

Project Brief

Greenspots.org: Climate Change-Resistant Schools in Cambodia

Introduction

Cambodia is grappling with profound challenges as climate change increases temperatures, and unpredictable weather patterns profoundly affect daily life and the educational sector. The Climate Change-Resistant Schools Project has been conceived as a proactive measure to create a sustainable and resilient educational environment to withstand these environmental adversities. This project is built on three key pillars: enhancing infrastructure, providing STEM education and teacher training, and fostering community involvement. Integrated within a broader Content and Language Integrated Learning (CLIL) framework, the initiative aims to tackle climate change locally and globally through a holistic, education-centric approach.

Enhancing Infrastructure

The first pillar of the project focuses on improving school infrastructure to make it more resilient to climate-related events. This involves constructing and renovating school buildings to withstand extreme weather conditions such as floods, storms, and intense heat. Utilising green building practices, schools will be equipped with renewable energy sources like solar panels, rainwater harvesting systems, and natural ventilation. These measures will reduce educational institutions' carbon footprint and ensure that schools remain functional during adverse weather conditions, thus minimising disruptions to the education process. Creating a safer and more stable learning environment allows students to continue their education uninterrupted, which is crucial for their long-term development and well-being.

Providing STEM Education and Teacher Training

The project's second pillar strongly emphasises embedding robust climate-focused STEM (Science, Technology, Engineering, and Mathematics) education within the curriculum, complemented by comprehensive teacher training. By integrating STEM education, students will acquire crucial skills and knowledge that empower them to understand and address climate change issues. This includes practical learning on renewable energy, sustainable agriculture, and environmental science. The comprehensive teacher training component ensures that educators are well-prepared to deliver complex content effectively, inspiring and informing students about the importance of sustainability. This dual focus on student and teacher development is designed to create a well-informed generation ready to tackle climate challenges, thereby ensuring the long-term success and impact of the project.

Fostering Community Involvement

The third pillar of the project emphasises the importance of community involvement. Schools will serve as hubs for community education and engagement on climate change issues. This will be achieved through community workshops, local environmental projects, and partnerships with local businesses and organisations. The project aims to create a collective awareness and drive towards sustainability by involving the community. Parents, local leaders, and companies will be encouraged to participate in school-led environmental initiatives, reinforcing the concept that climate resilience is a community effort. This grassroots approach ensures that the fight against climate change is not confined to the school environment but extends to the broader community, fostering a culture of sustainability.

Integration with Content and Language Integrated Learning (CLIL)

The innovative integration of the CLIL approach adds a unique dimension to the Climate Change-Resistant Schools Project. CLIL combines content delivery with language acquisition and is particularly effective in multilingual settings like Cambodia. By teaching climate science and sustainability topics in English, the project enhances students' understanding of global climate issues and improves their language skills. This bilingual approach ensures that students are better prepared for future academic and professional opportunities, both locally and internationally. Furthermore, it promotes cognitive flexibility and cultural awareness, essential traits in our increasingly globalised world.

Project Goals and Deliverables

Goals

1. Enhance School Infrastructure: Implement climate-resilient school infrastructure to ensure a safe and comfortable learning environment.
2. Promote STEM and CLIL Education: Equip teachers with the necessary knowledge and skills to educate students about climate change, its challenges, and potential solutions while improving English language proficiency.
3. Engage Parents and Community: Raise awareness and involve parents and the broader community in supporting climate-resilient schools.

Deliverables

1. Infrastructure Improvements: Installation of cooling devices, reinforced roofs, shaded areas with trees, rainwater evacuation systems, and provision of clean drinking water.
2. Teacher Training Programs: Comprehensive STEM education, climate change workshops, and CLIL methodology training for teachers.
3. Community Engagement Initiatives: Programs and events aimed at increasing community awareness and participation in climate-resilient practices.

Key Activities and KPIs

1. Infrastructure Enhancements

- Activity 1.1: Install fans and other cooling devices in classrooms.
 - KPI 1.1: Number of classrooms equipped with cooling devices.
- Activity 1.2: Reinforce and protect school roofs.
 - KPI 1.2: Number of roofs upgraded.
- Activity 1.3: Plant trees around classrooms to provide natural shade.
 - KPI 1.3: Number of trees planted and survival rate after one year.
- Activity 1.4: Implement efficient rainwater evacuation systems.
 - KPI 1.4: Number of schools with functional rainwater systems.
- Activity 1.5: Ensure availability of clean and cool drinking water.

- KPI 1.5: Number of schools with installed drinking water systems.

2. STEM and CLIL Education and Teacher Training

- Activity 2.1: Develop and deliver a STEM and climate change curriculum integrated with CLIL.

- KPI 2.1: Number of curriculum modules developed.

- Activity 2.2: Conduct workshops and training sessions for teachers on STEM, climate change, and CLIL methodology.

- KPI 2.2: Number of teachers trained and workshop attendance rate.

- Activity 2.3: Provide ongoing support and resources for teachers.

- KPI 2.3: Number of follow-up support sessions conducted.

3. Parent and Community Involvement

- Activity 3.1: Organize community awareness campaigns.

- KPI 3.1: Number of campaigns conducted and attendance rate.

- Activity 3.2: Create community action groups for climate resilience.

- KPI 3.2: Number of action groups formed and active members.

- Activity 3.3: Hold regular meetings and feedback sessions with parents and community members.

- KPI 3.3: Number of meetings held and participant satisfaction rate.

Conclusion

The Climate Change-Resistant Schools Project in Cambodia aims to address the pressing challenges posed by climate change through a multi-faceted approach. By improving infrastructure, enhancing STEM and CLIL education, and involving the community, we can create a resilient and sustainable educational environment that prepares the next generation to face and mitigate the impacts of climate change. This project will not only improve the immediate learning conditions but also foster a culture of environmental stewardship and resilience. Integrating CLIL ensures that students and teachers are equipped with both the content knowledge and language skills necessary to access global resources and contribute to local and international climate solutions.