THE CLIMATE-SMART EDUCATION SYSTEMS INITIATIVE

Student Aladina Zacarias Gomes Rafael, Mozambique.
Credit: GPE/Mbuto Machili

WHY EDUCATION MATTERS IN CLIMATE ACTION

Extreme weather events such as heatwaves, droughts, cyclones and floods are becoming more frequent and severe. This affects children's education profoundly. Children living in conflict zones, those from the poorest households, girls, and children with disabilities are particularly vulnerable to the disruption.

40 MILLION CHILDREN

Each year, the education of nearly 40 million children is disrupted due to climate-related disasters and subsequent disease outbreaks.

US$4 BILLION LOSSES

The education sector experiences annual financial losses of US$4 billion due to tropical cyclones alone.

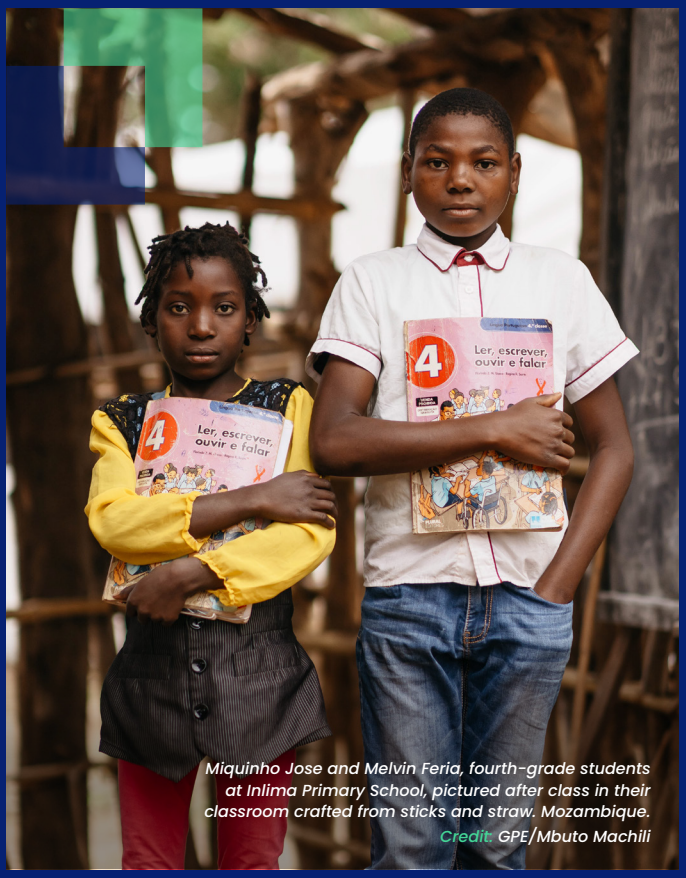
$4 SAVINGS PER $1

Each dollar invested in climate-resilient infrastructure yields $4 worth of savings in avoided loss and damage.

"...Protecting education from the impacts of climate change is not optional, it is essential to our children's futures."

Wayne Mendiola, Chair of the Pacific Heads of Education Systems

Schools and their communities play a vital role in climate change adaptation and environmental sustainability. The education system can enable children and their families to have the right knowledge and capacities to adapt to and cope with the impacts of extreme weather events. With the right support, the education system can also become more resilient to climate change.



Miquinho Jose and Melvin Feria, fourth-grade students at Inlima Primary School, pictured after class in their classroom crafted from sticks and straw. Mozambique.
Credit: GPE/Mbuto Machili

SUPPORTING CLIMATE-RESILIENT EDUCATION SYSTEMS

Governments observe that children's education, well-being and futures are deeply affected by climate change, with the worst impacts likely to be felt by girls and other marginalized groups.

Across the world, school infrastructure is often vulnerable to extreme heat, floods or cyclones. Teachers are not trained in delivering climate change education and early warning systems for schools are mostly inadequate or non-existent.

Across regions, demand for support is growing as ministries seek to strengthen the resilience of their education systems. Governments are demanding support, and this is why, in 2023, the Global Partnership for Education (GPE) launched the Climate-Smart Education Systems Initiative (the Initiative) through collaboration with Save the Children, UNESCO and the International Institute for Educational Planning - UNESCO.

