

**PROJECT PROPOSAL TO THE ADAPTATION FUND** 

# Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti

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# List of acronyms and abbreviations

Acronym	Description
AF	Adaptation Fund
CC	Climate Change
CCA	Climate Change Adaptation
СО	Country Office
CSSF	Comprehensive School Safety Framework
DRR	Disaster Risk Reduction
EE	Executive Entity
ESD	Education for sustainable development
HQ	Head Quarter
IE	Implementing Entity
IPC	International Programme Coordinator
MARNDR	Ministry of Agriculture, Natural Resources and Rural Development
MAST	Ministry of Social Affairs and Labor
MEL	Monitoring, Evaluation and Learning
MTPTCE	Ministry of Public Works, Transport, Communication and Energy
NAA	National Admin Assistant
NAPA	National Adaptation Action Plan
NDC	National Development Contribution
NDP	Notification of Defect Period
NUH	National University of Haiti
PARDH	Action Plan for the Recovery and Development of Haiti
PMU	Project Management Unit
PNGRD	National Risk and Disaster Management Plan
PSC	Project Steering Committee
PSDH	Strategic Development Plan of Haiti (Plan Stratégique de Développement d'Haïti)
SDG	Sustainable Development Goals
ТоТ	Training of Trainers
UD	University of Udine
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNOPS	United Nations Office for Project Services
VISUS	Visual Inspection for the definition of Safety Upgrading Strategies

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# **PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND**

### **PART I: PROJECT INFORMATION**

Project Category:	Regular Project Concept			
Country:	Haiti			
Title of Project:	Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti			
Type of Implementing Entity:	Multilateral Implementing Entity			
Implementing Entity:	United Nations Educational, Scientific and Cultural Organisation (UNESCO)			
Executing Entity:	United Nations Office for Project Services (UNOPS); United Nations Educational, Scientific and Cultural Organisation (UNESCO)			
Amount of Financing Requested:	US\$ 9.890.000,00 (in U.S Dollars Equivalent)			
Table	Table I-I Project Information			

# **Project Background and Context**

# a. Brief project area context

- 1. Haiti, officially the **Republic of Haiti** with the capital Port au Prince, is a Caribbean country located on the west side of the island of Hispaniola, east of Cuba in the islands of the Caribbean Sea. It occupies three eighths of the island; the remaining area is the Dominican Republic.
- 2. Haiti covers 27,750 square kilometers and has approximately 10.2 million inhabitants. The country is located along a peninsula within Hispaniola, in the shape of a horseshoe, and has 1,771 km of coastline.
- 3. The country's **topography** is mostly characterized by rugged mountains and, fertile river valleys. With approximately 70% of the island covered by mountains, most people live along the coast. The highest point of Haiti is Pic la Selle, reaching 2,680 meters.
- The Decree of 30 October 2003 covering the territory of the fixed division cutting of Haiti in ten (10) departments, forty-two (42) districts, one hundred forty (140) towns, five hundred seventy (570) communal sections<sup>1</sup>.

IHSI Code <sup>2</sup>	Department	Chef-Lieu or Capital	Area (km)	Population (2002)	Density / km²
5	Artibonite	<u>Gonaïves</u>	4984	1168800	234.5
6	<u>Center</u>	<u>Hinche</u>	3675	564200	153.5
8	Grand'Anse	<u>Jeremi</u>	1871	733000	391.7
10	<u>Duds</u>	<u>Miragoâne</u>	1268	266379	210.0
3	<u>North</u>	Cap-Haitien	2106	872200	414.2
4	Northeast	Fort Liberté	1805	283800	157.2
9	North West	Port-de-Paix	2176	488500	224.5
1	<u>WEst</u>	Port au Prince	4827	2943200	609.7
7	South	Les Cayes	2794	745000	266.6
2	South East	<u>Jacmel</u>	2023	518200	256,



Table I-II Statistics of departments of Haiti

Figure I-1 Map of departments of Haiti

5. The **climate** of Haiti is mainly tropical with distinct climatic zones that allow a wide variety of biodiversity. Vegetation is characterized by bushes, conifers and mangrove. The rainy season in most parts of Haiti is between May and November. Haiti is exposed to various **natural** 

<sup>&</sup>lt;sup>1</sup> The Decree of 30 October 2003 on the division of the territory of Haiti

<sup>&</sup>lt;sup>2</sup> http://www.ihsi.ht/pdf/Methodes\_et\_procedures/Manuel\_instruct\_agents\_codifi(RGPH2003).

**hazards**, namely hurricanes, floods, volcanic eruptions, earthquakes, tsunamis, landslides, droughts and fires. These risks have compromised the strategies of poverty reduction in the country, impeded progress, and endangered development of education systems. Their impact can be amplified by the expected effects of changes in the global climate and extreme weather events that will potentially become more frequent and severe.

6. As a small island developing state, due to climate change, Haiti is exposed to the threat of sea level rise, and to increasingly intense hurricanes and frequent tropical storms. Haiti is also particularly vulnerable to droughts, coastal erosion and landslides. These disasters can jeopardize the country's food security, infrastructure, and the safety of the population. Haiti's vulnerability to climate change is due to a combination of factors, ranging from its geographical location, deforestation and land degradation, to high poverty rates and weak institutional capacity.

#### <u>b. Hydrography and climate context</u>

- 7. Because of its latitude, between latitudes 18° and 20° north, the country has a tropical climate characterized by alternating between a wet season and a dry season. In the plains, average temperatures vary between 28 ° C in winter and 32 ° C in summer.
- 8. On mountain tops, the temperature can fluctuate between 18 ° C and 22 ° C. **Rainfall varies** not only with altitude but also with the orientation of mountain ranges in relation to the trade winds from the Northeast.
- 9. Haiti is located in full trajectory of Atlantic tropical systems that affect the Caribbean each year is from June through November. Hurricane Jeanne in September 2004 was one of the deadliest in decades for Haiti. In 2008, the country has faced four successive hurricanes. More recently hurricane Matthew occurred in October 2016 decimated the deep south of the country, causing considerable damage.
- 10. Haiti is also exposed to periods of intense **drought**. The rainy season is now shorter. Some areas may not receive a drop of rain for several successive months. The country is divided into **30 major watersheds** and river units of different sizes<sup>3</sup>: the largest is the Artibonite River that extends into the country's central region over an area of 6,435 km<sup>2</sup>, and the smallest is the Turtle River has an area of 179 km<sup>2</sup>.
- 11. The study of Socioeconomic Impacts of Climate Change in Haiti and Coping Responses<sup>4</sup>, Conducted jointly between the Ministry of Environment, Economic Commission for Latin America and the Caribbean, and UNDP, indicates that climate trends in the country are planning a considerable risk profile. Indeed, the progress scenarios project a temperature rise ranging from 0.8 ° C to 1.0 ° C. According to the **scenarios** conducted on the first Communication<sup>5</sup>, climate change projected to Haiti indicates a **temperature increase** ranging from 0.8 ° C to 1.0 ° C for the year 2030; for the 2060 year, this increase will vary from 1.5 ° C to 1.7 ° C. These results are consistent with those of the temperature obtained by the application of models ACCURATE, that predict changes up to 1.7 degrees Celsius for a few months.

<sup>&</sup>lt;sup>3</sup> The IDB and watersheds

<sup>&</sup>lt;sup>4</sup> Temperature changes expected for the 2041-2050 decade (Ministry of Environment Haiti, 2009) <u>http://www.social-protection.org/gimi/RessourceDownload.action?ressource.ressourceld=17690</u>

<sup>&</sup>lt;sup>5</sup> The Kyoto Protocol was ratified by Haiti on 6 July 2005 and entered into force on 4 October 2005. The country has made and submitted its first National Communication to the UNFCCC in August 2001 and the second in October 2013



**Figure I-2** Temperature changes expected for the Decade 2041-2050 (Ministry of the Environment, 2009).

- 12. In addition, rain may decrease from year to year, depending on the area of the country, leading to phenomena of droughts and reduced adaptability by forests. Conversely, it should be noted that extreme precipitation events would quickly drain the water upstream and provoke floods downstream. The climate of Haiti has undergone several changes in recent times. According to data collected by the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR)<sup>6</sup> of Haiti, the average temperature has increased by more than 1 degree between 1973 and 2003.
- 13. The conditions of extreme and variable weather alternate between drought in the dry season (usually between December and April) and strong storms and hurricanes during the rainy season (usually between August and November). Changes in variability and extreme weather conditions are in line with the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)<sup>7</sup>. For example, the report indicates that in 90s, 30% of cyclones have been classified category 4 or 5 compared to 20% in the '70s.

Department	hurricanes	floods	droughts
Artibonite	10	2	3
Center	9	9	6
Grande Anse	2	7	9
duds	5	8	8
North	7	5	7
Northeast	8	10	2
North West	6	4	1
West	4	1	4
South	1	3	10
South East	3	6	5

Table I-III Severity of disasters in the departments of Haiti (1 = maximum risk, 10 = minimum risk)<sup>8</sup>

14. During the 20th century, Haiti was hit by 34 storms, cyclones or hurricanes. About 80% of them took place after 1954 and 44% of these were recorded in the 90s9. Just in 2016, the hurricane season evaluation report shows a balance of 546 dead, 128 missing, 439 injured and 2.1 million people affected.

<sup>&</sup>lt;sup>6</sup> Unite statistique agricole et informatique MARNDR Haiti

<sup>&</sup>lt;sup>7</sup> The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for Assessing the science related to climate change.

<sup>&</sup>lt;sup>8</sup> Source: Haiti Lifeline / FOE Haiti, "The Events of Climate Change in Haiti", 2006.

<sup>&</sup>lt;sup>9</sup> Oxfam Maps and study of risks, vulnerability and response capacity in Haiti

Date (dd/mm/yyyy)	Name	Areas affected	Speed (Km / h)	Dead	Disaster	Damages (US \$ 1000)
08/12/1915	n/a	Peninsula's southern portion	76	1600	n/a	n/a
1935	n/a	South, Southeast, Grand Anse	n/a	2150	n/a	n/a
12/10/1954	Hazel	South Grand Anse, Port-au-Prince	n/a	410	250000	n/a
03/10/1963	Flora	South-East Zone	240	5000	n/a	180 000
24/08/1964	Cleo	Cayes Camp-Perrin Arniquet	150	100	80000	10000
29/09/1966	Inez	South, Port-au-Prince of Marigot Grand Goave	120-190	480	67000	20000
13/11/1994	Gordon	All the territory	n/a	1122	n/a	n/a
22/09/1998	Georges	All the territory	n/a	242	385000	80 000-180 000

**Table I-IV** Major Hurricanes that hit Haiti.

15. Considering only the major hurricanes, of the 39 recorded between 1700 and 1997, 15 of them have been between 1900 and 1997. Therefore, it is possible to experience a cyclone in Haiti every six to seven years. The damage caused by these phenomena, as well as by those resulting from heavy rainfall, can affect the entire country. The devastating winds can affect any part of the country, although the central and northern regions are best preserved of the most violent winds. Considering only the major events such as hurricanes, tropical storms and depressions, that occurred in the last 50 years, the country's most threatened area is the Southern peninsula (Table 3 & Figure 1). All catastrophic hurricanes that struck Haiti hit the South.Additionally, it is subject to very localized nature of events such as tornadoes and gales. It is estimated that nearly 2 million Haitians per year are subject to the risk of cyclones and hurricanes.



Figure I-3 Frequency of cyclones in Haiti's departments.

### c. Economic, social and environmental context

#### Vulnerability socio-political history of the country

- 16. Haiti, a former French and Spanish colony, obtained its independence since 1804. However, the country could not capitalize on the opportunities offered by socio-political independence. It quickly evolved into a cycle of violent dictatorial regimes and a series of military coup. In 1990 the country recorded a precarious democratic transition followed by a series of postelection violence and an unprecedented institutional instability making the country ungovernable.
- 17. This has resulted in a political stalemate punctuated by long social crises that lasted until 2015. Today, although the socio-political situation becomes calmer and more stable, it is

recognized that challenges remain in governance of the country. Similarly, the establishment of a political, institutional and legal MfDR was not helped by this unstable context.

#### Population vulnerability

- 18. In 2015, the population was estimated at approximately 10,512,474 inhabitants (IHSI, 2015). The country has the highest population density in the region (or 379 people per km<sup>2</sup>). The annual growth rate of population is 1.3%. The Haitian population is mainly characterized by its youth. Children and young people under 25 represent over 56% of the total population. There are 86 men for every 100 women in urban areas and 98 men per 100 women in rural areas.
- 19. Population projections indicate that in 2050, the Haitian population could exceed 16 million. In 2030, the urban population would consolidate over 60% of Haitians and by 2050 over 70% (IHSI, 2015). This urban trend could increase vulnerability to natural disasters centered on cities if mitigation measures are not planned in terms of urban development, organization of space, and promotion of building standards for human settlements etc.

#### **Societal Context**

- 20. Haiti is one of the poorest countries in the world. About a quarter of the population lives on less than \$ 1.25 a day (Sustainable Development Framework, 2016). The same document indicates that the monetary poverty rate is estimated at 58.6% and is about 6.3 million in the same period.
- 21. The national economy is strongly driven by the service sector. The latter, which covers 59% of GDP is mainly based on services such as catering, hotels, financial institutions, transportation etc.
- 22. The primary sector, which mainly employs vulnerable groups account for 23 to 25% of GDP. The sector employs over 70% of the population, particularly the poorest. It is mainly rural and agricultural. Indeed, more than half of Haiti's population (between 5 and 6 million) live in rural areas and nearly 85% of the population practice farming.
- 23. The secondary sector contributes 18% of GDP and is related to the processing of raw materials. In recent years, in favor of post-seismic reconstruction projects, the construction sector and Public Works (BTP) has largely contributed to the growth of the economy.
- 24. From the above, one can note that the Haitian economy is not pro-poor and it mostly benefits the wealthy classes. Moreover, it is comparatively extroverted and is not inclusive enough. Thus, it is not a robust resilience floor for the most vulnerable to disasters.

### d. Disaster and CC risk

- 25. Haiti is subject to a range of natural hazards that may be of hydro meteorological or geodynamic origin. Haiti is considered **the fifth country more exposed to the risk of disasters worldwide**. Nearly 98% of the population is exposed to at least two natural hazards: earthquakes, hurricanes, landslides, floods and/or drought. Indeed, more than a hundred disasters hit the country in the years 1900-2016<sup>10</sup>.
- 26. These disasters have so often ravaged several cities. Example include an earthquake of magnitude 7.0(Mw), nearly 40 cyclones, over fifty floods, seven periods of drought.

<sup>&</sup>lt;sup>10</sup> UN Office for Disaster Risk Reduction, Government of Haiti Document Country for Disaster Risk Reduction: Haiti, 2016

- 27. According to EM-DAT<sup>11</sup> 96% of Haiti's population lives in area exposed to two risks of disasters. The country has an index of vulnerability to cyclones of 12.9 on a scale of 13 and ranks first in terms of vulnerability to cyclones in the region of small island states.
- 28. The global index on climate change indicates that the country ranks 3<sup>rd</sup> among the most affected by the effects of extreme weather events worldwide. In the Caribbean countries, Haiti is the one that suffers the highest number of disasters per square kilometer<sup>12</sup>.
- 29. In 2018, the figures for the index of vulnerability to natural disasters and humanitarian crises published by the Group INFORM<sup>13</sup>show that the country's vulnerable situation has not changed much. In this index, Haiti is in 14<sup>th</sup> place globally out of 119, and in first place in the Region of Latin America and Caribbean (LAC).



Figure I-4 Inform Risk Index 2018.

- 30. According to the World Bank, 56% of the country's production of GDP are located in areas at risk of disaster. To this end, it notes that the recurrent flooding would cause an economic impact of 2% of GDP (World Bank, 2014).
- 31. According to the analysis of historical data disasters made by the GFDRR<sup>14</sup>, it was estimated that losses from extreme events, of the hydro meteorological kind amounted to 150 million USD per year on average. Moreover, the average annual damage associated with tropical cyclones are estimated over a period of 10 years at more than 442 million USD per year.
- 32. Chronic food insecurity related to **drought** affects all areas in livelihood of the country, approximately 70% of the population. More than three million people were in moderate or severe chronic food insecurity in 2016 and 9 out of 10 departments are periodically under stress (CNSA<sup>15</sup>). As for chronic malnutrition, approximately 22% of children under 5 years of age are affected. The moderate or severe food insecurity affected 3.2 million people (or 29% of the total population), of which 2.8 million moderately malnourished and 4.5 million were severely malnourished.

<sup>&</sup>lt;sup>11</sup> Emergency Events Database (EM-DAT) <u>https://www.cred.be/projects/EM-DAT</u>

<sup>&</sup>lt;sup>12</sup> Source <u>link</u>

<sup>&</sup>lt;sup>13</sup> INFORM is an open source method for quantitative risk assessment crisis and disaster. The results obtained with this tool can support decision making prevention

<sup>&</sup>lt;sup>14</sup> Global Facility for Disaster Reduction and Recovery (GFDRR)

<sup>&</sup>lt;sup>15</sup> National Coordination for Food Security (CNSA) institution of the Haitian state is to influence public policies to sustainably improve food security conditions of the Haitian population.

- 33. Flooding is a major problem in almost all the 30 largest rivers in Haiti due to heavy seasonal rains, the occurrence of storm in coastal areas, eroded and deforested landscape, and river sedimentation. Coastal cities with large concentrations of people such as Jacmel, Les Cayes, and Gonaives are in the direct path of storms.
- 34. The coastal plains contain important aquifers that are more prone to salinization and as soils become saltier, resulting from rising sea levels, they will no longer be cultivable, which may cause significant economic regressions. Communities with low incomes located near rivers and coastal plains live the bitter experience of significant loss of human life during the hurricane season due to flooding and powerful gusty winds. The subsequent flooding downpours also affect public health: they facilitate the spread of diseases such as cholera.

#### e. Impact on school safety

- 35. Disasters have a major impact on children, youth and education systems. Studies suggest that in the world every year 175 million children are likely to be affected by natural hazards leading to disaster, and children in Haiti are no exception. In January 2010, approximately 38,000 students and 1,300 teachers and education personnel died in Haiti. The Ministry of Education offices were destroyed along with 4,000 schools – close to 80 % of educational establishments in the Port-au-Prince area.
- 36. In 2016, hurricane Matthew struck Haiti and caused significant physical damage to Haiti's education sector, as concluded by an assessment by the MENFP<sup>16</sup>. An average figure estimated that 3,452 schools were affected and 521 schools were completely destroyed. The cost of damage due to the hurricanes on schools in the southern departments reached an estimated \$ 62.9 million U.S. dollars. On average, one school out of four was damaged.
- 37. Many of these schools are still used as temporary shelter, or as evacuation shelters.<sup>17</sup>
- 38. In Haiti, technical and financial resources are scarce or unavailable to perform tasks on a standalone basis. Despite this, the main strategies have been implemented to improve school adaptation, mitigation and preparedness. A comprehensive education sector safety strategy contains three overlapping areas of focus: Safe School Facilities, School Disaster Management and Disaster Prevention Education. Enveloping these three pillars are education policies and plans at the government level, ideally undertaking systematic analysis of threats to school and system safety and developing policy and plans that address each of these three areas.



Figure I-5: Comprehensive School Safety Framework (CSSF)

<sup>&</sup>lt;sup>16</sup> Ministry of National Education and Vocational Training (MENFP) post Hurricane Matthew evaluation report

<sup>&</sup>lt;sup>17</sup>80% of spaces that are used as post disaster evacuation shelters are public schools. Sources National Plan for the Management of Risks and Disasters. PNGRD Haiti

- 39. Recognizing that school age children spend the majority of their waking hours at school, there is always a high possibility that a natural hazard strike while they are at school. Therefore, school facilities need to be protected from disasters as they save lives of children and they can also assist as temporary shelter in post disaster scenario. Safer schools are necessary to prevent lives of children during natural hazards events. The concept of school safety, however, is not limited to preventing the collapse of school buildings in disasters, and safety of teachers and students, but rather extends to meet the broader goal "disaster risk management".
- 40. Moreover, resilient schools are an effective medium for disseminating disaster risk reduction awareness in the communities, can act as center of learning, may be instrumental in the transfer of technology to the communities and have significant role in building disaster resilient communities. The activities like retrofitting of a school and new construction with safety measures can spread the message to the community of the importance of resilient buildings to reduce disaster impacts.

#### **Project Objectives**

- 41. The aim of the project is to enhance the adaptive capacity and resilience of the Haitian education sector to disaster risk of natural hazards related to climate change, through the establishment of appropriate risk assessment tool, schools retrofitting and implementing adaptation actions in Haiti.
- 42. The project promotes and adopt innovative, structural and non-structural resilient resolutions. More specifically, this project is intended to strengthen the resilience to hurricane and flood of the Haitian education sector by:
- Improving the national comprehensive knowledge of exposure and physical vulnerability of school facilities and decision-making process of intervention in Haiti;
- Strengthening school safety by promoting rehabilitation, retrofitting, reconstruction or relocation on selected schools and risk management protocols for schools;
- Enhancing the capacity and awareness of the local population and civil protection stakeholders in risk management at national and local levels;

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
Component 1	Output 1.1	Outcome 1	80.988,00
Assessment of	Trainers competence to provide inclusive,	Improved national	
school	technical and effective training is improved	knowledge of	
facilities by	Output 1.2	exposure and	62.088,00
VISUS	Decision makers understanding of the VISUS	physical	
methodology	approach enhanced	vulnerability of	
	Output 1.3	school facilities and	112.988,00
	VISUS surveyors know-how is transferred to	capacity of the	
	university students	decision-making	
	Output 1.4	process of	364.020,00
	Exposure and vulnerability of school facilities	intervention in Haiti	
	are assessed		
	Output 1.5		44.420,00
	GIS-based web platform knowledge-sharing is		
	put on place		

#### **Project Components and Financing**

	Output 1.6		139.488,00	
	Strategic intervention plan for school facilities			
	is developed			
	Output 1.7 Coordination		62.478,90	
Component 2	Output 2.1	Outcome 2	457.667,24	
School	Detailed intervention of the selected schools	Strengthening the		
adaptation	is designed.	school safety by		
and safety	Output 2.2	promoting	5.225.008,29	
Improvement	Adaptation, Rehabilitation or retrofitting of	rehabilitation,		
	school facilities are implemented	retrofitting,		
	Output 2.3	reconstruction or	56.968,47	
	Trainers competence to provide inclusive,	relocation on		
	technical and effective training is improved	selected schools and		
	Output 2.4	risk management	183.862,50	
	Good DRR and CCA practices are adopted by	school protocols		
	students and school staff			
	Output 2.5		183.862,50	
	Risk management school protocols are			
	adopted		540 205 44	
	Output 2.6		519.305,14	
Component 2	Output 2.1	Outcomo 2	62 767 22	
Enhancement	Knowledge and awareness of the disaster risk	Enhancing the	02.707,55	
of climate	due to CC in Haiti is enhanced	canacity and		
resilience of		awareness of local	372 900 00	
social	Community emergency plan is put on place	nonulation and civil	372.300,00	
community	Output 3 3	protection	402 900 00	
through the	Community capacity to cope with disasters	stakeholders in risk	102.300,00	
educational	improved	management at		
sector	Output 3.4	national and local	462.631,67	
	National action plan for resilient school	levels	,	
	facilities and their surrounding communities.			
	And Improvement of school resilience			
	through the establishment of school pantry			
	gardens.			
	Output 3.5 Coordination		93.312,64	
Component 4	Output 4.1	Outcome 4	50.346,67	
Project's	Assessment of VISUS methodology in the	Monitoring and		
outcomes	schools	evaluation of the		
assessment	Output 4.2	outcomes	44.096,67	
	Assessment and monitoring the safety level of			
	the schools			
	Output 4.3		41.596,67	
	Assessment enhancement level of climate			
	Putput 4.4 Coordination		6 401 21	
L Drojoct Even	tion cost (loss than <1 EV)		0.491,31	
I. Project Execu	127.219,41			
III. Project Cycle Management Fee charged by the Implementing Entity (less than <8.5%)				
Amount of Financing Deguasted				
Amount of Final	9.890.000,00			

Table I-V Project Components and Financing

- 43. The components of the project are developed following the process of change outlined by the causal linkages between the outputs and the hypothesis behind each single step. **Figure I-6** presents the Theory of Change of the proposed project.
- 44. The project is aligned with AF's results framework at outcome level. In particular:
- <u>AF's Outcome 1</u>: the VISUS assessment and the interventions of component 2 will reduced exposure to climate-related hazards and threats;
- <u>AF's Outcome 2</u>: the project component 2 will strengthen institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses related to the education sector;
- <u>AF's Outcome 3</u>: the local scale of school' interventions of component 2, the training program and the assessment of component 1 will strengthen awareness and ownership of adaptation and climate risk reduction processes at local level;
- <u>AF's Outcome 4</u>: all the project components aim to increase the adaptive capacity within education infrastructure and services;
- <u>AF's Outcome 7</u>: the project component 3 aims to improved policies and regulations that promote and enforce resilience measures at national level in the education sector.

## **Projected Calendar**

#### Table I-VI Projected calendar

Milestones	Expected Dates	
Start of Project/Programme Implementation	March, 2022	
Mid-term Review	October, 2023	
Project components closing	March, 2025	
Terminal Evolution & NDD	Within 12 months after Project	
	components closing	

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#### PART II: PROJECT JUSTIFICATION

#### A. Project Components

- 45. The project is extremely important for enhancing the national resilience of Haiti by increasing the capacity to absorb and react to the extreme events increased by climate change. In fact, these event are constantly challenging the country and are becoming one of the major restraints for a sustainable development. The project aims to enhance the adaptive capacity and resilience to disaster risk of natural hazards focusing on the Haitian education sector. The project aims at the achievement of the following three major objectives: 1) Improve the national knowledge of exposure and physical vulnerability of school facilities and capacity of the decision-making process of intervention in Haiti; 2) Strengthen the school safety by promoting rehabilitation, retrofitting, reconstruction or relocation on selected schools and implementing school protocols for risk management school; 3) Enhance the capacity and awareness of the local population and civil protection stakeholders in risk management at national and local levels. These objectives will be achieved through four interlinked components:
- Component 1: Assessment of school facilities by VISUS methodology
- Component 2: School adaptation and safety Improvement
- Component 3: Enhancement of climate resilience of social community through the educational sector.
- Component 4: Project's outcomes assessment
- 46. The components have been designed to translate the four rebuilding pillars (i.e. territorial rebuilding, economic rebuilding, social rebuilding and institutional rebuilding) of the Strategic Development Plan of Haiti into concrete action on the ground. The project components respond to this plan by immediately increasing the resilience of some prioritized schools by adopting a long-term development perspective.

#### Component 1: Assessment of school facilities by VISUS methodology

- 47. Component 1 specifically responds to the first of three objectives of the project: Improve the national knowledge of exposure and physical vulnerability of school facilities and capacity of the decision-making process of intervention in Haiti.
- 48. Haiti is very vulnerable to extreme events due to climate change and the education sector is not far behind, as recent events unfortunately confirm. In order to increase the resilience of Haiti, in particular the resilience of the education sector, this component aims to improve the competence and the knowledge of local technicians. These specific competences will allow to assess the safety level of the school facilities across the country, this knowledge is the first step to start a proper implementation of interventions of rehabilitation. The assessment will be based on the VISUS<sup>18</sup> methodology, a Visual Inspection for defining Safety Upgrading Strategies, that allows to rank the priority interventions on the basis of decision-making criteria, and to define specific actions required and how much they would cost. This

<sup>&</sup>lt;sup>18</sup> UNESCO Guidelines for Assessing Learning Facilities in the Context of Disaster Risk Reduction and Climate Change Adaptation: <u>VOLUME 1</u>: Introduction to learning facilities assessment and to the VISUS methodology; <u>VOLUME 2</u>: VISUS Methodology; <u>VOLUME 3</u>: VISUS Implementation (see also a short description in **Appendix 7**)

classification will be the base for the development of strategy of intervention that is implemented by Component 2.

49. Component 1 contains 6 outputs described below.

#### **Output 1.1**: Trainers competence to provide inclusive, technical and effective training is improved

- 50. The Training of Trainers (ToT) is a strong predictor of sustainability of this project because it will allow to up-skilling the workforce rapidly, at a low cost and exponentially by developing local educators. The ToT provides participants with horizontal and crossing information and skills to plan, develop, and mainstream active participation, with gender and youth inclusion in their trainings. Further the horizontal information, the ToTs will provide vertical competence on the multi-risk of Haiti and the VISUS technical guidelines, characterization and standards for the multi-hazard assessment of school facilities in Haiti.
- 51. Indicative activities:
- Identify and map national, regional (department) and local organizations mandated to work on DRR, including climate related risks;
- Identify and select trainer of trainers that could be nationwide representative;
- A ToT at the beginning of the project;

#### Output 1.2: Decision makers understanding of the VISUS approach enhanced

52. VISUS is especially addressed to stakeholders from the Ministry of Education, National Disaster Management Authorities and other relevant institutions to help them in understanding which schools need priority interventions, which specific actions are required and how much they would cost. The very comprehensive VISUS assessment provide a large amount of information and a set of indicators used to support decision-makers in the definition of safety upgrading strategies. They are presented in a collective report with the outcomes for the entire analysed geographical area along with individual reports illustrating the situation of each of the inspected schools. The assessment becomes concrete action put in place as soon as the decision-makers start to make strategical decisions based on the results from the VISUS approach. For this reason, it is important that the value and power of the methodology is clearly transferred to those figures that are more related to the schools' safety in Haiti.

53. Indicative activities:

- Identify the national and regional Haitian offices mandated to work on the education sectors, DRR and climate related risks;
- Identify and select the relevant decision-makers that could benefit from the adoption of the VISUS methodology;
- A training on how to use the outputs of the VISUS assessments;

#### Output 1.3: VISUS surveyors' know-how is transferred to university students and local technicians

54. The survey phase is carried out by trained VISUS surveyors, who collect information for each school using the pre-codified VISUS survey forms. For this reason, it is important to introduce the VISUS methodology to lecturers, researchers, practitioners, and students for them to use the survey tools and to take the lead in assessing the school safety during the field survey.

55. Indicative activities:

• Identify the national university student courses and technical organizations that will be interested and appropriate to be involved in the surveys;

- Capacity building of VISUS surveyors, i.e. local engineers, architects, geologists, students etc., that will perform assessment of schools
- Training to the teams that will perform the assessment at the school level.
- Production of technical guidelines for the assessment of school facilities

#### Output 1.4: Exposure and vulnerability of school facilities are assessed

- 56. The core of the first outcome is the implementation of the VISUS assessment in the selected schools (about 700) in those areas of the country that are more exposed to extreme hazard as underlined in the project background. The assessment surveys will be carried out by trained team of four people, consisting of three VISUS surveyors and one professor. The inspectors from related ministries or national institutions, and/or final year civil engineering or architecture students of local universities will collect information for each school using the pre-codified VISUS survey forms.
- 57. Indicative activities:
- Elaboration of a plan and a schedule for the implementation of the assessment by geographical localities and number of teams;
- Implementation of the assessment by survey teams;
- Quality and completeness control on the survey data;
- If the quality control of the assessment done by surveyors highlight some issues, the assessment will be repeated for those specific schools.

#### Output 1.5: GIS-based web platform knowledge-sharing is put on place

- 58. The pre-codified VISUS survey will allow to collect all the assessments in the same format and will allow for comparing them. To facilitate the consultation and the knowledge-sharing between stakeholders, all the evaluation will be uploaded in a geographical web-platform. The geographic information system will show, in addition to its location, the individual report of each single assessed school and the relative collective report that allow to easily compare it with other schools.
- 59. Indicative activities:
- Elaborate a Geo-spatial inventory of schools and a comprehensive school-mapping of Haiti.

#### Output 1.6: Strategic intervention plan for school facilities is developed

- 60. The first and second outcomes are linked by the development of a strategic intervention plan based on the outputs of the VISUS methodology. Public administrations are facing a complex problem and they often need to answer the following questions: which school must be addressed first? Why? What typologies of interventions are necessary? Which level of safety may be reached? How much is the cost of safety upgrading? How many interventions can be managed with the available resources? These questions point out that the definition of a rational and effective strategy for the mitigation of natural hazards risks, with a multi-hazard perspective, implies the necessity to know the level of risk and the criticalities together with the required countermeasures and their costs. All this knowledge provided by the VISUS assessment permits to perform an evaluation of the economical effort needed in terms of the necessary global financial amount and, consequently, the definition of the feasible strategies for building a resilient school sector and enhance adaptive community.
- 61. Indicative activities:
- Identification and map of the schools, areas, regions, and localities that will need priority intervention.

- Workshop with the relevant stakeholder to discuss the assessment results.
- Selection of schools that could be used as temporary community shelters (even if is not recommended), and reinforcement of their physical capacities to meet these special needs. The schools considered in this project will be strengthened at the level that they can be used as shelter, but the project will encourage that this will be for a minimal time in order to not compromise the right to education.
- Definition of a strategy for intervention.

#### **Component 2: Schools adaptation and safety improvement**

- 62. The objective of Component 2 is to strengthen the school safety by promoting rehabilitation, retrofitting, reconstruction of relocation on selected schools and implementing school protocols for risk management. The budget allocated for this component allows to intervene only on some off all the 700 schools assessed in Component 1. More specifically, 10% of this budget will be used to adapt and rehabilitate schools based on the VISUS assessment carried out in 2017 (precedent project). The remaining 90% will be used to rehabilitate schools that require light, medium and/or heavy work (more details in Appendix 6). The number of schools and level of intervention will be determined at the end of component one.
- 63. Component 2 contains 5 outputs as described below.

#### Output 2.1: Detailed intervention of the selected schools are designed

64. The strategy of intervention defined in the first component propose a list of interventions according to the VISUS assessment and provides the estimated costs. The first output of Component 2 is the detailed design of the sites selected at the end of component 1. The detailed intervention will also consider the integration of the school intervention with possible nature-based infrastructure, such as planting trees at a safe distance from the school to reduce wind speed, ensuring there are permeable surfaces outside of the school that can absorb water. In fact, only after this step will be possible to confirm the exact number of interventions and launch the procurement process to establish contracts with suppliers for the intervention.

