



# Asian Framework of Teacher Education for Climate Action

## Executive Summary

Organised by Asian Teacher Educators for Climate Change Education Network (ATECCE) in cooperation with UNESCO Bangkok, UNESCO Beijing, Asia-Pacific Cultural Centre for UNESCO (ACCU), and with the support of Japan Society for the Promotion of Science (JSPS)

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## Table of Contents

Forewords	1
Asian framework of teacher education for climate action	2
Recommendations based on the framework	3
Way forward to implement the framework	5
List of contributors	6

## Forewords

As the Research Coordinator and Director at Okayama University ESD (Education for Sustainable Development) Promotion Centre, I am honoured to present the executive summary of the Asian Framework of Teacher Education for Climate Action. This project, spearheaded by the Asian Teacher Educators for Climate Change Education Network (ATECCE) in collaboration with UNESCO Bangkok, UNESCO Beijing, and the Asia-Pacific Cultural Centre for UNESCO (ACCU), and supported by the Japan Society for the Promotion of Science (JSPS), epitomises our global collective efforts to tackle climate change through education. The document is a culmination of extensive research and international cooperation, aimed at enhancing teacher education across Asia. We extend our deepest appreciation to all the project members from nine Asian countries and the supporting organisations for their invaluable contributions to this endeavour. This effort represents a critical step in incorporating climate change education into teacher training programmes across Asia, signalling a substantial commitment to sustainable development.



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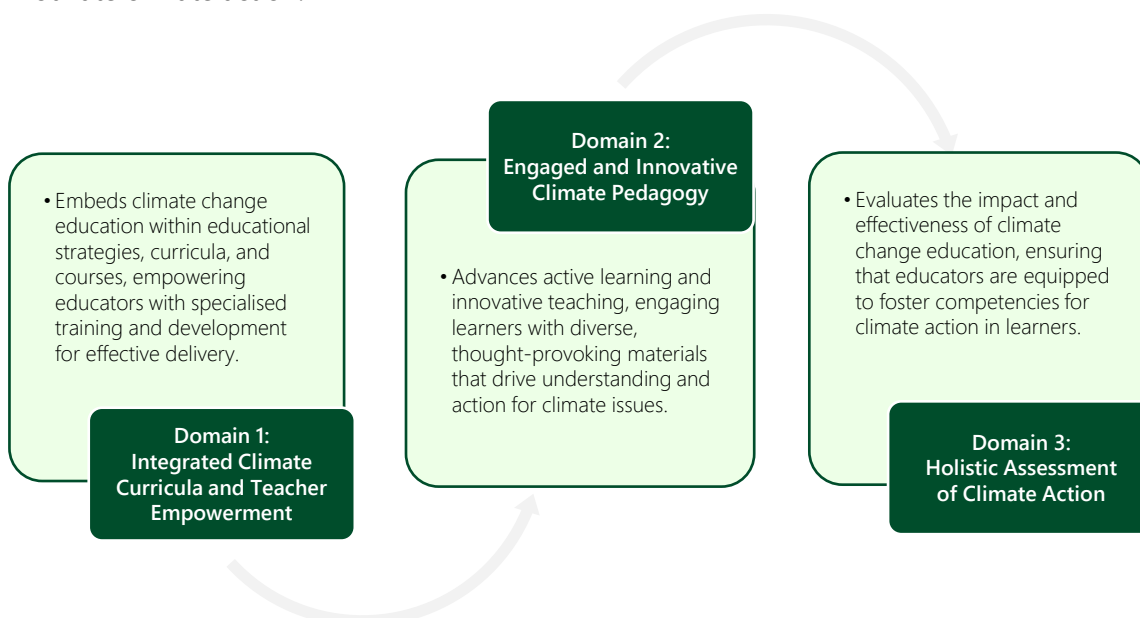
## Asian Framework of Teacher Education for Climate Action

### Why is climate change education crucial in teacher training?

The *Reimagining our Futures Together: A New Social Contract for Education*<sup>1)</sup> document (UNESCO, 2021) have called for schools to become exemplars of sustainability and carbon neutrality and the *Greening Education Partnership*<sup>2)</sup> initiative (UNESCO, 2022) have emphasised the importance of integrating climate change education (CCE) in teacher training. This approach aims to equip educators with the skills to convey the complexities of climate change, fostering critical thinking, civic engagement, and an understanding of the environmental, social, and economic interconnections. These efforts highlight the transformative role of education in promoting sustainable development and climate resilience, preparing learners to actively engage with climate change challenges.