"It is important to integrate climate change resilience into the education sector at policy, strategic and financial levels."

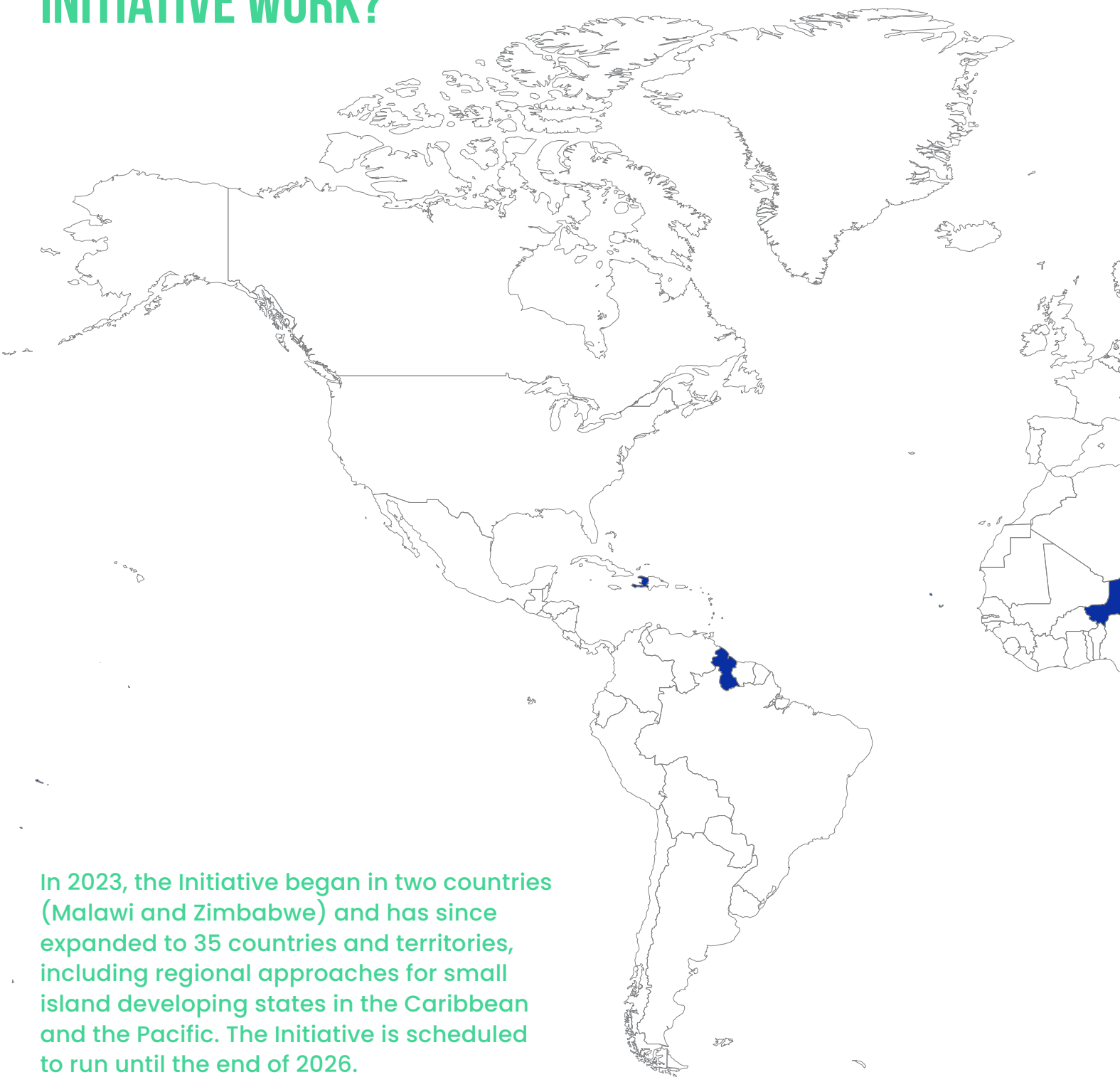
Her Excellency Ton Sa Im, Under Secretary of State of Ministry of Education, Youth and Sport, ***Cambodia***

The Initiative works across 35 countries and territories to support education systems by:

- Strengthening education ministries' capacity to integrate climate change adaptation and environmental sustainability into sector plans, budgets and strategies.
- Supporting coordination and collaboration between education ministries and key stakeholders, including environment ministries and climate change and disaster management authorities.
- Helping countries understand how to access climate finance to support the education sector.

