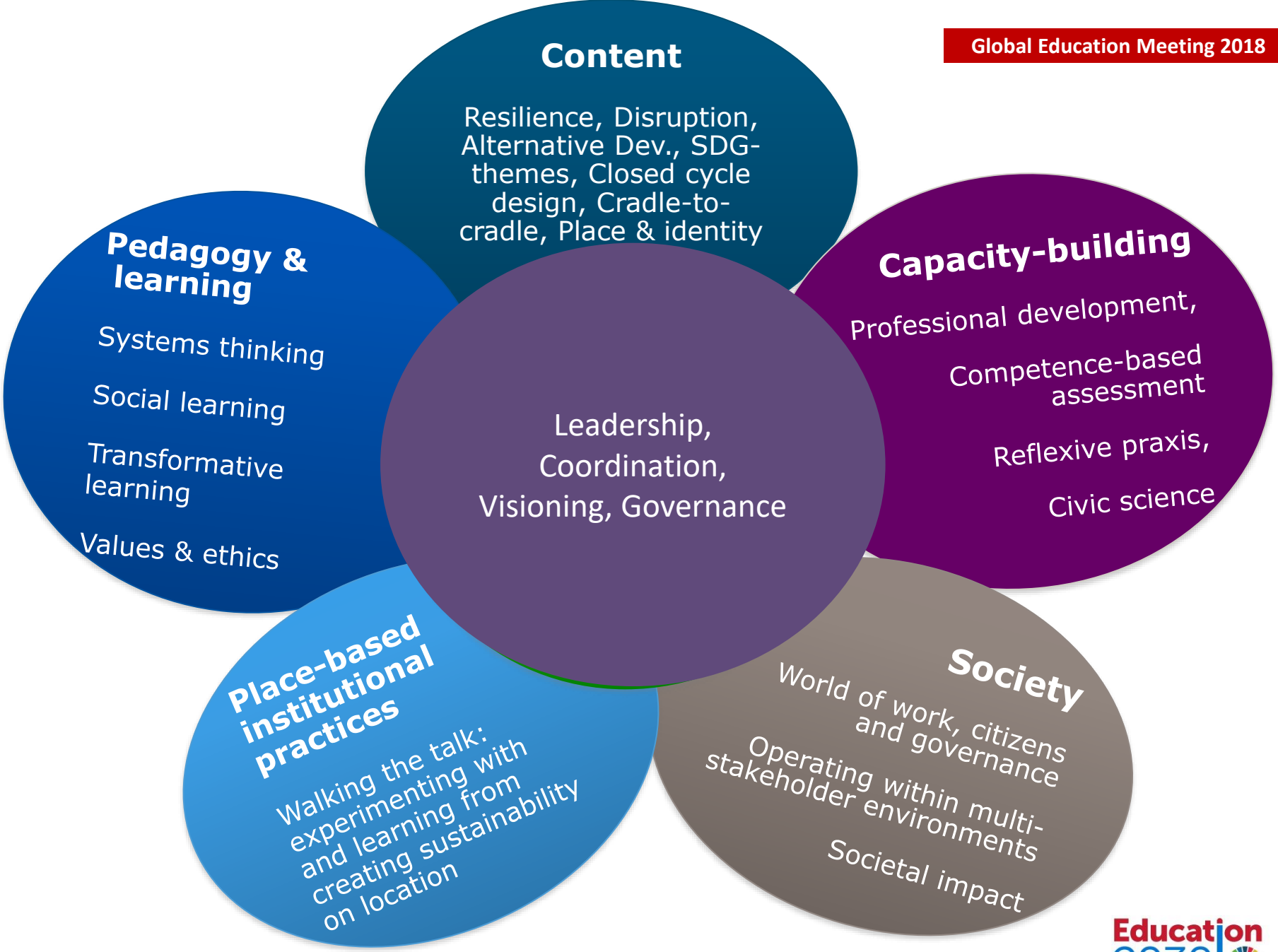
Citizens become more meaningfully engaged when they are empowered and equiped to monitor data about their own environment

Citizens come to understand the nature of scientific knowledge, the meaning of data (validity & reliability) better when actively engaged in scientific inquiry.

Citizens discover how easy and quickly one can become an expert in a specific issue in their own local environment.

Citizens self-monitor the impact of one's own actions, help them become more reflexive and effective in bringing about change.

→ Access to cheap ICT with enormous monitoring and storing capacity makes 'doing science' easier and more affordable.