65. Indicative activities:

- Procurement process to select designers for schools work
- Detailed designs of all schools identified at the end of component one
- Detailed BOQ and budget estimates for each intervention
- Design review to ensure quality control.

#### Output 2.2: Adaptation, rehabilitation or retrofitting of school facilities are implemented

- 66. According to the detailed designs of the previous output, it will be possible to implement interventions that are considered strategic in order to adapt and improve the schools' safety. The actions will first upgrade the safety of students within the schools and also people that will use the facilities as shelter areas. Furthermore, some interventions will allow the school facilities to better adapt to the adverse and extreme conditions exacerbated by climate change. Some of these interventions could include the installation of water harvestings tanks (e.g. bathrooms for girls and for emergency situations during which the schools will be used as shelter) and renewable energy systems for consumption in the school (is is noted that schools do not have electricity at nights).
- 67. Indicative activities:

- Procurement process to select contractors to implement the rehabilitation/construction of schools;
- Adaptation, rehabilitation and/or retrofitting of school facilities implemented by contractors;
- Supervision, quality control of the interventions and assessment using VISUS methodology in the school facilities after interventions.

# **Output 2.3:** Trainers competence to provide inclusive, technical and effective training is improved

- 68. Local capacity building related to school construction activities will be addressed in this output, with activities targeting local communities, local contractors and students (interns). Once sites have been selected, the project will provide a more thorough assessment for capacity building within the local community and/or workforce.
- 69. Indicative activities:
- Capacity building of local contractors on subjects such as Health, Safety, Security and Environmental protocols;
- Capacity building of local unskilled labour hired by the contractors on the projects' sites;
- Internship opportunities for local engineering students.

#### Output 2.4: Good DRR and CCA practices are adopted by students and school staff

- 70. The people's safety within the schools is not only obtained by decreasing the vulnerability of the building (Output 2.1) but also by transferring appropriate behaviors to students and adults who are in the facilities. People trained are able to recognize the risk and individually adopt measures and behaviours to reduce their exposure and vulnerability. This output will be integrated with the activities of UNESCO with the Civil Protection Department, the Ministry of Education and the Ministry of the Environment in the development of a strategic document that defines the priorities in the short, medium and long term and the development of a training module for DRR for teachers, school principals, students and parents. This training module is divided into four blocks with the following contents: Block 1: The basic concepts in risk management and disaster; Block 2: understand and deal with the risks of disasters in Haiti; Block 3: Reducing risks and disasters in the school and its environment; Block 4: Training and awareness to reduce disaster risk in schools. Furthermore, specific sciences laboratories to transfer knowledge related to climate change and appropriate behaviors on how to adapt to the new climate challenges will be provided to students.
- 71. Indicative activities:
- Training programs on how to behave in case of hazardous events tailored to students and school staff;
- Plan an internal simulation of emergency along with school representatives;
- Establish laboratories related to the climate change sciences.

#### Output 2.5: School protocols for risk management are adopted

72. Simple actions at school level can make a great difference in safeguarding people, vital records, manuals, notebooks and furniture and equipment. This output aims at increasing the schools' capacities by developing and implementing emergency preparedness and management plans and identify the School Emergency Response Teams (SERT).

73. Indicative activities:

- Review of the existing information regarding local hazard and historical events
- Internal workshop with school' personnel, local authorities, and major stakeholders to collect information
- Establish an emergency plan for schools' facilities
- Install warning messages and instructions within the schools

# Component 3: Enhancement of climate resilience of social community through the educational sector

- 74. The third component aims to transform the education sector in a community resilience source built around the schools. The object of this component is to enhance the capacity and awareness of the local population and civil protection stakeholders in risk management at national and local levels.
- 75. The project has the ambition to bridge gaps from assessment to practice, and from knowledge to action. The project will make the information of assessment available to all stakeholders, because information is an essential forerunner to risk reduction and mitigation. Through a wide range of activities, the project also benefits from a broad range of stakeholders, bringing a once-scarce resource to all sectors and beneficiaries. By making risk assessment inclusive, despite its complexity, the project will collaboratively create a culture of awareness and resilience. The open web datasets allow users to explore different types of risk information, facilitates data contribution and supports open sharing of information through maps and layers. These will be concretely implemented by routing meetings (planning, consultation, review, etc.) between stakeholders and project partners, round-table discussions with locally involved organizations (schools, civil protection, neighbourhood groups, etc.) and public conferences with interested populations. All these experiences will enable transferring knowledge during all the project stages and will facilitate the understanding and adoption of the results that the project will disseminate at the end. Only if the results are understood and adopted by the beneficiaries, it is possible to implement the behavioural change and then the project impacts.
- 76. Component 3 contains 4 outputs described below.

#### Output 3.1: Knowledge and awareness of the disaster risk due to CC in Haiti enhanced

- 77. The first output of the Component 3 aims to raise awareness on the increase of risk due to CC and the importance of implement adaptation actions. The extreme events induced by CC are slaking, and in some case blocking, sustainable development of the country. For this reason, it is important that the knowledge of CC and the consciousness of the risk will promote a behavioural change of the decision makers at national level.
- 78. Indicative activities:
- One national conference regarding the effect of climate change to the extreme natural hazards and the importance to adapt to them
- One national workshop on the role of the education sector into DRR interventions and the intervention strategy adopted

#### Output 3.2: Community emergency plan is put on place

79. The enhancement of climate resilience of social community, and the further raising of knowledge and awareness at a national level (Output3.1), is achievable through the implementation of local actions. In particular, this output aims to implement disaster risk

management actions at community level. These activities allow to increase the knowledge of risk at the community level and to strengthen the operational procedures in case of emergency. The emergency plans will be developed in those communities with the schools that the project will select for a medium and heavy adaptations and rehabilitation actions.

80. Indicative activities:

- Review of the existing information regarding the local hazard and historical events
- Workshop and consultation at community level with the local authorities and major stakeholders to collect information
- Analysis of the impacts of CC scenarios to local events
- Establish an emergency plan for the community

#### Output 3.3: Community capacity to cope with disasters improved

81. This output aims to transform the emergency knowledge and plan into concrete actions by increasing the coping capacity of the community and to strengthen the connection between the community and the school facilities during an emergency. The output will test the emergency plan and proactively propose appropriate behaviors in case of emergency.

82. Indicative activities:

- Install warning messages and instructions in the community
- Plan a simulation evacuation with local authorities and school representative
- Implement a full simulation evacuation

**Output 3.4:** National action plan for resilient schools facilities and their surrounding communities and Improvement of school resilience through the establishment of school pantry gardens.

83. The final output aims to collect all the lessons learnt from the three components and rationally summarize them into a preparatory document to develop a National Action Plan (NAP) that could be a milestone for future replication and auto-sustainability of the project results. The knowledge provided by the schools' assessment and the methodology adopted for the strategy of intervention, the techniques to strengthen the resilience and the school safety, will be integrated into a document that will allow to strategically implement similar interventions in the future. Furthermore, programme for Education on Sustainable Development (ESD; environmental, DRR and CC) will be developed and integrated into formal education of Haiti.

84. Indicative activities:

- Report on the methodology adopted for the strategy intervention and the implementation of DRM activities on the extended school community;
- Development of a national environmental education program for the basic cycle (through a joint collaboration between MENPF & Ministry of the Environment)
- Integration of DRR and CC tools in the Curriculum (fundamental level) in Haiti (training module in risk and disaster management for school directors and teachers of basic education)
- Organize workshops with relevant ministries to share the output of the project and obtain their involvement in the NAP process;
- Develop of the NAP preparatory document.

- Raise awareness among stakeholders about their involvement in environmental protection
- Carry out inter-school competitions at the community level in relation to the various activities
- Facilitate nursery production in schools
- Provide teachers with a toolkit for the educational use of school gardens.

#### **Component 4: Project's outcomes assessment**

85. The objective of Component 4 is to monitor and evaluate the outcomes of project respect the Project Inception Report, the environmental and social AF policy. In particular, an environmental and gender evaluation will be implemented across the 3 Components, instead for each specific Component the following 3 main activities: 1) Assessment of the efficacy of the school safety interventions through the VISUS methodology; 2) the enhancement of the schools' safety, both from structural and DRM perspective; 3) the climate resilience's enhancement of the communities.

#### Output 4.1: Assessment of VISUS methodology in the schools

86. The implementation of the VISUS assessment in Component 1 provides information that decision-makers working in various ministries and departments can use as the basis for collaboration on defining the most appropriate strategy for increasing the level of safety of all assessed schools and the interventions will be implemented in Component 2. This output will assess if the increasing safety level obtained in the selected schools is coherent with the assessment of the VISUS methodology, from a technical, social and economic perspectives.

87. The main activities will be a cross-checking between:

- the VISUS assessment reports of outputs 1.4;
- the detailed intervention designs in 2.1;
- the operational work-field documentations and
- the VISUS assessment after intervention in the selected schools.

#### Output 4.2: Assessment and monitoring the safety level of the schools

- 88. This output aims to monitor the implementation of Component 2 and assess the final safety level of the intervention in the schools. The implementation of this output will be implemented independently from the "VISUS teams" and the "School rehabilitation/reconstruction team". The monitoring and the assessment will be carried out both for the structural interventions and soft DRM measurements adopted in the schools.
- 89. Indicative activities:
- Structural engineer monitoring of the high and medium schools' interventions;
- Final structural engineer assessment of the high and medium schools' interventions;
- Final assessments of the DRM measurements adopted in the schools.

#### Output 4.3: Assessment enhancement level of climate resilience of school communities

- 90. This output aims to assess the implementation of Outputs 3.2 and 3.3. The implementation of these outputs will be implemented independently from the "Community Resilience team".
- 91. Indicative activities:
- Assessment of the emergency plans developed at the community level;
- Assessment of the evacuation simulation at the community level;

## B. Economic, social and environmental benefits

Outcomes	Benefits				
of the projects	Social	Environmental	Economic		
Outcome 1: Improving a national and comprehensive knowledge of exposure and physical vulnerability of schools and decision-making process of intervention in Haiti;	<ul> <li>Decision makers empowered on climate-resilient development</li> <li>Enhanced technical capacities of university students and professionals to improve resilient building;</li> <li>Strengthen cohesion and integration between stakeholders</li> </ul>	<ul> <li>More sustainable use of natural resources due to a better knowledge of the interaction between climate, environment and human factors</li> </ul>	<ul> <li>National governments will be able to use their resources more efficiently and make better decisions related to their existing livelihoods and risks exposure</li> <li>Decrease in cost for external knowhow due to an increase in availability of national expertise</li> </ul>		
Outcome 2: Strengthening the school safety by promoting rehabilitation, retrofitting, reconstruction or relocation on selected schools and implementing schools protocols for risk management;	<ul> <li>Reduced fatalities related to the education sector from climate-related disasters</li> <li>Students and teachers empowered on climate-resilient development;</li> </ul>	<ul> <li>Reduced land loss lead by improving land management and conservation of school facilities</li> </ul>	<ul> <li>Reduced losses in facilities due to climate-related disasters</li> </ul>		
Outcome 3: Enhancing the capacity and awareness of local population and civil protection stakeholders in risk management at national and local levels;	<ul> <li>Reduced community fatalities from climate-related disasters</li> <li>Adaptive and coping capacity of communities to climate related risk increased</li> <li>Improved community participation, ownership and accountability</li> <li>Strengthening the active participation of vulnerable populations in decisions linked to climate change and greater gender empowerment</li> <li>General raising of awareness of climate related risk to the community and the need for an enhanced role by the community</li> </ul>	<ul> <li>Reduced pressure and degradation on the natural environment</li> </ul>	<ul> <li>Reduced losses in the community from climate-related disasters</li> <li>Improve the local capacity to invest in climate-resilient future projects</li> </ul>		

Table II-I Economic, social and environmental benefits

#### Avoiding or mitigating negative impacts

- 92. The project activities are designed and implemented in a way that does not cause negative social or environmental impacts: to ensure it, the project adopts measures at a project management level and by monitoring the involvement of all beneficiaries.
- 93. At the project management level, the following measures are adopted for the project its activities:

- *Project*: Environmental and social screening and categorization against the AF's Environmental and Social principles at full project definition stage;
- Activity: Environmental and social screening for Component 2 activities (Output 2.1) at project implementation stage; and planning, implementation and monitoring of necessary mitigation measures as identified by the activity-level environmental and social screening.
- 94. The project guarantees the monitoring and the involvement of all beneficiaries through the following measurements both in activity design and implementation:
- Continuous open collaboration with relevant stakeholders, (e.g. Ministry of Education, The Directoration of Civil Protection, The State University of Haiti, Ministry of the Environment);
- The local resilience and adaptation plans to climate-related disaster will be planned on the empowered and inclusive community;
- Promote proactive engagement of the community leader and schools' representatives;
- Consulting and engagement with beneficiary communities, including vulnerable groups and school' representatives;
- Beneficiaries will be able to raise their voice, report any irregularities, allowing for preemptive operational adjustment, through the establishment of complaint and feedback mechanisms.
- 95. Section K includes additional information regarding on how the project will avoid or mitigate negative environmental and social impacts, and Appendix 1 includes the report of the national consultation for the adaptation fund climate change.
- 96. According to the Ministry for Women and Women's Rights in Haiti, women represent 52% of the population. 49.4% of these women live in rural areas and 33% of heads household are female. The blatant discrimination against them on the social, economic, political, have resulted in spread poverty between the women. In urban areas, 65% -70% of women live below the poverty line, the precariousness of the job is one of the elements that contributed to their poverty. In Haiti women receive lower wages respect to men, working more in the informal sector, without the right to social security (55.9%), and are less represented in formal employment (30%). Moreover, the low education level affects women predominantly and is one of the factors that explains their early entry on labor market. Thus, the UN also encourages Haiti's efforts to move forward in the equal access of women and the integration into the curricula of the equality and transformation of stereotypes in the formal and nonformal education, also introducing gender equality in textbooks and training teachers. In primary and secondary education there is a gender balance in 2000. At the secondary level schooling for girls also exceeds that of boys. However, inequality becomes more evident regarding persons who have attained tertiary education (6.1% for women 35 to 39 years, while 11.8% of men). In the area of health, a lack of awareness and information of women about their health rights; a lack of sex education programs for young adults and promoting respect for the rights and empowerment of partners; contraception policy that does not favor the control by women of their body and their fertility; a health facility waiting oriented needs and interests of women as well as a lack of policy and means to counter violence against women. At the political level, under-representation of women in political parties and in the management structures; a low rate of participation of women in electoral process; a low level of representation of women in decision-making positions; a lack of recognition of women's rights and a gender perspective in public policies and programs. Despite significant progress, the fact remains that much still to be done regarding the implementation of the gender perspective in public policies. The project is designed to avoid and mitigate negative impacts

in compliance with the Gender Policy of the Adaptation Fund. Numerous project' activities and decision-making processes are designed to promote inclusive participation across gender, age, and different ability levels. These include targeting of gender-differentiated and other vulnerabilities into project interventions so that groups most vulnerable to climate variability and change receive support; and designing women and youth capacity building and skills enhancement programs. The project results framework will include gender- and agedisaggregated indicators and targets to track and ensure participation of women and youth in awareness-raising activities, capacity building, and any management committees. The UNESCO Country Office will monitor and will provide support on an ongoing basis, and will motivate for change in the operational procedures should this be required. Implementation partners such as the Ministry of Youth, the Service of Disable People and the Ministry of Women have been integrally involved in project planning and will continue to be throughout implementation, to ensure that gender and other inclusion considerations are appropriately mainstreamed into project activities.

#### C. Cost-effectiveness

Describe or provide an analysis of the cost-effectiveness of the proposed project.

- 97. The AF project boosts natural disaster resilience of the disaster prone areas more vulnerable to extreme weather events and natural disasters induced by climate change. The three project components comprise both hard and soft technologies and aim to promote innovative adaptation technologies. The objective of the project is to 'climate proof' the built environment and evaluate risk management measures and make exposed school facilities more hazard resilient. The AF project will also raise awareness and education on the importance of climate change and disaster risk management. The direct targeted and high intensity category of beneficiaries are the people in the education sector (e.g. students, teachers and all staff working in the school facilities) and the neighbouring households to the school facilities that will receive the implementation of Components 2 and 3. Instead, the indirect targeted and medium intensity category beneficiaries are all the individuals that are related to the school facilities that will be assessed by the implementation of Component 1. Finally, the not targeted and medium intensity category of beneficiaries are communities within the departments areas in which a project is implemented.
- 98. The typical benefits of the concrete natural risk prevention actions of the AF project are to improve the health conditions of the beneficiaries and to reduce the damage of the school facilities. The improved health conditions aim to change the human mortality and morbidity rates. It is not possible to predict when an actual disaster will occur and with what intensity. Thus, the effectiveness of disaster prevention projects is estimated through risk and vulnerability assessments that include a degree of uncertainty because they depend on a large number of factors ranging from the deterministic socio economic characteristics of the area to the probabilistic nature of the event and its magnitude. Therefore, while costs are well defined, benefits derived from avoided losses are not definitive, but are rather probabilistic, at best.
- 99. In addition to the improvement of health conditions, natural risk prevention is also associated with the reduction of damages to properties. The reduction of damages to school facilities is related to the implementation of interventions (Component 2) aimed at preventing and reducing the impact of natural disasters due to changing climate, such as the development of tools and systems for risk management (Component 3).

100. The estimation of avoided damages to capital stock (i.e. school facilities) incurred by the public sector to repair or replace the damaged assets should be based on the average avoided damage methodology. Component 1 of the project aims to assess the distributions of risks, school facilities vulnerability and exposure and the strategic intervention plan (Output 1.6) quantify the effect of the project intervention in terms of potential avoided losses (i.e. reduced schools' vulnerability) and the severity of the avoided impact (i.e. number of people served by the school facilities). An example of cost benefit analysis can be conducted on the results obtained by the implementation of VISUS in 2017 in Haiti on 101 schools. Considering a guantitative rationale for the school prioritization, it possible to find the 41 schools that can maximize impact on the number of school population (20676 over a total of 48796) within the project budget allocation. Considering that the total budget allocated for the 101 schools is estimated between 38 million USD\$ and 55 million USD\$, selecting these 41 schools with only 16% of the total allocated budget it is possible to reach 42% of the population. The following graph shows the population served by the 41 selected schools and the minimum and maximum budget allocation for each school. A similar approach can provide useful information to the decision makers that will select the interventions of Component 2 based on the assessment of Component 1 in order to maximize the cost-effectiveness.





#### D. Consistency with national priority

Describe how the project is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

101. The proposed project will contribute to achieving the respective national adaptation priorities. Over the last decade, Haiti has been victim of several hydro-meteorological disasters, which could be attribute to adverse impacts of climate change. In accordance with Article 4, paragraph 12 of the Paris Agreement, the **National Development Contribution** (NDC)<sup>19</sup> submitted by Haiti, illustrates the country's priorities to mitigate the adverse impact of hazards and climate change, towards sustainable development. Consequently, the project is in alignment with national or sub-national sustainable development strategies,

<sup>&</sup>lt;sup>19</sup> Contribution Prévue Déterminée au niveau National (Link)

development plans, poverty reduction strategies, national communications and national adaptation programs of action. It is also consistent with national socio-economic priorities, national climate change priorities and national disaster risk management priorities.

- 102.Rooted in the urge to increase the country's resilience to the impacts of climate-related extreme events, the **National Adaptation Action Plan (NAPA)**<sup>20</sup> has developed a set of priorities for actions. Within this framework, particular importance is given to improving the country's resilience through information, education and awareness, as well as through habitat and land planning. Addressed by this project proposal are the country's priorities towards:
  - Integrated management of coastal areas and rehabilitation of infrastructure;
  - Information, education and awareness.
- 103.In particular, under the terms of the country's NDC, Haiti has committed to protect and relocate infrastructure at risk from the impacts of climate change, which achievement can be greatly facilitated by the follow up of the implementation of project's activities.
- 104. Among the measures of adaptation, some of the following are directly addressed within the present project proposal:
  - Reduced risk of disasters in the most vulnerable areas exposed to floods.
  - Establishment of resilient infrastructure to adverse climatic events.
  - Development and implementation of Urban Planning and Sustainable Development Plans for cities at risk of flooding.
  - Update of the National Risk and Disaster Management Plan (PNGRD) integrating the risks related to Climate Change.
  - Strengthening the National Risk and Disaster Management System.
  - Strengthening early warning systems for disasters.
  - Development and implementation of local risk and disaster management plans in the largest / most vulnerable cities.
  - Strengthening building standards.
  - Production, communication and dissemination of knowledge related to climate change, including migration (primary, secondary schools and universities).
  - National awareness on the causes and effects of climate change and adaptation strategies.
  - Strengthening the Department's Climate Change Directorate of the Environment
- 105. Haiti's Ministry of Environment (an Executive Entity of the project) supervises and validates Strategic Environmental Assessments (SEAs) and Environmental Impact Assessments (EIAs) that integrate climate change adaptation considerations, and monitors the implementation of measures recommended by SEAs/EIAs. This ministry also sets up an enabling institutional and budgetary framework for the replication of successful experiences and the dissemination of practices and techniques that promote enhanced resilience to climate change and climate risks, as well as the development and implementation of an advocacy, communication, and awareness raising strategy and plan.
- 106. This project proposal bases its understanding of school safety on the definition provided by the Global Alliance for Disaster Risk reduction and Resilience in the Education Sector within its **Comprehensive School Safety Framework (CSSF)**. The CSSF provides a comprehensive

<sup>&</sup>lt;sup>20</sup> PIAN D'ACTION NATIONAL D'ADAPTATION (PANA)

approach to reducing risks from all hazards to the education sector by addressing three pillars of school safety:

- Safe Learning Facilities
- School Disaster Management
- Risk Reduction and Resilience Education
- 107. The CSSF aims to provide a unified focus for child-centered and evidence-based efforts to promote Disaster Risk Reduction throughout the education sector and to assure universal access to quality education. This CSSF provides a comprehensive approach to reducing risks from all hazards to the education sector bringing children's advocates together:
  - To improve all children's equitable and safe access to a quality, inclusive and integrated basic education
  - To monitor and evaluate progress of initiatives for reducing disaster and conflict risks
  - To increase availability of and access to hazard-related evidence, such as multi-hazard early warning systems' data and disaster risk information
  - To promote risk reduction and resilience in the education sector, including clear focus in major international agreements (e.g. Sustainable Development Goals and Sendai Framework for Disaster Risk Reduction 2015-2030)
  - To strengthen coordination and networks for resilience from all levels, from local to international
  - To strengthen education governance and local participation
  - To strengthen conflict risk reduction in order to implement integrated, inclusive measures to prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and strengthen resilience

#### From international to national context:

- 108. The joint effort between Republic of Haiti and the United Nations stipulates the **United Nations Development Assistance Framework (UNDAF) 2017-2021**, which aims to break the vicious cycle of political and institutional instability, as well as multidimensional poverty which has jeopardized the promotion of sustainable human development in the country for three decades. Furthermore, because of the vulnerability of Haitian society to external economic shocks, the recurrence of natural disasters and humanitarian and political crisis, the UNDAF 2017-2021 aims to strengthen the political, human, territorial and economic resilience. UNDAF 2017-2021 underline that the vulnerability of the population and territories to natural disasters have been the main cause of recurring humanitarian crises. Due to the upsurge of humanitarian crises, resilience building of the population and territories is a key objective of the UNDAF 2017-2021.
- 109. The project proposal is consistent with the 5 priority areas of intervention of UNDAF 2017-2021 and the related defined outcomes, which will make a valuable contribution to the achievement of national priorities and SDGs. In particular with **Outcome** 2: *"The population, specifically the most vulnerable groups, has increased and equitable access and use of quality basic social services,* <u>in particular education</u> and health for all" and **Outcome** 4: *"National, regional and local institutions, along with civil society strengthen sustainable management of natural resources and environment, territorial and* <u>population resilience, especially for the</u> <u>most vulnerable, to respond to natural disasters, to climate change and humanitarian crisis</u> while ensuring continued sustainable development."

- 110. The UNDAF 2017-2021 focuses on five priority areas of intervention which were identified and framed by the common country assessment. This includes poverty reduction and the promotion of decent employment; access and use of quality basic social services; gender equality and protection; resilience; and governance. These priority intervention areas are consistent with the four rebuilding pillars of the **Strategic Development Plan of Haiti** (*Plan Stratégique de Développement d'Haïti*, **PSDH**) 2012-2030 particularly territorial rebuilding, economic rebuilding, social rebuilding and institutional rebuilding.
- 111. In New York on March 31, 2010, Haiti's international partners accepted the principle of longterm support for the reconstruction of the country, based on the **Action Plan for the Recovery and Development of Haiti** (*Plan d'action pour le relèvement et le développement d'Haiti*, **PARDH**). The focus of this plan was on the immediate reconstruction needs viewed in a long-term development perspective. The PSDH expands and details the long term perspective.
- 112. The PSDH address four major "action areas", in particular the project proposal is consistent with the third action area "Social Rebuilding" and second programs "Improve access to preschool, elementary and secondary school". The shortfalls in this sector are significant and include an insufficient number of spaces, quite average quality of education, poorly motivated instructors, etc. There is a need for a network of daycares, preschools, elementary schools, high schools, as well as facilities for a network of Professional Teaching Certification Schools (Écoles d'Application et Certification d'Aptitudes Professionnelles à l'Enseignement).
- 113. The project objectives are compliant with several global initiatives and frameworks that advocate for school safety. The goals of CSSF are: 1) to protect children and education workers from death and injury in schools; 2) to plan for educational continuity in the face of expected hazards; 3) to strengthen a disaster resilient citizenry through education and 4) to safeguard education sector investment.
- 114. The 2030 Agenda for Sustainable Development: School safety issues are addressed in the 2030 Agenda for Sustainable Development through two main SDG: SDG 4 and SDG 11. SDG 4 particularly focuses on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all; 4.a. particularly stresses the need for building and upgrading education facilities that are child, disability and gender sensitive and providing safe, non-violent, inclusive and effective learning environments for all. SDG 11 specifically aims to make cities and human settlements inclusive, safe, resilient and sustainable.
- 115. The Sendai Framework for Disaster Risk Reduction 2015-2030: Adopted on 18 March 2015, the Sendai Framework for Disaster Risk Reduction highlights as priorities the need, on the one hand, of *understanding disaster risk (Priority 1)* and on the other hand *investing in disaster risk reduction for resilience* (Priority 3). To this end, the framework states that policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for the *purpose* of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters. It also calls for reducing disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030 (Target D). The indicators adopted by the United Nations General Assembly for the measurement of global Target D of the Sendai Framework, D-1 (i.e. damage to critical infrastructure attributed to disasters); D-3 (i.e. number of destroyed or damaged educational

facilities attributed to disasters) and D-6 (i.e. number of disruptions to educational services attributed to disasters), are particularly relevant<sup>[2]</sup>.

116. Paris Agreement on Climate Change: The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. More particularly, <u>Article 7</u>, <u>Point 9 (c)</u> focuses on assessment of climate change impacts and vulnerability, with a view of formulating nationally determined prioritized actions, taking into account vulnerable people, places and ecosystems. <u>Article 8, Point 1, recognizes the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, while <u>Point 4</u> recognizes the need for areas of cooperation and facilitation to enhance understanding, action and support: (e) Comprehensive risk assessment and management. Finally, <u>Article 11</u>, <u>Point 1</u> stresses the need for capacity-building to take effective climate change action, including, inter alia, to implement adaptation and mitigation actions.</u>

**Agenda for Humanity:** The Agenda for Humanity is a five-point plan that outlines the changes that are needed to alleviate suffering, reduce risk and lessen vulnerability on a global scale. In the Agenda, humanity – people's safety, dignity and the right to thrive – is placed at the heart of global decision-making. To achieve this, global leaders and all humanitarian actors are called upon to act on five core responsibilities. Responsibility 3 ("Leave no one Behind") particularly stressed the need to ensure education for all in crisis, while Responsibility 5 ("Invest in Humanity") requests to invest according to risk.

#### E. Consistency with national technical standard

Describe how the project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

- 117. The proposed project will comply with several national guidelines, policies and regulations including the country's national building codes (*Code National du Bâtiment d'Haïti 2012,* **CNBH**) and the evacuation shelter management guide (*Guide de gestion des abris d'évacuation 2013*); in respect to the Environmental and Social Policy of the Adaptation Fund.
- 118. The **National Intervention Plan (NIP)** of the Republic of Haiti, as part of the Emergency function VI ("Service to the population"), aims to provide a framework for structuring national actions in disaster management, the evacuation and management of shelters. It responds to the collective care needs of the victims of a disaster or state of emergency and will ensure the delivery care services to the population affected (evacuation shelter, food and first aid, non-food items) provide and organize the transport of aid to affected areas. From a functional point of view and according to the NIP, the responsibility for Function VI lies mainly with the Ministry of Social Affairs and Labor (MAST), supported by other governmental bodies, including the Ministry of Public Works, Transport, Communication and Energy (MTPTCE), the Ministry of National Education and Vocational Training (MENFP), the Ministry of Youth, Sports and Civic Action (MJSAC) and the Ministry of Justice and Public Security (MJSP), as well as supporting partners to provide the necessary assistance identified. Integrated into the Risk and Disaster Management (DRM) policy, the **evacuation shelter management guide (ESMG)** has been developed by the Temporary Shelter Thematic Management and Management Committee and aims to facilitate and organize the installation of evacues in shelters.

- 119.ESMG takes into account the experience of disasters or previous interventions, in particular the passage of hurricanes or storms, or even more simply on the occasion of warnings and formalize a process of management of evacuation shelters in front of adapt to all emergencies. Component 1 of project, and more specific the VISUS methodology (Output 1.4), complies with the ESMG the technical conditions. In fact, the rapid multi-hazard safety assessment methodology is conforming to the ESMG, in particular to the Security Evaluation (ESMG – par. 1.2.2), technical evaluation of the infrastructure (ESMG – par. 1.2.3) and the functional evaluation (ESMG - par. 1.2.4). The ESMG defines that is up to the Communal Committees of Civil Protection (CCPC) to propose to the mayor (municipal council) the buildings or sites likely to be used as evacuation shelters during an emergency, as well as to negotiate and plan ahead the conditions of use and the necessary adjustments. The VISUS assessment of Component 1 and the activities of Component 3 will allow to coordinate and facilitate the decision of the CCPC and the municipal council. Output 3.2 establishes actions that need to be taken by the evacuation shelter management committee under the responsibility of the CCPC Coordinator. Only establishing a good coordination and planning between the management committee and the school it is possible to both guarantee safety for the population and the right to education.
- 120. The outputs of the concrete actions of Component 2 of the project are compliant with the minimum requirements for achieving safety, health and general well-being for the user and accessibility, structural strength and stability for the buildings regardless of the demands and hazards considered (e.g. safety, lighting, ventilation, energy efficiency and fire protection) established by **CNBH**.
- 121. The CNBH defines three risk categories based on the intended use and associate to each of them different level of hazard intensity (i.e. rain, wind and earthquake loads). The category I-Low consider buildings that collapse pose a low risk of loss of life (i.e. buildings with low human occupation, small storage buildings, farm buildings, barns); the category II-Normal are all buildings except those in the other three categories; category III-High are buildings that can be used as a civil protection shelter (i.e. schools, community centers) and finally category IV- Civil protection are civil protection buildings providing essential services in the event of a disaster (i.e. hospitals, telephone exchanges, power stations, distribution substations, control centers and emergency response facilities). The rehabilitation and retrofitting of school facilities implemented during the project will adopt hazard intensity for category III as design inputs. According to these design parameters the project will guarantee the possibility to use these school facilities as temporary shelter.
- 122. The environmental impact of the proposed project, mainly related to the outputs of Component 2, will comply with the country's national environmental standards (Haitian building code) as well as the Environmental and Social Policy of the Adaptation Fund. The project will not cause unnecessary harm or degradation to the natural habitat, with regards to limit negative impacts of climate change. Retrofitting or reconstruction of school facilities will be done exclusively according to necessity, and materials will be chosen in respect to the environment and local habitat. Benefits deriving from ecosystem services will not be affected by the project. The project will avoid any significant or unjustified reduction or loss of local biological diversity.

#### F. Duplication in project design

Describe if there is duplication of project with other funding sources, if any.

- 123.For the preparation of this proposal, the consultation process with the key stakeholders provide a complete mapping of potential overlapping activities (Appendix 1). The proposed project will focus on the concrete implementation of on-the-ground climate change adaptation interventions, with an emphasis on DRR initiatives in the education sector and school facilities.
- 124.Such DRR initiatives were especially implemented immediately after the 2010 earthquake without having the possibility to adopt a nation wide assessment of the facilities vulnerability, in particular focusing on earthquake and not considering a multi-hazards approach. The proposed AF project will not create duplicates with other international or national organizations, but will create synergies with, strengthen and build on current and former initiatives and activities implemented in the area. The proposed project is expected to have positive impacts not only in the short-term, by building capacities among the locals but also guaranteeing long-term monitoring and implementation of the methodology.
- 125.The VISUS Methodology, developed by UNESCO and the SPRINT-Lab, has been implemented in several countries. A preliminary assessment of school facilities was undertaken in Haiti in 2017, targeting a total of 101 schools between the northern and eastern regions of the country. For this purpose, technical capacities were created within the country. The proposed project aims to upscale the assessment to a larger area of the country, and to create more capacities while proceeding with retrofitting or reconstruction of schools based on the assessment results. No schools have been rehabilitated, retrofitted based on the VISUS methodology but the lessons learnt from the VISUS assessment conducted in 2017 will be implemented in Component1 of this project.
- 126.UNOPS human resources, expertise in the field of procurement and its experience in Haiti were made available for the successful running of the project "Fonds d'Assistance Economique et Sociale (FAES)". UNOPS, in partner with IDB, provided the technical assistance to the procurement-related activities for the construction of 30 schools and the technical evaluation for 28 school construction projects and finally the technical assistance on negotiations for the relaunching of works for 19 schools).

