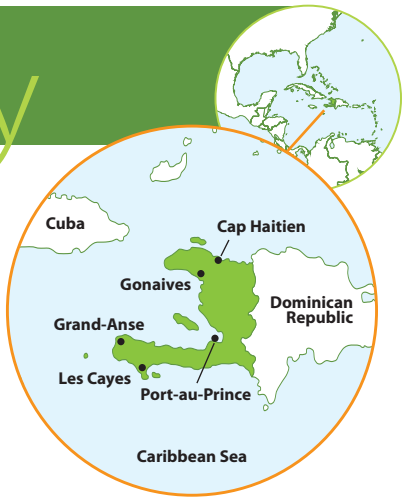
Adaptation Story

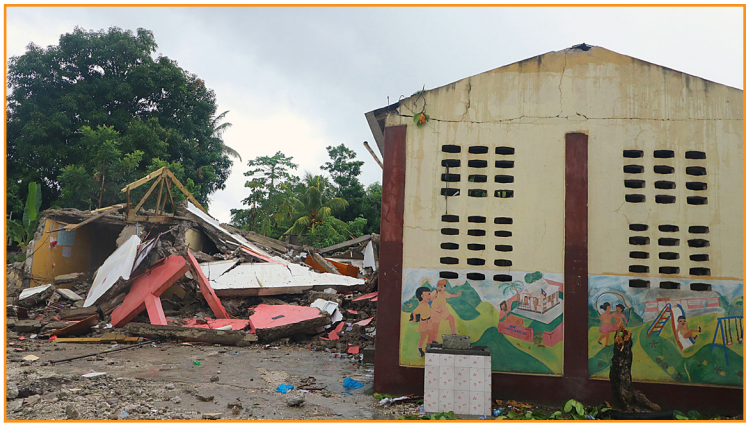
Haiti



OBJECTIVES

- Building resilience of Haitian education sector to hurricanes, floods and natural disaster risks related to climate change;
- Improving national comprehensive knowledge of exposure and physical vulnerability of schools and decision-making processes of climate change adaptation (CCA) interventions;
- Strengthening schools' safety by promoting rehabilitation, retrofitting, reconstruction and risk management protocols;
- Enhancing capacity and awareness of disaster risk reduction (DRR) at national and local levels

After a 7.0 magnitude earthquake hit Haiti in January 2010, nearly 38,000 students and 1,300 teachers and education personnel passed away. The Ministry of Education offices and 4,000 schools were destroyed – including close to 80 percent of educational establishments in the Port-au-Prince area. Hurricane Matthew followed in 2016, further damaging a quarter of the country's schools. Many of these schools are still used as temporary or evacuation shelters. These events as well as the threat of heavy rains, hurricanes, landslides and droughts that accompany it have combined to raise the need to build adaptive capacity and resilience of the Haitian education sector to disasters and climate change hazards.



Schools damaged in L'Azile, borough of Miragoâne, geographic department of Nippes during the earthquake of August 14, 2021 in Haiti. (Photo: UNESCO)

The need to address these climate risks on the education of children and youth has turned into concrete actions. Since it was approved in early 2022, a nearly US$ 10 million project in Haiti funded by the Adaptation Fund and implemented by the United Nations Educational, Scientific and Cultural Organization (UNESCO) is working to strengthen the resilience to hurricanes and floods of the Haitian education sector by retrofitting, climate-proofing and rehabilitating some 700 schools, establishing an innovative risk assessment tool, and implementing various novel structural and non-structural adaptation actions to reduce disaster risks.

The project is taking place in vulnerable areas in the West (Port-au-Prince), North (Cap Haitien), Artibonite (Gonaives), South (Les Cayes) and Southwest (Grand-Anse) departments of the country.

"The Adaptation Fund project will enable the Haitian state to assess and rehabilitate 700 schools in four departments of the country. These extracurricular activities are part of the implementation of the decree for the integration of environmental education in the Haitian education system promulgated by the Haitian state on January 16, 2021," said Mr. Rony Horat, Director at the Ministry of Environment.