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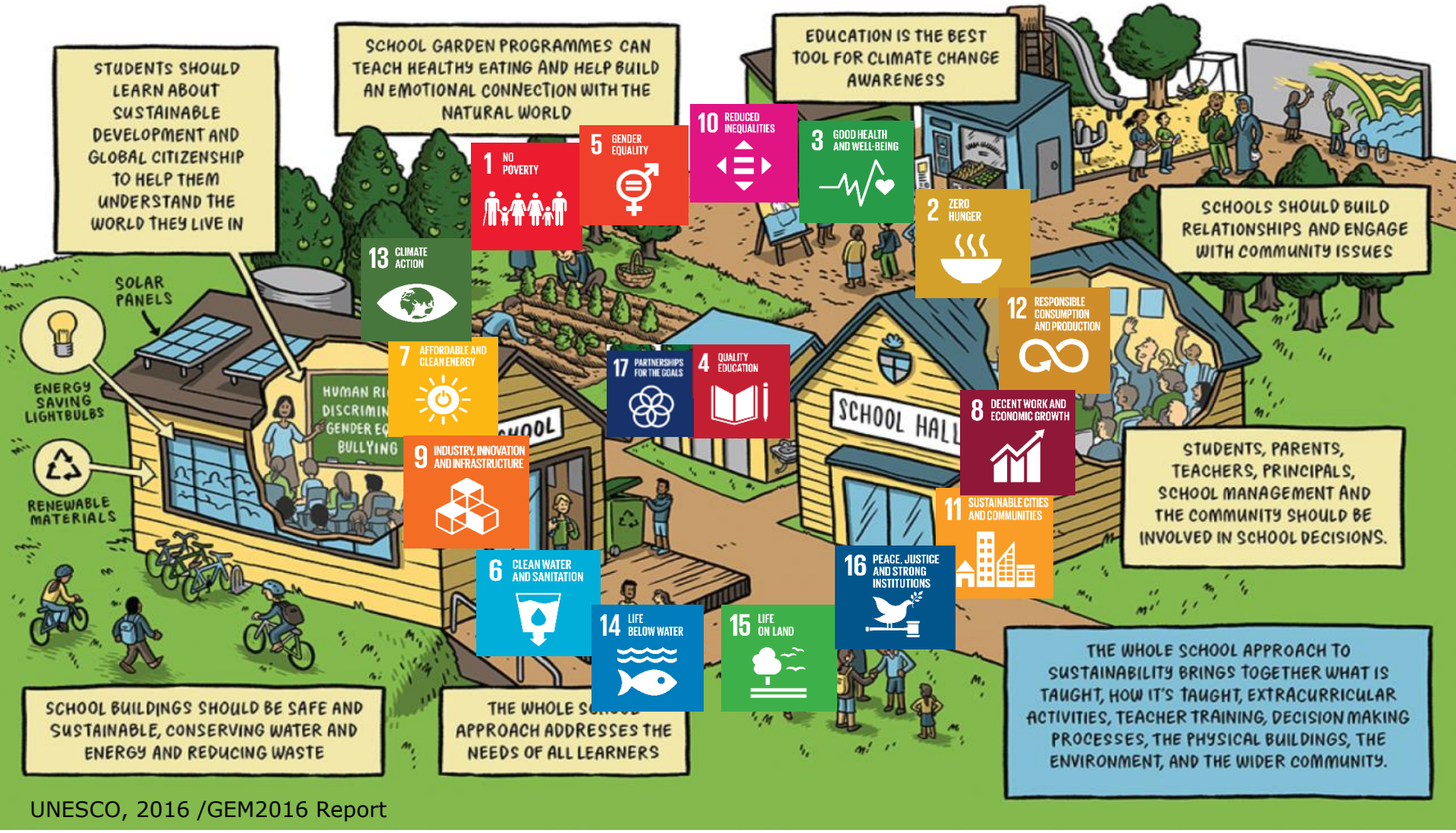
Sustainability is not just something to learn, it's something to live!



UNESCO, 2016 /GEM2016 Report

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Conclusions

- A mix of education, communication and learning-based approaches is available
- The ‘nature’ of the climate change challenge determines which approaches are most effective
- Heart, hands and head need to all be engaged to have a deeper response
- Citizen science can empower and engage people through active monitoring of climate change impact
- The structures and spaces around people need to make sustainability easier so that climate sentive behaviour is ‘invited’ and becomes the new normal

Thank you

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