

Climate Change Communication and Education (CCE) Country Profiles

WHY IS CCE IMPORTANT?

Communication and education are critical tools to help citizens understand and address the impacts of climate change. Quality CCE includes the holistic development of understanding, values and behaviours that can advance collective climate actions. Quality CCE addresses both climate change mitigation and adaptation, and includes a focus on climate justice and, where appropriate, indigenous knowledge (UNESCO, 2021).

The UN Secretary General's Transforming Education Summit emphasized transforming education to fully contribute to solutions to the global climate and environmental crisis. It underlined the critical importance of preparing every learner to acquire the knowledge, skills, values and attitudes to tackle climate change and to promote sustainable development.

The 2019 World Risk Poll surveyed individuals in 142 countries and found that 7 people out of 10 consider climate change to be a major threat to humanity. Similarly, 79% of 15-year-old students in the 2018 OECD's PISA survey indicated they are aware of climate change, with levels of knowledge varying considerably.

Initial research suggests that acquisition of subject knowledge related to climate change is important, but is not enough. Quality CCE helps learners overcome feelings of grief, anxiety, denial and apathy. Participatory learning and taking action towards solutions fosters hope and greater collective agency.

CCE COUNTRY PROFILES: A TOOL TO FOSTER PEER LEARNING AND POLICY DIALOGUE ON CCE THROUGH IMPROVED DATA

Monitoring is key to better understanding climate action gaps and building capacity. However, there is currently minimal data available on CCE policies and practices across countries globally.

Responding to this need for better data on CCE progress, an ongoing partnership between UNESCO's Global Education Monitoring (GEM) Report and the Monitoring and Evaluating Climate Communication and Education (MECCE) Project, hosted by the Sustainability and Education Policy Network (SEPN), has developed country profiles on CCE. These are available on the MECCE Project website (www.mecce.ca) and on the Profiles Enhancing Education Reviews website (PEER, www.education-profiles.org) of the GEM Report, which also hosts country profiles on other themes at the core of Sustainable Development Goal (SDG) 4.

The CCE country profiles provide a comparative perspective of countries' progress in relation to Article 6 of the United Nations Framework Convention on Climate Change (UNFCCC) and Article 12 of the Paris Agreement, through 'Action for Climate Empowerment' (ACE); and on SDG Target 4.7 which focuses on education for sustainable development. The country profiles cover all regions of the world and all income levels. Fifty country profiles are available to date, with another round to be published in 2023.

The profiles showcase national climate communication and education policies. In doing so, they aim to support peer learning and global monitoring of progress in this important area. As the world unites to negotiate the steps needed to mitigate and adapt to climate change, the profiles help shine light on the critical role of CCE, or 'Action for Climate Empowerment' in building capacity for climate action within an urgent global time frame.

Each country profile analyses:

- The context for CCE, including relevant government agencies, laws, policies, plans, terminology and budget allocations
- Climate change education (policies and curriculum) in primary, secondary and tertiary education, teacher training, TVET and adult education
- Climate change communication (public awareness, public access to education and public participation)
- Monitoring and evaluation

To help identify trends across the country profiles, several measures were developed to help support policy coherence and peer learning across countries. Along with other partner data, they can help inform global target-setting and benchmarking in diverse regional and cultural contexts. This can support increased country-driven, quality CCE. The preliminary mapping of the country profile measures suggests that, while infrastructure for quality CCE exists in most countries, mainstreaming of quality CCE across sectors remains primarily aspirational.

WHAT DO THE COUNTRY PROFILES TELL US ABOUT CCE IN DIFFERENT COUNTRIES

1. LEGISLATION AND POLICIES SUPPORT MAINSTREAMING CLIMATE CHANGE INTO FORMAL EDUCATION CURRICULUM



90% of the 50 countries have laws, policies or plans that include climate change relating to primary and secondary education. However, only 39% of countries have a national level law, policy and strategy specifically focused on climate change education.

