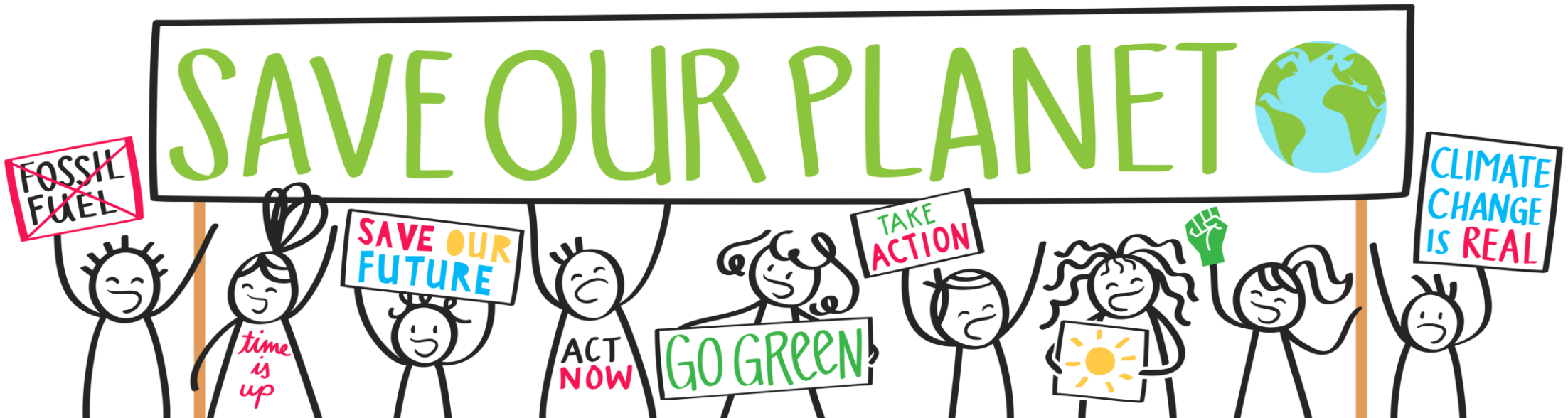
Greening Education for South East Asia (GE4SEA)

26 November 2024



The International Science, Technology and Innovation Centre for South-South Cooperation under the auspices of UNESCO (ISTIC) is a **UNESCO Category 2 Centre** the Malaysian has hosted since 2008. The Centre acts as an **international platform** offering sustainable programmes and services and augmenting sustainable development for **South-South Cooperation**. The Centre's hosting is based on a six-year Agreement between the Malaysian Government represented by the Ministry of Science, Technology and Innovation (MOSTI) and UNESCO. Its current Agreement is from February 2022 until January 2028.

STRATEGIC THRUSTS

- Leading STIE Collaborative and Knowledge-Sharing Platform
- Strengthening science, technology, research and innovation systems and policies for shared prosperity
- Developing talent for Sustainable Development
- Effective Science Communication and Better Access to Information and Knowledge

2010

International Conference on Science Education Policy and IBSE for Development

2011

Workshop on Curriculum Design for the Elective Course on History of STEM in Muslim Countries for Universities in Malaysia

2012

- IBSE International Roundtable
- Training Programme on IBSE for Teachers of Science in Developing Countries
- Innovative Teaching & Learning through IBSE – "A Seminar-Workshop for Science Educators"

2013

- High Level IBSE
- Roundtable on IBSE & Forum on the " Future of Science Education: Challenges and Opportunities
- Half Day Training Workshop on the Teaching of Astronomy though IBSE for Primary School
- Training Workshop on IBSE for Science Educators for African Countries
- Training Workshop on Innovative Teaching & Learning of Science Through IBSE – A Training Workshop for Science Educators from Asia-Pacific Region

2014

Training Workshop on Innovative Teaching & Learning of Science Through IBSE for Teacher Trainers from Asia-Pacific Region

2015

- Training Workshop on Innovative Teaching & Learning of Science Through IBSE for Science Teacher Trainers
- Training Workshop on Developing Thinking Skills through IBSE for Sustainable Development

2016

Training Workshop on Innovative Teaching & Learning of Science Through IBSE for Science Teacher Trainers (Workshop II)

2017

Training Workshop on CSE

2018

- International Conference on CCE
- Training Workshop for Master Trainers on CCE
- Training Workshop on Developing Thinking Skills through IBSE