Students head home after the day's lessons at Chambak Haer Primary School, Puok District in Siem Reap, Cambodia.
Credit: GPE/Roun Ry

WHERE DOES THE INITIATIVE WORK?



In 2023, the Initiative began in two countries (Malawi and Zimbabwe) and has since expanded to 35 countries and territories, including regional approaches for small island developing states in the Caribbean and the Pacific. The Initiative is scheduled to run until the end of 2026.

35 COUNTRIES AND TERRITORIES

HOW THE INITIATIVE DELIVERS IMPACT

The Climate-Smart Education Systems Initiative begins with an inception phase designed to build a strong foundation for technical assistance to countries.

During this stage, project teams engage in inclusive consultations with national stakeholders including different line ministries and local education groups. Collectively, they review existing frameworks at the intersection of climate change and education, map ongoing initiatives and identify key challenges, opportunities and gaps.

The process fosters dialogue and alignment among ministries, partners and local actors including youth organizations, teachers' associations and civil society organizations. This ensures that by the end of the phase there is a shared understanding of needs across seven technical components.

This collaborative groundwork informs the development of a costed work plan which sets out activities, roles and responsibilities, and guides subsequent implementation of technical support prioritized for climate-exposed countries.

Students and their teacher hold hands and move to safety during a flash flood/cyclone simulation in Phalombe District, Malawi.
Credit: GPE/Trans.Lieu

COMPONENTS AND COMMON PRIORITIES IN COUNTRY WORKPLANS

1. SUPPORT EVIDENCE-BASED POLICIES AND PLANNING

- **28** climate risk analyses for the education sector (15 national and 13 sub-national level analysis)
- **5** climate change strategies or plans for education

2. STRENGTHEN CROSS-SECTORAL AND INTERNAL COORDINATION

- **12** coordination structure reviews
- **7** Terms of Reference for focal points or taskforces
- **4** Task forces / mechanisms

3. IMPROVE ACCESS TO CLIMATE FINANCE

- **11** climate finance roadmaps
- **4** concept notes supported

4. ENHANCE COLLECTION AND USE OF DATA AND EVIDENCE

- **14** diagnostic reports on climate -related data for educational planning
- **7** enhanced education data tools integrating climate indicators

5. ENSURE SAFER AND GREENER INFRASTRUCTURE

- **2** regional helpdesks and good practice exchanges
- **10** climate-smart education infrastructure guidelines and practices

6. PRIORITISE SCHOOL SAFETY AND EDUCATIONAL CONTINUITY

- **5+** comprehensive school safety management guidelines/handbooks
- **4** Standard Operating Procedures (SOPs)

7. PROVIDE GREEN CURRICULA AND TEACHER TRAINING

- **5** national curricula reviews with climate lens
- **3** Teaching and Learning Materials on climate

THE INITIATIVE IN PRACTICE

1. SUPPORTING EVIDENCE-BASED POLICIES AND PLANNING

The Initiative provides support to countries to develop climate risk analyses and climate change and education strategies for the education sector. Together, these can support education ministries to include education in Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs). For example, the scope of education is now expanded in **Cambodia's** updated NDC 3.0. The Ministry of Education and Sports in **Lao People's Democratic Republic** prioritizing education actions for its upcoming NDC update and in **Malawi**, the Ministry of Education, Science and Technology engaged with NAP focal points leading to the inclusion of education in the forthcoming NAP. This highlights improved coordination and the importance of foundations for accessing climate finance.