Project Title	Funding	Dates	Description
Child-focused	655,780\$	2009	The project implemented in the City of Gonaives in
Disaster		(12 months)	Department of l'Artibonite in Haiti, focused on: 1) adopting
Preparedness,			an overarching child-focused DRR approach that empowers
Mitigation and			children to participate meaningfully in planning for their
Management (Save			own safety and that of their family and in actively
the Children)			contributing to disaster risk reduction; 2) building the
			capacities of teachers, school principals, educational
			inspectors, parents, locally based child protection
			committees and the DPC to develop and implement child-
			focused disaster preparedness plans in the school and its
			surrounding communities; 3) engaging the private sector –
			cell phone companies and radio – in explicit and
			informational early warning messaging. 4) providing
			material support to schools and the DPC to better equip
			themselves to mitigate the effects of disasters, improve

127. The proposed project will build on, complement and /or strengthen the projects include in Table below.

			their communications and enhance their coordination mechanisms. 5) supporting the DPC to develop and implement a communication and information strategy that increases people's knowledge of what to do in an emergency and where to go to seek safe shelter.
Education and	2 453 820\$	2010 and	To achieve overall goal to build back better for children in
Protection of	2,433,8203	2010 and	Haiti after the 2010 earthquake. Save the Children has
Children Affected		(21  months)	intervened in health and nutrition, water and capitation
by the Earthquake		(21 11011113)	cholter and relief, child protection, feed security and
in Haiti (Savo tho			livelihoods and education. The objective of the education
Childron)			nreastan was to onsure that shildren are able to access safe
Children			and quality adjustion both in the directly affected areas and
			in the indirectly affected areas. The plans adopted to help
			children return to school more relevant for this project
			wore: softing up, furnishing and supplying temporary
			learning spaces installing water and sapitation facilities in
			schools, robabilitating, furnishing and supplying slightly
			damagad schools, training toachars on psychososial
			approaches in the classroom disaster risk reduction.
			approaches in the classiform, disaster fisk reduction,
			improving school governance by promoting wider parental
			and community participation and grounding school
			governance in child rights. In particular, Activity 1.2 worked
			12 classrooms to conduct basic rebabilitation of their
			facilities
Increasing Human	4 112 230\$	2016 and	The project aimed to develop a 'culture of risk' with the
Security to Disaster	4,112,2309	2017	education sector, in particular Output 3.3 is the most
Risk in Haiti		(24 months)	pertinent to the AF project (Component 3): reinforce the
(UNESCO Haiti)		(	extended school community capacity to address its
(			insecurities and implement tailored disaster prevention and
			management protocols. The project supported the Ministry
			of Education in the elaboration and validation of disaster risk
			reduction training modules; conduct trainings to head
			teachers, teachers, schools inspectors, and officers at DDE for
			the development and implementation of tailored protocols
			for disaster risk prevention and management; support head
			teachers, teachers, schools inspectors, and officers at
			Departmental Delegation of Education to evaluate the
			disaster vulnerability of selected school structures and
			develop strategies to mitigate the identified risks (component
			1); conduct awareness raising initiatives towards teachers,
			school inspectors, pupils and parents in disaster
			preparedness and response, through the participation of all
			stakeholders.
Fonds d'Assistance	\$162,137	04/2012	Technical Assistance to the procurement-related activities
Economique et		12/2013	for the construction of 30 schools
Sociale (FAES)			The general objective of this technical assistance was to guide
(UNOPS and IDB)			and support the FAES in an innovative procurement approach
			for the construction of 7 permanent schools and 20 semi-
			permanent schools, as well as the rehabilitation of 30 schools.
			I his involved assisting the FAES and the MENFP in the process
			of awarding three works contracts, from the constitution of
			the DAO to the signing of contracts, which was drafted on the
			basis of expected results in terms of delivery time and
			technical and architectural standards (including anticyclonic
	1	1	and anti-seismic) in accordance with MENFP requirements.

			UNOPS also prepared the bidding document for the supervision.
	\$223,212	07/2012 11/2012	<b>Technical evaluation for 28 school construction projects</b> The general objective of this technical evaluation was to check the structural the work quality of 28 school being implemented and their compliance with the design as well the seismic and anticyclonic standards in place for each of
	\$162,851	4/2013 4/2014	them. Technical assistance on negotiations for the relaunching of works for 19 schools UNOPS assisted the FAES in the negotiations with the executing and supervising firms with the goal to relaunch the works and complete the construction of 19 schools in the best conditions of compliance with the earthquake-resistant and seismic standards in place.The two main objectives were: 1) Technical assistance to FAES for the restart of construction works and the completion of 19 schools; 2) Support the negotiations with the construction or supervision firms involved.
Construction of 11 classrooms and their water and sanitation infrastructure (UNOPS and UMCOR)	\$322.437	05/04/2011 05/08/2011	Following a successful project implemented by UNOPS, financed by UMCOR, in 2010 to <b>build 9 Transitional schools</b> <b>at Camp Corail</b> , UNOPS was once again approached by UMCOR to implement a project of a similar nature in the Tabarre Issa neighborhood. The scope of works was to build 11 schools over 4 separate locations, with 2 of these schools having an adjoining office. Additionally, 2 canteens were to be built in Camp Corail, to complement the existing schools at that site and provide a durable solution for the students to dine in over the tents that had been onsite
Construction of 9 classrooms for Corail (UNOPS and UMCOR)	\$168.048	08/17/2010 12/17/2010	The scope of Works for this agreement consisted of the <b>construction of 9 Transitional Schools</b> in the Corail Relocation Site following the 2010 earthquake.

#### G. Knowledge management

If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

- 128. The project is of importance to the government of Haiti: the wide and spread school assessment, relevant trainings to professionals and students, strengthening school safety, enhancement of the capacity and awareness of local population and civil protection actors, represent the core of the project and will serve as a learning model that will provide the various stakeholders the opportunity to test, review and learn context specific approaches, establish best practice and scale up successful activities to achieve climate change resilience at national scale. The learning and knowledge activities planned in the three components are involving both policy and decision makers, private sector, local and international NGOs as well as local communities.
- 129. Most activities in the Component 1, "Assessment of school facilities by VISUS methodology", entail trainers to trainers, decisions makers and surveyors. This knowledge sharing will contribute to the autonomous upscaling and replication of project interventions beyond demonstration sites, thereby also enhancing the climate resilience of non-direct beneficiary communities. The comprehensive results of each single school by the VISUS assessment will be shared by a geographical web platform, allowing access to the different stakeholders.
Output 1.6 provides a strategic prioritization intervention plan for school facilities, this is the most important knowledge for the government in order to efficiently and sustainably program the strategies to build a resilient country. Also, in Component 3 most of the activities are focused on knowledge and learning processes, in fact they enhance the knowledge and awareness of the disaster risk due to CC, and promote development and simulation of the community emergency plan. Furthermore, the lessons learnt of this project will be summarized through a policy/regulation briefs regarding on how to develop good practice in managing school facilities as short temporary shelters.

- 130.A Monitoring, Evaluation and Learning (MEL) system will be developed during the project, it will allow to improve and influence the implementation within the project and amongst actors engaged in similar work; this instrument will allow the active creation, sharing, and use of gained knowledge and information. The knowledge generated by the MEL system will be shared with stakeholders and donors working in the climate adaptation space in Haiti. The MEL system will be composed on three major phases:
- Inception analysis: elaboration of document that will show the lesson learnt during previous similar projects, this analysis (e.g. SWOT, SCORE, SOAR, etc.) will identify the actions that the project can apply in the different activities based on the lesson learnt.
- Periodic review: to promote an adaptive management the project will set up a quarterly project reviews which will identify the project gaps and then inform project improvement.
- Final review: before the end of the project, the project will produce a learning document that will form a basis for replication and scale-up of future activities.

131. The project will collect and share the knowledge and competence generated by:

- The assessment knowledge and capacity on VISUS methodology will be shared with government partners, universities and other stakeholders for future projects and policies. The results will then be shared at a geographical web platform.
- The schools' safety improvement pilot will be analyzed and documented as a case study, to further inform potential upscaling and disseminate lessons learned at the national level.
- The trainer and VISUS methodology reporting manual is for training surveyors and decision makers to better assess and make decision regarding climate resilient facilities, these will also generate a culture of disaster risk reduction and resilient solutions.
- Through the Directoration of Civil Protection, the lesson and experience learnt during the development and implementation of the community emergency management plans in pilot cases will be used to potential upscaling and disseminate at the national level.
- 132. Finally, the project will ensure nationwide dissemination and sharing of knowledge to also reach the indirect beneficiaries. As part of management activities, the project will disseminate through different media (e.g. newsletters, radio channels, television, and social media streams) the project events, success stories and progress attained.

# H. Consultation process

Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

133. The National Consultation for adaptation to climate change allows determining risk of adverse consequences, the intensity of these risks and identify factors that could reduce or increase the response and adaptation capacity at local and national level. As such, the consultation has required the implementation of methods and tools likely to help give

trustworthiness to the project concrete actions. The objective of the consultation process was to gather information relating to the assessment of beneficiaries' vulnerability to climate change. The methodology implemented in the process allowed to work with all stakeholders and provided them tools to reach the objective. The stakeholders that have already been consulted include:

- The relevant ministries (Ministry of National Education, Ministry of Environment (July 4th to 7th, 2019)
- Local authorities (mayors of Cap Haitien, Gonaives, Les Cayes, Jeremie August 4th to 18th, 2019)
- NGOs working in Haiti (Oxfam Haiti Plan, Save the Children July 12th to 17th, 2019)
- The United Nations system (UNDP, UN Women July 4th to 7th, 2019)
- The Civil Society Organizations (July 12th to 17th, 2019)
- The National Technical Services (Engineering School of Management July 21th to 25th, 2019)
- 134. The consultation process adopted different techniques according to the typology of stakeholder and the specific required information:
- Focus group: gathered and selected people participated in a planned discussion intended to highlight their perceptions regarding the vulnerability to climate change; members of a group were invited to interact and influence each other during the discussion and consideration of ideas and perspectives.
- Testimonials: gathered the statements that confirms the truthfulness of what they have seen, heard, perceived and lived;
- Semi-structured interviews with local relevant people: a fairly open framework of questions allowed a focused, conversational, two-way communication. The base guideline was flexible enough to follow topical trajectories in the conversation that may stray from the guide when it was seems appropriate.
- 135.Ultimately, all the information collected during the consultation was crossed with expert data and research results published in research reports and relevant national and international publications.
- 136. The complete documentations regarding the analysis of the key consultation findings are available upon request in French, due to the limited number of pages allowed in the Concept Note, the 6 main analysis carried out during the concept design are summarized below:
- 137.**A] The vulnerability of water and agricultural sector to climate change** The figure below shows the water balance for the reference period and its estimate for 2030 and 2060 for the model projections HadCM2. It is noted that the potential volume of water resources (W, red) and the flow obtained by the water balance equation (Q, green), drastically reduced year by year. Regarding the agriculture section the three crops representative of the Haitian production are shown in different conditions: potato (C3 plant grown in temperate environments), rice (C3 plant grown in hot environment), corn (C4 plant grown in warm areas irrigated conditions or not). The results show that the yields of these crops decrease for each of the scenarios developed for the XXI century.



Figure II-2 Water balance for the reference periods.

- 138.**B] Impacts (economical and financial) of disasters related to climate change** The fragility of agricultural infrastructure and crops to climate hazards makes this sector vulnerable to cyclones and floods increasingly recurrent in the country. Cost analysis relating to climate change shows that in 2025 the cost of inaction would be between 15.7 million USD annually for the main agricultural sector production and 170 million for the entire industry.
- 139.**C] Adaptability capacity restricted due to low income level** With a GDP per capita of 846 USD 2014, Haiti is the poorest country in the Americas and one of the poorest in the world. It has been estimated that 59% of Haitians live below the poverty threshold of 2.44 USD per day and even 24% live below the extreme poverty line of 1.24 USD per day. In addition, more than half of Haiti's population lives in rural areas and 85% of the rural population is engaged in agriculture; which is by far the largest provider of jobs, further increasing the vulnerability of the Haitian economy when natural disasters affect crops.
- 140.D] Fragility of the institutional framework regarding CC issues in line with its international commitments, the country also strengthened its institutional capacity in the field of the fight against climate change, even though existing institutions remain fragile. MDE is the focal point in the UNFCCC, it develops and coordinates projects against climate change but the lacks of necessary means to face these challenges and the limited financial and human resource limits its efficacy. The National System for Risk Management and Disaster (SNGRD) is involved in the planning and implementation of actions to risk management and response to natural disasters, however, the organization remains undersized in the event of a major disaster.
- 141.E] The gender-based vulnerability Women are present in almost all agricultural value chains, and perform often difficult production functions in addition to their domestic and reproductive functions. At some places, the water collection for women has become an exhausting chore. Considering the centrality of women in the use and consumption of energy, women can become -from their charism- real change agents in communities over any attempt to innovation.
- 142.**F] Barriers to education access** 80% of teachers are not qualified, the basic education curriculum is unsuited to the needs of children and the current context, and finally the schools do not meet the standards and norms minimum quality and safety. The budget for the sector is largely insufficient, barely 15% of the national budget and represents about 2% of GDP. The education system is not able to respond to emergencies and does not have enough resources to cope. Moreover, a recent study reveals that before the passage of Matthew cyclone, more than 300,000 children 6-15 years were already outside the school system nationally.

# I. Funding justification

Component 1 Assessment of school facilities by VISUS methodology (USD, 866, 470, 90)					
Assessment of school facilities by visos methodology (OSD 866.470,50) Baseline scenario (without AF resources) Additionality (with AF resources)					
The government of Haiti does not have a strategy to prioritize intervention according to the exposure and vulnerability level of the schools and the necessary cost to strengthening the resilience. The schools assessed through the VISUS methodology are 100 and all are focused in the north of the country, the preliminary state was important because it was able to show the usefulness of the methodology but the study area was not representative of the country. The technical training competencies, and the understanding of the VISUS approach by the decision makers is limited to the previous project area and the VISUS surveyors knowhow was transferred to few university students.	This component aims to extend the application of VISUS methodology up to 700 schools. In particular, according to the results from the consultation process, the selected schools are spread across the country and more representative of the socio-economic condition. Furthermore, this component aims to produce a prioritization strategy to upgrade the safety of schools in the country, and to define global budget requirements. The assessment implementation will increase the number of trainers, technicians and students with enhanced capacity to assess, design and build more resilience facilities.				
Component 2 School adaptation and safety, Improvement (I	USD 6 626 674 14)				
Baseline scenario (without AF resources)	Additionality (with AF resources)				
The estimate of damage due to the passage of Hurricane Matthew is up to 62.9 million USD\$. 25% of schools on average were damaged and 521 <sup>21</sup> schools were completely destroyed. Most of the schools in the country do not have any plan for managing emergency in case of the most dangerous hazard as flood or hurricane. The absence of emergency plan generates significant casualties in the children at schools and also within the people in the surrounded community.	This component aims on average to do between 5 to 15 according to the decision that will be taken at the end of Component 1 (more details on the choice rationality is presented in Appendix 6). School safety will be integrated with tailored emergency management plan for the schools. The plan will be developed in consultation with the local communities in order to increase their resilience and not limiting it to the individuals within the school building (i.e. teachers and children). The resilient schools will become emergency shelter areas for hazards related to climate change (e.g. hurricane and floods).				

<sup>&</sup>lt;sup>21</sup> report of the situation in the deep south before and after the passage of Hurricane Matthew (Ministry of National Education)

Component 3	
Enhancement of climate resilience of social (USD 1.394.511,64)	community through the educational sector
Baseline scenario (without AF resources)	Additionality (with AF resources)
The Haitian communities are vulnerable and continuously stressed by extreme weather due to climate changes. The daily challenges due to the socio-economic conditions of the population minimize the urgency of considering the future impact due to climate change. This situation is exacerbated by the limited knowledge and population awareness regarding these topics.	This component aims to enhance the knowledge and awareness of the disaster risk due to CC in the Haitian population. Workshops and, training will improve the population capacity to recognize the potential critical situations and provide resilient solutions. The school resilient facilities, provided by Component 2, will be transformed in actual
Furthermore, the absence of a local population capacity to properly re-act and respond during an emergency is reducing its	short-term temporary shelter by the adoption of local community emergency plan and tested by real simulation scenarios.
resilience. Haiti Government does not have Policy/regulation briefs to manage and use the school facilities as short-term temporary shelters.	At a national level, the management and the use the school facilities as short-term temporary shelters will be standardized by the adoption of a Policy/regulation briefs. School pantry gardens will be set up for education on the environment and in terms of climate resilience (Adaptation)

# J. Sustainability of the project

Describe how the sustainability of the project outcomes has been taken into account when designing the project.

- 143. The project outcomes sustainability will be reached considering the sustainability of all project activities terms of the following: technical, environmental, social, economic and institutional sustainability. The sustainability of the project will be achieved by using participatory community approach, with particular attention to engaging the most vulnerable and marginalized people in all project phases. The full structure of the project does not consider the single components separately but as one single system in which they are reinforcing each other. In particular, the sustainability is ensured through all beneficiaries at all levels to the progressive structure of implementation: assessing, prioritization and intervention. Finally, all the components are devoted to build the technical and institutional capacity at local and national levels to integrate climate-resilient practices into guidelines, strategies and policies.
- 144.Project sustainability will be achieved by implementing concrete adaptation interventions to schools across all Haiti, which can be replicated in vulnerable communities across the country. The prioritization strategy developed during the project will be a fundamental document for a sustainable replication of the intervention also after the end of the project. These will also be guarantee due to the relevant involvement of the project partners of the Haitian ministries as executive entities: education, environmental and civil protection. Furthermore, the project strong emphasizes the involvement of the students from the Haitian State University, this will

expose the student to the best international best practice and constitute a foundation for future sustainability of the projects activities.

- 145. **Technical sustainability** the project strengthens the school safety by promoting rehabilitation, retrofitting, reconstruction on selected schools to be more resilience and technological sustainable in long term under different climate condition. The implementation of the VISUS assessment methodology on field by the university students will guarantee that these engineering techniques will be replicable and scalable in the future. All the project components have activities to promote the capacity building of all stakeholders including technical staff handling the vulnerability assessment, the rehabilitation and construction of schools and development of school emergency management plans and protocols. The technical capacity building will ensure enhanced school resilience and also the possibility that this technical knowledge would be applied in the future within different contexts other than schools.
- 146.Environmental sustainability the Environmental and Social Management Framework (ESMF) is the central document that will be developed during the implementation that all the activists are referring in term of environmental and social issues. The ESMF has an environmental and social monitoring plan that will guide periodic monitoring and evaluation to track changes that could have adverse environmental and social impacts and ensure adequate mitigation. The project will consider negative and positive effects that may potentially impact local communities and the surrounding environment. In accordance with the UNOPS Environmental Management System, an environmental screening will be conducted before the design process commences, in order to determine the need for the Environmental Assessment (EA) to assess the suitability of the site and identify any environmental impact from the construction of the project and the operation of completed facilities. The EA will include or be followed up by the Project Environmental Management Plan and Site Environmental Management Plan that specify actions to eliminate, reduce, mitigate or control potential negative impacts and maximize possible positive effects. Each rehabilitation intervention will identify the environmental impacts that can be addressed during the design. These may include the incorporation of integrated water management systems (recycled water, grey water, rainwater harvesting, reduced volume of water required by users), solid waste management systems (separation of waste into reusable, recyclable, biodegradable and residual waste, and safe disposal onsite or offsite of hazardous waste), energy efficient features and adaptation of the passive design principles for lighting and heating. The use of high-energy embodied materials and imported materials should be kept to a minimum and the reuse of recycled materials available in-country should be considered in the design.
- 147. Social sustainability the project primarily focuses on students and workers involved in the educational sector, and indirectly involves the larger communities that are built around the schools. The consultation process between all beneficiaries guarantees fair and equitable access to benefits and this will enhance the community capacity to tolerate, absorb, cope with and adjust to climate threats and as well as social sustainability that will ensure the projects' results in conservation and valorization even after its end date.
- 148. Economic sustainability the Component 1 of project is designed to provide a sustainable tool to the Haitian government in order to have results beyond the end of the projects. In fact, the knowledge of assessment of school facilities by VISUS methodology will contribute to facilitate a rational and autonomous upscaling and replication of project activities beyond demonstration sites. The project will also provide the strategic prioritization intervention

plan, which is of importance in order to efficiently and sustainably program rational interventions.

149. Institutional sustainability: The project design will ensure that the project will be implemented in strong partnership with the already existing government structures at national and sub-national levels. At a national level the project will be implemented using the structures of the focal ministries i.e. Ministry of Environment and Education. Furthermore, the guidelines regarding the school' facilities assessment and interventions developed through the proposed project will further enhance long-term sustainability. Finally, the policy briefs (Output 3.4), lessons learned and information from project interventions will facilitate the institutionalization of the proposed climate change adaptation solutions, as well as.

# K. Environmental and social impacts and risks

Provide an overview of the environmental and social impacts and risks identified as being relevant to the project.

- 150.A preliminary social and environmental risk assessment was performed during the consultation process based on the Adaptation Fund's 15 environmental and social principles outlined in the Adaptation Fund Environmental and Social Policy.
- 151.Some activities of the project may have potential negative impacts if not implemented properly. However, these activities are not yet fully defined at this early stage and will be further developed with the individual communities during the project implementation. The project is therefore categorized to be **category B**: "with potential adverse impacts that are less adverse than Category A projects, because for example they are fewer in number, smaller in scale, less widespread, reversible or easily mitigated". All activities will be screened against the Adaptation Fund's 15 principles. An environmental and social risk assessment will be carried out during full project preparation, when concrete activities will be defined, and an environmental and social risk management plan will be developed to mitigate risks identified.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	x	<b>No risk</b> - The proposed project abides by relevant national guidelines and regulations such as The country's national building codes (CNBH), the National Intervention Plan (NIP) and evacuation shelter management guide (ESMG)
Access and Equity		Low risk - As underlined in the consultation process (section H), one of the main finding is the significant barriers to education access. The project will ensure that there will be neither discrimination nor favouritism in allocating and accessing project benefits: both education and safe. This will be guarantee by the application of the multi parameters VISUS assessment methodology of the schools; which allows to assess not only the structural element of the schools but also the social vulnerability indicators (e.g. gender, access, etc.). Furthermore, the strategic intervention plan, based on the data provided by the VISUS assessment, will provide particular attention in avoid any form of discrimination and favouritism. Participatory assessment will be performed to ensure full and equitable participation of and equal benefits to men and

		women and vulnerable and marginalized groups: student in
		Component 1 and 2, and extended community in Component3.
		Low to no risk – The risk to not involve marginalized and
		vulnerable groups is more related to Components 3, for this
		reason the project will empower vulnerable groups to make
Marginglized and		decisions on concrete adaptation measures, valuing their
Wulparable Groups		traditional and local knowledge integrated with the best
vulleruble Groups		available information and international practice (Output 3.2
		and 3.3). The elderly and the youth will be involved
		considering the respective value each will bring to the project
		and to the community.
Human Rights	v	Low to no risk - This project affirms the rights of all people and
numun nights	^	does not violate any pillar of human rights.
		Low risk - The consultation process draw attention to the fact
		that women can become real change agents in communities
		over any attempt to innovation. For this reason, the project
Gender Fauity and		activities will promote and empower women leadership in
Women's		public spaces and decision making. Through targeted
Empowerment		consultations with women, project design and implementation
		will ensure that gender considerations are integrated. During
		project definition, a gender assessment will be performed to
		ensure that the project effectively responds to the unique
		needs of women and girls and promotes gender equity.
		Low risk – Component 2 of the project, in particular Output
		2.1, will involve labour for the implementation of rehabilitation
		of school facilities. Local communities will be involved in the
	implementation and maintenance of the concrete	
		Interventions via local contractors and consultants. Where
		possible, local contractor will be invited to hire local manpower
Cana Labaur Diabta		In the communities surrounding the construction sites.
Core Labour Rights		compliance with all labour rights will be ensured in all project
		communities The local contractors and consultations will
		communities. The local contractors and consultations will comply with the national labour right. All forms of
		discrimination in respect of employment and essuration will
		he eliminated. The project will not engage in child labour in any
		of its activities or interventions. All forms of forced or
		compulsory labour will be eliminated
Indiaenous Peonles	×	No risk - There are no indigenous peoples in Haiti
Involuntary	^	<b>No risk</b> - No activities are or will be included in the project
Resettlement	х	design that will result in involuntary resettlement.
Protection of Natural		<b>No risk</b> – No activities are or will be included in the project
Habitats	х	design that will result dangerous for the natural habitats.
Conservation of		<b>No risk</b> - No activities are or will be included in the project
Biological Diversity	x	design that will result dangerous for the biological diversity.
		No risk – Project activities will contribute to climate change
		adaptation efforts and none of them will not result in any
Climate Change	x	significant or unjustified increase in GHG emissions or other
		drivers of climate change.
Pollution Prevention		Low to no risk – Project activities are not expected to produce
and Resource		any significant amounts of waste or other pollutants
Efficiency		(particularly hazardous or toxic waste. In terms of resource

		efficiency, the project implementation will not require (during or after implementation) excessive amounts of materials or other natural resources. Only Output 2.2 will have the low risk related to the use of material, for reason these activities will be monitored in order to be compliance with the environmental principle.
Public Health	х	<b>Low to no risk</b> – All project activities will be designed and implemented in order to avoids any foreseeable negative impact on public health.
Physical and Cultural Heritage	х	<b>Low to no risk</b> – The risk to have a negative impact to a cultural heritage by the implementation of the project activities is low and only related to potential rehabilitation in school facilities that are close or within a cultural heritage area. The VISUS assessment take into account the presence of physical or cultural heritage, and in case this risk materialzied, action to protect the physical and cultural values will be adopted.
Lands and Soil Conservation	х	<b>No risk</b> - No activities are or will be included in the project design that will result dangerous for the land and soil conservation.

Table II-II Checklist of environmental and social principles

152.At the time of submission of the funding application, the project activities regarding Outputs 2.1 and 2.2 have been not identified since the selection of schools will be at the end of Component 1 (end of first project year). It has not been possible to identify by the time of submission all the environmental and social risks associated with these grant activities since the nature of the activities or the specific environment in which they will take place, or both, may not be known. For this reason, such activities are then referred to as Unidentified Sub-Projects (USPs).

#### PART III: IMPLEMENTATION ARRANGEMENTS

#### A. Describe the arrangements for project implementation.

- 153. The United Nations Educational, Scientific and Cultural Organization (UNESCO), Haiti Office, as the budget executing entity, will coordinate the overall management of the project, oversee monitoring and evaluation activities, provide technical support and report to the Adaptation Fund. UNESCO will provide technical, fiduciary and managerial support at all stages of project implementation.
- 154. The Ministry of the Environment (MdE), which is the focal point of the Adaptation Fund in Haiti, will ensure the supervision and monitoring-control of all project activities. He will oversee the mid-term and final evaluation of the. It will ensure compliance with budget lines, the deadline and the implementation of the environmental education component, including the education aspect relating to risk and disaster management, in conjunction with the MENFP and the DGPC. The means necessary to fully play its role are provided by the project. The MdE reports on its supervision and monitoring-control work to the project steering committee, of which it also chairs.
- 155. The MENFP will supervise the monitoring and evaluation, will provide technical support at all stages of the implementation of the project, The MENFP will work in collaboration with UNOPS on the basis of a call for tenders for the implementation of component 2 of the project.
- 156. The high-level coordination of the project will be done through a Project Steering Committee (PSC), which will include Ministers from different ministries including the Ministry of the Environment (MdE), the Ministry of Education. National and Vocational Training (MENFP), The Minister of the Interior (Directorate of Civil Protection (DPC). The steering committee is the body which grants no-objection for any action of the project, in particular the terms of reference (TOR), procurement or tender documents (DAO), contracts, technical and financial reports, deliverables, etc.
- 157. The 3 National Institutions (i.e. MdE, MENFP and DPC), that are represented at a high-level in the PSC, will be also involved across the activities to secure the full engagement of these national authorities in each of the components of the project described below in the details.
- 158. High-level oversight of the project will be through a Project Steering Committee (PSC), to include senior technical representatives (Directors General) from the key Ministries including Ministry of Environment (MdE), Ministry of National Education and Vocational Training (MENFP), Direction of Civil Protection (DPC) and University National of Haiti (NUH) and AF focal points.
- 159.UNESCO will sign an agreement with the United Nations Office for Project Services (UNOPS) for the execution of outputs 2.1 to 2.3 of the proposed project and activities related to these outputs will be executed by UNOPS, Haiti Country Office.
- 160.Component 1 will be executed by the National University of Haiti (NUH) through the coordinative function of the UNESCO Chair in Intersectoral Safety for DRR & Resilience of the

University of Udine, Italy (UD). The ToT, training for the VISUS surveyors and decision makers will be provided by teams of experts composed both from the NUH and UD. The assessment surveys will be carried out by trained teams of four people, consisting of three students and one professor. Strategic intervention plan for school facilities will be organized in close collaboration with the Ministry of National Education and Vocational Training and involving all national relevant ministries.

- 161.UNOPS will execute outputs 2.1 to 2.3 which aims to strengthen the school safety by promoting rehabilitation, retrofitting, reconstruction of relocation on selected schools. The design and construction part of the work will be sub-contracted by UNOPS who will ensure supervision and quality control of the work.
- 162.During Component 2 a consultant team of 3 experts (a team leader and two assistants) will implement school protocols for risk management and develop the risk management protocols in the selected schools. This is of critical importance as school organizations have been instrumental in ensuring sustainable implementation of the three pillars of the Comprehensive School Safety Framework (CSSF).
- 163.Community-related activities for Component 3 will be implemented by the consultant team experts (a team leader and two assistants) in community capacity building in close coordination with the PMU, and the support from UNESCO and UNOPS. The team is tasked with participatory development and implementation of local plans with households and provision of expert advisory emergency services at local level.
- 164.Component 4 will be executed by the COPUHA through the coordinative and support from the University of Udine (UD). They will monitor and evaluate the outcomes of project, in particular, the assessment of the VISUS methodology efficacy and the enhancement of the schools and communities safety resilience.

# Project governance structure

- 165. High-level oversight of the project will be through a **Project Steering Committee (PSC)**, to include senior technical representatives (Directors General) from the key Ministries including Ministry of Environment (MoE), Ministry of National Education and Vocational Training (MENFP), Direction of Civil Protection (DPC) and University National of Haiti (NUH) and AF focal points.
- 166. The Project will be administered by **Project Management Unit (PMU)** that is housed within the UNESCO Country/Regional Office in Haiti and that reports to the Director. A number of staff will be engaged within this PMU to ensure integrated, effective, and efficient implementation of the project. The PMU will be indeed responsible for providing technical leadership to the Project, managing and coordinating Project activities, providing oversight on the day to day operations of the Project including procurement, financial management and reporting, communications, monitoring and evaluation of project performance, reporting and serving as secretariat for the PSC. A fulltime **Project Coordinator** will be responsible for the overall project implementation and coordination. An **Admin** assistant will support the execution of this project. The project will also employ an **Environmental Compliance Officer**, who will be employed part-time between the second and the third year in Component 4 to coordinate and implement the screening of resilience and adaptation options and to prepare ESM plans, if needed. The latter will be employed a few weeks per

year to support the monitoring of the implementation of the ESMP and to update it, if needed. A second expert who will be employed part-time between the second and the third year in Component 4, will provide technical assistance in mainstreaming gender in all components.



Figure III-1: Project governance structure

- 167.In Component 1, their technical staff and decision makers will participate in trainings on the VISUS methodology and the senior representatives of the three national institutions will be engaged in the Strategic Workshop that will aim to select the schools interventions for Component 2 (i.e. 4 people seconded to each institution for 6 months across the first year). In Component 2, the Directorate of School Engineering of the MENFP will provide active support to UNOPS for the implementation of Outputs 2.1 to 2.3 while the MoE and DPC will closely collaborate with the School Safety team (i.e. 1 person seconded to each institutions will closely collaborate both with the community resilience team and the expert on ESD (i.e. 1 person seconded to each institution for respectively 18 months across the second and third years plus 1 person seconded to each institution for 36 months across the 3 years).
- 168. The UNESCO Chair in Intersectoral Safety for DRR & Resilience (**UD**) will be in charge of providing a scientific support across all components. In Component 1, UD will adapt the VISUS methodology to the Haitian context, preparing the technical material for the training workshops, support remotely the survey and the development of the strategic intervention plan. In Component 2 and 3, UD will provide remotely scientific support respectively to the School safety and Community resilience teams.
- 169.**NUH** will be in charge of implementing the VISUS assessment with the support of the scientific advisory. NUH will appoint one professor who will act as a Coordinator responsible for the VISUS implementation, in order to guarantee the logistic aspect and quality of

technical outputs. The Coordinator will be supported by twenty professors which will coordinate the teams composed by 3 last year civil engineering/architecture university students that will collect the safety data school by school and per department. The hierarchical structure of responsibility and the check evaluation process are presented in more detail in the scheme below.

#### **VISUS** implementation

170. The relevant Ministries and local authorities consulted during the preparation of this proposal (all the details of the consultation in Appendix 1) indicated the four areas where to implement the VISUS assessment and the project outputs. The following Table summarizes the main characteristics of the VISUS assessment management, from the logistics to the validation process.







#### **VISUS** implementation

• 3 types of trainings:

- 1 ToT in Port-au-Prince (40 people)
- 1 Decision Maker T. in Port-au-Prince (40people)
- 4 Surveyors T. in the four departments (160people)
- Survey in 4 departments:
  - Nord Artibonite Grand'Anse Sud (Appendix 1)

#### **VISUS team management**

- The UNESCO Chair in Intersectoral Safety for DRR & Resilience will provide scientific support to the VISUS coordinator;
- The coordinator will manage all the VISUS implementation, from logistics to technical aspects;
- 20 surveyor teams, five for each of the four zones,
  - 1 Professors will supervise the surveyor teams
  - 3 VISUS surveyors will lead the safety survey in the schools

# **Survey validation**

- The Surveyor teams will collect the data school by school;
- *First level validation*: each professor will check the data (completeness and correctness) of all the schools assessed by its surveyor team;
- Second level validation: the VISUS coordinator will be responsible for all the school assessments. The Coordinator is responsible for declaring when each school assessment is completed and consequently the release of the related fee to the team;
- Third level validation: The UNESCO Chair in Intersectoral Safety for DRR & Resilience will be an external auditor to check the quality of the collected data. It will randomly select schools to check, and has the responsibility to inform the PMU if there are more than 10% of schools assessed with low quality data.