2019

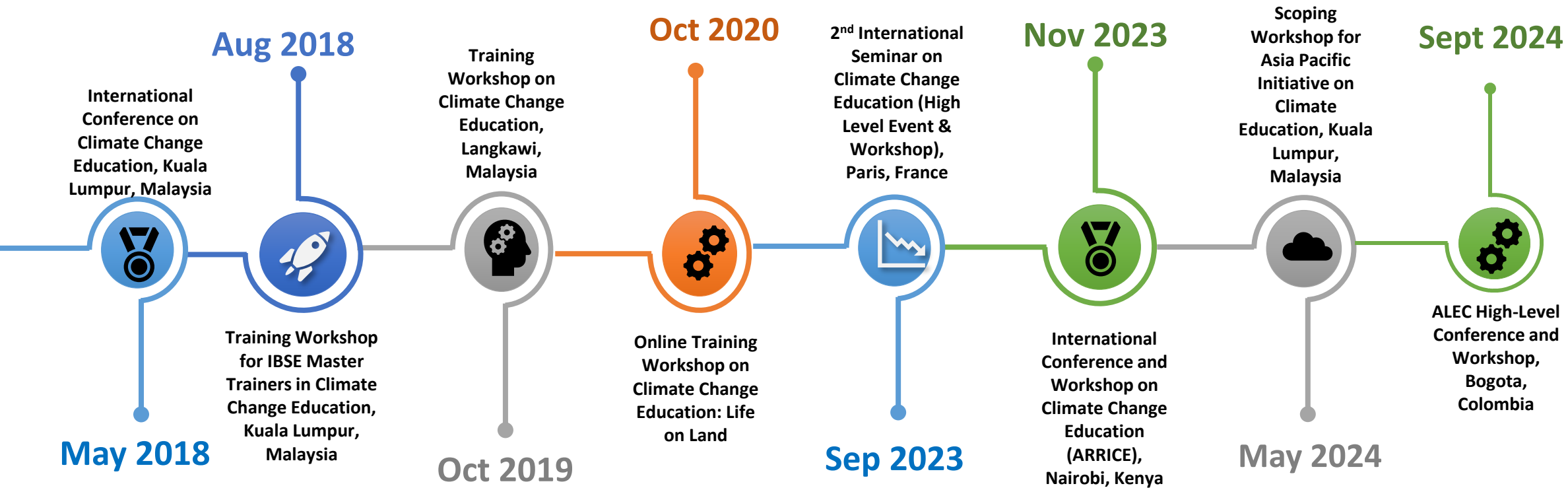
- Training Workshop on CSE
- Training Workshop on CCE

2020

Online Training Workshop on CCE

IBSE – Inquiry-based Science Education
CCE – Climate Change Education
CSE – Computer Science Education

ISTIC AND CLIMATE CHANGE EDUCATION



ALEC in a nutshell

Objective: promote CCE in Latin America

5 years

4 millions €

Components

1. Production and adaptation of pedagogical resources
2. Professional development of teachers and trainers
3. Creation of a community of practices
4. Coordination, evaluation and extension

General objectives

- Reach ~ 16 000 classes by training 6000 teachers
- Encourage the deployment of adaptation or mitigation projects in the classroom.
- Foster the integration of climate change topics in school curricula.