Countries have made great strides to mainstream climate change in the curricula at all levels of education. In **Ethiopia**, the National Curriculum Framework (2020) includes environment and climate change in all study subjects for Grades 1 to 12 as a cross-cutting issue and is supported by the guide Integrating Climate Change into the Ethiopian Curriculum (2019). In **Zambia**, the National Climate Change Learning Strategy (2021) commits to the integration of climate change in learning and teaching materials from early childhood care and education to secondary school.

2. INCLUSION OF SOCIAL AND EMOTIONAL LEARNING IN RELATION TO CLIMATE CHANGE IS RARE IN PRIMARY AND SECONDARY EDUCATION NATIONAL CURRICULA; HOWEVER, SEVERAL COUNTRIES ENCOURAGE EXPERIENTIAL LEARNING

Few countries incorporate psycho-social, or social or emotional learning, on climate change into primary and secondary education. In **China**, the Guidelines for the Implementation of Environment Education in Primary and Secondary Schools (2003) target feelings, attitudes and values and aspire to prepare learners to care for nature, respect life and respect different views and cultural diversity. In **Ecuador**, the Manual of Good Environmental Practices for Educational Institutions (2018) applies both cognitive and action learning dimensions by promoting campaigns, seminars and environmental activities at school.

By contrast, countries more commonly address action learning in relation to climate change. In **Ghana**, the National Pre-Tertiary Education Curriculum Framework (2018) encourages learners to take climate actions that foster sustainable growth and development. For instance, the Science Curriculum for Primary Schools (Basic 4–6) (2019) targets upper primary school learners to help them understand the effects of climate change and take responsible action to protect the environment.

Other countries encourage schools to adopt extracurricular activities to achieve climate related objectives in the curriculum. **Namibia**, in its new National Environmental Education and Education for Sustainable Development Policy (2019); **Ethiopia**, in its Education Sector Development Programme VI (2020-2025); and Lebanon and **Jordan**, through their Directorates of Education, encourage practical learning through extracurricular activities.

There are also cases where active CCE learning is fostered in the community. In **Saint Lucia**, for instance, children are involved in gardening with the support of farmers, caretakers and extension officers from the community. These programmes support the national school feeding programme and promote food sustainability and security.

3. SOME COUNTRIES ARE EMBRACING THE TRANSITION TO GREEN AND SUSTAINABLE SCHOOLS

The discussions on greening education at the UN Transforming Education Summit highlighted the role of schools as agents of change to get every learner prepared for climate change. In **Japan**, the curriculum focuses on the promotion of eco-schools, which save energy, reduce CO₂ emissions and offer environmental education. In **Kenya**, the UNESCO Associated Schools Project Network (ASPNet) covers green school facilities management. For example, learners in nursery, primary and secondary schools study how to design and maintain the school garden and compost. In **India**, the Centre for Environmental Research and Education launched the Schools on Solar project in 2018 to provide climate change mitigation education to students in secondary and higher education institutions. The project helps install solar panels in schools and colleges and trains students in solar energy, who are then encouraged to become 'solar ambassadors' and promote environmental awareness. At the **global** level, the Eco-Schools programme, an international initiative launched in 1994 by the Foundation for Environmental Education, is now implemented in more than 43,000 schools around the world. It supports schools in many countries which have been shown to improve their environmental footprint, a change which leads to a more sustainable school environment.

4. TRAINING OF TEACHERS ON CLIMATE CHANGE IS GAINING MOMENTUM



63% of teacher training plans include a focus on climate change.

In **Cambodia**, the Ministry of Education, Youth and Sports established modules to help teachers integrate environmental topics such as climate change in formal and non-formal curricula. A Train-the-Trainer Climate Change module is also available. In **Viet Nam**, examples include the Teacher Manual on Climate Change Education (2012) drafted by the Ministry of Education and the Training and Live & Learn for Environment and Community and Plan. The latter presents student-centred activities including group discussions, mind maps, games and films through which the topic of climate change can be integrated into the classroom.