2. STRENGTHENING CROSS-SECTORAL AND INTERNAL COORDINATION

At the beginning of the Initiative, the Ministry of General Education and Instruction and the Ministry of Environment and Forestry in **South Sudan** had not previously sat together in the same room. Now, they are collaborating on joint tasks and developing guidance documents alongside civil society, schools and other development partners. In **Lao PDR**, a catalogue of stakeholders across climate change and education sectors will be developed with mandates, networks and contact details to facilitate coordination.

3. ACCESSING CLIMATE FINANCE

In **Cambodia**, the Initiative provided training to the Ministry of Education, Youth and Sport on different global climate funds, how to access them and the priorities for other funding opportunities. Civil society actors also participated in the training, which supports sustainability and collaboration. A climate finance roadmap is now being developed with clear next steps to utilize other products of this initiative and expand access to climate finance.

4. ENHANCING COLLECTION AND USE OF DATA AND EVIDENCE

In **Zimbabwe**, the Government, with the Initiative's support, has updated the annual school census survey tool and their inspection tools with new questions to track climate preparedness, which helps the education sector move from reactive to proactive planning. In **South Sudan**, in addition to updating the Annual School Census questionnaire, the National Bureau of Statistics included key recommendations related to climate change and education data in the forthcoming Household Consumption and Expenditure Survey. This broadened the integration of education-climate data across national data systems and tools, which can also facilitate future access to climate finance.

5. ENSURING SAFER AND GREENER INFRASTRUCTURE

The Initiative is hosting regional helpdesks in the **Pacific** and **Caribbean**, operated by the Global Buildings Performance Network (GBPN) and staffed by engineering experts with experience in the regions. Education ministry focal points can submit requests to the helpdesk and receive guidance, reviews of existing standards and tools, and lessons across countries through a peer learning network.

6. PRIORITIZING SCHOOL SAFETY AND EDUCATIONAL CONTINUITY

In **Malawi**, the Initiative has supported the Ministry of Education to develop school-level Standard Operating Procedures covering six hazards like floods, cyclones and heatwaves which include preparations, safe evacuation and education continuity. Staff from key government institutions and creative organizations worked to translate them into two local languages, develop child-friendly versions and pilot them with school communities in five districts.

7. GREENING CURRICULA AND TEACHER TRAINING

In **Zimbabwe**, with the Initiative's support, the Ministry of Primary and Secondary Education reviewed school and teacher education curricula to identify gaps and opportunities for integrating climate change, disaster risk reduction and education for sustainable development. The Initiative strengthened the integration of these topics into the Ministry's Heritage -Based Curriculum and ongoing syllabus updates.

Aladina Zacarias Gomes and her neighbours Segria Sergio and Sheila, coming home from school and having to find alternative routes due to water on the road to school and back. Mozambique.
Credit: GPE/Mbuto Machili

HOW MALAWI IS HARNESSING THE POWER OF CROSS-SECTORAL COLLABORATION

In 2023, Cyclone Freddy hit Malawi, **affecting more than 2.2 million people** and causing extensive damage across the southern region.

It was one of the strongest and longest-lasting cyclones ever recorded in the southern hemisphere, highlighting the increasingly severe impacts that climate change is having on the country.

> **Malawi was one of the first countries supported by the Climate-Smart Education Systems Initiative and is engaging with all seven components, with each complementing and strengthening the rest.**

The process started with multiple stakeholders in Malawi's Ministry of Education, Science and Technology undertaking a climate risk analysis of the education sector to understand the exposure, vulnerabilities and capacities of the sector to adapt to climate change. This analysis informed the development of a costed strategy for climate change in education, providing the basis for education being included in the NAP. NAP aims to identify where a country needs to invest to deal with the effects of climate change and is a key tool for unlocking climate finance for education.

Based on this analysis and strategy, the Initiative supported bringing key stakeholders together to better coordinate to address climate risks in the education sector. This included strengthening the education sector's climate change policies and coordinating with the Ministry of Natural Resources and Climate Change. Climate change adaptation costs money and so a key part of the process was to develop a climate finance roadmap to identify new sources of funding for education, including from global climate funds.