Success story: ALEC

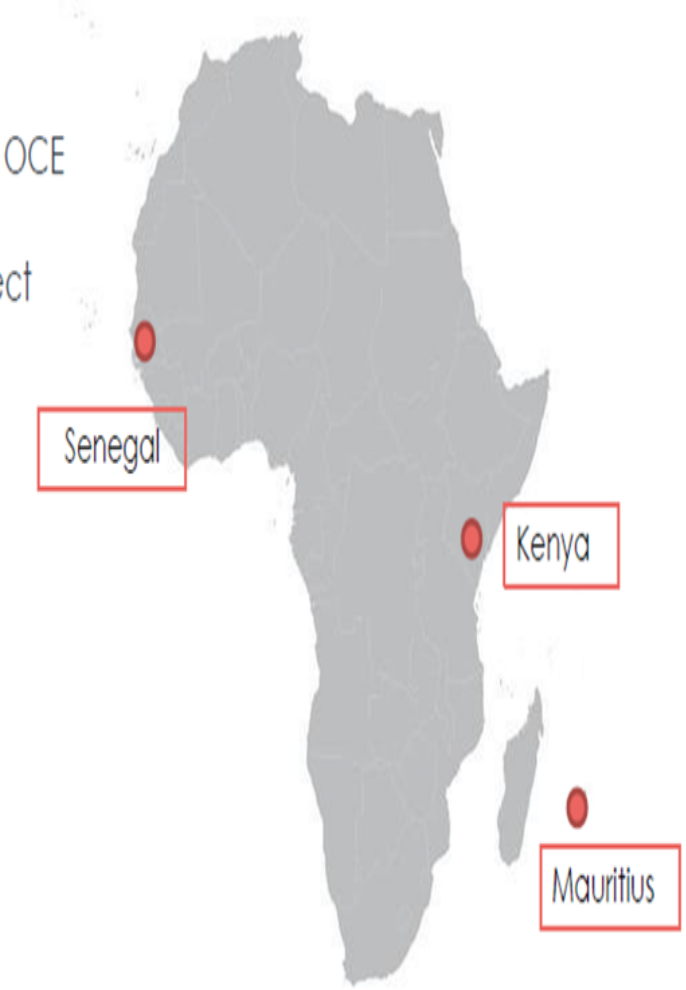
- *"The project evaluation revealed that over **90%** of participants improved both their scientific knowledge of climate change and their teaching practices."*
- *"OCE has developed a range of open educational resources in Spanish, based on the latest IPCC reports. Some of these resources have been adapted by project partners to suit their specific educational and climatic contexts, while new resources have also been developed to address emerging needs"*

3 GUIDE BOOKS FOR TEACHERS
22 ONLINE COURSES
30 VIDEOS

5.956 TEACHERS TRAINED
IMPACTING APPROXIMATIVELY
400.000 STUDENTS

ARRICE – overview

- Initiated and coordinated by the OCE
- A capitalization of the ALEC project
- 3 pilot countries
- 4 years (2023 - 2027)
- ~ 3 M€ budget
- ~ 100 –pilot schools
- **Co-construction avec 4 partners**



ARRICE: capitalization of the ALEC project

- Designed and developed by the OCE
- 5 years (2020 - 2024)
- ~ 4 M€ budget
- 10 local partners
- Objective: 16 000 classrooms, 500 000 students

Greening Education Partnership

Getting every learner climate-ready

#GreenIngEducatIon

The Greening Education Partnership is a global initiative that takes a whole-of-system approach to support countries to tackle climate crisis by harnessing the critical role of education. As a collaborative platform for governments and other stakeholders including inter-governmental organizations, civil society, youth, academia, and private sector, Greening Education Partnership aims to deliver strong, coordinated and comprehensive action that will prepare every learner to acquire the knowledge, skills, values, and attitudes to tackle climate change and to promote sustainable development.

Greening Schools

From early childhood through adult education, work to ensure that all schools achieve green school accreditation, including teacher training and higher education

Greening Curriculum

Embrace lifelong learning approach that integrates climate education into school curricula, technical and vocational education, workplace skills development, teaching materials, pedagogy, and assessment

Structured around **four action areas** of transformative education

Greening Communities

Strengthen community resilience by integrating climate education into lifelong learning, with a focus on empowering and mobilizing young individuals, community centers, and learning cities to take action on climate change.

Greening Teacher Training and Education Systems' Capacities

Strengthen education systems to be climate-smart with adequate measures, and ensure teachers and policymakers are trained.school accreditation, including teacher training and higher education.

50%

of **100** countries in recent UNESCO survey have **NO MENTION** of climate change in their curriculum

82 countries have commited **1000+** organizations involved

Contact us

Secretariat of the Greening Education Partnership Education for Sustainable Development Section, **UNESCO**
gep@unesco.org

Join the partnership

Countries and organisations are encouraged to join the GEP, expressing their interest in and commitment to one or more of the four action areas mentioned above by 2030.
Are you an organization?

Scan the code and learn about how to join!

The Greening Education Partnership is led by its Member States and Partners and is supported by a UNESCO secretariat .

Multi Partner Trust Fund

Financing for greening education stands as a crucial accelerator in preparing every learner for the challenges posed by climate change. Among the avenues for financing, the Greening Education Partnership Multi-Partner Trust Fund (MPTF) is being discussed as a fund dedicated to climate change education. It aims to synergize resources, dissolve silos, enhance cohesion among diverse actors, reduce transaction costs for governments, and create new pathways for innovative and impactful financing. Collaborating with essential climate financing partners, the Greening Education Partnership is steadfast in its commitment to drive climate empowerment into action.