5. CLIMATE CHANGE TRAINING AND CAPACITY BUILDING ARE BECOMING INCREASINGLY IMPORTANT



Of the 50 countries, 76% included climate change in laws, policies and plans related to technical and vocational education and training (TVET). A total of 71% of the 50 countries include training for government workers. And 78% of countries include climate change in laws, policies and plans related to higher education.

The **Maldives'** Communication Strategy and Action Plan (2019–2023) indicates the country's intention to train various target audiences to integrate sustainable development at all levels of planning and implementation. Key groups include social mobilizers, lead agencies on the Sustainable Development Goals, youth, farmers, fisherfolk, women's groups, residents and government authorities. In **Trinidad and Tobago** between 2016 and 2020, the Caribbean Community Climate Change Centre conducted Climate Change adaptation training in 10 Caribbean countries in partnership with USAID. The training included a focus on using climate data in decision making.

6. SOME COUNTRIES USE CREATIVE CLIMATE CHANGE COMMUNICATION APPROACHES TO IMPROVE PUBLIC AWARENESS



Public awareness is the most common CCE approach identified in the 50 country profiles. In total, 94% of

countries mentioned public awareness in laws, policies or plans related to climate change.

In **India**, a 16-coach train called the Science Express Climate Action Special acts as a mobile climate change science exhibition. The custom-built train has travelled more than 160,800 kilometres and reached more than 20 million people. In **Japan**, the COOL BIZ (summer) and WARM BIZ (winter) campaigns provide tips on adapting to different types of weather through internet, television, newspaper and radio messaging. In 2021, **Malta**'s national public awareness campaign #ClimateON aimed to shift its citizens' habits towards greener and more enriching lifestyles. The campaign was founded on an understanding of the benefits of living in a low-carbon society.

7. CLIMATE CHANGE PLANS, STRATEGIES AND PROGRAMMES INCREASINGLY FOCUS ON PUBLIC PARTICIPATION, YOUTH AND CLIMATE JUSTICE



88% of the 50 countries included a focus on public participation for climate change in their laws, policies and plans. 86% of the 50 countries identified youth as a target audience.

The country profiles suggest that youth are being engaged more in public participation on climate change. In **Egypt**, Cairo Climate Talks hosts seminars to raise citizens' awareness of climate change, including Keeping the Momentum Up: How Do We Activate Young People to Save the Planet? In 2021, **Argentina**'s Hackathon of Youth for the Environment was chaired by 200 high school students who proposed solutions for environmental problems to government officials. The Republic of Nauru Framework for Climate Change Adaptation and Disaster Risk Reduction

(2015) emphasizes inclusion of youth in planning and decision-making to address gender gaps in climate adaptation and disaster risk reduction. **Saint Lucia**'s 2015 1.5 to Stay Alive Campaign (a target to stay below a 1.5°C rise in global temperature) raised awareness of Saint Lucia's vulnerability to climate change and empowered citizens to improve their climate resilience.

8. COUNTRIES ARE ALSO INCREASINGLY FOCUSING CCE POLICIES, PLANS, STRATEGIES AND ACTIVITIES ON INDIGENOUS PARTICIPATION AND KNOWLEDGE AND GENDER



66% of the 50 countries target girls and gender minorities in their CCE projects and 44% mentioned indigenous peoples as a target audience in their national communications on climate change.

Australia emphasizes indigenous knowledge in many states' policies. The National Climate Resilience and Adaptation Strategy (2021) notes the importance of blending 'traditional weather and climate knowledge' with Western science to address the climate crisis in climate communications. The Seed Indigenous Youth Climate Network plays a vital role in raising public awareness of climate issues. In **Canada**, the Expert Panel on Climate Change Adaptation and Resilience was established in 2017 to combine scientific information and indigenous knowledge in climate solutions and communications. At the University of Saskatchewan, the Master of Education in Indigenous Land-Based Education engages educators in addressing climate change in their indigenous land-based education practices. **Ecuador** incorporates the ancestral term 'Sumak Kawsay', meaning the 'good' or 'plentiful life', into its national development plans, climate change strategies and Constitution. The term is also mainstreamed across the country's CCE programmes.