Table III-I: VISUS implementation scheme

- 171.**UNOPS** will be in charge of implementing the structural works of Outputs 2.1, 2.2 and 2.3. These outputs will be implemented by UNPS in close collaboration and active support of the Directorate of School Engineering of the MENFP.
- 172. **Two technical teams** will be employed part-time for the school safety and community resilience activities. Each team will be led by a senior expert in the specific activity plus 2 supporting staff. Each team will be remotely supported by UD to guarantee international high and updated technical quality.
- 173.**A consultant** who will respectively integrated into formal Haitian education an Education for Sustainable Development (ESD) program. The consultant will be employed part-time during the three year of implementation.

# B. Describe the measures for financial and project / programme risk management.

Identified risk	Risk level	Risk management measures
Extreme climate events	High	Effects of climatic hazardous events such as flooding and induced landslide may make some areas inaccessible and generate delay mainly in some activities of Component 2. To mitigate these risks, the timeline of the project is designed in such a way that activities in flood-prone areas will be carried out before or after the rainy season.
Capacity constraints of local institutions may limit the ability to undertake the research and interventions	Low	The project will transfer the best available knowledge through an intensive training program in Component 1 and Component 2. The project will provide trainings of trainers, training to decision makers, to VISUS surveyors and technicians. Collaboration and exchange between local institutions and international research institutes will be promoted.
Low technology adoption rate by design and construction workers	Low	The project will promote and demonstrate new technologies and practices, both in schools' assessment and in schools' interventions.
Local communities with limited participation and willingness to promote project initiatives	Low	Component 3 will ensure that the local community and the community organizations will be highly and actively involved in the project implementation
Communities fail to support project activities and they are not informed	Medium	The Component 3 of the project will carry out awareness campaigns and hold stakeholders meetings to explain the project to the communities. Local leadership will be involved in these meetings.
Failure to involve adequate representation of vulnerable communities, particularly women, and therefore failure to create ownership of the project at the community level at project sites	Low	The project will promote bottom-up approach by creating community ownership of the project interventions by building the capacity of community members at an early stage in the project. Engagement and capacity building will adopt a gender- sensitive approach. The development of detailed implementation plans will be undertaken in a participatory manner, encouraging inpust from all community members, especially women (more details about in Section III-C and Appendix 2).

Some interventions put in place by Component 2 could lead to conflicts associated with different user access	Medium	The objective of Component 3 is to enhance the capacity and awareness of the local population and civil protection stakeholders in risk management. The community emergency plan developed with a participatory approach, will increase knowledge and awareness and will mitigate possible conflicts.
Poor collaboration amongst the relevant technical institutions	Medium	The relevant institutions (e.g. Ministry of Environment, Ministry of Education, Civil Protection, UEH, etc.) are involved right from the project proposal and will continuously be involved in the planning, implementation, project review, and reporting. Major results of this collaboration will be at the end of Component 1 and Component 3. The workshop after the VISUS assessment (Component 1) will guarantee that the selection of the schools for Component 2 will reflect objective results of the VISUS assessment but also the strategic decision of the major stakeholders. The National Action Plan (Component 3) will promote the project impact further than the project duration.
Disagreement amongst decision makers with regards to school selection of Component2	Low	Intervention work of Component 2 will be selected based on the objective VISUS assessment results in order to ensure a transparent and equitable selection of the schools where to intervene. There will be a participatory approach to the proposed interventions.
Loss of government support may result in lack of prioritisation of proposed project activities	Low	Regular stakeholders consultations and involvement will be undertaken to ensure that both beneficiary governments maintain their commitment and consider the proposed project as a support to their national education system development, with a focus to resilience on climate change.
Change in government or responsible Ministers may result in delay in implementation of project	Medium	The project team will engage the new government or Ministers so that they understand the need to carry out the project and its associated benefits. The involvement from the proposal phase of the National University of Haiti will facilitate the project continuity should a political change occur.
Delay in project implementation due to government bureaucracy, long and inefficient procurement processes	Low	The GANTT of the project has been developed considering possible delay in some crucial activities. The project staff has been tailored to cover all the strictly necessary activities without generating a too complex procurement process. Furthermore, a procurement plan will be developed and a negotiation with Government will be led to get a special support or treatment that can facilitate the implementation.
Priority interventions implemented are not found to be cost-effective or inadequate funding to complete the project (e.g. due to costs increases)	Low	All the activities of Component 1 have as main goal to guarantee an adequate and efficient allocation of the budget which is mainly allocated for structural work in Component 2. Furthermore, if necessary, the project will explore various channels to secure resources, consider alternative implementation approaches or restructure the project in consultation with the AF. Finally, Component 4 will monitor and evaluate the real change brought by the project.
Ineffective management of project funds affects project implementation.	Low	The Project Coordinator will be recruited to strengthen and coordinate the PMU and to ensure appropriate management of project funds. In addition, UNESCO oversight and account audits will ensure that there is no ineffective use of project funds.

Fluctuations in exchange rate (USD: HTG) which could affect the funding available for implementation and lead to budgetary constraints.	Low	The Project Coordinator will closely monitor the USD:HTG exchange rate and evaluate any implications so that project management can be adaptive. The PMU will collaborate closely with UNESCO should exchange rates fluctuate to the extent that budget reallocations are required. In this event, budget reallocations shall be made in such a way that the achievements of project outcomes are compromised as little as possible.
Political and social security situation	Medium	Request support from local authorities. Coordination with UN
in Haiti causes delays to the projects		Security to ensure the security of its personnel.
due to rioting and road blocks.		
Cost of construction materials and transport increase due to local currency inflation or other factors or the local market	Medium	Review cost estimates carefully at every stage.
Expectations of partners and schools	Low	Communication with schools director and partners Ministries
on the work to be completed is		on the scope of the work and its impact on DRR will be key to
unrealistic within the budget and		mitigate this risk.
Cites estertion is deleved as	N A a di una	
sites selection is delayed of	Medium	will be consulted when required to ensure smooth transition
for complete causing additional costs		from coloritor to implementation. If dolars pays additional
nossible supergies		from selection to implementation. If delays cause additional
possible synergies.		within the larger AF project or to revise the number of sites or
		quantity of work to be done on each site
Final Designs de naturest avaiated	N A o di uno	qualitity of work to be dolle on each site.
hudget through the Mission	ivieulum	that can be completed in time and an hudget
mothedology		that can be completed in time and on budget.
methodology		

Table III-II Risk management table

# C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

- 174.According to AF ESP, the project has a risk rating Category B (*Section II-K*). Therefore, it can have minor environmental, social or gender impacts. These impacts and risks have been evaluated during the preparation of the project Environmental and Social Management System (ESMS), which includes three key mechanisms to comply with the AF ESP:
  - **Project-Level Quality Assurance**: As elaborated in *Section II-K*. Screening, by IE, EE and partners, of proposed project scope and activities for potential harmful impacts and risks.
  - Screening of impacts and possible risks of proposed project in relation to the 15 core principles of ESP: Categorization of the project as "B." (Appendix 2.a)
  - Development and application of ESMP (Appendix 2.b): as per guidelines of the Adaptation Fund.
- 175. The ESMP focuses on process-oriented risk management, where the mechanisms are incorporated into the program's implementation to ensure that rigorous risk assessment and management measures are applied to each intervention, as they are defined, approved and implemented the relevant activities. The project will work to ensure that all measures are implemented to the highest standard with an emphasis on risk avoidance. The IPC and Environmental Compliance Officer will support communities in the development,

implementation and monitoring of community mitigation plans. The PMU/M&E officer will monitor ESMP indicators as part of the M&E system.

- 176. The ESMP designed for this project will track identified risks, or any new risks, ensuring they are properly monitored, evaluated, and reported upon. The proposed project will fully comply with national laws, the Adaptation Fund's Environmental and Social Policy and environmental standards. The overall objective of the ESMP is to ensure that risks are identified, and that the adequate action is taken, whether these be mitigation measures or an Environmental and Social Impact Assessment (ESIA) if high risks are identified. It also enables effective response to new issues that might emerge during project implementation. In order to ensure effective compliance with the ESMP provisions and standards, environmental and social risks compliance personnel could be engaged during project implementation of the ESMP and periodical checks.
- 177. Finally, in accordance with the project Monitoring and Evaluation approach, progress reporting will pay specific attention to the compliance issues. The high level of existing stakeholder involvement also ensures a low risk of non-compliance. Whenever potential non-compliance issues arise, the Grievance mechanism can be activated.

#### **ESMP Monitoring**

- 178.Systematic progress monitoring and collection of stakeholder feedback and reviews. As the IE, UNESCO will establish a project M&E and reporting mechanism through which it will monitor and report on the following (*Section III-D*): 1) project progress and results (on the basis of verifiable indicators and means of verification) and 2) impact assessment and compliance with ESP Principles. This will be done throughout project implementation.
- 179. If, against expectations, project implementation generates negative environmental or social impact, it will be addressed through the M&E mechanism and reflected in periodic project reporting. Annual reporting on the project will include a section detailing the status of the ongoing environmental and social impacts and risks, as well as a consideration of gender issues. Reports will include, where necessary, a description of any corrective actions taken during the reporting period. The mid-term review and terminal evaluation reports will also include a detailed evaluation of the project's performance with respect to gender and environmental and social risks mitigation. The integral risk management strategy is an integral part of the Program. The PMU will establish and maintain a "Risk Registry" to record, track and evaluate risk management during the implementation of the Program. Any potential resistance of the communities to the Program interventions will be avoided through a communication strategy to aim an early and consistent stakeholder involvement and engagement, and permanent hearings and information sharing.

#### **Grievance Mechanism**

180.All direct beneficiaries of the project and other related stakeholders will be informed about the grievance mechanism and the complaint-handling mechanism of the project. The IE with project partners will produce public information materials (leaflets and brochures) that explain the project, complete with detailed contact information of persons in charge (name, position, address, phone, email), and including access to information regarding the ad hoc complaint handling mechanism for the AF. These public information materials will be distributed during community consultations and general awareness-raising activities across all Components.

- 181.As part of the project's ESMP as well as progress and results monitoring, stakeholder feedback and reviews will be collected systematically. Focus will be placed on the results evaluation of tangible measures and activities in the geographical areas of both Component 2 and 3. The grievance mechanism process to be implemented in the project will be composed of five steps: 1) receipt and registration; 2) acknowledgement; 3) screening; 4) investigation and 5) response.
- 182. In the event that the response leads to successful resolution of the grievance, the process will be closed out and the entire process will be documented. In the event that the response is not satisfactory to the affected parties, there will be an appeals process.
- 183.Overall, the grievance mechanism process will support receiving, evaluating, and addressing project-related grievances from local communities and other stakeholders. Receipt of the grievance will always be acknowledged, recorded and subsequently investigated in a timely manner.

# **Unidentified Sub-Projects (USPs)**

- 184.As noted in Section II-K, Outputs 2.1 and 2.2 involve the identification and design of USPs. The projects in question are classified as USPs for the following reason: effective risk identification in line with the Adaptation Fund ESP is not possible for the Outputs 2.1 and 2.2 because the specific environment and social setting of the activity is not presently known.
- 185.Once the USPs under Component 2 have been identified and defined, they will be screened by UNOPS for compliance with the principles of the AF ESP to ensure that any potential unwanted impacts of these activities are anticipated, avoided, reduced, or mitigated. Activities will be rated by risk category (low, medium, high), which will determine what further action is required, and high-risk USPs will not be developed or implemented. Potential risks, whether social or environmental, will also be assessed at the community level. Any identified risks will be subject to monitoring and follow-up to ensure that planned mitigation measures are implemented and effective. All USPs that require further assessment, permitting, etc., will be closely supervised to ensure that they obtain the necessary approvals.

# D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

- 186.Project monitoring, reporting and evaluation will be carried out in accordance with UNESCO established procedures and standards.
- 187.UNESCO and UNPS will be responsible for monitoring and evaluation (M&E) of the proposed project and for project output monitoring in line with the M&E policies and procedures. UNESCO as implementing entity supervises the M&E activities of the project, ensuring that the UNOPS and all entities involved undertake the evaluation and prepare the yearly reports.

188. The M&E system will be governed by the following outlined principles.

- Accountability: ability of UNESCO to be answerable to donors and to the beneficiaries through availability of specific, timely and relevant data.
- **Evidence-base**: readily available information to support the development of more appropriate and improved programs in future.
- **Learning**: use of simplified and frequent reporting to support reflection, learning and sharing of good practices and solutions.
- **Transparency**: sharing of information with all of UNESCO's stakeholders, including strategies, plans, budgets and reports to promote openness.

- 189. The project will be monitored through the Monitoring and Evaluation (M&E) activities described in the following paragraph. The M&E budget is provided in Table III-III (the costs in the table do not cover UNESCO staff time, all UNESCO staff costs associated with M&E are covered by the MIE Fee). The M&E system for the Project will be developed and used to closely monitor and evaluate the Project. Monitoring and evaluation will be done through production of annual reports, quarterly implementation reviews, technical reports and regular supervision missions to enhance success.
- 190.A more detailed baseline survey will be carried out at the beginning of the project to prepare a detailed M&E plan that will streamline project objectives, indicators and methodologies of data collection. A joint review mission to the project sites are also planned to be conducted in the Mid-term and Terminal review.

Type of M&E activity	Responsible parties	Budget	Timeframe
Direct Project Monitoring	<ul> <li>Project Coordinator</li> </ul>	Supported from staff	Quarterly, half-yearly and
and Quality Assurance	UNESCO	costs	annually, as needed
including progress and		included in the Total	
financial reporting,		Project cost, and from IE	
project revisions,		fee	
technical assistance and			
risk management			
Evaluations (Mid-term	<ul> <li>Project Coordinator</li> </ul>	Consultant: \$ 25,000	At midpoint and at end of
Evaluation and Terminal	UNESCO	Logistic: \$ 25,000	project implementation
Review)	<ul> <li>External consultant</li> </ul>		
Audit	<ul> <li>Project Coordinator</li> </ul>	Supported from staff	Annually, at year end
	UNESCO	costs included in the Total	
		Project cost	
Inception meeting, field	<ul> <li>Project Coordinator</li> </ul>	Supported from staff	Inception meeting within
visits and steering	UNESCO	costs included in the Total	first two months and bi-
committee meetings		Project cost, and from IE	annual PSC meetings (and
		fee	sub-committee meetings)
TOTAL indicative cost (exclu	uding staff time)	\$ 50,000	

 Table III-III: Monitoring and evaluation costs of the proposed project.

# D.1 Internal monitoring & evaluation Project start

- 191.A project **Inception Workshop (IW)** will be held within the first three months of the project start date with those stakeholders with assigned roles in the project management, namely representatives from the Adaptation Fund (AF), UNESCO Country Office and other stakeholders where appropriate. The IW is crucial to build ownership for the project results and to plan the first-year annual work plan (AWP). The workshop will address a number of key issues, such as:
  - Ensure all partners fully understand and take ownership of the project.
  - Detail the roles, support services and complementary responsibilities of UNESCO staff Vis à Vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.
  - Based on the project results framework, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
  - Provide a detailed overview of reporting and M&E requirements. The M&E work plan and budget will be agreed and scheduled.

- Discuss financial reporting procedures/obligations, and arrangements for annual audit.
- Agree on the Terms of Reference for the PSC and plan and schedule the PSC meetings. Roles and responsibilities of all project organization structures will be clarified, and meetings planned. The first PSC meeting should be held within the first 6 months following the Inception Workshop.
- 192. The Project Inception Report to be provided on the basis of the workshop will form the basis for the first detailed annual work plan. An in-depth baseline (to be developed within 4 months of project start) and regular follow-up reports concerning all indicators included in the project results framework form an integral part of the project, which has a strong learning dimension.
- 193. Quarterly Progress Report Short quarterly progress reports will keep the project stakeholders abreast of the most recent developments and events, including project activities, the results of any environmental and social risk screening performed, implementation of any risk mitigation measure, results achieved, challenges encountered and plans to address them. Every fourth quarterly report will provide additional input to the project annual report. The cost of preparation of the reports will be covered by the Project Execution Cost (PMU); supervision and quality assurance will be covered by the IE fee.
- 194. Annual Reports Detailed annual reports will provide full information on activities carried out, outputs produced and to the extent possible tendencies towards foreseen outcomes observed. This will provide recommendations/endorsement for the proposed next annual work plan. The cost of preparation of the reports will be covered by the Project Execution Cost, supervision and quality assurance will be covered by the IE fee.
- 195. Periodic Monitoring through site visits UNESCO will conduct visits to project sites based on the agreed schedule in the project's Inception Report or Annual Work Plans to assess firsthand project progress.
- 196. **Financial Reporting and Audit** Certified periodic project financial reports will be provided. Audits on the project will follow UNESCO financial regulations and rules as well as applicable audit policies. Project audits, if required, will be performed by the External Auditor of UNESCO. The External Auditor is appointed by the General Conference of Member States.

#### **D.2 External independent evaluation**

#### Independent Project Mid-Term Evaluation (MTE).

197.The MTE will be carried out in the 6<sup>th</sup> quarter (mid-point) of the programme implementation and will be independent and external. The evaluation will engage all programme stakeholders and will determine progress being made toward the achievement of outcomes and will identify course correction if needed. The evaluation may propose mid-course corrective measures and may reassess the objectives and revise the implementation strategy. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. The mid-term evaluation will include a focus on environmental and social risks, and ensure compliance with the AF ESP. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the Project's term. The organization, Terms of Reference and timing of the Mid-Term Evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Evaluation will be prepared by UNESCO based on guidance from the Adaptation Fund.

#### Independent Project Terminal Evaluation (TE) and Reporting

198. The TE will be conducted at the conclusion of the programme. UNESCO will commission a full external evaluation assessing the accomplishment of objectives in accordance with UNESCO guidance. The independent Terminal Evaluation will take place three months prior to project closure and will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The terminal evaluation will include a focus on environmental and social risks, and ensure compliance with the AF ESP. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response. During the last three months, the project team will prepare the **Project Terminal Report**. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), risk management, lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps.

External Evaluation activity	Planned completion date	Stakeholders
Mid-term Evaluation (MTE)	10 2023	Relevant Ministries
Terminal Evaluation (TE)	02 2025	Relevant MInistries

**Table III-IV:** Evaluation plan for the proposed project including stakeholders and planned date of completion (note: the cost of preparation of the reports will be covered by the Project Execution Cost; supervision and quality assurance will be covered by the IE fee).

# E. Include a results framework for the project proposal, including milestones, targets and indicators.

Project strategy	Project strategy				
Goal	Indicator	Baseline	Target (MT & End)	Source of verification	Risks & assumptions
Enhanced the adaptive capacity and resilience of the Haitian education sector to disaster risk of	Number of people living in the communes that will benefit from the schools project assessment	0	End = about 1.5 million people ( 1.711.361 people, 864.234 male and 911.322 female)	Project reports	The education sector is supported by other national sectors (e.g. economy, civil
natural hazards related to climate change	Number of student indirectly targeted and with medium intensity in 4 departments	0	End = about 150 thousands students ( 177.631 students, 88.555 male and 89.076 female)	Project reports	protections, etc.) to promote the resilience in the communities

Table III-V results framework of project goal (for the details of the targets, please see Appendix 3 "List of beneficiary")

Component 1 - Assessment of school facilities by VISUS methodology						
Outcome / outputs	Indicator	Baseline	Target (MT & End)	Source of	Risks &	
				verification	assumptions	
Outcome 1: Improved	Relevant hazard and school	101 VISUS	700 VISUS individual	Project reports	Institutions,	
national knowledge of	vulnerability information	individual	schools reports		government	
exposure and physical	generated by the VISUS	schools reports			ministries and	
vulnerability of school	assessment				agencies are	
facilities and capacity of	and disseminated to				committed to	
the decision-making	stakeholders.				participating in	
process of intervention in					and addressing	
Haiti					climate risk	
	Number of stakeholders at	0	40 institution	List of	Decision makers	
	national level involved in the		representatives	participants	recognize CC's	
	strategic intervention plan			attached to the	urgency and the	
				work shop	project benefits	
				reports	and accept to	

					be involved in the project
<b>Output 1.1:</b> Trainers competence to provide inclusive, technical and effective training is improved	Number of Trainers trained	5	40 (20 male and 20 female)	Training Reports	Trainers accept to train staff and to use the VISUS methodology
<b>Output 1.2:</b> Decision makers understanding of the VISUS approach enhanced	Number of Decision Makers at National level	20	40	Training Reports	Decision makers accept to use the VISUS assessment reports
<b>Output 1.3:</b> VISUS surveyors know-how is transferred to university students	Number of last year Civil Engineering/Architecture university students trained	35	160 students (80 male and 80 female)	Training Reports	Students accept to use the VISUS methodology
<b>Output 1.4:</b> Exposure and vulnerability of school facilities are assessed	Number of schools assessments	101	700	VISUS individual and the collective schools reports	The trainings have transferred the methodology to the surveyors
<b>Output 1.5:</b> GIS-based web platform knowledge-sharing is put on place	Number of individual school reports uploaded in the database approved by the VISUS coordinator	101	700	Project reports	The data will be accessible by the UD
<b>Output 1.6:</b> Strategic intervention plan for school facilities is developed	Priority intervention schools list agreed among national stakeholders	There is currently no priority intervention list in Haiti	One list of 700 schools ranked in order of priority	Project reports	The decision makers agree to develop the strategy based on the VISUS input

 Table III-VI Result framework of Component 1

Component 2 - Schools ad	Component 2 - Schools adaptation and safety Improvement						
Outcome / outputs	Indicator	Baseline	Target (MT & End)	Source of	Risks &		
				verification	assumptions		
Outcome 2: Strengthening the school safety by promoting rehabilitation, retrofitting, reconstruction or relocation of selected schools and risk management school protocols	Number of students / staff that benefit from schools interventions		End: about 3500 students (3806 students 1898: male and 1909 female. These values are	Project reports	People in the rehabilitated schools apply the emergency protocols		
			total number of students beneficiaries of Component 1 by ratio 15/700		future events and implement CCA actions		
	Number of students that benefit from climate change and DRR training and protocols and risk management protocols	0	End: about 2000 students (2284 students: 1139 male and 1145 female. These values are obtained multiply the total number of students beneficiaries of Component 1 by ratio 9/700	Project reports			
Output 2.1: Detailed intervention of the selected schools is designed	Number of detailed designed for school intervention	0	MT=about 2 to 8 End=about 5 to 15 <sup>22</sup>	Project reports			

<sup>&</sup>lt;sup>22</sup> This estimate is based on several assumptions detailed in Appendix 6. This target could vary when sites are selected at the end of component one and the nature of work (light, medium or heavy) is determined within the budget allocated for this component.

<b>Output 2.2:</b> Adaptation, Rehabilitation or retrofitting of school facilities are implemented	Number of schools with light interventions	0	MT=about 2 to 8 End=about 5 to 15 <sup>23</sup>	Project reports	The rehabilitation interventions will be implemented accordingly to
<b>Output 2.3:</b> Trainers competence to provide inclusive, technical and effective training is improved	Number of contractors trained	0	End=about 2 to 5 <sup>23</sup>	Training Reports	the designs Staff accept to participate to the trainings
<b>Output 2.4:</b> Good DRR and CCA practices are adopted by students and school staff	Number of students trained in DRR and CCA	0	End: about 2000 students (2284 students, 1139 male and 1145 female)	Project reports	People in the schools recognized the importance of
	Number of schools staff trained in DRR and CCA	0	End= about 80 people (84 people, 42 male and 42 female. 1 professor every 27 students)	Project reports	knowing how to behave in case of emergency
Output 2.5: Risk management school protocols are adopted	Number of emergency plan for schools' facilities	0	MT=about 3 End=about 9	Project reports	and how to adapt to CC
	Number of schools with warning messages installed	0	MT=about 3 End=about 9	Project reports	

Table III-VII Result framework for Component 2 (for the details of the targets, please see Appendix 3 "List of beneficiary")

<sup>&</sup>lt;sup>23</sup> This estimate is based on several assumptions detailed in Appendix 6. This target could vary when sites are selected at the end of component one and the nature of work (light, medium or heavy) is determined within the budget allocated for this component.

Component 3 - Enhancem	ent of climate resilience of soo	cial community th	rough the educational s	ector	
Outcome / outputs	Indicator	Baseline	Target (MT & End)	Source of	Risks &
				verification	assumptions
Outcome 3: Enhancing the	Number of Haitians	0	End = 150.000 people	Project reports	The Haitian
capacity and awareness of	benefiting from the		(177.631 people,		communities
local population and civil	improvement of the climate		(88.555 male and		are aware of
protection stakeholders in	resilience of the social		89.076 female)		the risks that
risk management at	community				are exposed
Hational and local levels					and recognize
					the benefit of
					the projects
Output 3.1	Number of people	0	End=200 people (100	Project reports	Institutions,
Knowledge and awareness	participated at the national		male and 100 female)		government
of the disaster risk due to	conference and workshop				ministries and
CC in Haiti is enhanced					agencies are
					committed to
					participating in
					and addressing
					climate risk
Output 3.2	Number of community	0	MT=about 3	Project reports	Haitian
Community emergency	emergency plan adopted		End=about 9		communities
plan is put on place					come to
					workshops to
					enhance their
					knowledge and
					awareness on
					the effects of
					climate change
Output 3.3	Number of full evacuation	0	MT=about 3	Project reports	Haitian
	simulation		End=about 9		communities
					undertake

Community capacity to cope with disasters improved					simulations exercises to enhance their coping capacity
	Number of warning messages installed in the municipalities	0	MT=about 30 End=about 100 (about 10 in each municipalities)	Project reports	Institutions, government ministries and agencies are
<b>Output 3.4</b> National action plan for resilient school facilities and their surrounding communities.	Number of ESD programmes integrated into for formal education	0	MT=0 End=3	Project reports	committed to participating in and addressing climate risk
	Number of relevant representatives of ministries involved in the consultation for the programmes development	0	MT=0 End=18	Project reports	

Table III-VIII Result Framework for Component 3 (for the details of the targets, please see Appendix 3 "List of beneficiary")

Component 4 - Monitorin	Component 4 - Monitoring and evaluation							
Outcome / outputs	Indicator	Baseline	Target (MT & End)	Source of	Risks &			
				verification	assumptions			
Outcome 4: Project's	Average of the outcomes	0	End=75%	Project reports				
outcomes assessment	targets percentage							
Output 4.1: Assessment of	Number of schools assessed	0	End=30 (20 light, 8	VISUS individual				
VISUS methodology in the	by VISUS after the		medium and 2 high	and collective				
schools	interventions		intervention)	school reports				
Output 4.2	Comparison of VISUS	VISUS	No Mid-term target.	VISUS	The data			
Assessment and	indicators pre- and post-	evaluations	End: Check of the	assessments pre	acquired			
monitoring of the safety	interventions (i.e.: VISUS	before the	effectiveness of safety	and post	through the			
level of the schools	multi-hazard safety stars,	interventions	upgrading	interventions.	VISUS			
	VISUS warning rose, Safety	(Component 1)	interventions		methodology			
	upgrading action class,				correspond to			
	IUAS).				the actual			
	The level of fulfilment of the	Safety	The achievement of	Workshop	situation of			
	safety performance goals	performance	the safety	minutes	schools. The			
	are pre-defined by decision-	goals to obtain	performance goals		samples used			
	makers.	safety	defined by the		for the			
		interventions,	decision makers (life		verification are			
		as defined by	safety, rapid resume		representative			
		decision	of operations,		of the whole			
		makers	immediately		set.			
			operational).					
Output 4.3	Number of communities	0	End=9	Project report				
Assessment and	assessed after the							
monitoring enhancement	interventions and resilience							
level of climate resilience	activities							
of school communities		1						

 Table III-IX Result framework for Component 4

Project Objective(s) <sup>24</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount
				(USD)
Aim: enhance the adaptive	capacity and resilience of the Ha	itian education sector to disaster	risk of natural hazards related to	climate change,
through the establishment of	of appropriate risk assessment tool	, schools retrofitting and impleme	nting adaptation actions in Haiti	
<b>Obj.1]</b> Improving the	I-1.1] Relevant hazard and	Outcome 1] Reduced exposure	I-1.1] Relevant threat and	\$ 866.470,90
national comprehensive	school vulnerability	at national level to climate-	hazard information generated	
knowledge of exposure	information generated by the	related hazards and threats	and disseminated to	
and physical vulnerability	VISUS assessment		stakeholders on a timely basis	
of school facilities and	and disseminated to			
decision-making process of	stakeholders			
intervention in Haiti	I-1.2] Number of stakeholders			
	at national level involved in the			
	strategic intervention plan			
<b>Obj.2</b> ]Strengthening	I-2.1] Number of students /	Outcome 1] Reduced exposure	I-1.1] Relevant threat and	\$6.626.674,14
school safety by promoting	staff that benefit from schools	at national level to climate-	hazard information generated	
rehabilitation, retrofitting,	interventions	related hazards and threats	and disseminated to	
reconstruction or		Outcome 2] Strengthened	stakeholders on a timely basis	
relocation on selected	I-2.2] Number of students that	institutional capacity to reduce	I-2.2] Number of people with	
schools and risk	benefit from climate change	risks associated with climate-	reduced risk to extreme	
management protocols for	and DRR training and protocols	induced socioeconomic and	weather events	
schools	and risk management protocols	environmental losses		
		Outcome 4] Increased adaptive	<b>I-4.2]</b> Physical infrastructure	
		capacity within relevant	improved to withstand climate	
		development and natural	change and variability-induced	
		resource sectors	stress	
<b>Obj.3]</b> Enhancing the	I-3.1] Number of Haitians	Outcome 1] Reduced exposure	I-1.1] Relevant threat and	\$ 1.394.511,64
capacity and awareness of	benefiting from the	at national level to climate-	hazard information generated	
the local population and	improvement of the climate	related hazards and threats	and disseminated to	
civil protection	resilience of the social	Outcome 2] Strengthened	stakeholders on a timely basis	
stakeholders in risk	community	institutional capacity to reduce		
		risks associated with climate-		

# F. Demonstrate how the project aligns with the Results Framework of the Adaptation Fund

<sup>&</sup>lt;sup>24</sup> The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

management at national	induced socioeconomic and	I-2.2] Number of people with
and local levels	environmental losses	reduced risk to extreme
	Outcome 3] Strengthened	weather events
	awareness and ownership of	I-3.1] Percentage of targeted
	adaptation and climate risk	population aware of predicted
	reduction processes at local	adverse impacts of climate
	level	change, and of appropriate
	Outcome 7] Improved policies	responses
	and regulations that promote	I-7] Climate change priorities
	and enforce resilience	are integrated into national
	measures	development strategy

Project Outcome(s)	<b>Project Outcome Indicator(s)</b>	Fund Output	Fund Output Indicator	Grant Amount (USD)
<b>Outcome 1</b> ] Improved nation intervention in Haiti	nal knowledge of exposure and ph	ysical vulnerability of school facili	ties and capacity of the decision-m	aking process of
Output1.1]Trainerscompetencetoprovideinclusive,technicalandeffectivetrainingisimprovedOutput1.2]DecisionmakersunderstandingoftheVISUSapproachenhancedOutput1.3]VISUSsurveyorsknow-howistransferredtouniversitystudents	<ul> <li>I-1.1.1] No. of Trainers trained</li> <li>I-1.2.1] No. of Decision Makers at National level trained</li> <li>I-1.3.1] No. university students trained</li> </ul>	<b>Output 2.1]</b> Strengthened capacity of national and regional centres and networks to respond rapidly to extreme weather events	<b>I-2.1.1]</b> No. of staff trained to respond to, and mitigate impacts of, climate-related events	\$ 256.064,00
<b>Output 1.4]</b> Exposure and vulnerability of school facilities are assessed	I-1.4.1] Number of schools assessments	<b>Output 1]</b> Risk and vulnerability assessments conducted and updated at a national level	<b>I-1.1]</b> No. and type of projects that conduct and update risk and vulnerability assessments	\$ 364.020,00
Outcome 2] Strengthening management school protocol	the school safety by promoting rs	ehabilitation, retrofitting, reconstr	ruction or relocation on selected s	schools and risk

Outrout 2.21 Adaptation	12241Na of ask a slavith light	Output 11 \/ulpanakla_akusiaal	1 4 4 41 No. and the soft solth an	¢ F 225 000 20
Output 2.2 Adaptation,	I-2.2.1] NO. OF SCHOOIS WITH light	Output 4] Vuinerable physical,	I-4.1.1] No. and type of health or	\$ 5.225.008,29
Rehabilitation or	interventions	natural, and social assets	social infrastructure developed	
retrofitting of school		strengthened in response to	or modified to respond to new	
facilities are implemented	I-2.2.2] No. of schools with	climate change impacts,	conditions resulting from	
	medium interventions	including variability	climate variability and change	
			(by type)	
	I-2.2.3] No. of schools with		I-4.1.2] No. of physical assets	
	heavy interventions		strengthened or constructed to	
			withstand conditions resulting	
			from climate variability and	
			change (by asset types)	
Output 2.4] Good DRR and	I-2.4.1] No. of students trained	Output 2.2] Targeted	I-2.1.2] Capacity of staff to	\$ 183.862,50
CCA practices are adopted	in DRR	population groups covered by	respond to, and mitigate	
by students and school		adequate risk reduction	impacts of, climate-related	
staff	I-2.4.2] No. of schools staff	systems	events from targeted	
	trained in DRR		institutions increased	
Outcome 3] Enhancing the	capacity and awareness of local po	pulation and civil protection stak	eholders in risk management at na	ational and local
levels			-	
Output 3.2] Community	I-3.2.1] No. community	Output 2.2] Targeted	I-2.2.1] Percentage of	\$ 372.900,00
emergency plan is put on	emergency plans adopted	population groups covered by	population covered by	. ,
place		adequate risk reduction	adequate risk-reduction	
•		systems	systems	
Output 3.3] Community	I-3.3.1] No. of full evacuation	Output 3] Targeted population	I-3.1.1] No. and type of risk	\$ 402.900,00
capacity to cope with	simulations	groups participating in	reduction actions or strategies	
disasters improved	I-3.3.2] No. of warning	adaptation and risk reduction	introduced at local level	
·	messages installed in the	awareness activities		
	municipalities			
Output 3.4] National	I-3.4.1 No. of relevant	Output 7] Improved integration	I-7.1] No., type, and sector of	\$ 462.631,67
action plan for resilient	ministries involved in the	of climate-resilience strategies	policies introduced or adjusted	. ,
school facilities and their	proposal of the NAP	into country development plans	to address climate change risks	