Students quickly form lines and follow their teachers to designated safe zones during a flash flood/cyclone drill in Phalombe District, Malawi.
Credit: GPE/Trans.Lieu

"Learning to identify and analyze climate-related risks to education helped me understand how these hazards can impact equity, access, quality and management within the education system."

*Samulo Mutale, Education Research Officer, Ministry of Education, Science and Technology, **Malawi***

The next step of putting Malawi's plans into action included integrating key questions related to climate change in school-based data collection tools, ensuring all decisions are backed by robust evidence.

Another vital part of the process was understanding how climate change risks are integrated into school design and construction. Recommendations will be developed - alongside donors and agencies also working on school infrastructure – for climate resilient and sustainable design to help keep teachers and students safe.

An important part of this is developing standard operating procedures, so children, teachers, and the wider community know what to do before and during different disasters and can prepare and respond to cyclones, floods, fires, droughts and heatwaves.

Malawi has also made significant progress to develop its curriculum to include climate-responsive lessons. The Ministry of Education, Science and Technology evaluated how climate change is integrated into primary, secondary and teacher training programs and then adopted recommendations for integrating sustainable development, climate change and disaster risk reduction into teaching syllabi and materials. Sample lesson plans, aligned with UNESCO's Greening Curriculum Guidance, were developed for all educational levels and the Malawi Institute for Education is now equipped to use and refine these plans. Teacher training colleges will now receive training programs to support this.

Stakeholders involved throughout the process included representatives from:

- Ministry of Basic and Secondary Education
- Ministry of Natural Resources and Climate Change
- Environmental Affairs Department
- Department of Disaster Management Affairs
- Red Cross
- UNICEF
- World Bank
- NAP focal points

For further information, case studies and tools on climate-smart education systems, please see **ClimateandEducation.org** - a global knowledge hub at the intersection of climate change and education, supported by the Green Climate Fund, the Global Partnership for Education and Save the Children.

THE OUTCOME

Climate resilience is no longer a stand alone issue, it is integrated across Malawi's education system.

WHAT PARTNER COUNTRIES SAY

"Embedding climate education into our national curriculum is key so that we prepare children at a young age and also build the capacity of teachers on how to deliver climate resilience in the classroom."

Honorable Awut Deng Achuil, (former) Minister for Education, ***South Sudan***

"We're raising a generation that won't just survive the climate crisis; they'll help solve it. In Zimbabwe, classrooms are turning into catalysts for climate resilience."

Ministry of Education Official, ***Zimbabwe***

"The Climate-Smart Education Systems Initiative provides valuable knowledge and tools to assess climate risks and develop strategies to protect schools from extreme weather events. This includes improving school buildings to make them more resilient to climate impacts and ensuring that schools can continue functioning during weather disruptions."

H.E. Dr Lim Sothea, Director General for Policy and Planning of the Ministry of Education, Youth and Sport, ***Cambodia***

"The Initiative is vital for shielding schools from climate risks, ensuring uninterrupted learning, and creating safe, resilient learning environments. By integrating sustainability into the curriculum, they equip learners with adaptation and problem-solving skills, while also promoting equity by safeguarding vulnerable groups, especially girls."

Safia Jibril, Ministry of Education and Science, Technical Advisor, ***Somaliland***

"The involvement of various ministries and sectors highlighted the importance and interconnectedness of all stakeholders when it comes to accessing climate financing."

Alexis Caine, Deputy Education Planner for ***Saint Vincent and the Grenadines***

"Considering Nepal's high vulnerability to climate-related risks and their impacts on the education system, we believe the Initiative will strengthen the resilience of Nepal's education sector by improving the capacity of the Ministry and key stakeholders."

Shiva Kumar Sapkota, Joint Secretary, Planning and Monitoring Division, Ministry of Education, Science and Technology, ***Nepal***

School director and teacher: Armando Supia, in Mozambique
Credit: GPE/Mbuto Machili

These voices reflect a growing consensus:
climate and education must be addressed together.

COLLABORATION ACROSS CLIMATE

The dual challenges of climate change and education inequality require a move from siloed responses to integrated solutions. The future of climate resilience and the future of education are deeply intertwined.