Countries are increasingly addressing the differential impacts of climate change on sexual and gender diversity in their national communications on climate change. The **Mexican** government encourages the inclusion of gender issues in climate change debates as well as the active participation of indigenous peoples. The Special Climate Change Programme (2020–2024) aims to improve gender equality and reduce social

gaps through empowerment measures. In **Zambia**, the Climate Change Gender Action Plan (2018) includes an aim to ensure climate change processes 'mainstream gender considerations to guarantee that women and men can have access to, participate in, and benefit equally from climate change initiatives'. **Pakistan's** Nationally Determined Contributions (2021) indicate the country's plans to strengthen a rights-based and gender-responsive approach. For example, Pakistan is increasing women's participation in natural resources management decision-making and in the National Climate Change Gender Action Plan's development.

9. DESPITE THE URGENCY TO PREPARE ALL LEARNERS FOR A GREEN AND SUSTAINABLE FUTURE, BUDGET ALLOCATION FOR CCE IS RARE



Only 27% of the 50 countries have publicly available CCE budgets.

In **Ethiopia**, the Climate Change Education Strategy (2017–2030) had a budget of US\$2 million to fund the development of climate change materials for primary schools, refresher training for school teachers and monitoring, and evaluation of their CCE strategy. Further, 2% of the national allocation to schools from 2017 to 2020 was for environment and forestry clubs to integrate climate change into school activities. In **Zambia**, the government allocated funds to increase awareness of climate change for general education (US\$200,000) and higher education (US\$200,000) from 2021 to 2024. Another US\$1.5 million was allocated to these sectors to mainstream climate change learning into nationally prioritized sector policies and systems. **Portugal's** 2020 budget for CCE under the National Environmental Education Strategy allocated US\$ 500,348 to increase integration of the environment into the national curricula between 2018 and 2020. **Cambodia's** Updated Nationally Determined Contributions (2020) lists funding requirements for adaptation actions and for implementation of 'enabling actions' that cover climate change communication and education. The cost is estimated to be US\$21 million of the total US\$2 billion required for adaptation actions for sectors such as infrastructure, water and agriculture.

10. FINALLY, THE IMPORTANCE OF MONITORING AND EVALUATION (M&E) IS BEING INCREASINGLY RECOGNIZED BY COUNTRIES; HOWEVER, M&E IS CURRENTLY PRIMARILY ASPIRATIONAL



Only 42% of the 50 countries report on Sustainable Development Goal Targets 4.7/13.3.

Countries commonly have aspirational plans for monitoring, evaluating and reporting on CCE. For example, **Portugal's** Climate Basic Law (2021) aims to establish a comprehensive system to conduct M&E of CCE, and to increase the transparency and efficiency of M&E and public access to climate change information. In Nauru, CCE M&E is part of the Framework for Climate Change and Disaster Risk Reduction (2015) and the National Sustainable Development Strategy 2019–2030. The country highlights in its climate change framework that funding is the biggest constraint to M&E of CCE. However, only a few countries collect data to track CCE progress despite having sufficient infrastructure, such as national statistics offices, to do so. Lebanon is currently developing an online information system, the Monitoring Information System of Climate Action. Namibia's Communication, Education & Public Awareness Strategy (2019–2030) includes several indicators such as '75% of key target groups understand the importance of climate change adaptation and mitigation'. In Canada, the Canadian Indicator Framework for the Sustainable Development Goals portal to measure progress toward the SDGs includes the indicator 'Proportion of municipal organizations who factored climate change adaptation into decision-making processes' for SDG 13.3.1.

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The 30 new profiles are available at www.education-profiles.org and www.mecce.ca and cover Argentina, Australia, Brazil, Cambodia, Canada, China, Ecuador, Egypt, Ethiopia, Germany (to come, under review), Ghana, India, Japan, Jordan, Kenya, Kyrgyzstan, Lebanon, Lithuania, Maldives, Malta, Mexico, Namibia, Nauru, Pakistan, Portugal, Saint Lucia, Trinidad and Tobago, United States of America, Viet Nam, and Zambia.

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