- Overcomes siloes and explores climate finance for education
- Improves development cooperation effectiveness
- Increases coherence and reduce fragmentation
- Spreads risk sharing across partners
- Reduces transaction costs and partners

Greening Curriculum Guidance

Co-developed with young people, the Greening Curriculum Guideline:

- Provides a global standard on teaching and learning objectives on greening education at all levels, including lifelong learning.
- Pilots the guideline in select champion Member States to analyze the current curriculum against the new curriculum guideline to understand the gaps and hold consultations with key stakeholders to provide feedback.
- Supports capacity building and develop resources to encourage its application. Monitoring progress through the agreed Greening Education indicator, for all UNESCO Member States to have "greened" their curricula by 2030.

Green School Quality Standard

- Provide Member States with a minimum quality standard on green schools for whole-school approach to ESD, relevant for a variety of contexts.
- Mobilize schools to apply standards & engage learners in climate action activities in support of greening education globally
- Reinforce educators capacities to ensure climate education is taught in an interdisciplinary way and as a core curriculum component.
- Monitoring progress on a regular basis to integrate UNESCO green school quality standards globally so that all schools are "greened" by 2030.

UNESCO's contribution to Greening Education Partnership

Rooted in its longstanding work in Education for Sustainable Development (ESD), with particular focus on education's role to tackle climate change UNESCO aims to equip individuals, communities, and the wider world with the understanding, skills, values and attitudes to engage in transformative action for shaping green, low emission and climate-resilient societies.

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UNESCO January 2024

Greening Education for Southeast Asia (GE4SEA)

Introduction

The Greening Education for South-East Asia (GE4SEA) Program is designed **as a comprehensive five-year initiative aimed at revolutionizing climate change education in primary and secondary schools across Southeast Asia.** This initiative seeks to operationalize the principles of the Greening Education Partnership, established by the United Nations in 2022, making climate change education a cornerstone of regional climate adaptation strategy.

Background

Southeast Asia faces unique climate change challenges, including rising sea levels, extreme weather events, and biodiversity loss. These challenges threaten the region's economic stability, health, and cultural heritage, necessitating immediate and informed action. Education plays a pivotal role in addressing these issues, equipping the younger generation with the knowledge, skills, values and attitudes to engage in transformative action on mitigation, adaptation and resilience to climate change, aimed at shaping green, low emission climate-resilient societies.

Objectives

The general objective of the project is to equip younger generations in Malaysia and Indonesia of sustainable practices in order to adapt to and mitigate the impacts of climate change.

Specifically, the project will:

- **Improve** understanding of climate change science, impacts, and solutions among students, educators, and communities.
- **Foster sustainable behaviors**: Encourage students and school communities to adopt and advocate for sustainable practices.
- **Build resilience**: Equip schools and communities with the knowledge and skills to adapt to climate change impacts effectively.

Program Components

Curriculum Development: Design and integrate comprehensive climate change education modules into the existing curriculum, tailored to the specific environmental challenges and cultural contexts of Southeast Asia.

Teacher Training: Implement extensive training programs for educators, focusing on climate science and pedagogical methods for sustainability education, and ways to inspire student engagement.

Community Engagement: Foster strong links between schools and local communities to promote climate awareness and joint initiatives for sustainability.

Student Leadership: Develop student-led environmental clubs and projects, encouraging leadership and active participation in climate action efforts.

Monitoring and Evaluation: Establish a robust framework for the ongoing assessment of the program's impact on teachers' and students' learning, behavior change, and on community resilience.

Implementation Plan

Expected launch: 2025

Year 1: Focus on development of first educational materials and teacher training protocols routed in existing curricula and conduct pilot actions in selected schools in 2 countries (Malaysia, Indonesia).

Year 2-3: Expand the program across the 2 countries (target: ~200 schools) incorporating feedback and lessons learned from the pilot schools. Intensify teacher training and community engagement efforts. Broaden the scope to include policy advocacy for integrating climate education into national curricula, develop and test additional education materials embedded into an extended curriculum.

Year 4-5: Consolidate gains, focus on sustainability of the program, expand the program in the 2 pilot countries as well as other Southeast Asian countries (target: 3 more countries).