Table III-X Project Objectives aligns with the AF

# G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Cost per year	(USD)
Year 1	1.509.539
Year 2	4.270.299
Year 3	4.096.205
Total costs	9.890.000

Table III-XI summary of expense per year

Component	Activity	Short description (note)	Total	Y1	Y2	Y3
			USD	USD	USD	USD
Component 1: Assessment of sc	hool facilit	ies by VISUS methodology	866.470,90	824.818,30	20.826,30	20.826,30
Output 1.1	Total		80.988,00	80.988,00	-	-
Trainers competence to provide	1.1.1	IPA Contract for international scientific support for training preparation (1.a	28.833,33	28.833,33	-	-
inclusive, technical and	1.1.2	IPA Contract for national scientific support for training preparation (1.b)	15.586,67	15.586,67	-	-
effective training is improved	1.1.3	Mission cost of the international VISUS experts (1.c)	10.168,00	10.168,00	-	-
	1.1.4	Logistic cost for the realization of the ToT (1.d)	26.400,00	26.400,00	-	-
Output 1.2	Total		62.088,00	62.088,00	-	-
Decision makers understanding	1.2.1	IPA Contract for international scientific support for training preparation (1.a	28.833,33	28.833,33	-	-
of the VISUS approach	1.2.2	IPA Contract for national scientific support for training preparation (1.b)	15.586,67	15.586,67	-	-
enhanced	1.2.3	Cost of mission VISUS experts (1.c)	10.168,00	10.168,00	-	-
	1.2.4	Logistic cost for the realization of the Decision Makers Training (1.e)	7.500,00	7.500,00	-	-
Output 1.3	Total		112.988,00	112.988,00	-	-
VISUS surveyors know-how is	1.3.1	IPA Contract for international scientific support for training preparation (1.a	28.833,33	28.833,33	-	-
transferred to university	1.3.2	IPA Contract for national scientific support for training preparation (1.b)	15.586,67	15.586,67	-	-
students	1.3.3	Cost of mission VISUS experts (1.c)	10.168,00	10.168,00	-	-
	1.3.4	Logistic cost for the realization of the surveyors Training (1.f)	58.400,00	58.400,00	-	-
Output 1.4	Total		364.020,00	364.020,00	-	-
Exposure and vulnerability of	1.4.1	IPA Contract for international remote technical support for the survey (1.a)	28.833,33	28.833,33	-	-
school facilities are assessed	1.4.2	IPA Contract for national scientific support for survey implementation (1.b)	15.586,67	15.586,67	-	-
	1.4.3	VISUS survey implementation (logistics, equipment and material) (1.q)	319.600,00	319.600,00	-	-
Output 1.5	Total		44.420,00	44.420,00	-	-
GIS-based web platform	1.5.1	IPA Contract for intern. scientific support for GIS-based web platform (1.a)	28.833,33	28.833,33	-	-
knowledge-sharing is put on	1.5.2	IPA Contract for national scientific support for GIS-based web platform (1.b)	15.586,67	15.586,67	-	-
Output 1.6	Total		139.488,00	139.488,00	-	-
Strategic intervention plan for	1.6.1	IPA Contract for international scientific support for WS preparation (1.a)	28.833,33	28.833,33	-	-
school facilities is developed	1.6.2	IPA Contract for national scientific support for WS preparation (1.b)	15.586,67	15.586,67	-	-
	1.6.3	IPA Contract for national institutional support for WS preparation (1.h)	72.000,00	72.000,00	-	-
	1.6.4	Cost of mission VISUS experts (1.c)	10.168,00	10.168,00	-	-
	1.6.5	Logistic cost for the Strategic workshop with local stakeholders (1.i)	12.900,00	12.900,00	-	-
Output 1.7	1.7.1	Int. Programme Officer (a)	57.198,90	19.066,30	19.066,30	19.066,30
Coordination	1.7.2	National Assistant Officer (b)	5.280,00	1.760,00	1.760,00	1.760,00

 Table III-XII Budget details of component 1

Component	Activity	Short description (note)	Total	Y1	Y2	Y3
			USD	USD	USD	USD
Component 2: Schools adaptation and safety Improvement			6.626.674,14	247.352,67	3.409.853,11	2.969.468,36
Output 2.1	Total		457.667,24	45.766,72	411.900,52	-
Detailed intervention of the	2.1.1	Design of schools intervention (2.a)	292.175,26	29.217,53	262.957,73	-
selected schools are designed	2.1.2	Technical Assessment and Quality Control (2.a)	103.975,78	10.397,58	93.578,20	-
	2.1.3	Direct Design Consultancy (2.a)	61.516,20	6.151,62	55.364,58	-
Output 2.2	Total		5.225.008,29	-	2.612.504,14	2.612.504,14
Adaptation, Rehabilitation,	2.2.1	Construction of schools (2.a)	3.143.038,00	-	1.571.519,00	1.571.519,00
retrofitting, reconstruction or	2.2.2	Quality assurance and supervision of work (2.a)	1.151.551,63	-	575.775,81	575.775,81
relocation of schools	2.2.3	Procurement of equipment (2.a)	238.366,94	-	119.183,47	119.183,47
	2.2.4	Direct Construction Consultancy (2.a)	692.051,72	-	346.025,86	346.025,86
Output 2.3	Total		56.968,47	28.484,24	28.484,24	-
Trainers competence to provide	2.3.1	Capacity building of unskilled labour by contractors (2.a)	18.916,42	9.458,21	9.458,21	-
inclusive, technical and	2.3.2	Internships (2.a)	22.674,11	11.337,06	11.337,06	-
effective training is improved	2.3.3	Direct Training Consultancy (2.a)	15.377,94	7.688,97	7.688,97	-
Output 2.4 Good DRR and CCA	Total		183.862,50	-	91.931,25	91.931,25
practices are adopted by	2.4.1	IPA Contract for intern. remote scientific support for DRR - CCA practices (2.b)	15.000,00	-	7.500,00	7.500,00
students and school staffs	2.4.2	IPA Contract for institutional support for DRR & CCA practices (2.c)	30.000,00	-	15.000,00	15.000,00
	2.4.3	Team expert in school safaty (2.d)	37.500,00	-	18.750,00	18.750,00
	2.4.4	Logistic cost for the realization of the DRR - CCA practices in the schools (2.e)	101.362,50	-	50.681,25	50.681,25
Output 2.5	Total		183.862,50	-	91.931,25	91.931,25
Risk management school	2.5.1	IPA Contract for intern. remote scientific support for DRR - CCA practices (2.b,	15.000,00	-	7.500,00	7.500,00
protocols are adopted	2.5.2	IPA Contract for institutional support for DRR & CCA practices (2.c)	30.000,00	-	15.000,00	15.000,00
	2.5.3	Team expert in school safety (2.d)	37.500,00	-	18.750,00	18.750,00
	2.5.4	Logistic cost for the realization of the RM protocols in the schools (2.e)	101.362,50	-	50.681,25	50.681,25
Output 2.6	2.6.1	Int. Programme Officer (a)	475.419,43	158.473,14	158.473,14	158.473,14
Coordination	2.6.2	National Assistant Officer (b)	43.885,71	14.628,57	14.628,57	14.628,57

 Table III-XIII Budget details of component 2

Component	Activity	Short description (note)	Total	Y1	Y2	Y3
			USD	USD	USD	USD
Component 3: Enhancement of climate resilience of social community through the educational sector		1.394.511,64	152.487,88	524.004,21	718.019,55	
Output 3.1 - Knowledge and	Total		62.767,33	31.383,67	-	31.383,67
awareness of the disaster risk	3.1.1	IPA Contract for international scientific support for workshop (3.a)	33.333,33	16.666,67	-	16.666,67
due to CC in Haiti enhanced	3.1.2	Logistic cost for the realization of the kick-off meeting and WS on CC (3.b)	14.717,00	14.717,00	-	-
	3.1.3	Logistic cost for the realization of the workshop on DRR, CCA and schools (3.c	14.717,00	-	-	14.717,00
Output 3.2	Total		372.900,00	-	186.450,00	186.450,00
Community emergency plan is	3.2.1	IPA Contract for intern. remote scientific support for emergency plan (3.a)	15.000,00		7.500,00	7.500,00
put on place	3.2.2	Team expert in community resilience (3.d)	37.500,00	-	18.750,00	18.750,00
	3.2.3	Logistic cost for the DRR/CCA practices in the communities (3.e)	320.400,00	-	160.200,00	160.200,00
Output 3.3	Total		402.900,00	-	201.450,00	201.450,00
Community capacity to cope	3.3.1	IPA Contract for intern. remote scientific support for copying capacity (3.a)	15.000,00	-	7.500,00	7.500,00
with disasters improved	3.3.2	IPA Contract for institutional support for community copying capacity (3.f)	30.000,00	-	15.000,00	15.000,00
	3.3.3	Team expert in community resilience (3.d)	37.500,00	-	18.750,00	18.750,00
	3.3.4	Logistic cost for the DRR/CCA practices in the communities (3.e)	320.400,00	-	160.200,00	160.200,00
Output 3.4	Total		462.631,67	90.000,00	105.000,00	267.631,67
National action plan for	3.4.1	IPA Contract for international support for the national action plan (3.a)	16.666,67	-	-	16.666,67
resilient schools facilities and	3.4.2	IPA Contract for institutional support for community copying capacity (3.f)	30.000,00	-	15.000,00	15.000,00
their surrounding communities	3.4.3	Mission cost of the international VISUS experts (3.g)	21.248,00	-	-	21.248,00
	3.4.4	ESD Expert (3.h)	110.000,00	-	-	110.000,00
	3.4.5	IPA Contract for institutional support for ESD implementation (3.i)	270.000,00	90.000,00	90.000,00	90.000,00
	3.4.6	Logistic cost for the realization of the final workshop (3.1)	14.717,00	-	-	14.717,00
Output 3.5	3.5.1	Int. Programme Officer (a)	85.426,93	28.475,64	28.475,64	28.475,64
Coordination	3.5.2	National Assistant Officer (b)	7.885,71	2.628,57	2.628,57	2.628,57

Table III-XIV Budget details of component 3

Component	Activity	Short description (note)	Total	Y1	Y2	Y3
			USD	USD	USD	USD
Component 4: Project's outcomes assessment		142.531,31	2.163,77	35.183,77	105.183,77	
Output 4.1	Total		50.346,67	-	27.673,33	22.673,33
Assessment of VISUS	4.1.1	M&E - external consultant for mid term (Table III-III)	12.500,00	-	12.500,00	-
methodology in the schools	4.1.2	Cost of mission for M&E mid term (Table III-III)	12.500,00	-	12.500,00	-
	4.1.3	Audit (Table III-III)	20.000,00	-	-	20.000,00
	4.1.4	Environmental Compliance Officer (4.a)	2.673,33	-	1.336,67	1.336,67
	4.1.5	Gender expert (4.b)	2.673,33	-	1.336,67	1.336,67
Output 4.2	Total		44.096,67	-	2.673,33	41.423,33
Assessment and monitoring the	4.2.1	M&E - external consultant for mid term and final term (Table III-III)	6.250,00	-	-	6.250,00
safety level of the schools	4.2.2	Cost of mission for M&E final term (Table III-III)	12.500,00	-	-	12.500,00
	4.2.3	Audit (Table III-III)	20.000,00	-	-	20.000,00
	4.2.4	Environmental Compliance Officer (4.a)	2.673,33	-	1.336,67	1.336,67
	4.2.5	Gender expert (4.b)	2.673,33	-	1.336,67	1.336,67
Output 4.3	Total		41.596,67	-	2.673,33	38.923,33
Assessment and monitoring	4.3.1	M&E - external consultant for mid term and final term (Table III-III)	6.250,00	-	-	6.250,00
enhancement level of climate	4.3.2	Audit (Table III-III)	30.000,00	-	-	30.000,00
resilience of school communities	4.3.3	Environmental Compliance Officer (4.a)	2.673,33	-	1.336,67	1.336,67
	4.3.4	Gender expert (4.b)	2.673,33	-	1.336,67	1.336,67
Output 4.4	4.4.1	Int. Programme Officer (a)	5.942,74	1.980,91	1.980,91	1.980,91
Coordination	4.4.2	National Assistant Officer (b)	548,57	182,86	182,86	182,86

 Table III-XV Budget details of component 4

Project execution cost	Activi 🔻	Short description (note)	-	Total 🔻	Y1 🔻	Y2 🔻	Y3 🔻
				USD	USD	USD	USD
I. Project execution cost (1.5%)				127.219,41	42.634,00	41.960,41	42.625,00
	6.1	Internal UNESCO Staff time (P)		94.647,00	32086	30475	32086
	6.2	Security mission		4.556,00	1565	1500	1491
	6.3	Premises / Utilities		2.044,00	638	703	703
	6.4	Provision for Misc. Expenses		1.997,41	500	997,41	500
	6.5	Mission of UNESCO staff		8.540,00	2700	3140	2700
	6.6	Mission of Int. Programme Officer and National Assistant Officer		15.435,00	5145	5145	5145
II. Total Direct Costs (Project costs and project Execution costs)			9.157.407,41	1.269.456,63	4.031.827,81	3.856.122,98	
III. Project Cycle Management Fee charged by the Implementing Entity (8%)			732.592,59	101.556,53	322.546,22	308.489,84	
Total project			9.890.000,00	20.765,00	20.700,00	20.691,00	

 Table III-XVI Project execution cost and total cost

N. note	Note description						
Componer	ıt 1						
	Mechanism: IPA Contract UNESCO – University of Udine						
1.a	IPA Contract to UD includes:						
	<ul> <li>scientific support to present and adapt the VISUS methodology;</li> </ul>						
	<ul> <li>scientific support to prepare the 3 types of trainings;</li> </ul>						
	<ul> <li>data web platform processing;</li> </ul>						
	<ul> <li>remote support to the schools' survey and quality control;</li> </ul>						
	<ul> <li>support in the preparation of Strategic Workshops;</li> </ul>						
	The UD team is composed by 4 international experts that will be employed remotely during the						
	implementation of the component 1; experts of the UD team will come to Haiti in mission for the						
	trainings.						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes:						
1.b	<ul> <li>provide technical expertise to UNESCO and UD during the adaptation of the VISUS</li> </ul>						
	methodology for the Haitian context within the framework of the project;						
	The team of NUH is composed by one coordinator recruited for 10 months (\$1.000/months) and						
	twenty professors who will be employed for 2 months each (\$1.000/months).						
	Mechanism: UNESCO POP Secures mission						
	First mission cost of the international VISOS experts (OD) includes:						
	<ul> <li>4 experts</li> <li>Ely roturn tickets from EU to Haiti (\$2 E00)</li> </ul>						
	<ul> <li>Fly fetuli lickets from E0 to Halti (\$5.500)</li> <li>Der diam for 12 days (\$200)</li> </ul>						
1.c	<ul> <li>Fel dieli 101 12 days (\$500)</li> <li>Field mission of 2 days</li> </ul>						
	<ul> <li>Field Inission of 5 days</li> <li>Second mission cost of the international VISUS experts (LID) includes:</li> </ul>						
	2 evperts						
	<ul> <li>Elv return tickets from ELL to Haiti (\$3 500)</li> </ul>						
	Per diem for 4 days (\$300)						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes the preparation and organization of the training sessions on						
	the VISUS methodology, in particular for the Training of Trainers:						
	In Port au Prince						
1.d	• 2 days with 40 people						
	• 2 Launch and 4 Coffee Break (\$20 + \$5)						
	Technical Support (\$1.000)						
	Interpretation Services (\$8.000)						
	<ul> <li>Per diem and travel cost for 20 professors (\$300 + \$150)</li> </ul>						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes the preparation and organization of the training sessions on						
	the VISUS methodology, in particular for the Decision Maker Training:						
1.e	In Port au Prince						
	• 1 day with 40 people						
	<ul> <li>1 Launch and 2 Coffee Break (\$20 + \$5)</li> </ul>						
	Technical Support (\$500)						
	Interpretation Services (\$4.000)						
	Per diem and travel cost for 4 professors (\$300 + \$150)						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes the preparation and organization of the training sessions on						
1.f	the VISUS methodology, in particular for the Training for surveyors:						
	• In 4 departments in parallel						
	• 5 days with 40 people						
	• 5 Launch and 10 Coffee Break ( $\$20 + \$5$ )						
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	Iechnical Support (\$10.000)						
	<ul> <li>Per diem and travel cost for 20 professors (\$200 + \$150)</li> </ul>						
	Local transportation [bus] for hands on during training (\$2.400)						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes the cost for the survey logistics for 20 teams composed by 4						
	people, each team assess 50 schools:						
	Transport (\$20)						
	Alimentation (\$20)						
1 σ	Lump Sum (\$10)						
1.6	<ul> <li>Fee per school folder completed (\$20)</li> </ul>						
	Material: Leader Technology Holdings Limited - (Laser Distance Meters) \$1.000 - SURTAB -						
	(Tablets) \$7.000 - L'ABEILLE S.A - (office supplies) \$1.200 - GRAFITRONIK (T-shirt + Hats)						
	\$2.800 - Imprimerie Mobile - (Sac a Dos) \$1.600						
	<ul> <li>Mission Inspectors from the MENFP (2 per region) \$20.000</li> </ul>						
	Car rental \$6.000						
	Mechanism: 3 IPA Contracts: UNESCO– Ministry of Environment, Education and Civil Protection						
1 h	The Implementation Partnership Agreements (IPA) between UNESCO and each institution contain the						
1.11	full engagement of them in each of the components of the project. In particular, for this outputs 4						
	people will be seconded to each institution for 6 months across the first year.						
	Mechanism: Service Contract UNESCO - NUH						
	The Service Contract to NUH includes the logistic cost for the strategic workshop with local						
	stakeholders						
1:	<ul> <li>1 Launch and 2 Coffee Break (\$20, \$5)</li> </ul>						
1.1	Technical Support (\$500,00)						
	Interpretation Services (\$4.000,00)						
	Travel of 8 Local Departmental Authorities (\$4.800,00 )						
	Travel of 4 Professors (\$2.400,00 )						
а	Mechanism: Direct procurement UNESCO – permanent staff of PMU						
	Procurement full time for 3 years of an international programme officer level position P3						
	(\$154,000 per year)						
b	Mechanism: Direct procurement UNESCO – permanent staff of PMU						
	Procurement full time for 3 years of an national assistant officer level position NAO-GS 4						
	(\$20.000 per year)						
Componer	nt 2						
2.5	Mechanism: UN to UN Agreement UNESCO - UNOPS						
2.d	For the details of the cost see Appendix 6						
	Mechanism: IPA Contract UNESCO – University of Udine						
	IPA Contract to UD includes international remote scientific support for DRR & CCA practices:						
	Online training on criteria and references for taking into account the characteristics of the						
	learning physical environment and school facilities, in defining a rational and effective						
	organization of the Disaster Management activities (Pillar 2 of CSSF) in schools, in order to						
2.b	properly contextualize:						
	<ul> <li>CCA practices</li> </ul>						
	<ul> <li>DRR protocols</li> </ul>						
	<ul> <li>DRM at school</li> </ul>						
	Develop of the material for trainings						
	Remote quality control of protocols and plan developed by the local team						
2.c	Mechanism: 3 IPA Contracts: UNESCO– Ministry of Environment, Education and Civil Protection						

	The Implementation Partnership Agreements (IPA) between UNESCO and each institution contain the				
	full engagement of them in each of the components of the project. In particular, for this outputs 1				
	person seconded to each institution for 18 months across the second and third years				
	Mechanism: Direct procurement UNESCO – Consultant team				
2 4	The team of experts in school safety will be employed for 18 months and composed by:				
2.0	One Team leader (\$30.000 per year)				
	Two Technical staff (\$10.000 per year)				
	Mechanism: Direct procurement UNESCO				
	The team of experts in school safety will implement the outputs in 9 communes (mission) in 18				
	months. For each mission it is included:				
2.e	Per diem (\$175) per 21 days				
	Training material (\$5.000)				
	<ul> <li>Material for the schools safety (\$5.000)</li> </ul>				
	Transport (\$250)				
а	Mechanism: Direct procurement UNESCO – permanent staff of PMU				
	Procurement full time for 3 years of an international programme officer level position P3				
	(\$154,000 per year)				
b	Mechanism: Direct procurement UNESCO – permanent staff of PMU				
	Procurement full time for 3 years of an national assistant officer level position NAO-GS 4				
	(\$20.000 per year)				
Componer	nt 3				
	Mechanism: IPA Contract UNESCO – University of Udine				
3 3	IPA Contract to UD includes the support for the workshop, in particular the international scientific				
J.a	knowledge and awareness of the disaster risk due to CC and the training for the development of				
	community emergency plan.				
	Mechanism: Direct procurement UNESCO				
	Logistic cost for the realization of the kick-off meeting and workshop on CC				
	N. of people 100				
3 h	<ul> <li>1 Launch and 2 Coffee Break (\$20 + \$5)</li> </ul>				
5.5	Technical Support (\$500)				
	<ul> <li>Interpretation Services (\$4.000)</li> </ul>				
	<ul> <li>Travel of 8 Local Departmental Authorities (\$4.800)</li> </ul>				
	Travel of 4 Professors (\$2.400)				
	Mechanism: Direct procurement UNESCO				
	The team of experts in community resilience will implement the outputs in 9 communes (mission) in				
	18 months. For each mission it is included:				
3.0	Per diem (\$175) per 21 days				
5.0	Training material (\$15.000)				
	<ul> <li>Material for the community safety (\$30.000)</li> </ul>				
	Simulation exercise (\$10.000)				
	Transport (\$250)				
	Mechanism: Direct procurement UNESCO – Consultant team				
3.d	Team expert in community resilience safety will be employed for 18 months and composed by:				
	One Team leader (\$30.000 per year)				
	Two Technical staff (\$10.000 per year)				
	Mechanism: Direct procurement UNESCO				
	Logistic cost for the realization of the DRR and CCA practices in the communities				
3.e	N. of people 100				
5.0	• 1 Launch and 2 Coffee Break (\$20 + \$5)				
	Technical Support (\$500)				
	Interpretation Services (\$4.000)				

r					
	Travel of 8 Local Departmental Authorities (\$4.800) Travel of 4 Professors (\$2,400)				
	Machanism: 2 IBA Contracts: LINESCO – Ministry of Environment Education and Civil Protection				
	The Implementation Partnershin Agreements (IPA) between LINESCO and each institution contain the				
3.f	full engagement of them in each of the components of the project. In particular, for this outputs 1				
	person seconded to each institution for 18 months across the second and third years				
	Mechanism: UNESCO POP Secures mission				
	Mission cost of the international VISUS experts (UD) includes:				
3.g	• 4 experts				
- 8	<ul> <li>Fly return tickets from EU to Haiti (\$3,500)</li> </ul>				
	• Per diem for 4 days (\$300)				
	Mechanism: Direct procurement UNESCO – Consultant on Education for Sustainable Development				
_	The consultant will be employed part-time for 100 days during the 3 years and includes:				
3.h	• Personnel \$800 per day				
	• 6 Missions (5.000)				
	Mechanism: 3 IPA Contracts: UNESCO– Ministry of Environment, Education and Civil Protection				
	The Implementation Partnership Agreements (IPA) between UNESCO and each institution contain				
3.1	the full engagement of them in each of the components of the project. In particular, for this outputs				
	1 person seconded to each institution for 36 months across the 3 years				
	Mechanism: Direct procurement UNESCO				
	Logistic cost for the realization of the final workshop				
	N. of people 100				
21	• 1 Launch and 2 Coffee Break (\$20 + \$5)				
5.1	Technical Support (\$500)				
	Interpretation Services (\$4.000)				
	<ul> <li>Travel of 8 Local Departmental Authorities (\$4.800)</li> </ul>				
	Travel of 4 Professors (\$2.400)				
а	Mechanism: Direct procurement UNESCO – permanent staff of PMU				
	Procurement full time for 3 years of an international programme officer level position P3				
	(\$154,000 per year)				
b	Mechanism: Direct procurement UNESCO – permanent staff of PMU				
	Procurement full time for 3 years of an national assistant officer level position NAO-GS 4				
	(\$20.000 per year)				
Componen					
	Mechanism: Direct procurement UNESCO – Consultant on gender equality				
4.a	The consultant will be employed part-time for 10 days during the second year and includes:				
	Personnel \$550 per day				
	IMISSION COSt (\$.2520)				
	The consultant will be employed part time for 10 days during the second year and includes:				
4.b	Derconnol \$550 per day				
	<ul> <li>Mission cost (\$ 2520)</li> </ul>				
2	Mechanism: Direct procurement LINESCO – permanent staff of PMLL				
a	Procurement full time for 3 years of an international programme officer level position P3				
	(\$154.000 per vear)				
h	Mechanism: Direct procurement LINESCO – permanent staff of PMLI				
	Procurement full time for 3 years of an national assistant officer level position NAO-GS 4				
	(\$20.000 per year)				

Table III-XVII Budget notes

### H. Include a disbursement schedule with time-bound milestones.

	Total	Upon Agreement signature	12 months after project start	24 months after project start	End of the project
Total Project costs	9.030.188,00	1.226.822,63	3.989.867,40	3.432.148,18	381.349,80
Project Execution cost (<1.5%)	127.219,41	42.634,00	41.960,41	38.362,50	4.262,50
Implementing Entity Fee (<8.5%)	732.592,59	101.556,53	322.546,22	277.640,85	30.848,98
Total Amount of Financing Requested	9.890.000,00	1.371.013,16	4.354.374,03	3.748.151,53	416.461,28

Table III-XVIII Disbursement schedule

# ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

**A.** Record of endorsement on behalf of the government<sup>25</sup> Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

М.	Abner	SEPTEMBRE	Date: April, 19 2021
Minister of Environment			

**B. Implementing Entity certification** *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address* 

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (PIAN D'ACTION NATIONAL D'ADAPTATION.(PANA) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</u>

Elmehdi Ag Muphtah Officer in Charge UNESCO Port-au-Prince

the had

Implementing Entity Coordinator

Date: April 21 2021

Tel. and email: (509)47881760 e.ag-muphtah@unesco.org

Project Contact Person: Panaroty Prophete

Tel. And Email:(509) 33154072 pf.prophete@unesco.org

Signature

<sup>&</sup>lt;sup>6.</sup> Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

#### Letter of endorsement signed by the Minister of the Environment of Haiti



#### MINISTÈRE DE L'ENVIRONNEMENT

MdE/AS/CM-DERE/AFB/04-21-061

April 19, 2021 Port-au-Prince, le

To: The Adaptation Fund Board c/o Adaptation Fund Board Secretariat Email : Secretariat @Adaptation-Fund.org Fax: 202 522 3240/5

Subject : Endorsement for implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti.

In my capacity as designated authority for the Adaptation Fund in Haiti, I confirm that the above national program proposal in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the **Republic of Haiti**.

Accordingly, I am pleased to endorse the above program proposal with support from the Adaptation Fund. If approved, this program will be implemented by the UNESCO Office in Haiti and executed by UNOPS in collaboration with the Ministry of National Education, the Directorate General of Civil Protection and the Conference of Rectors and Presidents of Haitian Universities (CORPUHA) under the direct and indirect supervision of the Ministry of the Environment as chairman of the project steering committee.

Ing, Moise JF AN-PIERRE Point Focal Adaptation Fund

Seen and approved by:

SEPTE mer Minjefre de l'Environnement

Parc Industriel Metropolitam (SONAPI), Blvd Toussaint Louverture, Port-au-Prince, Halti Tel. (509) 2209-30617 2817-0621



## **PROJECT PROPOSAL TO THE ADAPTATION FUND**

## Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti

**APPENDIX** 

### List of Appendix

- 1. List of meetings minutes during the consultation 2021
  - 1.1. Report of the National Consultation for the adaptation fund climate change 2019
- 2. Environmental & Social Impact Assessment
  - 2.1. E&S Screening
  - 2.2. E&S Planning
- 3. List of beneficiary
- 4. Gantt
- 5. List of documentation consulted
- 6. Methodology, approach, resources and cost for Outputs 2.1 to 2.3
- 7. VISUS Information
- 8. Electronic Disclosure Statement And Consent for E-Signature with a Relevant World Bank Group Organization

### **Appendix 1: Consultation documents**

- 1. List of consultation meetings
  - a. UNESCO meeting January 14, 2021
  - *b.* Consultation with national stakeholders meeting January 20, 2021
  - *c.* Consultation with national stakeholders meeting February 08, 2021
  - *d.* Consultation with the State University of Haiti meeting February 12, 2021

#### 2. Report of the National Consultation for the adaptation fund climate change 2019

### Appendix 1.a: UNESCO meeting

## Meeting minutes Adaptation Fund Proposal January 14, 2021

#### 1. Opening

The virtual meeting started at 02:00 PM (Haiti time) / 08:00 PM (Paris time) via the MS Teams platform. The meeting was chaired and moderated by Pilar Alvarez Laso, Director of the UNESCO Office in Haiti, and Marcello Arosio, independent consultant.

Name	Organisation/Status		
Pilar Alvarez Laso	UNESCO Office in Haiti		
Elmehdi Ag-Muphtah	UNESCO Office in Haiti		
Panaroty Ferdinand Prophète	UNESCO Office in Haiti		
Soichiro Yasukawa	UNESCO HQ		
Lesly Barriga	UNESCO HQ		
Petra Malisan	UNESCO Chair on Intersectoral Safety for Disaster Risk		
	Reduction and Resilience, SPRINT-Lab, University of Udine		
Marcello Arosio	Independent Consultant		
Jair Torres	Independent Consultant		
Lucille Anglès	Independent Consultant		

#### 2. Attendees

#### 3. Agenda

The group agreed on the following agenda:

- A. Formalise the core group that will define the geographical area of the project
- B. Clarify the process, modalities and the level of the consultations
- C. Understand the UNEP project
- D. Agree on an implementation plan for the coming days

#### 4. Discussion summary and next steps

#### A. Formalise the core group that will define the geographical area of the project

M. Arosio highlighted the need to formalise the core group that will define the geographical area of the project in the coming days. In addition to UNESCO representatives, the core group should include:

- A representative from the Ministry of Environment,
- A representative from the Ministry of Education,
- A representative from the State University of Haiti,

A first meeting needs to be organised with these entities in order to introduce them to the Adaptation Fund project proposal and formalise the core group for this project.

A second meeting will then have to be organised with the same entities to agree on the geographical areas where the project will be implemented.

#### B. Clarify the process, modalities and the level of the consultations

#### a. Step 1: Organize a meeting with the key stakeholders and create the core group

The creation of the core group is essential to ensure an appropriate development and implementation of the project.

At the national level, a first meeting with the Civil Protection of Haiti and the Ministry of Environment of Haiti was organized in December 2020.

Since the Ministry of Education of Haiti and the State University of Haiti also need to be involved in this process, a meeting gathering all the concerned stakeholders will be held on Friday 15 January 2021:

- 1. Rony Horat- Director of Environmental Education at the Ministry of Environment
- 2. Romual Pierre- Director of School Engineering at the Ministry of National Education
- 3. Maccius Etienne- Technical executive for the Civil Protection
- 4. Margaret Rene Academic head of the State University of Haiti
- 5. Gerty Pierre Adaptation officer at the Ministry of the Environment
- 6. The participants to the present meeting

P. Alvarez Laso contacted the Ministry of Education during the meeting to ensure their presence in the meeting.

The Agenda of this meeting is the following:

- 1. Presentation of the stakeholders
- 2. Presentation of the Adaptation Fund project proposal
- 3. Exchange on the project needs (i.e. reflection on the geographical areas where the project can be implemented)

E. Ag-Muphtah informed the group that Haiti will have elections this year and so that the government might change. In this framework, J. Torres mentioned the importance of having the State University of Haiti in the core group as they will give a stability to the project while bringing their technical support.

## b. Step 2: Organize a second meeting to agree on the geographical location where to implement the project

A second meeting with the same entities will be organized the week starting 18<sup>th</sup> January 2021 to agree on the geographical areas where the project will be implemented. During this meeting, each entity will be invited to share their geographical location ideas and the rationality behind.

#### c. Step 3: Organise a mission on the field

M. Arosio highlighted the need for these consultations to take place but that the core group needs first to be formalised and the geographical areas have to be collectively decided.

The status on the current scheduled mission of P. Ferdinand Prophète needs therefore to be clarified.

#### C. Understand the UNEP project

UNEP recently approached the UNESCO office in Haiti in order to find potential synergies with their current project: "Approche Paysage Résilient Intégrée".

The group expects from P. Ferdinand Prophète to share the potential links that could be made with the current Adaptation Fund proposal.

#### D. Agree on an implementation plan for the coming days

The group agreed on the following:

- 1. Organise a first meeting with the key stakeholders and create the core group.
- 2. Organise a second meeting with the same stakeholders to agree on the geographical location where to implement the project
- 3. Clarify the status of the scheduled mission of P. Ferndinand Prophète
- 4. Have more information on the UNEP project
- 5. The participants to this meeting should be in copy of all the exchanges of emails concerning the Adaptation Fund proposal
- 6. M. Arosio and P. Ferdinand Prophète will work closely

#### 5. Closing

The meeting ended at 03:10 PM (Haiti time) / 09:10 PM (Paris time).