One of the first steps of the project is to improve the climate adaptation knowledge and technical capacity of the education sector. This includes enhanced understanding of safety levels of schools across the country, which is critical to effectively implement interventions to rehabilitate and improve structures of any vulnerable facilities. An assessment based on a novel methodology called Visual Inspection for defining Safety Upgrading Strategies (VISUS) was undertaken in more than 620 Haitian school facilities in partnership with the University of Udine in Italy (a UNESCO chair that designed the assessment). VISUS prioritizes interventions based on criteria that ranks specific actions that may be required and associated costs.

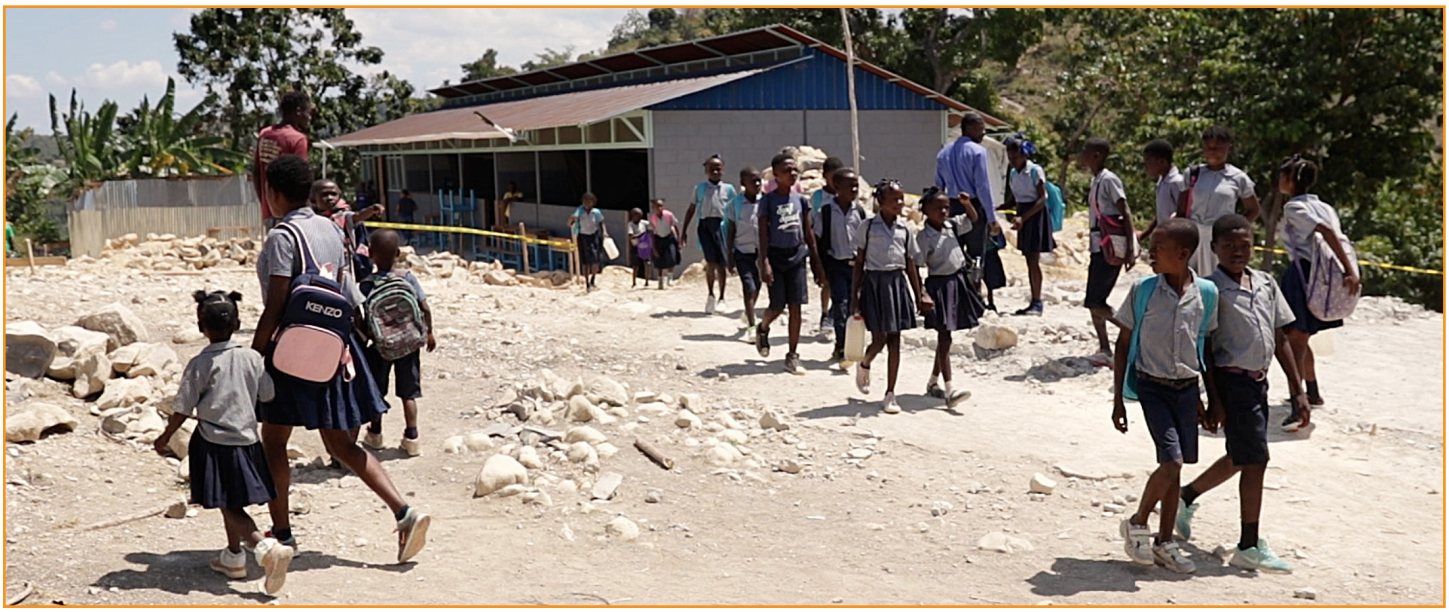
It essentially identifies and analyzes potential hazards and weaknesses in each school, and rates them by current level of safety and the amount of upgrading needed to improve it. For the 622 school facilities assessed, these indicators allowed experts to identify which schools are suited for rehabilitation, retrofitting, reconstruction, relocation, or risk management protocols. At the end of the assessment, a collective report summarized the results and provided a starting point for supporting decision-makers in identifying potential actions to be implemented by the school communities to improve safety.