Partnerships and Collaboration

The Greening Education for South-East Asia Program will be **co-coordinated by 2 international actors**:

The Office for Climate Education (OCE), a center under the auspices of UNESCO, observing organization of the IPCC and co-coordinator of the Greening Education Partnership. OCE supports education systems and teacher communities around the world with educational resources and curricula, professional development, and communities of practices. (http://oce.global)

The International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC), a center under the auspices of UNESCO, acts as an international platform offering sustainable programmes and services and augmenting sustainable development for South-South Cooperation (https://www.istic-unesco.org)

Budget and Funding

Estimated at approximately **3 million euros**, the funding will be ensured by from a mix of governmental, private, and philanthropic sources.

Outcome of Scoping Meeting

- Regional approach focusing on SEA with 2 pilot countries – **Malaysia and Indonesia**
- Proposed language used would be in **Bahasa Melayu** if piloting in Malaysia and Indonesia; local language or English if expanding to other SEA countries
- The target group would involve **individual STEM and non-STEM teachers** rather than schools.
- A minimum of **100 schools per country** proposed for the pilot and using the existing materials from OCE and localized it.
- This initiative should involve the **local community**
- Design of programme: 1.5 - 3 years with selected pilot schools. What goes inside the planning and design stage? (eg Mapping, assessment and evaluation of current curriculum/programmes/policy etc)

Recommendations

- Project will leverage on existing CCE initiatives in the countries - Take a stepback and do a **mapping of CCE in Malaysia and Indonesia.** Landscape analysis.
- Changing the approach from '**programme**' to '**system**'.
- Initiative to become the DNA of regional CCE

Expectations

- The workshop is planned to **facilitate collaborative and open discussion among stakeholders**, with the aim of gathering critical insights, expertise, and perspectives. These contributions will serve as **foundational building blocks** for developing a comprehensive project document.
- Rather than delivering a finalized project plan at the end of the workshop, our objective is to **collectively define and refine the key elements** that will shape the proposal. Inputs will directly influence the scope, priorities, and strategies for the project, ensuring it reflects the collective wisdom and needs of all stakeholders.
- Following the workshop, ISTIC will **consolidate** the outcomes into a draft project proposal, which will then be shared for further review and refinement.
- **Target zero draft by February 2025.**

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United Nations
Educational, Scientific
and Cultural Organization

2024 • 2033
International Decade of
Sciences for Sustainable
Development

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International Decade of
Sciences for Sustainable
Development

International Decade of Sciences for Sustainable Development

Fostering Science for All

Vision

The sciences and a science culture required for a sustainable world developed and accessible to all.

Mission

To engage all societal actors to further advance science and equally benefit from it.

With the aim of advancing scientific knowledge and fostering a culture of science, the Decade has two key objectives:

- To nurture a robust culture of science in line with Article 27, Paragraph 1 of the Universal Declaration of Human Rights, i.e. science is a global public good; everyone could engage in the scientific process and access the science benefits.
- To enhance scientific endeavors to deepen our understanding of nature and humanity, and the intricate interplay between them, and to generate and leverage actionable scientific knowledge to accelerate the achievement of the Sustainable Development Goals (SDGs) and beyond.

Why a Decade of Sciences for Sustainable Development?

Addressing urgent global challenges such as climate disruption, biodiversity loss, increasing natural and human-made disasters, and rising inequalities requires **a more inclusive and interdisciplinary scientific approach to problem-solving**.

On August 25, 2023, the United Nations General Assembly declared the years 2024-2033 as the "International Decade of Sciences for Sustainable Development." This Decade offers a unique opportunity for humanity **to fully harness the power of science in advancing sustainable development and securing a safe and prosperous future for everyone**. UN Member States and all relevant stakeholders are urged to actively back the Decade, with UNESCO designated to lead its implementation.

The Decade will build a Culture of Science by:

1. A global community empowered through **scientific literacy**
2. **Actionable scientific knowledge** is produced and used to advance the achievement of sustainable development goals in alignment with human rights.
3. Basic sciences are advanced through **Global Collaborative Research Initiatives**
4. **Open science** is widely and equitably used to **democratise scientific processes** and access to scientific knowledge.
5. **Science, Technology, and Innovation (STI)** systems are transformed to better respond to scientific and societal needs

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2024 • 2033
International Decade of
Sciences for Sustainable
Development