The Climate-Smart Education Systems Initiative is helping countries bring these agendas together through cross-sectoral strategies that benefit all stakeholders.

Collaborative action is needed to ensure that strategic investments in education reach countries and communities most affected by climate change.

By building capacity across the education and climate sectors and within governments, institutions and communities, partnerships like the Climate-Smart Education Systems Initiative can help to accelerate action at the frontlines of the climate crisis, protect vulnerable populations and mobilize young people to enact the necessary solutions for a safer, greener and more sustainable future.

Increasing strategic collaboration across countries, ministries and funders is urgent.

4th Grade Children attending classes at improvised learning facility at the Inlima primary school, Mozambique.
Credit: GPE/Mbuto Machili

WE CALL ON GOVERNMENTS, PARTNERS, AND DONORS TO JOIN US

"The needs are enormous, and we are ready to respond, but we cannot do it alone. We call on governments, partners and donors to join us to raise ambition on reaching the most vulnerable children and youth by education and empower them in our common fight against climate change."

Laura Frigenti, Chief Executive Officer, Global Partnership for Education (GPE)

"Climate finance is not optional for the Caribbean's education sector – it is essential."

Sandrea Maynard, the Pro Vice-Chancellor Global Affairs at the University of West Indies

"Climate change is already happening... we need to take action right now, and if we want to do it now, we need to do it collectively."

Bapon Fakhruddin, Senior Specialist, Green Climate Fund (GCF)

Students and their teacher, attend a lesson moments before participating in the third safety drill in Phalombe District, Malawi.
Credit: *GPE/Trans.Lieu*

UNLOCKING CLIMATE FINANCE FOR EDUCATION SYSTEMS

The Climate-Smart Education Systems Initiative lays the foundations for stronger national leadership for climate-smart education, providing a platform for countries to design climate change and education programs.

Building on the Initiative, the Green Climate Fund (GCF), the Global Partnership for Education (GPE), and Save the Children launched an unprecedented project called Building the Climate Resilience of Children and Communities through the Education Sector (BRACE).

Starting in Cambodia, South Sudan and Tonga, BRACE combines financing from the climate change and education sectors to strengthen the resilience of education systems in the face of climate change and protect learning for millions of children affected. In these three very diverse country contexts, BRACE is:

- Retrofitting schools and WASH facilities to better withstand climate impacts.
- Mobilising school management and leadership to develop and implement climate-related school safety plans.
- Linking school safety plans with early warning systems.
- Integrating climate change into teaching and learning materials.
- Supporting teacher training and child clubs to build climate awareness and resilience.

Leveraging of the Climate-Smart Education Systems Initiative's efforts and further gathering of evidence as to what works best at scale in different contexts demonstrates the power of co-financing and collaboration across climate change and education donors.

BRACE ultimately aims to support additional countries to design and implement effective climate change adaptation strategies for the education sector. To achieve this aim, **BRACE** will create a platform for donors and partners to mobilize a pipeline of co-financing across sectors and countries, maximize alignment and effectiveness, and ensure value for money. It will also mobilize knowledge and experience from cross-country learning, including through new resources available on the upcoming weADAPT website.

Together, BRACE and the Climate-Smart Education Systems Initiative work hand in hand to reach and protect more children as the climate crisis intensifies.

BUILDING THE CLIMATE RESILIENCE OF CHILDREN AND COMMUNITIES THROUGH THE EDUCATION SECTOR

- Co-financing platform
- Climate + education alignment
- Initial countries: Cambodia, South Sudan, Tonga

THE CLIMATE-SMART EDUCATION SYSTEMS INITIATIVE

CONTACT

Global Partnership for Education (GPE)
Sarah Beardmore
E: sbeardmore@globalpartnership.org

Save the Children
Nick Ireland
E: nick.ireland@savethechildren.org.au

UNESCO
Julia Heiss
E: j.heiss@unesco.org

UNESCO International Institute of Educational Planning (IIEP)
Leonora MacEwen
E: l.macewen@iiep.unesco.org

Further resources from the Climate-Smart Education Systems Initiative are available at www.climateandeducation.org

GPE Transforming Education

unesco

Save the Children

unesco iiep