### How was the Asian Framework of Teacher Education for Climate Action developed?

In November 2023, the Asian Teacher Educators for Climate Change Education Network (ATECCE) convened in Surabaya, Indonesia, gathering representatives from nine countries: China, India, Indonesia, Japan, Kazakhstan, Malaysia, Mongolia, the Philippines, and Thailand. A key result of this meeting was the creation of the Asian Framework of Teacher Education for Climate Action. This framework (**Figure 1**) aims to steer the inclusion of CCE into teacher training programmes across these nations, equipping teachers to effectively teach and motivate climate action.



**Figure 1.** Asian Framework of Teacher Education for Climate Action

1) UNESCO. (2021). *Reimagining our Futures Together: A New Social Contract for Education*. Available at: [https://unesdoc.unesco.org/notice?id=p:usmarcdef\\_0000379707](https://unesdoc.unesco.org/notice?id=p:usmarcdef_0000379707)

2) UNESCO. (2022). *Greening Education Partnership*. Available at: <https://www.unesco.org/en/education-sustainable-development/greening-future>

## Recommendations based on the Framework

The outlined recommendations represent a strategic approach to enhance climate change education across various educational sectors. They are designed to guide teacher educators, institutions, and policymakers in integrating climate awareness and proactive measures into their teaching and operational practices. These recommendations focus on curriculum development, pedagogical innovation, and holistic assessment, aiming to create a comprehensive and effective climate education framework.

### **Domain 1: Integrated Climate Curricula and Teacher Empowerment**

The first recommendation stresses the alignment of educational policies with global climate initiatives, as detailed in **Table 1**. It advocates for integrating climate change education into teacher training programmes, enhancing curricula design, and establishing rigorous teacher certification standards. This approach aims to lay a solid foundation for climate change education within the education system, ensuring educators are proficient in imparting climate science.

### **Domain 2: Engaged and Innovative Climate Pedagogy**

As outlined in **Table 2**, the second recommendation calls for a transformation in teaching methods and materials used in climate change education. It emphasises active learner engagement through innovative pedagogical methods and blending global and local climate issues to make learning relevant and engaging. The recommendation advocates extending learning beyond traditional classrooms and adapting teaching to diverse student backgrounds.

### **Domain 3: Holistic Assessment of Climate Action**

The third recommendation, detailed in **Table 3**, involves a comprehensive evaluation of the effectiveness of climate change education within teacher training programmes. It underscores the importance of equipping educators with both knowledge and skills to guide students towards meaningful climate action. The focus is on assessing institutional frameworks, teacher training programme effectiveness, and the ability of educators to create impactful learning environments.

By implementing these recommendations, there is an opportunity to ensure that future generations are not only informed about climate change but also equipped to contribute to sustainable solutions. The effectiveness of these initiatives relies on the collective commitment and collaborative efforts of teacher educators, institutions, and policy makers.

**Table 1.** Integrated Climate Curricula and Teacher Empowerment Domain

Sub-domain	Description	Key Focus Area
1. Policy alignment with climate change education	Aligning educational strategies with global climate initiatives and national policies	- National curricula integration - Teacher certification standard
2. Curricula integration and interdisciplinarity	Developing interdisciplinary curricula that weave climate change education across subjects	- Comprehensive understanding - Inclusion of ethical, social, and economic aspects
3. Teacher training for climate competencies	Specialised pre- and in-service training to equip teachers with necessary climate change knowledge and pedagogy	- Content knowledge - Pedagogical skills
4. Professional development and support	Ongoing opportunities for educators to update and share their knowledge and teaching methods	- Workshops and seminars - Collaborative projects
5. Practical application and experiential learning	Hands-on learning opportunities connecting theoretical knowledge with real-world applications	- Fieldwork - Community engagement activities
6. Teacher well-being and motivation	Strategies to manage workloads and provide mental health support, with recognition and rewards	- Workload management - Incentive systems
7. Empowerment through recognition and certification	Formal recognition of teachers' climate change education expertise	- Certification programmes - Professional endorsement