## Appendix 1.b: Consultation with national stakeholders meeting

## Meeting minutes Adaptation Fund Proposal January 20, 2021

#### 6. Opening

The virtual meeting started at 02:00 PM (Haiti time) / 08:00 PM (Paris time) via the MS Teams platform. The meeting was chaired and moderated by Pilar Alvarez Laso, Director of the UNESCO Office in Haiti and Panaroty Ferdinand Prophète, Science Programme Specialist at the UNESCO Office in Haiti.

#### 7. Participants

Name	Position	Institution	Contact information
Rony Horat	Director of	Ministry of Environment	horat_rony@yahoo.com
	Environmental	of Haiti	
	Education		
Pierre Gerty	Responsible	Ministry of Environment	gertypierre8007@gmail.com
	for Adaptation	of Haiti	
	Measures		
Maccius Etienne	Member of the	Civil Protection of Haiti	maxoetienne1999@gmail.com
	departmental		
	committee		
Marie-France	Projects	UNOPS Office in Haiti	mariefrancep@unops.org
Provencher	Manager		
Pilar Alvarez Laso	Office Director	UNESCO Office in Haiti	p.alvarez@unesco.org
Panaroty Ferdinand	Science	UNESCO Office in Haiti	pf.prophete@unesco.org
Prophète	Programme		
	Specialist		
Alexandra Saint	Consultant	UNESCO Office in Haiti	a.saint-louis@unesco.org
Louis			
Marcello Arosio	Consultant	UNESCO Office in Haiti	arosio.marcello@gmail.com
Jair Torres	Consultant	University of Udine,	jair.torres@sar-global.com
		UNESCO Chair	
Lucille Anglès	Consultant	UNESCO Office in Haiti	angleslucille@gmail.com

#### a. Attendees

Name	Position	Institution	Contact information
Chery Sonel	Technical	Ministry of National	chery_sonel@yahoo.fr
	Manager	Education and Vocational	
		Training	
Dorlus Wilson	Secretary	State University of Haiti	dorluswilson@yahoo.fr
	General of the	(UEH)	
	State		
	University of		
	Haiti (UEH)		
Elmehdi Ag-	Education	UNESCO Office in Haiti	e.ag-muphtah@unesco.org
Muphtah	Programme		
	Specialist		

## 8. Agenda

The group agreed on the following agenda:

A. Introduction to the meeting

b. Regrets

- B. Exchange on the interest of national partners concerning the geographical areas where the project should focus its implementation
- C. Actions point

#### 9. Discussion summary

#### A. Introduction to the meeting

The meeting was organised as a follow-up meeting to the one organised on Friday 15 January 2021. As agreed, this fourth meeting gathering the core group members involved within the preparation of the Adaptation Fund project proposal aimed to share and reflect on the geographical areas where to implement the Adaptation Fund project "Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti".

Defining the geographical areas will serve the implementation of the first and second components of the project (i.e. "Assessment of school facilities using the VISUS methodology" and "School adaptation and safety improvement") and consequently the third component (i.e. "Enhancement of climate resilience of social community through the education sector") which even if it has a national scope by securing the mainstreaming of Education for Sustainable Development<sup>26</sup> into the Curricula, will have other subcomponents in the selected areas, notably on non-formal education and extra-curricular education activities involving local communities.

The core group is constituted of the following members:

Representatives from the Ministry of Environment of Haiti

<sup>&</sup>lt;sup>26</sup> Education for Sustainable Development is composed of three main pillars: Environmental and biodiversity education, Climate change and adaptation education, and Disaster risk reduction and resilience education.

- Representatives from the Ministry of National Education and Vocational Training of Haiti
- Representatives of the Civil Protection of Haiti
- Representatives from the State University of Haiti
- UNOPS representatives
- UNESCO representatives
- University of Udine, UNESCO Chair representatives

The representatives from the Ministry of National Education and Vocational Training could unfortunately not connect to the meeting due to internet issues, but have confirmed to the group by telephone, that they will share documentations with their reflection on the geographical areas where to implement the project, including the database of schools by districts, with the rest of the core group in the next day.

Finally, Panaroty Ferdinand Prophète introduced to the group the new UNOPS focal point, Ms. Marie-France Provencher. She will be included in every coommunication from now.

#### B. Exchange on the geographical areas where to implement the project

While the Ministry of National Education and Vocational Training will share their opinions on the geographical areas where to implement the project in the next day, the representatives from the Ministry of Environment of Haiti and of the Civil Protection of Haiti shared with the group their reflections on this aspect.

#### a. Ministry of Environment of Haiti

Rony Horat from the Ministry of Environment of Haiti proposed to the group to implement the Adaptation Fund project in the following Haitian geographical departments:

- Sud
- Grand Anse
- Artibonite
- Nord

These geographical departments are indeed highly vulnerable to climate related hazards (e.g. Hurricane Matthew severely impacted the South of Haiti ("Sud" department) in 2016).

#### b. Civil Protection of Haiti

Maccius Etienne from the Civil Protection of Haiti agreed with the proposition of Rony Horat from the Ministry of Environment of Haiti but proposed in addition to the departments mentioned above, to also consider the North West ("Nord-Ouest") department of Haiti as this area is highly exposed to the seismic risk – the northern fault runs through this area – in addition to be vulnerable to climate related hazards. M. Etienne also warns the group to avoid duplication of projects in the South of the country since many activities have been launched in this area after hurricane Matthew.

#### c. Group discussion

Panaroty Ferdinand Prophète from the UNESCO Office in Haiti welcomed these propositions and suggested to the group narrowing down the number of departments where to implement the projects

and to focus on the most vulnerable areas to climate related hazards. Out of the ten (10) Haitian departments, five (5) were indeed mentioned, which might complicate the implementation of the project due to budget limitations.

Jair Torres from the University of Udine, UNESCO Chair, agreed with this reflection and proposed to the group to select the most vulnerable areas to climate related hazards and to select schools within these areas in order to intervene in the most needed areas and limit the logistic expenses.

The group agreed and decided, meanwhile information from the Ministry of Education is provided, to focus on the initial departments proposed by the Ministry of Environment of Haiti, notably on those that are highly exposed to climate related hazards. This will be later on conciliated with the proposal made by the Ministry of National Education and Vocational Training of Haiti.

#### C. Actions point

The Ministry of National Education and Vocational Training of Haiti could not connect to the online platform due to internet issues but contacted Panaroty Ferdinand Prophète by telephone to inform him that they will share district maps and schools databases showing where the schools are located and their recommendations on where to implement the project in the coming days.

Considering this information, the group agreed on the following next steps:

- Analyse the proposition made the Ministry of National Education and Vocational Training of Haiti;
- Conciliate this proposition with the ones made by the Ministry of Environment of Haiti and the Civil Protection of Haiti;
- Based on all the arguments received from the institutions concerning the geographical preferences, define with the same institutions, the geographical areas and the schools where to implement the Adaptation Fund project decisions will be made by consensus or by majority;
- Organise a meeting to formalise the agreement on the geographical areas and the districts where schools will be selected to implement the Adaptation Fund project, and define the next steps.

#### 10. Closing

The meeting ended at 03:15 PM (Haiti time) / 09:15 PM (Paris time). Meeting length: 1.15 hour.

### Appendix 1.c: Consultation with national stakeholders meeting

## Meeting minutes Adaptation Fund Proposal February 08, 2021

#### 11. Opening

The virtual meeting started at 01:00 PM (Haiti time) / 07:00 PM (CET time) via the MS Teams platform. The meeting was chaired and moderated by Panaroty Ferdinand Prophète, Science Programme Specialist at the UNESCO Office in Haiti.

#### 12. Participants

Name	Position	Institution	Contact information
Serge Semerzier*		Civil Protection of Haiti	
Rony Horat	Director of	Ministry of Environment	horat_rony@yahoo.com
	Environmental	of Haiti	
	Education		
Rudolphe Roux			
Jean-Baptiste	Professor	State University of Haiti	
Neudy		(UEH)	
Marie-France	Projects	UNOPS Office in Haiti	mariefrancep@unops.org
Provencher	Manager		
Elmehdi Ag-	Education	UNESCO Office in Haiti	e.ag-muphtah@unesco.org
Muphtah	Programme		
	Specialist		
Panaroty Ferdinand	Science	UNESCO Office in Haiti	pf.prophete@unesco.org
Prophète	Programme		
	Specialist		
Marcello Arosio	Consultant	UNESCO Office in Haiti	arosio.marcello@gmail.com
Jair Torres	Consultant	University of Udine,	jair.torres@sar-global.com
		UNESCO Chair	

a. Attendees

\* Serge Semerzier is replacing Maccius Etienne as the Focal Point for the Civil Protection of Haiti

h.	Regrets
υ.	Negreta

Name	Position	Institution	Contact information
Pilar Alvarez Laso	Office Director	UNESCO Office in Haiti	p.alvarez@unesco.org
Alexandra Saint	Consultant	UNESCO Office in Haiti	a.saint-louis@unesco.org
Louis			
Lucille Anglès	Consultant	UNESCO Office in Haiti	angleslucille@gmail.com

#### 13. Agenda

The group agreed on the following agenda:

- D. Introduction to the meeting
- E. Exchange on the project
- F. Actions point

#### 14. Discussion summary

#### D. Introduction to the meeting

The meeting was organised as a follow-up meeting to the one organised on Wednesday 20 January 2021. This fifth meeting gathering the core group members involved within the preparation of the Adaptation Fund project proposal particularly aimed at introducing the Adaptation Fund project "Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti" to the State University of Haiti (UEH) and exchange with the partners on the progress made.

#### E. Exchange on the project

Jair Torres from the University of Udine, UNESCO Chair, introduced the four components of the project:

- 1. Assessment of school facilities using the VISUS methodology (i.e. about 700)
- Schools adaptation and safety improvement The schools where to intervene will be selected on a consensus base between the partners involved within the project (i.e. Ministry of Environment, Ministry of Education, State University of Haiti, the Civil Protection, UNESCO and UNOPS)
- 3. Enhancement of climate resilience of social community through the educational sector
- 4. Monitoring

Jair Torres from the University of Udine, UNESCO Chair, informed the group that progress has been made as the regions where to implement the project, have been defined together with the partners. The project will be indeed implemented in the four following regions:

- Artibonite
- Grand-Anse
- Nord
- Sud

Since the State University of Haiti was involved in the project aiming to assess the safety of 101 school facilities located in the North/North-West regions in 2017 through the Campus of Limonade, Jair Torres from the University of Udine, UNESCO Chair, proposed to Jean-Baptiste Neudy from the State University of Haiti, to be involved in the exchanges as a key partner and develop this first pilot project at a bigger scale – the project aiming at assessing between 700 and 1,000 schools. Jair Torres from the University of Udine, UNESCO Chair, therefore suggested organising a bilateral meeting with the team of the State University of Haiti, in order to better understand the roles, responsibilities, capacities and potential limitations of the University of Haiti in the possible implementation of the project. In this sense, it has

been highlighted that other Haitian universities could also be involved within the project while the State University of Haiti would remain the leading university in the framework of the implementation.

Jean-Baptiste Neudy from the State University agreed on having a bilateral meeting but requested to receive the project proposal that was endorsed by the Adaptation Fund. Panaroty Ferdinand Prophète from the UNESCO Office in Haiti agreed to share the document after the meeting.

Rony Horat from the Ministry of Environment of Haiti highlighted the two following points:

- First, the need to have the contribution of the University in the component 3 of the project: "Enhancement of climate resilience of social community through the educational sector". Rony Horat from the Ministry of Environment of Haiti mentioned to the group the existence of a Protocol signed between Haitian private and public universities and the Ministry of Environment of Haiti (CORPUHA agreement) aiming to develop collaborations in the field of the environment.
- Second, the need to have more time to implement component 3 and have a four-year project instead of a three-year project.

Jair Torres from the University of Udine, UNESCO Chair, agreed and suggested launching the mainstreaming of Education for Sustainable Development<sup>27</sup> into the Curricula from the first year and keeping other sub-components in the selected areas, notably on non-formal education and extracurricular education activities involving local communities for the third year. The project will therefore last three years. Jair Torres from the University of Udine, UNESCO Chair, also strengthened the need to coordinate the revision of the curricula with the Ministry of Education as the latter will have to develop it while the universities will support the implementation part by training future professors, etc. The group agreed.

Panaroty Ferdinand Prophète from the UNESCO Office in Haiti suggested contacting the universities, which are part of the CORPUHA agreement, and which are located in the four regions where the project intends to be implemented. The group agreed.

#### F. Actions point

Considering this information, the group agreed on the following next steps:

- Organise a bilateral meeting with the State University of Haiti to exchange further on their capacities, roles and potential limitations the meeting is scheduled on Friday 12<sup>th</sup> February at 10:00 AM (Haiti time);
- Contact the universities belonging to the CORPUHA agreement, which are located in the four regions where the project will be implemented;
- Organise a meeting the week starting 15<sup>th</sup> February 2021 to give a general presentation of the project proposal progress;
- Organise a field mission to meet the local stakeholders as soon as the socio-political context allows it.

#### 15. Closing

The meeting ended at 01:45 PM (Haiti time) / 07:45 PM (Paris time). Meeting length: 45 min

<sup>&</sup>lt;sup>27</sup> Education for Sustainable Development is composed of three main pillars: Environmental and biodiversity education, Climate change and adaptation education, and Disaster risk reduction and resilience education.

### Appendix 1.d: Consultation with the State University of Haiti meeting

### Meeting minutes Adaptation Fund Proposal February 12, 2021

#### 16. Opening

The virtual meeting started at 10:00 AM (Haiti time) / 04:00 PM (CET time) via the MS Teams platform. The meeting was chaired and moderated by Panaroty Ferdinand Prophète, Science Programme Specialist at the UNESCO Office in Haiti.

#### 17. Participants

Name	Position	Institution	Contact information
Jean-Baptiste	Professor	State University of Haiti	
Neudy		(UEH)	
Elmehdi Ag-	Education	UNESCO Office in Haiti	e.ag-muphtah@unesco.org
Muphtah	Programme		
	Specialist		
Panaroty Ferdinand	Science	UNESCO Office in Haiti	pf.prophete@unesco.org
Prophète	Programme		
	Specialist		
Marcello Arosio	Consultant	UNESCO Office in Haiti	arosio.marcello@gmail.com
Jair Torres	Consultant	University of Udine,	jair.torres@sar-global.com
		UNESCO Chair	
Lucille Anglès	Consultant	UNESCO Office in Haiti	angleslucille@gmail.com

#### a. Attendees

#### 18. Agenda

The group agreed on the following agenda:

- G. Introduction to the meeting
- H. Exchange on the project proposal
- I. Exchange on the State University of Haiti capacities
- J. Actions point

#### **19.** Discussion summary

#### G. Introduction to the meeting

This bilateral meeting with the State University of Haiti was organised as a follow-up meeting to the one organised on Monday 08 February 2021 in order to exchange on the capacities, roles and potential limitations of the State University of Haiti concerning the implementation of Component 1: "Assessment of school facilities using the VISUS methodology" of the Adaptation Fund project.

#### H. Exchange on the project proposal

Ahead of the meeting, Panaroty Ferdinand Prophète from the UNESCO Office in Haiti shared the project proposal with Jean-Baptiste Neudy from the State University of Haiti.

Jean Baptiste Neudy from the State University of Haiti reviewed the document and started the discussion with the two following questions related to the first component of the project: "Assessment of school facilities using the VISUS methodology":

- Who are going to be the trainers?
- Once the database is established, who is going to manage it?

Regarding the first question, Jair Torres from the University of Udine, UNESCO Chair, explained to Jean Baptiste Neudy that within the framework of Component 1 of the project: "Assessment of school facilities using the VISUS methodology", three types of capacity building trainings intend to be organized:

- A Decision-Makers' training addressed to representatives of the Ministry of Education, Ministry of Environment, Ministry of Public Works, etc.
- A trainers' training addressed to civil engineering or architecture professors of the State University
  of Haiti. Twenty (20) professors will be trained five (5) in each of the selected departments
  where the project will be implemented (i.e. Artibonite, Grand-Anse, Nord, Sud). Each professor
  will be in charge of a team of three (3) surveyors/students (see below). Each of the twenty (20)
  teams is thus composed of one professor and three students who will go to the field to collect
  school infrastructure safety data.
- A surveyors' training addressed to last year's students of Faculty of civil engineering/architecture.

This will be the exact same structure as the one implemented in the VISUS pilot project in 2017. Based on this explanation, Jean Baptiste Neudy from the State University of Haiti asked if professors from the Faculty of Agronomy who are teaching environment and environmental assessment could be trained as trainers. Jair Torres from the University of Udine, UNESCO Chair, advised to have professors with a background in civil engineering and architecture since the VISUS methodology is focused on the infrastructure/built environment.

While the meeting was focused on Component 1 of the project, Jair Torres from the University of Udine, UNESCO Chair, and Panaroty Ferdinand Prophète from the UNESCO Office in Haiti informed Jean Baptiste Neudy from the State University of Haiti that under Component 3 of the project: "Enhancement of climate resilience of social community through the educational sector", which is being designed, additional professors from the State University of Haiti could nevertheless also be involved.

As for the second question related to the database, Jair Torres from the University of Udine, UNESCO Chair, explained to Jean Baptiste Neudy from the State University of Haiti that the data collected by the teams will belong to the Government of Haiti. The collected data nevertheless need to be processed to have a good understanding of the schools' safety and facilitate the decision-making process on where and how to intervene (i.e. Component 2 of the project: "Schools adaptation and safety improvement"). The professors in charge of the teams will therefore have to check the data collected. These data will be then sent to a Focal Point/Coordinator within the State University of Haiti who will supervise the whole process and who will double check the data collected. There will be afterward a third level of verification at the

level of the University of Udine, UNESCO Chair. There are consequently three levels of verification, and in case, there is any doubt about an information, the Focal Point/Coordinator will be contacted in order to contact the concerned professor to identify and solve the potential issue.

Jean Baptiste Neudy from the State University of Haiti did not have any further questions on the proposal.

#### I. Exchange on the State University of Haiti capacities

Marcello Arosio from the UNESCO Office in Haiti, introduced to Jean Baptiste Neudy from the State University of Haiti the first budget of the project's first component, which includes four main sections:

 "Provide technical expertise to UNESCO during the adaptation of the VISUS methodology for the Haitian context" – 50 000, 00 USD

This section is split into two main remunerations:

- The one of the twenty (20) professors. Two months of work are estimated for each professor for which they will be remunerated 2 000,00 USD each (40 000,00 USD overall)
- The one of the Focal Point/Coordinator who will be in charge of coordinating all the professors, check the quality of the data and coordinate the logistics of the project implementation. Ten months of work are estimated for which the Focal Point/Coordinator will be remunerated 10 000,00 USD.
- "Prepare and organize three training sessions on the VISUS methodology" 92 300, 00 USD
- "Survey logistics" 280 000,00 USD
- "Organise a workshop with the relevant stakeholders strategy for intervention" 12 900,00 USD. It is worth to be noted that this workshop will be organized once the survey piece is achieved.
   Overall, the State University of Haiti would therefore receive 478 720,00 USD to implement Component 1.

Jair Torres from the University of Udine, UNESCO Chair, asked to Jean Baptiste Neudy from the State University of Haiti if the roles and regulations of the State University of Haiti could allow this type of implementation or not and what the potential limits, challenges and opportunities could be. This information will help shape the proposal appropriately.

Jean Baptiste Neudy from the State University of Haiti shared with the group that the State University of Haiti has space in its campus located in the South to welcome the trainings. Jean Baptiste Neudy from the State University of Haiti nevertheless also shared with the group that in some departments that have been selected for the project, the State University of Haiti does not have campuses. Jair Torres from the University of Udine, UNESCO Chair, suggested exploring existing partnerships between the State University of Haiti and other Haitian universities in the regions where the State University of Haiti does not have campuses. The most important is to find professors of civil engineering/architecture would be

interested in receiving the training to accomplish a transfer of knowledge. Through this training, the capacities will be indeed transferred to the State University of Haiti who will therefore be able to undertake a re-assessment of the schools every five years and thus support the Ministry of Education. This organisation will make the project sustainable on the long-term.

Jean Baptiste Neudy from the State University of Haiti acknowledged and asked if besides professors, civil engineers could also perform the assessments with the local students as team lead. Jair Torres from the University of Udine, UNESCO Chair, responded positively. The main aim is to create the teams within each of the four departments where the project intends to be implemented (i.e. Artibonite, Grand-Anse, Nord, Sud).

Jean Baptiste Neudy from the State University of Haiti acknowledged and informed the group that he will contact the faculties in the selected departments and talk with colleagues from the Science department of the State University of Haiti in order to give an answer by today or Monday 18 February 2021.

Jair Torres from the University of Udine, UNESCO Chair, finally proposed to share with Jean Baptiste Neudy from the State University of Haiti the following information to help structure the project:

- The three volumes of the "UNESCO guidelines for assessing learning facilities in the context of disaster risk reduction and climate change adaptation":
  - "Volume 1: Introduction to learning facilities assessment and to the VISUS Methodology": <u>https://unesdoc.unesco.org/ark:/48223/pf0000371185.locale=en</u>
  - Volume 2: VISUS
     Methodology": <u>https://unesdoc.unesco.org/ark:/48223/pf0000371186</u>
  - "Volume 3: VISUS
     Implementation": <u>https://unesdoc.unesco.org/ark:/48223/pf0000371188?posInSet=1&</u> <u>queryId=3f2fa233-444b-4e87-a5c4-0277499c4be4</u>
- The VISUS pilot project report from 2017
- The list of the five professors who were involved within this pilot project
- The link to access the map showing the location of the schools which were assessed in 2017

Panaroty Ferdinand Prophète from the UNESCO Office in Haiti agreed to share the documents and information after the meeting.

#### J. Actions point

Considering this information, the group agreed on the following next steps:

- Share with Jean Baptiste Neudy from the State University of Haiti the necessary information to help identify the best professors/civil engineers and Focal Point/Coordinator;
- Analyse the suggestions made by Jean Baptiste Neudy from the State University of Haiti when received and pursue the discussion.

#### 20. Closing

The meeting ended at 11:00 AM (Haiti time) / 05:00 PM (Paris time). Meeting length: 1 hour

# Appendix 1.2: Report of the National Consultation for the adaptation fund climate change 2019

#### 1. INTRODUCTORY

Particularly exposed to natural disasters caused by hurricanes and tropical storms, Haiti has a high vulnerability to weather hazards. Climate change leads to both an increase in average surface temperature of the globe but also by an increase in the frequency of extreme temperatures. If the parameter induces repeated droughts, it is primarily the increase in average temperature that has the most impact in Haiti: the atmosphere becomes more humid due to increased evaporation, hurricanes are intensifying and are more difficult to predict. This drastically increases the potential damage (NASA, 2015). As a result, the Haitian economy will become even more vulnerable to random and extreme events related to climate change. This is in a fragile and difficult economic conditions. As one of the poorest countries in the world, with nearly 60% of the population living below the poverty line (World Bank, 2012), Haiti has no infrastructure to deal effectively with changes and climatic disasters to which the country is regularly confronted. To avoid compromising investment and development. Risk management is in this fundamental fact and policy makers must be able to arbitrate between the repair costs of these events and the investment needed to implement adaptation measures. with nearly 60% of the population living below the poverty line (World Bank, 2012), Haiti has no infrastructure to deal effectively with changes and climate disasters to which the country is regularly confronted. To avoid compromising investment and development. Risk management is in this fundamental fact and policy makers must be able to arbitrate between the repair costs of these events and the investment needed to implement adaptation measures. with nearly 60% of the population living below the poverty line (World Bank, 2012), Haiti has no infrastructure to deal effectively with changes and climate disasters to which the country is regularly confronted. To avoid compromising investment and development. Risk management is in this fundamental fact and policy makers must be able to arbitrate between the repair costs of these events and the investment needed to implement adaptation measures. To avoid compromising investment and development. Risk management is in this fundamental fact and policy makers must be able to arbitrate between the repair costs of these events and the investment needed to implement adaptation measures. To avoid compromising investment and development. Risk management is in this fundamental fact and policy makers must be able to arbitrate between the repair costs of these events and the investment needed to implement adaptation measures.

Thus, the Adaptation to climate change often called Adaptation Fund or a fund fed, essentially, an international tax based on the Clean Development Mechanism established by the Kyoto Protocol to finance projects or adaptation programs to climate change in developing countries; who are often particularly affected by climate change, while there contribute less than rich countries. This comprehensive background other financial tools established under the Convention of the United Nations on climate change: the Fund for the Least Developed Countries, the Special Fund for Climate Change and the Green Climate Fund.Moreover, in order to meet the requirements of adaptations bottom of the UNESCO office port au prince in close collaboration with the National System of Risk and Disaster Management (SNGRD), the Ministry of Environment and MENFP plans to organize a series of national consultation in order to have the support of all stakeholders who will be involved in this project, the results this consultation and

the environmental and social assessment will be used to give credibility to the request to fund adaption .

Acronyms									
AR5	Fifth Assessment Report (du GIEC)								
CARICOM	Caribbean Community and Common Market								
CCI	Cadre de Coopération Intérimaire								
CCNUCC	Convention-Cadre des Nations Unies sur les Changements Climatiques								
CCRIF	Carribean Catastrophic Risk Insurance Facility								
CEPALC	Commission Économique pour l'Amérique Latine								
15CIAT	Comité Interministériel d'Aménagement du Territoire								
CNIGS	Centre National de l'Information Géo-Spatiale								
CNSA	Coordination Nationale de la Sécurité Alimentaire								
	Document Stratégie National pour la Croissance et la Réductionet de la								
DSINCRP	Pauvreté								
GES	Gaz à effet de serre								
GIEC	Groupe d'experts intergouvernemental sur l'évolution du climat								
IHSI	Institut Haïtien de Statistique et d'Informatique								
MDE	Ministère de l'Environnement								
MEF	Ministère de l'Economie et des Finances								
MPCE	Ministère de la Planification et de la Coopération Externe								
MENFP	Ministère de l'Éducation Nationale et de la Formation Professionnelle								
OMD	Objectifs du Millénaire pour le Développement								
ONU	Organisation des Nations Unies								
PAE	Plan d'Action pour l'Environnement								
PAN-LCD	Plan d'Action National de Lutte Contre la Désertification								
PANA	Plan d'Action National d'Adaptation								
PIB	Produit Intérieur Brut								
PNGRD	Plan National de Gestion des Risques et des Désastres								
PNUD	Programme des Nations Unies pour le Développement								
PNUE	Programme des Nations Unies pour l'Environnement								
PPCR	Pilot Program for Climate Resilience								

#### 2. Objectives of the consultation

The National Consultation for adaptation to climate change background allows determining (s) risk (s) adverse consequences for the units, groups or regions with a variety of disturbances and identify factors that reduce or increase the response capacity and adaptation. As such, it requires the availability of methods and tools likely to help give credibility to the request from the background.

The objective of the methodology is to work with all stakeholders to provide actors of information gathering tools for participatory assessment of vulnerability in relation to climate change.

#### 3. IDENTIFICATION OF STAKEHOLDERS

Participatory Vulnerability Analysis requires the involvement of all stakeholders in the development of a given locality.

Here is the list of actors we met

- a. The relevant ministries (Ministry of National Education, Ministry of Environment)
- b. Local authorities (mayors of Cap Haitien, Gonaives, Les Cayes, Jeremie)
- c. NGOs working in Haiti (Oxfam Haiti Plan, Save the Children)
- d. The United Nations system (UNDP, UN Women)
- e. The Civil Society Organizations
- f. The National Technical Services (Engineering School of Management)

#### 4. Data collection and analysis

The information about the various risks have been collected using techniques such as:

- The focus group;
- Testimonials;
- Semi-structured interviews with local resource persons.

Ultimately this information was crossed with expert data and research results:

- research reports;
- other relevant publications.

Following these meetings here are the results that focused on the following parameters:

## 5. Presentation of the project to stakeholders in the context of adaptation to climate change.

Adaptation in the context of climate change is an adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects. For humans, there are two possible answers: a reactive adaptation or early adaptation.

Reactive adaptation is to wait until the effects of climate change are felt before reacting. At this time, the range of options is more limited and costly responses, at the expense of environmental and social sustainability. In this regard, Nicholas Stern (2008) concluded in its report that it would cost 1% of global GDP invested heavily now to mitigate the effects of climate change and that otherwise we could experience a recession of up to 20% global GDP.

The early adaptation, in turn, calls for the careful planning of measures to reduce long-term costs and ensure the realization of other social goals and economic growth. Adaptation efforts then complement existing activities and come to support national development goals, poverty reduction and improving resource management.

The early adaptation is essential in the context of climate change, because it arises as the appropriate way to reduce the vulnerability of a population, which expresses the level of impact of a hazard on the issues and the sensitivity of human beings and their facilities to these hazards. It will be amplified by the exposure (nature, scale, rhythm), sensitivity (degrees assignment) and the adaptability of the population. This last point is extremely important for Haiti, particularly since 12 January 2010, since all vulnerabilities were exacerbated. These factors are population

density, extent of the frame, technical factors (eg the application of standards), socioeconomic factors, cultural factors (risk culture)

Therefore, we are facing a daunting situation, because on one side, scientists indicate that exposure of Haiti to hydrometeorological hazards will most likely rise - especially in regard to major hurricanes - and another side, we observe that all vulnerabilities were exacerbated by the 2010 earthquake Given such findings, we must quickly integrate the response to climate change in the process of "rethinking" of Haiti.

## 6. The vulnerability of northern populations, Artibonite, South and large -Anse linked to climate change.

As part of the consultation following the data the Ministry of Environment, which is the focal point of the fund in Haiti shared with us:

Assessing climate change vulnerability of water resources in Haiti for the years 2030 and 2060 It is here to monitor the water balance through the determination of the main parameters of it for different periods of time. Water budgets for the country has been made in the reporting period 1961-1990 and estimated for 2030 and 2060.

Impact assessment on the water balance

The working methods used are based on: expert judgments and statistics. The calculation of water balance variables was made as follows:

Rain: the average rain was calculated using the isohyet method using a rain gauge network combined with estimated data for a gate of a half degree resolution. The spatial distribution of this network concerns the whole country but its density is very low for high precision calculations. Evapotranspiration: Evapotranspiration was estimated using empirical means using three methods to contrast the results.

The figure below shows the water balance for the reference period and its estimate for 2030 and 2060 for the corresponding climate scenario the model used for the projections (HadCM2). It is noted that the potential volume of water resources (W) and the flow obtained by the water balance equation (Q), drastically reduced year by year. Placed on cards, these parameters as well as measuring the precipitation (P), actual evapotranspiration (Er) and potential (Ep) show some extension historically drier areas and a certain reduction of water in the wet area. On flow deficit of cards, it is possible to observe a decrease in the potential volume of water in the country. In 2030, there are still differences in moisture distribution at the regional level. However, for the 2060 year, the situation is more dramatic because there is no difference at national water deficit in terms of the level in the country.

The established model for the evolution of water availability index (IDEA) shows that water pressures will be strong in the future since this index will evolve from 2000, below the level considered critical (1000 million m3 per head). The state of water resources would be more dramatic with a more negative climate scenario as that adopted in this work. Assessing the impact on groundwater The impact of climate change on groundwater has not been studied in depth. However, it should be noted that one effect of increased nivau sea (24.4 cm by 2060) is seawater intrusion. Thus, it is important to make the following remarks:

at) seawater intrusion cause salinization of a portion of the water table thereby reducing the potential usable groundwater.



b) the coastal retreat and increased salinization of groundwater would have a significant impact on human settlements close to the coastline and aqueducts.

#### Vulnerability assessment of the agricultural sector to climate change in 2030 and 2060

For the evaluation of the impact of climate change on annual crop, the biophysical model WOFOST 4.1 created by the Center of Studies for the global supply of Wageningen in the Netherlands (Diepen et al., 1988) was used . This model includes the physiological response of crops to climate parameters and simulating edaphologies process of photosynthesis, breathing, perspiration, translocation carbohydrates and the phenological development of plants . crops selected should be representative of the crops in Haiti. For this, three cultures were used: potato (C3 plant grown in temperate environments), rice (C3 plant grown in hot environment), corn (C4 plant grown in warm areas irrigated conditions or not).

#### Vulnerability of the agricultural sector

**Potato.** In this study, the yields provided irrigation were simulated for each of the scenarios developed. The chosen germination date was January 1st. Arbitrarily, it was decided that the harvest would be 120 days after planting. The results show that the yields of potatoes slightly decrease for each of the scenarios developed for the XXI century. (See chart below). However, this decrease in yields is not as great as that observed in geographically close to Haiti and countries like Cuba Dominican Republic. The difference lies in the fact that the site chosen to study the culture of the potato Kenscoff Haiti), the average temperature is around 18 ° C while (the temperature of the places studied in Cuba and the Republic

Dominican exceeds 20 ° C (Rivero, 2001).

Since the optimum temperature for the cultivation of the potato is about 20 ° C, warming expected to Kenscoff until 2060 does not offer an environment hostile to the potato grown in this area. He does not lose sight of that at lower elevations than where is the community located in Kenscoff, where current temperatures are above 20 ° C, climate change will have a very negative impact on the culture of apple Earth.



**Rice.** For this study, the chosen dates are sprouting on 1 January and 1 March. Potential yields of rice, without taking into account the fertilization effect CO2, decrease scenarios developed climate for

the future. Of another side, his specific needs water decrease. This is of at a reducing its leaf development and shortening the production cycle. This should not be interpreted as a decrease in water consumption for the plant. On the contrary, consumption increases due to the increase of potential evapotranspiration in climate scenarios predicted. As can be seen a portion of the lower potential yields is due to the shortening of the filling phase of grains associated with a progressive decrease in the duration of all phenological phases due to rising temperatures.



**The corn.** The sowing date chosen for the study of maize cultivation (under irrigation, which was selected arbitrarily) is the 1e March. We consider than this plant born benefits any increase of intensity photosynthetic which could be due to an increase in the amount of CO2 in the atmosphere. For shortening the duration of phases Phrenological interest. The specific water consumption of corn will decrease in all cases. Efficiency in water use for corn will grow significantly in all scenarios provided.