Risk Profile

Both a Least Developed Country and Small Island Developing State, Haiti is vulnerable to a wide range of climate risks, with nearly 98% of the population exposed to at least two natural hazards. For instance, according to the Global Climate Risk Index published by Germanwatch in 2021, Haiti was the third most affected country in the world from extreme weather impacts from 2000-2018. Haiti is also among the Caribbean countries suffering the highest number of disasters per square kilometer.

PROJECT BY THE NUMBERS

1.5 MILLION	IMPROVING 620	461	117	42	BENEFITTING ~150,000	DEVELOPING 700	TRAINING STUDENTS ~2000
BENEFICIARIES	SCHOOLS	ELEMENTARY SCHOOLS	HIGH SCHOOLS	VOCATIONAL SCHOOLS	STUDENTS	VISUS REPORTS	IN DRR AND CCA



Dismissal of school of Jacquin, borough of Roseau, geographic Department of Grand'Anse. (Photo: UNESCO)

Key Partners:

- *Ministry of Environment*
- *Ministry of National Education and Vocational Training*
- *Directorate for Civil Protection*
- *State University of Haiti*
- *UNESCO Chair on Intersectoral Safety for Disaster Risk Reduction and Resilience of the University of Udine, Italy*

"In Haiti, many school facilities are in bad condition - the learning conditions and the safety of children are threatened. The physical verification component of the safety of the installations to be carried out within the framework of the Adaptation Fund project lifts the veil on the shortcomings of the construction standards," said Mr. Berthony Cadet, Director of the School of Engineering at the Ministry of National Education and Vocational Training.

The role of students and teachers has been pivotal in leading the assessment across the four main geographical areas benefiting from the project. Students and teachers from technical faculties like civil engineering, architecture and others of universities such as the State University of Haiti and American University of Modern Sciences were leading the assessment and serving as evaluators. Professors assisted students before and after the surveys. Based on the results, activities will be solidified towards knowledge and information sharing on risk reduction and improvement as well as awareness-raising campaigns targeting scholars. As a result, students and teachers are also being empowered in climate-resilient development. The comprehensive results of each school through the VISUS assessment will be shared on a geographical website platform, allowing access to different stakeholders. It is further hoped the effort can be scaled up.

"The Faculty of Sciences of the State University of Haiti is honored to participate in the evaluation of school structures and their immediate environment, thanks to the VISUS methodology, developed by UNESCO in the framework of this project funded by the Adaptation Fund. This technology is already inspiring the Faculty's Board of Directors to develop other similar tools to identify the dangers and risks to which students are exposed," said Mr. Karl Henry VICTOR, Professor at the Faculty of Sciences of the State University of Haiti.

The most tangible result of the project will be the availability of permanent resilient structures during disasters. The rehabilitating efforts of schools and disaster shelters will reduce the need for temporary structures to a large extent. In case of natural disasters, the rehabilitated, retrofitted, and reconstructed schools will also serve as shelters for people of the community.

"After the recent earthquakes and Cyclone Matthew in Haiti, many schools and churches used as shelters in the past during natural disasters were damaged and could no longer receive the victims. With the Adaptation Fund project, hope is reborn. We will have safer shelters to guarantee the safety of displaced families in case of earthquake or violent storms," said Mr. Serge Semerzier, Director of Civil Protection in Haiti.

In terms of social benefits, having resilient educational facilities will also be an effective medium for spreading disaster risk reduction awareness in the communities. They can act as centers of learning and be instrumental in the transfer of technology to communities to build their disaster resilience. Activities like retrofitting of a school with safety measures can spread the message to communities on the importance of resilient buildings to reduce disaster impacts and can lead to actions to replicate these models in other schools or buildings that need it.

Scholars of the school of Jacquin, temporary shelter built by UNESCO after the earthquake of August 14, 2021. (Photo: UNESCO)