**Table 2.** Engaged and Innovative Climate Pedagogy Domain

Sub-domain	Description	Key Focus Area
1. Diverse delivery and resource utilisation	Multiple modes of content delivery for diverse learning styles	- Online, offline, on-air platforms - Global and local perspectives in materials
2. Community and institutional engagement	Encourages learning in community and institutional settings	- Informal learning settings - Community-based projects
3. Belief in learner potential	Fostering environments that value and nurture individual potential	- Collaborative learning - Self-directed methodologies
4. Respect for diversity of learners	Tailoring learning approaches to diverse student needs and backgrounds	- Differentiated learning - Inclusive education strategies
5. Real-context learning	Connecting educational content with real-world scenarios and applications	- Experiential learning - Field-based activities
6. Learner as change agent	Empowering learners to be proactive in community and environmental change	- Transformative methodologies - Entrepreneurship education

**Table 3.** Holistic Assessment of Climate Action Domain

Sub-domain	Description	Key Focus Area
1. Teacher education institutions	Evaluates institutional support for CCE. This includes governance, curricula, culture and facility adequacy	- Governance and policy for CCE - School culture and green campus - Community partnerships
2. Teacher trainers	Assesses the competencies of teacher trainers in CCE within educational institutions	- Developing engaging CCE learning experience - Innovating CCE pedagogy - Research and development in CCE
3. Learners (Pre- and in-service teachers)	Focuses on the professional development of teachers in CCE	- Creating effective learning environments - Engagement with educators and stakeholders - Continuous professional development

## Way Forward to Implement the Framework

### What are the levels of implementation?

The Asian Framework of Teacher Education for Climate Action recommends a multi-tiered strategy for weaving CCE into the fabric of teacher education systems at institutional, national, and regional levels. The 'Way Forward' in **Figure 2** provides a detailed course of action, recommending the development of comprehensive CCE training programmes at the institutional level, alongside expert engagement and the integration of CCE into broader educational frameworks.

Institutional Level:	National Level:	Regional Level:
<ul style="list-style-type: none"> <li>- Development of holistic CCE training programmes.</li> <li>- Expert engagement and resource preparation.</li> <li>- Integration of CCE into educational programmes.</li> <li>- Conducting scientific and educational projects.</li> <li>- Resource provision for general education.</li> </ul>	<ul style="list-style-type: none"> <li>- Strategising national climate change education.</li> <li>- Government support for CCE projects.</li> <li>- Curriculum development and teacher training.</li> <li>- National seminars and training.</li> </ul>	<ul style="list-style-type: none"> <li>- Collaboration among Asian teacher education institutions.</li> <li>- Regional meetings and network establishment.</li> <li>- Joint scientific-educational projects.</li> </ul>

**Figure 2.** Way forward to the Asian Framework of Teacher Education for Climate Action

Nationally, it suggests strategic planning for CCE, advocating for government backing, curricula development, and teacher training enhancements, coupled with extensive seminars and training. Regionally, the framework recommends fostering partnerships among Asian teacher education institutions, setting up a network for collaboration, and initiating joint scientific and educational projects, thereby unifying climate action education efforts across Asia.

### What are the expected outcomes and future prospects for expansion of the framework?

The framework is poised to make impactful advances at institutional, national, and regional levels. Expectations include enhancing teacher expertise and curricula at institutions, aligning national educational policies with global climate goals, and fostering regional collaboration for shared resources. In the future, it's anticipated that the framework will integrate advanced technologies and community programmes, encourage inter-ministerial collaborations, and potentially expand to establish regional centres of excellence. This expansion is likely to spur the development of global networks and partnerships, promoting an international exchange of knowledge and resources in climate change education.

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