#### Study conducted for Haitian municipalities

On the basis of a study by the Intergovernmental Panel on Climate Change for Haitian town halls he notes that Haiti is highly vulnerable to climate change. This vulnerability is partly rooted in an exceptional exposure to climate hazards, including floods, droughts, hurricanes or tropical storms, and partly in an underlying sensitivity of socio ecological system receiver of these hazards. Between 1990 and 2016, Haiti was the country most affected by natural disasters Caribbean (3 droughts, epidemics 1, 22 floods, 23 storms and hurricanes); 53 billion US dollars of damage suffered by the country during this period 39% of the damage to the entire region. In 2004, Hurricane Jeanne killed more than 3,000 dead. The four hurricanes of the 2008 season have destroyed 80% of crops and affected 800,000 people. In 2012, Isaac and Sandy hurricane, succeeding a period of drought have wiped out a third of crops and left some malnutrition threat of 450 000 people. The Matthew hurricane in 2016 devastated the southern part of the country, causing considerable damage to crops and infrastructure. Simulations for Haiti with the general circulation model of the University of East Anglia predict a temperature increase of 0.8 ° C to 1.0 ° C for the year 2030 and 1.5 ° C to 1.7 ° C for the 2060 year, and a decrease in rainfall of 5.9% to 20.0% for 2030 and 10.6% to 35.8% for 2060. It is difficult to know what the impact of climate change on the frequency of hurricanes,

## 7. The economic and financial impact of disasters related to climate change on the populations targeted by the project.

Intergovernmental Panel on Climate Change (IPCC) had conducted a study the Haitian state through to 2014, this difference is also likely to grow exponentially. Investing in shares for better resilience to climate change becomes all the more urgent. In addition to these macroeconomic estimates, the study takes a sectoral approach, focusing on the agricultural sector. Constituting 28% of the Gross Domestic Product (GDP) and employing one fifth of local workers (World Bank, 2013), the agricultural sector is the main source of income in Haiti's economy. Agricultural production consists of food crops for the local people supply (especially maize) and cash crops such as coffee, generating income from their export. The fragility of agricultural infrastructure and crops to climate hazards makes this sector vulnerable to cyclones and floods increasingly recurrent in the country. Analysis of the structure of the costs of climate change shows that in 2025 the cost of inaction would be between 15.7 million USD annually for the main agricultural sector production and 170 million for the entire industry. The resilience to climate hazards must pass not only through infrastructure investments - through access to microcredit for example but also affordable and financially sustainable insurance programs - as CCRIF facility (Caribbean Catastrophic Risk Insurance Facility) . In terms of mitigation, Haiti is a very low emitter of greenhouse gases countries seeking national mitigation policy is not a major objective. If this does not exclude to make investments in the field of renewable energy, energy efficiency or reforestation, the choice was made not to treat mitigation since it is not related with the extent of impacts. Finally, climate change is a strong likelihood of becoming very expensive for Haiti, if nothing is done nationally. Deeply affected by poverty and severe natural disasters, it is recommended that Haiti grapples with development issues and climate change. Everything suggests that investments in this direction will prove in the long run,

8. Low adaptability: Haiti's resilience is currently very limited due to its low level of income. The country has few funds for appropriate public investment, although it enjoys significant support from the international community.

With a GDP per capita of 846 USD 2014, Haiti is the poorest country in the Americas and one of the poorest in the world. The GDP of 8713 billion and the growth rate is estimated at 2.7% in 2014 (World Bank, 2015). In particular, the saving Haiti 28% based on the primary, 17% secondary sector and 55% of the tertiary sector. The country suffers from serious deficiencies in essential services. It has been estimated that 59% of Haitians live below the poverty threshold of 2.44 USD per day and even 24% live below the extreme poverty line of 1.24 USD per day. It is also one of the countries in the world whose Gini coefficient is the highest, to 0.59 in 2013 (UNDP, 2015). The trade balance is negative with a triple import dependence on the budget, energy and foodstuffs. Indeed, 50% of the budget depends on foreign aid, all is imported hydrocarbons and 60% of food needs are met by imports (World Bank, 2015). In addition, more than half of Haiti's population lives in rural areas, representing nearly 6 million people. 85% of the rural population is engaged in agriculture (UNDP, 2015). The agricultural sector is by far the largest provider of jobs, further increasing the vulnerability of the Haitian economy when natural disasters affect crops. Beyond the gaps in the economic structure of the country, Haiti suffers from a fragile institutional framework and unprepared to exogenous shocks. This does not prevent him from being engaged in the fight against climate change at international forums.

#### 9. Fragility of the institutional framework on climate change Haiti

Haiti has signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. The Convention was subsequently ratified on 25 September 1996 and entered into force on 24 December 1996. In addition, the Kyoto Protocol was ratified Haiti by July 6, 2005, to enter into force on 4 October 2005. the country has made and submitted its first National Communication to the UNFCCC in August 2001 and the second in October 2013. in line with its international commitments, the country also strengthened its institutional capacity in the field of the fight against climate change, even though existing institutions remain fragile.

The Ministry of the Environment (MDE), whose mission is to develop and implement appropriate measures for the management and protection of the environment, the climate is focal point in the UNFCCC but lacks necessary means to face the challenges. It develops and coordinates projects against climate change with limited financial and human resources. Nonetheless, the MDE has integrated climate change adaptation in its main missions and has drawn up a National Adaptation Plan of Action (NAPA), published in October 2006. This PANA defines priority and urgent adaptation needs in terms of the degree of vulnerability and social groups of the country. Another important player in the field of climate risk management is the National System for Risk Management and Disaster (SNGRD). It is an organ of the Haitian state involved in the planning and implementation of actions to risk management and an appropriate response to natural disasters. However, the organization remains undersized in the event of a major disaster.

Haiti ratified the UNFCCC in 1996, and published its second National Communication in October 2013 The Ministry of Environment of Haiti has developed a National Adaptation Action Plan (NAPA) in 2006. In addition to the bodies in charge of climate issues, we should also mention the

national bodies responsible for statistics and policies that intervene between other across the national budget, and that the climate of the outlook concern.

Alongside this policy paper, many plans and programs exist, such as NAPA or PNGRD. Published in 2006, the Plan of National Adaptation Action (NAPA) defines the mechanisms of adaptation to the risks and impacts of climate change. It contains a list of priority projects with budgets required for their implementation. An interesting aspect of the NAPA is to have completed an initial calculation of adaptation costs across the country. He thus describes the challenges the country must meet to strengthen its resilience. The National Action Plan to Combat Desertification (PAN-LCD) aims to identify the factors contributing to desertification and practical measures to be taken against it to mitigate the effects of drought. It dates from 2009.

- The sustainable management of natural resources,
- The restoration and rehabilitation of soils and degraded ecosystems,
- Increasing incomes and living conditions of affected populations in connection with the Local development.

Lastly, the National Plan for Management of Risks and Disasters (PNGRD) aims to strengthen national capacities for reducing disaster risks and their impacts on people and the capacity of departmental and local structures for the implementation implement risk management plans. It aims to implement actions to reduce vulnerability.

#### 10. The gender-based vulnerability.

Women are present in almost all agricultural value chains, and perform often difficult production functions in addition to their domestic and reproductive functions. The distribution of gender by business systems shows that women are more present in the agricultural and commercial activities (see, small businesses). Especially since, the number of farms managed by women only is not negligible. What that throughout South and Southeast conducting farming remains a male preserve, activities and / or livestock products contribute to complete the financial contributions of women. When a farm does not practice animal husbandry, women must spend more energy, make more sacrifices to meet all household needs. At some places, the water collection for women has become an exhausting chore. At some communities, coverage of drinking water needs remains low and below the standards recommended by the World Health Organization (WHO). Also, compared to the centrality of women in the use and consumption of energy, it will be almost impossible to rationalize this sector without a real involvement of women in decision making. Because in reality, if they are well oriented and framed, women can become -from their charism- real change agents in communities over any attempt to innovation. These twenty (20) years, the subjects of debate are focused mainly on the following three priority themes: Food insecurity in terms of availability and accessibility; reopening of classes; and the poor performance of agro-economic activity systems

#### 11. That Impede the barriers can access to education.

The educational sector is characterized by a set of challenges can be summarized in three main areas:

i) universal and free access to all Haitian children,

- ii) the quality of teaching and learning
- iii) governance of the sector.

To this is also added a context where the public offer is inadequate on the whole territory and well below the private knowledge that only 30% of employees attending the public, and that the costs related to the children's education is a important cause of exclusion from school due to family poverty. Also, from the standpoint of quality, 80% of teachers are not qualified, the basic education curriculum is unsuited to the needs of children and the current context, and finally the schools do not meet the standards and norms minimum quality and safety. The budget for the sector is largely insufficient, barely 15% of the national budget and represents about 2% of GDP. The families contribute more than 60% of sector spending without the benefit of a return on their investment while about 94% of children fail to get a bachelor's degree in 13 years of study. Moreover, the education system is not able to respond to emergencies and does not have enough resources to cope. Moreover, a recent study reveals that before the passage of Matthew cyclone, more than 300,000 children 6-15 years were already outside the school system nationally.

The various hurricanes that have succeeded have had disastrous consequences both socially and in human terms. Indeed, thousands of great south and northwest have lost their homes during hurricanes and often these people were living in temporary shelters. So, these victims lost at the same time the ability to meet the education expenses of their children while the educational system is highly privatized (over 80% of schools are private). The risk is great because the continuation of school activities for many of the children after a cyclone left weakened. Not only the school supply decreased due to the destruction of many school facilities after a hurricane.

## Appendix 2: Environmental & Social Impact Assessment

#### 2.1 - E&S Risk Screening

		Concern	Y/N	Comments
1	Compliance with the Law			
1.1	Are the project activities in compliance with all applicable national laws and by laws?	No Risk	Yes	During the National Stakeholder consultations and meetings, it was revealed that Haiti has a number of laws, regulations, policies and strategies governing the different components of the proposed project. It was revealed that the proposed project is already complying with the laws governing its current activities.

2	Access and Equity		1	
2.1	Will the project provide fair and equitable access to benefits in a manner that is inclusive and does not impede access to basic education and safe?	Low Risk	Yes	The project will improve equitable access to basic education and safe by enhancing the adaptive capacity and resilience of the Haitian education sector to disaster risk of natural hazards related to climate change. The multi parameters school assessment (from engineer and social perspective - output 2.4) will allow a national comprehensive knowledge of exposure and physical vulnerability of school facilities. The comprehensive overview will be fundamental for a fair and equitable decision-making process of intervention in Haiti (output 1.6).
2.2	Is there a risk that the project creates or aggravates inequalities between women and men or adversely impacts the situation or livelihood conditions of women or girls?	Low Risk	Yes	In Haiti, the poor access of women to education, especially at the higher levels, the exclusion of girl mothers from the education system and the stigmatization of women with disabilities expose them to great social vulnerability. The project aim, as well as all the project outputs have been planned in order to avoid possible exacerbation inequalities of the present situation but actually to promote inclusion of young women and disable people. This will be guarantee by the application of the multi parameters VISUS assessment (output 2.4) methodology of the schools; which allows to assess not only the structural element of the schools but also the social vulnerability indicators (e.g. gender, access, etc.). The strategic intervention plan (output 1.6) will consider access and equity as pivot of the strategy making particular attention in avoiding any forms of discrimination and favouritism. Participatory assessment will be performed to ensure full and equitable participation of and equal benefits to men and women and vulnerable and marginalized groups: students for the VISU surveyors (output 1.3), students and staff attending DRR and CCA practices trainings (outputs 2.4 and 2.5), and the extended community attending the activities in Component 3.
2.3	Explain whether the project use opportunities to secure and, when appropriate, enhance the economic, social and environmental benefits to women?	Low Risk	Yes	Safe School Facilities involve education authorities, architects, geologist, engineers, builders and school community members in safe site selection, design, construction and maintenance (including safe and continuous access to the facility). Resilient schools are effective medium for disseminating disaster risk reduction awareness within the communities, will act as center of learning, will be instrumental in transferring technology to the communities and will have a significant role to build disaster resilient communities. The activities like school retrofitting and new construction with safety measures can spread messages to the community on the importance of resilient buildings to reduce disaster impact and enhance economic, social and environmental benefits. As underlined in the beneficiary section, the project will guarantee that those benefits will be fully gender balanced.
2.4	Explain whether the project provide, when appropriate and consistent with national policy, for measures that strengthen girl's rights and access to education?	Low Risk	Yes	In a discriminatory manner, the national legislation allows the standard practices of marriage of girls before the age of 18 (minimum age of marriage in Haiti is set at 15 for girls and 18 for boys), which contributes to limit the choices available to young girls. These inequalities are also reflected in the feminization of multidimensional poverty, in particular for women living in the countryside, with a high rate of women heads of household. In this very complex context, the project will promote continue access to education even under difficult hazard conditions, both in rural and urban context.

3	Marginalized and Vulnerable Groups			
3.1	Is there a risk that the project might negatively affect vulnerable groups in terms of material or non- material livelihood conditions or contribute to their discrimination or marginalisation ( <i>including children</i> , women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS)?	Low to no Risk	Yes	The activities of outputs 3.2 and 3.3 allow to increase the knowledge of risk at the community level, to strengthen the operational procedures in case of emergency, to increase the coping capacity of the community and to strengthen the connection between the community and the school facilities during an emergency. We do recognize that, if these activities do not include all the vulnerable groups in the process, this could negatively discriminate or marginalize them. For this reason, it will be essential to implement a <b>community-based participatory</b> approach to guarantee that all groups have been engaged as equal partners in all steps.

4 Human Rights

				v.20: April, 20	021
4.1	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	No Risk	No	This project affirms the rights of all people and does not violate any pillar of human rights.	
4.2	Is there a risk that the project negatively affects human rights (e.g., right to self-determination, to education or cultural rights)?	No Risk	No	This project affirms the rights of all people and does not violate any pillar of human rights.	

5	Gender Equity and Women's Empowerment			
5.1	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	Low Risk	Yes	In 2019, Haiti ranks 144th out of 189 countries according to the Gender Inequality Index (GII), a ranking reflecting the inequalities and challenges women face. Gender-based inequalities have their origins in the socio-cultural context in Haiti where gender stereotypes continue to dictate social behaviour. Above all, it is a patriarchal system that often reproduces patterns of life that discriminate against women, and therefore constitutes a vicious cycle of reproducing the same phenomena of gender inequalities. Recognizing the critical situation, which worsened in the last year due to the COVID-19 pandemic, the project was structured to ensure respect for gender in all its components. This balance will take place both for the students who will participate in the VISUS trainings (Component 1), school staff who will participate in the DRR and CCA courses (Component 2) and finally the communities involved in the emergency plans (Component 3).
5.2	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Low Risk	No	In Haiti, gender inequalities are manifested by the great vulnerability of women, particularly women in disadvantaged backgrounds. In rural areas, women have even less economic, educational and social capacities. Access to basic social services is very difficult or even non-existent in remote and isolated areas. There is no infrastructure and they do not have access to credit for trade and agriculture (the two main activities of rural women). As underlined in the beneficiary scheme, the project will cover both rural and urban areas and Component 3 (Outputs 3.2 and 3.3) will guaranteed the participation in design, implementation and access to the project opportunities and benefits.
5.3	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	Low Risk	Yes	During an evaluation visit within the framework of CERF projects in the Canaan district, the students and teachers informed the investigators that they were regularly victims of acts of violence, particularly girls, committed by groups of young people outside the school. In 2020, many schools had to close their doors due to violence linked to gang activity. Teenage pregnancies among school-aged girls are alarming. For example, in the town of Beaumont (Grand'Anse), the organization "Solidarite fanm ayisyèn" ( <u>http://sofahaiti.org/index.html</u> ) raise its concerns about the large number (41) of young girls between 13 and 17 years old, from the same school who would have become pregnant during confinement ( <u>https://www.alterpresse.org/spip.php?article26343</u> ) These events confirm that the violence in schools is also present.

6	Core Labour Rights			
6.1	Will the proposed Project meet the core labour	Low Risk	Yes	UNOPS always operate in a way that will meet or go beyond the organisation's compliance requirements and core labour standards
	standards as identified by the International Labor			from the International Labor Organization and the country Labour Code. To ensure that UNOPS vendors operate responsibly and in
	Organization			accordance with high standards of integrity, including in the area of labour rights, a supplier due diligence programme <b>DRiVE</b>
				(Delivering Responsibility in Vendor Engagement) was mainstreamed into UNOPS procurement policy.
6.2	Does the Project involve support for employment or	Low Risk	No	Through this project, UNOPS will adhere to International Labour Organization and local labour law standards and condition and
	livelihoods that may fail to comply with national and			ensure that the working encironment is free from discrimination, harassment and abuse.
	international labour standards (i.e. principles and			
	standards of ILO fundamental conventions)?			
6.3	Might the project be directly or indirectly involved in	No Risk	No	UNOPS also ensure to prevent the infringement of human and labor rights in all UNOPS activities and facilieie, uphold good labour
	forced labour and/or child labour?			practices that incluse freedon of association, the elimination od all forms of discrimination at work and not using or benefittin from
				force labour and child labour.

7	Indigenous Peoples			
7.1	Are indigenous peoples present in the Project area	No Risk	No	There are no indigenous people in the areas targeted by the project
	(including Project area of influence)?			
7.2	Is it likely that the Project or portions of the Project	No Risk	No	There are no indigenous people in the areas targeted by the project
	will be located on lands and territories claimed by			
	indigenous peoples?			
7.3	Has there been an absence of culturally appropriate	No Risk	No	There are no indigenous people in the areas targeted by the project
	consultations carried out with the objective of			
	achieving FPIC on matters that may affect the rights			

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	and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?			
7.4	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No Risk	No	There are no indigenous people in the areas targeted by the project
7.6	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No Risk	No	There are no indigenous people in the areas targeted by the project
7.7	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No Risk	No	There are no indigenous people in the areas targeted by the project

8	Involuntary Resettlement			
8.1	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No Risk	No	The project components do not involve activities potentially leading to involuntary resettlement of any people settled in the areas targeted by the project
8.2	When limited involuntary resettlement is unavoidable, will due be observed so that displaced persons shall be informed of their rights, consulted on their options, and offered technically, economically, and socially feasible resettlement alternatives or fair and adequate compensation.	No Risk	No	The project components do not involve activities potentially leading to involuntary resettlement of any people settled in the areas targeted by the project

9	Protection of Natural Habitat			
9.1	Could the Project potentially cause adverse impacts to habitats, endangered species and local ecosystems	No Risk	No	The project components do not involve activities potentially leading to involuntary result dangerous for the natural habitats
	services			
9.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No Risk	No	The project components do not involve activities potentially leading to involuntary result dangerous for the natural habitats
9.4	Could the Project lead to loss (eradication or removal from local area) of one or more animal, insect, or plant species?	Low Risk	No	The project components do not involve activities potentially leading to involuntary result dangerous for the natural habitats

10	Conservation of Biological Diversity			
10.1	Is the project located in or near areas legally	No Risk	No	The project components do not involve activities potentially located in or near area legally protected
	protected or officially proposed for protection			
	including reserves according to UNESCO Natural			
	World Heritage Sites, UNESCO Biosphere Reserves,			
	Ramsar Convention on Wetlands?			
10.2	Could the Project lead to degradation or	No Risk	No	The project components do not involve activities that could lead to degradation or fragmentation of local forest areas, wetlands,
	fragmentation of local forest areas, wetlands, farming			farming or grazing land.
	or grazing land, or other landscape elements of			
	ecological or economic importance?			
10.3	Could the Project lead to significant increase in	No Risk	No	The project components do not involve activities that significant increase in consumption of locally sourced fuel-wood.
	consumption of locally sourced fuel-wood?			
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10.4	Could the activity lead to introduction of invasive alien varieties or species which potentially could eradicate, change, or significantly reduce local naturally occurring varieties or species?	No Risk	No	The project components do not involve activities that significantly reduce local naturally occurring varieties or species
10.5	Could the activity introduce genetically altered organisms and/or involve the transfer, handling or use of genetically modified organisms/living modified organisms that result from modern biotechnology and that may have an adverse effect on biodiversity?	No Risk	No	The project components do not involve activities that may have an adverse effect on biodiversity.
10.6	Does the Project involve agricultural production or harvesting of natural forests, plantation development, or reforestation?	No Risk	No	The project components do not involve agricultural production or harvesting of natural forests, plantation development, or reforestation.
10.7	Could the activity lead to increase in unregulated or unlicensed collecting, hunting, or fishing?	No Risk	No	The project components do not involve activities potentially leading to increase in unregulated or unlicensed collecting, hunting, or fishing.

11	Climate Change Mitigation and Adaptation			
11.1	Will the proposed Project result in significant greenhouse gas emissions or may it aggravate climate change?	No Risk	No	The project components will not result in significant greenhouse gas emissions, but the Project proposal recognizes that there are some mandatory activities (e.g. international air travel and national road travel,) that will contribute to raise global temperature beyond safe levels. For this reason, the proposal has been designed in order to reduce travel whenever possible and engage in video conference, use more fuel efficient vehicles and equipment. Even recognizing that some Project activities will contribute to the release GHG emissions, the project activities will not directly aggravate climate change.
11.2	Is the project area prone to specific climate hazards (e.g., floods, droughts, wildfires, landslides, cyclones, storm surges, etc.)?	No Risk	Yes	Over the past decade, severe loss and damage have been caused by natural hazards, which have particularly affected vulnerable groups and destroyed infrastructure severely limiting access to essential services. Between 1998 and 2018 the five-year average of the number of people affected by a disaster rose from 4,205 to 11,753 per 100,000 inhabitants, an increase of 180% in 20 years (CEPALC). Haiti remains extremely vulnerable to natural climate hazards. According to the 2020 Climate Risk Index, Haiti is the third most affected country in the world by climate-related disasters over the past two decades. Over the same period, the average annual economic losses caused by climate-related disasters reached nearly \$ 400 million, which represents about 50% of official development assistance (ODA) and 55% of average public expenditure since 2010. More than 93% of its land area and over 96% of its population are at risk from two or more hazards, including hurricanes, floods, earthquakes, landslides and droughts.
11.3	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No Risk	Yes	The project aims to enhance the adaptive capacity and resilience of the Haitian education sector to disaster risk of natural hazards related to climate change. The VISUS assessment of Component 1 is a multi-hazard methodology, assessing earth, water, wind and fire related hazards, as well as the safety during ordinary (day-to-day) use. Component 2, will strengthen school safety against the potential impact of climate change by promoting rehabilitation, retrofitting, reconstruction or relocation on a selected number of schools and risk management protocols for schools. Finally, Component 3 will enhance the risk capacity and awareness of the local community surrounding the schools.
11.4	Explain whether the project seek opportunities to enhance the adaptive capacity of communities and ecosystem to climate change?	No Risk	Yes	The Component 3 aims to transform the education sector in a community resilience source built around the schools. The object of this component is to enhance the capacity and awareness of the local population and civil protection stakeholders in risk management. Through a wide range of activities, the project also benefits from a broad range of stakeholders, bringing a once-scarce resource to all sectors and beneficiaries. By making risk assessment inclusive, despite its complexity, the project will collaboratively create a culture of awareness and resilience. In particular, output 3.2 aims to implement disaster risk management actions at community level. These activities allow to increase the knowledge of risk at the community level and to strengthen the operational procedures in case of emergency. Output 3.3 aims to transform the emergency knowledge and plan into concrete actions by increasing the coping capacity of the community and to strengthen the connection between the community and the school facilities during an emergency.

12	Pollution Prevention and Resource Efficiency			
12.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local impacts?	Low to no Risk	No	Project will follow UNOPS rules and regulation and will be implementing a waste management plan to ensure compliance
12.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	Low Risk	No	Project will follow UNOPS rules and regulation and will be implementing a waste management plan to ensure compliance

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Will the proposed Project potentially involve the	No Risk	No	This is not a project component
manufacture, trade, release, and/or use of hazardous			
chemicals and/or materials? Does the Project propose			Project will follow UNOPS rules and regulation and will be implementing a waste management plan to ensure compliance.
use of chemicals or materials subject to international			
bans or phase-outs?			
For example, DDT, PCBs and other chemicals listed			
in international conventions such as the Stockholm			
Conventions on Persistent Organic Pollutants or the			
Montreal Protocol			

	Monuear Flotocol				
12.4	Does the project intend to use pesticides, fungicides	No Risk	No	The project components do not involve the use of pesticides, fungicides or herbicides (biocides)	
	or herbicides (biocides)?				
12.5	Does the Project include activities that require	Low Risk	Yes	Only Component 2, in particular Output 2.2, will require a consumption of row material and energy in order to adapt, rehabilitate,	
	significant consumption of raw materials, energy,			retrofit, reconstruct or relocate about 9 to 10 school facilities.	
	and/or water?				

12.3

13	Public Health			
13.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	Low to no Risk	Yes	The operations and/or final products of Component 2, in particular Output 2.2, may not be safe or carry unacceptable health risks to the communities or final users. For this reason, the design manual and the Health and Safety Management Systems of EE will be implemented. At the time of submission of the funding application, these project activities have not been identified since the selection of schools where to intervene will be made at the end of Component 1 (end of first project year). In this case, it is impossible to identify by the time of submission all the environmental and social risks associated with these grant activities since the nature of the activities or the specific environment in which they will take place, or both, may not be known. For this reason, such activities are then referred to as Unidentified Sub-Projects (USPs).
13.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No Risk	No	This is not a project component
13.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	Low to no Risk	Yes	Component 2 of the Project, in particular Output 2.2, will involve the adaptation, rehabilitation, retrofitting, reconstruction or relocation of school facilities about 9 to 10 school facilities () in four departments.
13.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	Low to no Risk	Yes	Component 2 of the project, in particular Output 2.2, will carry out interventions aimed at reducing the structural vulnerabilities of the schools selected by the decision makers in Component 1. In this sense, the project's objective is to reduce the possibility for structural elements to become dangerous for the students. Furthermore, the project has a multi-hazards approach (i.e. the structural interventions that will be carried out will reduce physical vulnerabilities to the different stresses of the many dangers affecting Haiti).
13.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No Risk	No	Component 2 of the project, in particular Output 2.2, will carry out interventions aimed at reducing the structural vulnerabilities of the schools selected by the decision makers in Component 1. In this sense, the project's objective is to reduce the possibility for structural elements to become dangerous for the students. Furthermore, the project has a multi-hazards approach (i.e. structural interventions will be carried out in order to reduce physical vulnerabilities to the different stresses of the many dangers affecting Haiti).
13.6	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No Risk	No	Project will promote community engagement and support from local authorities; rather than engage security personnel.

14	Physical and Cultural Heritage			
14.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)?	No Risk	No	The project components would not potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture.
14.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage?	No Risk	No	The project components do not propose utilizing tangible and/or intangible forms of cultural heritage.

15	Lands, water and Soil Conservation			
15.1	Does the Project involve significant extraction, diversion or containment of surface or ground water?	No Risk	No	The project components will not involve significant extraction, diversion or containment of surface or ground water
15.2	Could the activity lead to increased soil erosion, run- off, or significant changes to soil characteristics and/or lead to major detriments to soil quality over a large or locally important area?	No Risk	No	The project components will not lead to increased soil erosion, run-off, or significant changes to soil characteristics and/or lead to major detriments to soil quality over a large or locally important area

# 2.2 – E&S Management Plan

ES Principle	<b>Risk Identified</b>	Possible Impact	Level of risk	Mitigation Measures	Monitoring Indicators and Frequency	Responsible for Monitoring	Budget
Compliance with the Law	No risks identified	NA	NA	NA	NA	NA	NA
Access and Equity	Potentially unequal participation of beneficiaries. In fact, culture and traditional practices limit women, disable people and youth access to resources	Beneficiaries could have unequal access to the assets and their benefits would be unequally distributed	Low Risk:	The project design has focused on the most vulnerable group of populations to climate change mainly women and youth. The needs assessment study made during the project development produced the socio-economic profile of potential beneficiaries, which will assist in identifying the households towards which project activities support should be prioritized within the poor and vulnerable communities. The participation of representatives of the disabled, women, youth, community leaders and planners in consultative process will ensure fair and equitable access to benefits in a manner that is inclusive and does not deny access of community members to other services.	<ul> <li>Percentage of young people and women beneficiaries of the project.</li> <li>Percentage of young people and women participating at: <ul> <li>Training of Components 1</li> <li>Non-formal education training in Component 2 and 3</li> </ul> </li> <li>Additional focus groups discussions and household surveys will be organized during project implementation to assess effective equal participation and benefits of members</li> <li>No. of complaints</li> </ul>	IPC	Incorporated in the project cost
Marginalized & Vulnerable Groups	The elderly, youths, the disabled left out or not receiving proportionate benefits (output 3.2 and 3.3)	The DRR interventions of outputs 3.2 and 3.3 not meeting the needs of the vulnerable, and marginalised groups	Low to no Risk	Engage chiefs, and local leadership to help in ensuring that the project benefits reach the marginalised and vulnerable groups Design intervention strategies aiming to empower youth, disabled people and other vulnerable members of the society	<ul> <li>Number of marginalised and vulnerable groups benefiting from the project</li> <li>No. of complaints</li> </ul>	IPC	Incorporated in the project cost

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Human Rights	uman Rights         No risks identified         NA		NA	NA	NA	NA	NA
Gender Equity and Women's Empowerment	Potential gender inequality in project participation	Potential gender equality in project rticipation No risks		The consultative process was carried out to ensure that consultations were responsive to various gender needs and roles such that having project activities that effectively respond to the unique needs of women and girls, men and boys, and promote equal opportunities to participate, and receive comparable social and economic benefits. Project activities have been designed to be gender sensitive and to empower women. In addition, the project will implement the following mitigation measures: - All project staff will be trained on gender-sensitive approaches. - Gender sensitive approaches are integrated into all trainings, workshops and awareness raising activities. - Mechanisms for selecting beneficiaries will be gender-sensitive in order to ensure equal participation of men and women taking into consideration different needs.	<ul> <li>Number of women and young people directly (according to AF definition) benefiting from the project.</li> <li>No. of complaints</li> </ul>	IPC	Incorporated in the project cost
Core Labour Rights	No risks identified	NA	NA	NA	NA	NA	NA
Indigenous Peoples	No risks identified	NA	NA	NA	NA	NA	NA
Involuntary Resettlement	No risks identified	NA	NA	NA	NA	NA	NA
Protection of Natural Habitats	No risks identified	NA	NA	NA	NA	NA	NA
Conservation of Biological Diversity	No risks identified	NA	NA	NA	NA	NA	NA
Climate Change	No risks identified	NA	NA	NA	NA	NA	NA
Pollution Prevention	No risks identified	NA	NA	NA	NA	NA	NA

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v.20: April, 2021 and Resource Efficiency Some The vulnerabilities of operations may - Number of women and young not be safe or school facilities The design manual and the Health and people directly hit by danger due to carry are not increased Low to no Incorporated Safety Management Systems of EE will some project operations. unacceptable **Public Health** and part of UNOPS Risk in the health risks to communities and be implemented. project cost or final users - No. of complaints the could be expose communities or final users. to a danger Physical and No risks Cultural NA NA NA NA NA NA identified Heritage Lands and Soil No risks NA NA NA NA NA NA Conservation identified

### **Appendix 3: List of Beneficiary**

Description of the Beneficiaries

- 1. <u>Direct<sup>28</sup></u>: students, teachers and all staff working in the school facilities as well as the neighbouring households to the school facilities that will benefit from the implementation of Components 2 and 3.
- 2. <u>Indirect, targeted and Medium intensity</u><sup>1</sup>: all the individuals (e.g. students, teachers, educational staff) that are concerned by the school facilities assessment that will be achieved through the implementation of Component 1.
- 3. <u>Indirect, not targeted and Medium intensity<sup>1</sup></u>: communities living within the selected departments in which the project is implemented.

Each set of beneficiaries is introduced below from the larger group (i.e. Indirect, not targeted and medium intensity) to the most specific one (i.e. Direct beneficiaries)

		Total	Artibonite	Grand-Anse	North	South
Populatio	n	4.038.002	1.727.524	468.301	1.067.177	775.000
Condor	Men	2.026.831	854.910	244.488	524.433	403.000
Gender	Women	2.011.171	872.614	223.813	542.744	372.000
Rura	I population	2.501.479	987.737	388.690	528.302	596.750
Urban population		1.536.523	739.787	79.611	538.875	178.250
Populatio	n aged 18+	2.257.339	1.067.884	281.238	556.702	351.515
<b>Students</b>	in 2018	1.256.541	625.344	182.780	387.912	60.505
	3-5 y.y.	224.662	123.788	19.492	77.036	4.346
	6-11 y.y.	503.627	239.418	87.663	148.458	28.087
	12-14 y.y.	04.354	115.031	4.318	71.171	13.834
	15-18 y.y.	85.039	147.107	32.447	91.247	14.238

### 3. Indirect, not targeted and Medium intensity beneficiaries:

<sup>&</sup>lt;sup>28</sup> Methodologies for reporting adaptation fund core impact indicators, March 2014, Adaptation Fund

## 2. Indirect, targeted and Medium intensity beneficiaries:

N. of students	Total	Male	Female				
Total	177.631	88.555	89.076				
By departments							
Artibonite	40.663	20.123	20.540				
Grand-Anse	41.620	21.753	19.867				
Nord	55.380	27.556	27.824				
Sud 39.969		19.124	20.845				

Department	Commune	N. of schools	Rural	Urban
Artibonite		151	81	70
	Gonaives	71	32	39
	Gros Morne	28	20	8
	L-Estère	9	2	7
	Saint Marc	43	27	16
Grand-Anse		143	96	47
	Anse d-Hainault	15	9	6
	Dame Marie	15	8	7
	Jérémie	101	75	26
	Les Irois	12	4	8
Nord		213	77	136
	Cap-Haïtien	195	63	132
	Plaine du Nord	18	14	4
Sud		181	91	90
	Aquin	32	23	9
	Camp Perrin	19	14	5
	Cayes	60	24	36
	Les Anglais	8	4	4
	L-lle à Vache	5	5	
	Port à Piment	9	5	4
	Port Salut	48	16	32
Total		688	345	343

### 1. Direct beneficiaries:

The selection of schools (about 30 from the 688 listed above) for the implementation of Component 2 and the selection of communes for Component 3 will be made at the end of the first year. These selections will be based on the result of the school facilities' assessment (Component 1) and the decision will be made by the local stakeholders. According to the selections, the number of beneficiaries will be a combination of the values reported in the table below.

Department	epartment Commune [Km2]		Population density	Total	Male	Female	Up to 17 Years old	18 Years old and over	Number of households	
Artibonite		425,85	437	778658	400906	345452	256911	521747	178825	
	Gonaives	573,58	621	356324	171084	185240	127886	228438	73167	
	Gros Morne	397,03	392	155692	78233	77459	61179	94513	33740	
	L-Estère	176,24	256	45159	22436	22723	17267	27892	11939	
	Saint Marc	556,56	479	266642	129153	137489	95738	170904	59979	
Grand-Anse		496,56	294	232839	120497	208777	90098	142741	60650	
	Anse d-Hainault	326,52	302	36401	19175	17226	15595	20806	19644	
	Dame Marie	102,16	379	38747	20019	18728	14979	23768	7933	
	Jérémie	1427,22	314	134317	68644	65673	49143	85174	28364	
	Les Irois	130,33	179	23374	12659	107150	10381	12993	4709	
Nord		154,19	2770	315659	147713	167946	143393	172266	61594	
	Cap-Haïtien	53,5	5129	274404	127501	146903	123080	151324	53204	
	Plaine du Nord	100,69	410	41255	20212	21043	20313	20942	8390	
Sud		1264,54	355	384205	195118	189147	145388	238817	80354	
	Aquin	638,59	163	104216	53125	51091	39146	65070	23685	
	Camp Perrin	133,77	337	45043	23695	21348	16833	28210	9193	
	Cayes	219,11	692	151696	74476	77220	52335	99361	31547	
	Les Anglais	118,04	253	29891	15772	14119	12907	16984	5442	
	L-Ile à Vache	45,96	335	15339	8277	7122	6737	8602	2811	
	Port à Piment	60,28	314	18922	9697	9225	9901	9021	3687	
	Port Salut	48,79	391	19098	10076	9022	7529	11569	3989	
Total		585	964	1.711.361	64.234	911.322	635.790	1.075.571	381.423	

# Appendix 4: Gantt

		year 1					year 2					year 3										
		m1 m2 m3 m4 m5 m6 m7 m						) m10 n	n11 m12	m13 m1	4 m15 n	n16 m17 m	18 m19 ı	n20 m21	m22 m23	m24 m25	m26 m27	m28 m2	9 m30 m31	m32 m33	m34 m	35 m36
	Output 1.1 - Trainers competence to provide inclusive, technical and effective training is improved																					
	Identify and map national, regional (department) and local organizations mandated to work on DRR, including climate related risks																					
	Identify and select trainer of trainers that could be nationwide representative																					
	A ToT at the beginning of the project		То	т																		
	Output 1.2 - Decision makers understanding of the VISUS approach enhanced									• • • •	· · ·											
	Identify the national and regional Haitian offices mandated to work on the education sectors, DRR and climate related risks																					
	Identify and select the relevant decision-makers that could benefit from the adoption of the VISUS methodology																					
	A training on how to use the outputs of the VISUS assessments		То	P																		-
	Output 1.3 - VISUS surveyors know-how is transferred to university students																					
	Identify the national university student courses and technical organizations that will be interested and appropriate to be involved in the surveys																					
Component 1	Capacity building of local engineers, architects, geologist, student etc., that will perform assessment of schools																					
Assessment of	Training to the teams that will perform the assessment at the school level.			T.S																		
VISUS	Production of technic guidelines for the assessment of school facilities		D.T.	G.																		
methodology	Output 1.4 - Exposure and vulnerability of school facilities are assessed																					
	Elaboration of a plan and a schedule for the implementation of the assessment by geographical localities and number of teams;																					
	Implementation of the assessment by survey teams;																					
	Quality and completeness control on the survey data;																					
	If necessary, implementation of a more detailed assessment to specific selected schools																					
	Output 1.5 - GIS-based web platform knowledge-sharing is put on place																					
	Elaborate a Geo-spatial inventory of schools and a comprehensive school-mapping of Haiti.																					
	Output 1.6 - Strategic intervention plan for school facilities is developed																					
	Identification and maps of the schools, areas, regions, and localities; that will need urgent intervention																					
	Selection of schools that could be used as temporary community shelters, and reinforcement of their physical capacities to meet these special needs																					
	Workshop with the relevant stakeholder to discuss the assessment results and define the strategy for intervention.							WS														
	Output 2.1 - Detailed intervention of the selected schools are designed																					
	Detailed designs of all schools considered in the strategy																					
	Detailed BOQ and budget estimates for each intervention																					
	Execute the subcontracts for the selected interventions																					
	Output 2.2 - Adaptation, Rehabilitation, retrofitting, reconstruction or relocation of school facilities are implemented									_												
	Schedule the work without interrupting the education service provided to students																					
	Implement the interventions to upgrade the safety of school facilities																					
	Implement the necessary adaptation interventions																					
Component 2 -	Output 2.3 - Trainers competence to provide inclusive, technical and effective training is improved																					
Schools adaptation	Capacity building activities for contractors include subjects such as Health, Safety, Security, and Environmental protocols																					
and safety	nterns studying i n engineering or other related fields i n order to support the supervision team utilizing the field site monitoring system																					
Improvement	Output 2.4 - Good DRR and CCA practices are adopted by students and school staffs							_				_										
	Training programs on how to behave in case of hazardous events tailored to students and school staff																			$\vdash$		_
	Plan an internal simulation of emergency along with school representatives																					
	Establish laboratories related to the climate change sciences																					
	Output 2.5 - Risk management school protocols are adopted							_			_		_									_
	Review of the existing information regarding local hazard and historical events																					
	Internal workshop with school' personnel, local authorities, and major stakeholders to collect information																					
	Establish an emergency plan for schools' facilities																			$\vdash$		
	Install warning messages and instructions within the schools																					_
	Output 3.1 - Knowledge and awareness of the disaster risk due to CC in Haiti enhanced								_													
	One national conference regarding the effect of climate change to the extreme natural hazards and the importance to adapt to them	Conf.						+		$\vdash$	+	+	+ $+$				1410	$\vdash$	+ $+$	++-	$\left  - \right $	_
	One national workshop on the role of the education sector into DRR interventions and the intervention strategy adopted																ws					
	Output 3.2 - Community emergency plan is put on place	<u>г</u> т						1 1					_		_	-			<u> </u>	<del></del>	1 I	_
	Revew of the existing information regarding the local nazard and historical events		_				_													++-		_
Component 3 -	viorkshop and consultation at community level with the local authorities and major stakeholders to collect information			-					-						_					++-		_
Enhancement of	Analysis of the impacts of CC scenarios to local events			-					_				_			_				++-		_
climate resilience	Establish an emergency plan for the community												_									
of social	Comput s.s - Community capacity to cope with disasters improved	1 1	-				-		-	1 T		_		_	_	1						-
community through	Install warming messages and instructions in the community	+						+	_	$\vdash$										++-	+	
the educational	Plan a simulation evacuation with local authorities and school representative			-									-			_				+		_
sector	Jutput 3.4. National action plan for resilient schools facilities and their surrounding communities	<u> </u>							_											┶┷┶╼╸		
	Supple set - national action plan for resident schools lackness and uner suffrontialing communities	<b>I</b> I	_			1		1 1			1 1		1 1	1 1		-			1			-
	review or the existing national and local plans regarding the upgrading or the existing and new school facilities.	+						+	_	$\vdash$	++		+					+				+
	Report on the methodology adopted for the strategy intervention and the implementation of Lixik activities on the extended school community	$\vdash$																				-
	ESD programme indexprime of a national environmental education program for the basic cycle																					
	ESD programme: integration or DKK and CC tools in the Curriculum (fundamental level) in Haiti	+	_																		-	A/C
	Organize workshops with relevant ministries to share the output of the project and obtain their Involvement in the proposal of the NAP							+	_		+					-			+ + -	+-+	FV	C V
Component 4 -	Output 4.1 - Assessment of VISUS methodology in the schools							+			+					_				$\vdash$		
Project's outcomes	Output 4.2 - Assessment and monitoring the safety level of the schools																					
assessment	Output 4.3 - Assessment enhancement level of climate resilience of school communities																					
																						_

## Appendix 5: List of documentation consulted

List of most relevant documents consulted:

- Renforcement des capacités haïtiennes pour l'évaluation des installations scolaires Mise en oeuvre de la méthodologie UNESCO-VISUS pour évaluer les installations scolaires et fournir des informations essentielles aux décideurs Évaluation de la sécurité des structures éducatives en Haïti RAPPORT COLLECTIF, UNESCO, 2017
- Haiti Ecoles Publiques Methodologie VISUS-1 4 seleceted departments
- DIAGNOSTIC EDUCATIF DU DEPARTEMENT D'ARTIBONITE NOVEMBRE 2019, Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP), DIRECTION GENERALE UNITE DE COORDINATION DEPARTEMENTALE D'EDUCATION DIRECTION DEPARTEMENTALE DE L'EDUCATION D'ARTIBONITE
- DIAGNOSTIC EDUCATIF DU DEPARTEMENT DE LA GRAND-ANSE NOVEMBRE 2019, Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP), DIRECTION GENERALE UNITE DE COORDINATION DEPARTEMENTALE D'EDUCATION DIRECTION DEPARTEMENTALE DE L'EDUCATION D'ARTIBONITE
- DIAGNOSTIC EDUCATIF DU DEPARTEMENT **DU NORD** NOVEMBRE 2019, Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP), DIRECTION GENERALE UNITE DE COORDINATION DEPARTEMENTALE D'EDUCATION DIRECTION DEPARTEMENTALE DE L'EDUCATION D'ARTIBONITE
- DIAGNOSTIC EDUCATIF DU DEPARTEMENT DU SUD-EST Novembre 2019, Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP), DIRECTION GENERALE UNITE DE COORDINATION DEPARTEMENTALE D'EDUCATION DIRECTION DEPARTEMENTALE DE L'EDUCATION D'ARTIBONITE
- DIAGNOSTIC EDUCATIF DU DEPARTEMENT DU SUD NOVEMBRE 2019, Ministère de l'Education Nationale et de la Formation Professionnelle (MENFP), DIRECTION GENERALE UNITE DE COORDINATION DEPARTEMENTALE D'EDUCATION DIRECTION DEPARTEMENTALE DE L'EDUCATION D'ARTIBONITE
- POPULATION TOTALE, POPULATION DE 18 ANS ET PLUS MÉNAGES ET DENSITÉS ESTIMÉS EN 2015
- Plan national de gestion des risques de desastre 2019-2030, Republique d'Haiti
- Approache "Paysage Resilient" Integree, 2020, UNEP
- National Adaptation Plans in focus: Lessons from Haiti, UNDP/UNEP/GEF 2018
- **Towards Safer School Construction** A community-based approach. Save the Children, UNESCO, Arup International Development, GFDRR, Risk RED and Save the Children
- **Comprehensive School Safety.** A global framework in support of The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector and The Worldwide Initiative for Safe Schools, UNSIDR March 2017

Appendix 6: Methodology, approach, resources and cost for Outputs 2.1 to 2.3

# Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti

Component 2: School Adaptation and Safety Improvement

Date: March 8, 2021



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### Context

Methodology and approach
Design Development and Implementation of Works
Output 1: Design Detailed intervention of the selected schools
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Output 2: Implementation of adaptation, rehabilitation, retrofitting, reconstruction or
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2.1 Procurement process
2.2. Supervision of construction and rehabilitation works
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2.4 Schedule Control
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training
ASSUMPTIONS
Risk Management
Management structure and organisation
PROJECT PERSONNEL
Matrix of responsibilities (RACI)
Timeline
C. Capacity building approach
Contractor capacity building
Capacity building for community

## Context

UNESCO will present a proposal to the Adaptation Fund that aims to Implementing Measures for Climate Change Adaptation and Disaster Risk Reduction Mitigation of School Facilities in Haiti. The proposal has three components:

Component 1: Assessment of school facilities by VISUS methodology

Component 2: Schools adaptation and safety Improvement

#### Component 3:

Enhancement of climate resilience of social community through the educational sector

UNOPS is responsible to implement outputs 2.1 to 2.3 of the Component 2:

Component 2 outcome: Strengthening the schools safety by promoting rehabilitation, retrofitting, reconstruction or relocation of selected schools and risk management of schools protocol.

Output 2.1. Design detailed intervention of selected schools. Output 2.2. Implement adaptation, rehabilitation, retrofitting, reconstruction or relocation of school facilities. Output 2.3. Improve trainers competence to provide technical and effective training.

The legal relationship for UNOPS is with UNESCO only.

The present document presents the methodology and approach to achieve these outputs.

# Methodology and approach

During the component 1 under UNESCO responsibility, data will be collected on 800-1000 schools using the visus methodology to assess their vulnerability to natural disasters and the work that needs to be carried out to increase their resistance to natural disasters. At the end of the component, a committee will be formed that comprised of representatives of the Ministry of Education, the Ministry of Environment, Direction of Civil Protection, the Université d'État d'Haiti and UNESCO to select schools for work to be carried out in 4 Haitian Department, chosen for their vulnerability to natural disasters. UNOPS will participate in the committee to provide technical inputs. These schools will be the ones targeted by component 2 under UNOPS responsibility.

The sites selection will impact component 2, notably the scope and costs of design, implementation, as well as the supervision strategy for the work. Therefore final methodology and costs will be determined once the sites are selected.

The data provided by component 1, UNESCO Visus Methodology for the infrastructure assessment, will help UNOPS determine the category in which each site best falls under to determine the design and specification (D&S) development category<sup>1</sup> for component 2:

 Light Work / Rehabilitation: An existing building requiring aesthetic and/or ergonomic improvements (windows, paint, ceramics, plumbing, electrical, drainage, landscaping, etc.); nonstructural work.

<sup>&</sup>lt;sup>1</sup> Category defined by UNOPS, to be confirmed with UNESCO and committee for level of intervention. Price range set in category is based on construction cost on the local market for works based in metropolitan areas; remote sites may differ if construction/rehabilitation materials need to be transported from Port-au-Prince to site.

- Price range: < \$350/m2</li>
- <u>Medium Work / Retrofit</u>: An existing building requiring structural intervention (opening, expansion, roof framing and replacement, addition of exterior septic and/or water cistern, etc.) and/or aesthetic improvements.
  - o Price range: \$350/m2 < x < \$850/m2
- <u>Heavy Work / New Construction</u>: Erection of a new structure and/or reinforcing an existing building structurally (shear walls); structural.
  - Price range: > \$850/m2

If there is a need to relocate students during the work to ensure continuous learning this would affect the costs and timeline.

The scope of work that will derive from the site observations will give way to a strategic planning phase, which will be encapsulated in a strategic master plan and its associated development control plan (DCP). This master plan will enable a proper appreciation of the capacities of the site as well as the buildings. It should show how much of the current school use can remain and the extent of any new construction that may be required. Options will usually involve:

- No building work at all (including the decommissioning and potential demolition of existing buildings);
- Relocating or reassigning functions within the existing fabric of the building;
- Refurbishing existing buildings;
- New developments.

As the core purpose of the design and specification (D&S) development, the UNOPS technical support team will complete the following:

- Assessment of the existing buildings (architecture, MEP and civil);
  - Criterias to achieve the preferred functional zoning;
  - o Address the requirements of circulation and sustainability engineering;
  - o Address Gender in the workplace
  - o Address Health, Safety, and Environmental
  - o Address emergency shelter occasional use;
  - Address site disposal;
- Diagnostic of the existing MEP installations.
- Evaluate on site locations and power supply needs.
- Assessment of space currently in use, or as required by the <u>Practical Guide of the MENFP for schools</u>



### Design Development and Implementation of Works

### Output 1: Design Detailed intervention of the selected schools

#### 1.1 Design Development

In essence, it is understood that UNESCO requires capacity to produce the construction and rehabilitation drawings and specifications, to prepare tender documentation as well as ensure the required supervision to achieve successful construction and rehabilitation at the chosen sites.

To efficiently manage designs and budget, typical standard designs will be developed to be adapted at the sites based on the category.

Design and specification will adhere to following codes and standards or equivalent:

- International Building Code (IBC) 2018
- American Society of Civil Engineers (ASCE) Minimum Design Loads for Buildings and Other Structures
- American Concrete Institute (ACI) Building Code for requirements for Reinforced Concrete.
- Code National du Bâtiment d'Haîti (CNBH 2012)

#### 1.2 Design Review

The objective of this stage will be to verify the drawings and specifications against the standard criteria applicable to similar projects that ensure a check focusing on design and functionality/safety compliance.

The design review process is a mechanism to help ensure that UNOPS infrastructure designs meet the minimum standards for life safety and functionality. All infrastructure projects must undergo review and obtain a Certificate of Design Review Compliance before procuring construction materials or services.

Design Review is an internal assurance process for Infrastructure Works Designs that mitigates organizational and life/safety risks by ensuring design compliance with established codes and standards as referred in section 1.1 or the Project Initiation Documentation (PID), UNOPS Design Planning Manuals and associated Design Review checklists and is carried out by respective reviewer as outlined.

Output 2: Implementation of adaptation, rehabilitation, retrofitting, reconstruction or relocation of schools

### 2.1 Procurement process

It is understood that the bidding process will be undertaken by UNOPS.

UNOPS will carry out procurement processes to select a contractor for the construction and rehabilitation work, UNOPS regulations, rules policies and procedures. UNOPS will do the following:

#### 2.2. Supervision of construction and rehabilitation works

It is understood that the construction contract will be signed by UNOPS with the contractor and that supervision of the work will be undertaken by UNOPS.

This project will benefit from FieldSight monitoring by UNOPS, an online tool and database aimed to improve quality assurance, monitoring, and reporting processes to better support and engage with our partners.

UNOPS proposes to [UNESCO] the supervision of the construction and rehabilitation works and support during the Defect Notification Period (DNP). This will include the following non-exhaustive activities:

- Preparation of the defect notifications;
- Review of the contractor proposal for method and scheduled for corrective actions;
- · Inspection of the defect corrective action and assessment towards D&S acceptability; and
- Recommendations for acceptance or rejection.

### 2.3. Quality Control

Quality management will focus on ensuring activities and related services are delivered on time, within budget and to the required, and pre-agreed, quality standards.

The quality assurance will include the following:

- Confirmation of Steering Committee's quality expectations;
- Quality tolerances for all agreed outputs, including cost elements;
- Acceptance criteria including test methods;
- Quality control and assurance responsibilities;
- References to standards to be applied to activities;
- Configuration Management Plan; and
- Document Control Plan that includes standard reports noted above, material testing results, correspondence, photos, minutes of meetings, and procurement documentations.
- Inspection, approval and testing when necessary of all materials and workmanship
- Compliance with design standards

Quality assurance will be the overall responsibility of UNOPS. A Quality Assurance Tracking Checklist will be required and will document all quality events planned and undertaken (i.e. workshops, reviews, inspections, testing, pilots, acceptance and audits). It will be maintained throughout all phases of the related services financed through these Activities.

#### 2.4 Schedule Control

- Work proactively in order to plan activities on a short, medium and long term
- Define key milestones
- Ensure contingency plan in case of delays
- Risk mitigation for scheduling by grouping sites and performing activities in parallel rather than in series.

#### 2.5 Budget Control

- · Based on lump sum payment as defined in the contract.
- Manage timeline effectively

#### 2.6 Health, Security and Environment Control

- Ensure that minimal health and security management plan is applied
- · Ensure that required environment management plan is applied

### Output 3: Improve trainers competence to provide inclusive, technical and efficient training

For capacity building in the local communities, contractors will be asked to include a baseline of unskilled labor from the local community where the site(s) are located, respecting all UNOPS and Local authority in regards to building materials and construction guidelines.

UNOPS will also carry out capacity building activities for contractors. Topics will be selected when the contractors are selected, but could include subjects such as Health, Safety, Security, and Environmental protocols, site supervision or contract management.

UNOPS also intends to recruit interns studying in engineering or other related fields aligned with UNOPS rules and regulations. The interns will support the supervision team utilizing the field site monitoring system to ensure quality assurance and control at the sites deemed high works category.

Once sites have been selected, UNOPS will provide a more thorough assessment for capacity building within the local community and/or workforce.

### ASSUMPTIONS

During the development of this methodology, none of the future sites were known to determine the level of intervention, only the respective departments from where the sites would be evaluated and located. Understanding the challenges that each department brings for works on site in regards to availability of construction materials locally, road conditions, site accessibility within departments, and the social/political climate within the departments is foreseen as follow:

Department	nent Materials Roads		Accessibility	Social/political					
Artibonite	Fair	Fair	Fair	Fair					
North	Fair	Fair	Fair Fair						
Sud	Difficult	Difficult	Difficult	Difficult					
Grand-Anse	Difficult	Difficult	Difficult	Fair					

UNESCO provided a previous <u>VISUS evaluation for 100 schools in the North department</u> that will be similar to the component 1 (school and site evaluation of the 700 - 1,000 schools) of this project; which allowed UNOPS to understand the possible conditions and estimate the level of intervention that will be required for the future sites.

The concern is that upon vetting the data provided in the evaluation it yielded UNOPS to a conservative approach given that out of the 100 schools only one school ranked a 4 star<sup>2</sup>, with the rest scoring lower on the spectrum range; mainly between 0 and 2.

<sup>2</sup> VISUS MULTI-HAZARD SAFETY STARS

# **ONDER**



Based on the category of work compared to the VISUS star ranking, the expected intervention would be as described in the table below.

Catogony		Visus Muti-Hazard Star												
category	0	1	2	3	4	5								
Light Works	3		5											
Medium Works	3													
Heavy Works				5. X										

From the <u>AF Proposal</u> (concept stage) the expected output for the component 2 is to have 70% Light Work, 23% Medium Work, and 7% Heavy work. However, if we extrapolate from the initial survey conducted, it would prove difficult to achieve this level of intervention since the range is skewed on the lower range with a small percentage (less than < 10%) of schools that score higher than 2. Thus the reason to emphasize that the composition of the supervision team depends on the final selection of the schools, their average conditions, and their proximity.

### **Risk Management**

Risks shall be identified, assessed and controlled. Risk management will be the responsibility of UNOPS, who will report all risks, their likelihood and their expected impact to the Steering Committee's as and when necessary but no later than two working days following identification, including mitigation measures, as appropriate. The Risk Management Procedure will include the following:

- Identifying Risks: The cause, events and effects. Multiple identification techniques can be used: lessons learned, publicly known risks (such as rainy seasons, political elections, etc.), amongst others.
- Assessing Risks: Estimate and evaluate risks using techniques such as a probability- impact grid or the expected monetary value model.
- Planning and Implementing Responses. A Risk owner (management, monitoring and control of that
  particular risk) and Risk actionee (to carry out the risk response actions) will be assigned for each risk
  requiring a response as identified through a risk assessment.

 Communicating Risks: This will be carried out continually through Checkpoint Reports, Highlight Reports, End Stage Reports,

The following is an overview of the risk analysis conducted for the evaluations.

Risk	Impact	Mitigation measure
Social/Political	Timeline, budget	Request support from the communication team to help with community engagement. Request support from local authorities.
Security in Haiti and road access	Timeline, budget, deliverables	Request support from local authorities. UNOPS will always coordinate with UN Security to ensure the security of its personnel.
Natural Disaster in the country	Timeline, budget	Take disaster risk reduction into account and adhere to UN security framework.
Limited engagement from government entities	Timeline	Ensure other key government entities are included in the discussions and solicit their support.
Budget allocated is not sufficient to complete scope of work	Deliverables	Evaluate most cost effective output and prioritize the scope that can be completed in time and on budget.
Designs do not meet projected budget	Budget	Review cost estimates carefully at every stage.
Expectations of partners and schools on the work to be completed is unrealistic within the budget and timeframe	Reputation	Communication with schools director and partners Ministries on the scope of the work and its impact on DRR will be key to mitigate this risk.
Sites accessibility and proximity to one another within departments require supervision to increase logistics measure to ensure proper Quality Assurance/QC	Timeline, budget	Participate in school selection at the end of component 1 by committee to gauge all possible clustering options.
Cost of construction materials and transport increase due to local currency inflation	Budget	Review cost estimates carefully at every stage.
Sites selection is delayed or incomplete causing additional costs for UNOPS and a loss of possible synergies.	Budget, Timeline	UNOPS will participate in the selection process committee and will be consulted when required to ensure smooth transition from selection to implementation.
		If delays cause additional costs, UNOPS will discuss with UNESCO on how to cover these within the larger AF project

### Management structure and organisation

UNOPS pays special attention to the IMPLEMENTATION of every activities and related services necessary to develop and oversee the works such as site investigations, engineering design documents, and construction management, performed through subcontracting when required by referring to the PRINCE 2 leading project management methodology in particular the 7 themes, 7 processes and 7 principles bellow.

7 Themes	7 Processes	7 Principles
<ul> <li>Organization</li> <li>Business Case</li> <li>Quality</li> <li>Plans</li> <li>Risk</li> <li>Change</li> <li>Progress</li> </ul>	<ul> <li>Starting a project</li> <li>Directing a Project</li> <li>Initiating a Project</li> <li>Controlling a project</li> <li>Managing Project</li> <li>Delivery</li> <li>Managing Stage Boundary</li> <li>Closing a Project</li> </ul>	<ul> <li>Continued Business Justification</li> <li>Learn from experience</li> <li>Defined Roles and Responsibilities</li> <li>Manage by Stages</li> <li>Manage by Exception</li> <li>Focus on products</li> <li>Tailor to suit the project environment</li> </ul>

### PROJECT PERSONNEL

UNOPS will put in place a multidisciplinary team based in Haiti (abroad for consultants if judged necessary) for this project to insuresure its implementation in conformity with the national and international standards in effect.

The UNOPS team will be composed of <sup>3</sup>:

- A project manager
- A senior infrastructure advisor (team leader)
- Four (4) engineers<sup>4</sup>
- Four (4) drivers
- Support team (finance, human resources, procurement, administration)

#### Supervision/logistics during implementation

Based on the location of the possible sites (departments), the UNOPS personnel comprises a Project Manager and Infrastructure specialist that will be based in Port-au-Prince. A team for human resources, procurement and administration professionals will also support the management of this project.

In the 4 Departments, four teams (team: 1 vehicle, 1 driver, and 1 field engineer per Department) will oversee the works throughout the 4 departments (1 team per department). For sites that will range in the medium to heavy category, a site engineer/intern will be allocated to ensure the proper Quality Assurance and Quality Control through UNOPS Field Site monitoring system to allow a team to remotely monitor the critical activities and dispatch a team as required.

<sup>&</sup>lt;sup>3</sup> The composition of the team will respect UNOPS' policies with regards to gender parity and inclusion.

<sup>&</sup>lt;sup>4</sup> Two (2) engineers during D&S Development phase, and Four (4) engineers during implementation phase ( site supervision)

During the implementation phase the designer that developed the D&S will remain online to assist the teams and contractors to provide technical assistance, clarification and/or modifications as required to the levels of intervention.

Please note that the final supervision strategy will depend on the number, proximity<sup>6</sup>, and complexity of sites that will be selected for work. It is estimated that one engineer per department would be the minimum<sup>6</sup> required for quality assurance

#### Matrix of responsibilities (RACI)

The following matrix summarizes the responsibilities between UNOPS, UNESCO and MENFP for component 2. The assessment of sites and selection of schools will already have been completed as part of component 1 under the responsibility/accountability of the Haitian Ministries and UNESCO with consultation of UNOPS.

 <b></b>	
	_

Description of the output	UNOPS	UNESCO	MENFP
Recruitment of project team	A / R		
Procurement of material for the project team	A / R		
Development of Procurement Processes and Templates for Design work	A/R	с	с
Publication of invitations to bids and bid meetings to providers	A/R		
Receipt and evaluation of bids for Design work	A/R		
Sign and manage the contracts for Design work	A/R	1	1
Design Review	A / R	I.	I.
Development of Procurement Processes and Templates for construction work	A/R	с	с
Publication of invitations to bids and bid meetings to providers	A/R		
Receipt and evaluation of bids for construction work	A / R		
Sign and manage the contracts for construction work	A / R	1	1
Supervision of construction	A / R	I.	с
Defect Notification Period (DNP)	A/R	1	R

R: Responsible

A: Accountable

<sup>6</sup> Team logistics to sites is determined by a maximum 3 hour round trip travel time per day per site. Sites exceeding this travel time would require additional supervision team members, which in turn require an increase to the budget.

<sup>&</sup>lt;sup>6</sup> Logistic proximity that one engineer can visit all the sites in the department within 4 days.



C: Consulted

#### GOVERNANCE STRUCTURE

In the overall project that is presented to the Adaptation Fund, UNESCO has planned a steering committee composed of the Director General of the Haitian Ministries involved in the project to provide strategic oversight and guidance to the overall initiative.

For the component that UNOPS is responsible for (output 2.1 to 2.3) and that falls under the UN to UN agreement between UNOPS and UNESCO, the main roles and responsibilities will be as follow:

- 1. Executive: UNOPS
- 2. Senior User: Haitian Ministry of Education
- 3. Senior Supplier: UNESCO/Adaptation Fund

UNOPS will ensure that all required resources are available to reach the expected outputs and is responsible for quality assurance for outputs 2.1 to 2.3. Following strategic guidance by the steering committee and UNESCO, UNOPS will validate the lists of tasks to be carried out within the budget and parameters established by the project agreement between UNESCO and UNOPS.

#### Sites and Department List



### Timeline

The sites will be assigned by groups based on region and accessibility. To effectively manage timelines between sites and the activity groups, the missions will be run as much as possible in parallel rather than in series.

The activities within the timeline can be categorized as:

- Mobilization: all activities related to administration, strategy, personnel, and logistics planning.
- Component 2.1-2.3 : D&S and Implementation •
  - Procurement: all activities related to acquiring professional services, equipment, and supplies. i. ii.
    - Development of D&S: development of Architecture and Engineering plans.
  - iii. Design Review: plan revision ensuring design compliance with established codes and standards (life/safety risks)
  - iv. Construction/Execution: all activities related to the construction.

			Months															
			3	6	9	12	15	18	21	24	27	30	33	36	40	44	48	52
#	lask	Stages	Year 1		Vear 2				Year 3				Year 4					
1		UNOPS Team Mobilisation																
	Preparation Phase	Procurement of equipment phase (vehicles, office supplies, etc).																
2	Component	Tender for D&S Designer																
	2.1 D&S Development	D&S Plans Development																
	bereispinent	UNOPS REVIEW																
з	Component	Tender for Contractor																
	2.2 Construction & Supervision	Implementation Phase																
		Notification of Defect Period*																

\* The notification of defect period is the period following the issuance of the Taking Over Certificate for which UNOPS may notify the Contractor of defects in the Project and the Contractor is liable to repair the defects. It does not incurred additional costs to the project, but UNOPS will only financially close the project after this period.

# Appendix 7: VISUS information



# Schools safety: VISUS multi-hazard methodology

Visual Inspection for the definition of Safety Upgrading Strategies

### What is VISUS?

VISUS (Visual Inspection for the definition of Safety Upgrading Strategies) is a safety assessment methodology specifically designed for decision-making purposes which supports the identification of safety upgrading strategies considering a wide range of learning facilities. The methodology is multi-hazard, assessing earth, water, wind and fire related hazards, as well as the safety during ordinary (day-to-day) use.





### How does it work?

The VISUS methodology aims at pre-codifying and reproducing in an automatic way the expert reasoning process. The implementation for assessing the safety of schools of VISUS follows three phases: adaptation, implementation of the survey, and analysis of data and reporting. The adaptation phase aims to calibrate the method to the realities of the geographical areas where the assessment will be performed, in terms of typologies of buildings, hazard profile, and costs of construction and refurbishment. The survey phase is carried out by trained VISUS surveyors, who collect information for each school using the pre-codified VISUS survey forms. The collected information is then used in the evaluation and reporting phases, which are performed by UNESCO-SPRINT experts, in order to create the VISUS final outputs. The VISUS outputs are a set of indicators used to support decision-makers in the definition of safety upgrading strategies. They are presented in a collective report with the outcomes for the entire analysed geographical area along with individual reports illustrating the situation of each of the inspected schools.



Goal 4.a: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

### Which is the first step towards the implementation of VISUS?

When administrators of a region/country/territory express their interest in implementing VISUS, the following process should be applied. A local representative has to contact either UNESCO or the SPRINT-Lab at the University of Udine (Italy). A first meeting will be organized to illustrate the methodology and to explore the different mechanisms for its implementation. For successful implementation, the involvement of concerned stakeholders (e.g. Ministry of Education, Ministry of Public Works, National Disaster Management Agency, etc.), and local academic partners (such as universities and technical institutes) is fundamental. A National Focal Point with scientific background needs to be identified and appointed. In close collaboration with UNESCO and SPRINT-Lab, the National Focal Point will collect the necessary information for the adaptation phase, organize the different capacity-building activities (1. training for decision-makers; 2. training for trainees and academics; and, 3. training of VISUS surveyors: inspectors from related ministries or national institutions, and/or final year civil engineering or architecture students of local universities), facilitate the planning and development of the survey phase, and finally, secure the quality of the collected data.



### Main publications

- Grimaz S., Malisan P., (2016): "VISUS: A pragmatic expert-based methodology for the seismic safety triage of school facilities". Bollettino di Geofisica Teorica e Applicata, 2016, 57, 91-110. (http://www3.ogs.trieste.it/bgta/pdf/bgta0169\_GRIMAZ.pdf)
- Grimaz S., Malisan P., Torres J., (2014): "VISUS methodology: a quick assessment for defining safety upgrading strategies of school facilities", Planet@Risk, 3 (1), 126-136. (https://planet-risk.org/index.php/pr/article/view/184/350)

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By checking the 'I agree' box below in this Electronic Disclosure Statement and Consent for ESignature ("Disclosure Statement and Consent"), you agree and understand that: (1) the esignature

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https://support.docusign.com/guides/signer-guide-signing-system-requirements