

PROJECT STATUS REPORT (PSR)

07/01/2022 - 12/31/2022 - PSR-09601

PROJECT SUMMARY

Operation number

HA-T1299

Suboperation number

ATN/ME-19174-HA

Project Name

Creating an earthquake early-warning (EEW) system for Haiti.

Team Leader

Jean Emmanuel Desmornes

Executing Agency

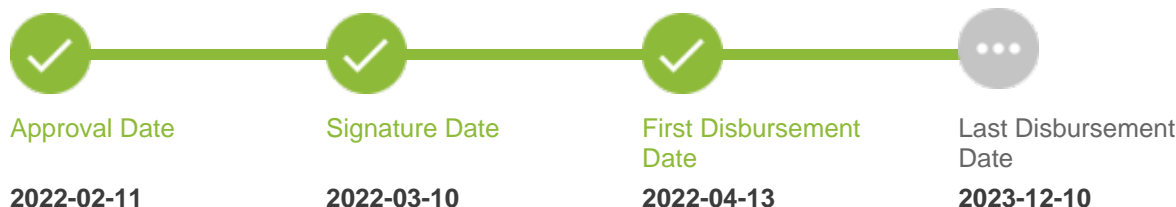
Grillo Holdings Inc.

Purpose

Project Objective The objective of the project is to mitigate loss of life and injury from earthquakes by detecting early stages of an earthquake, issuing alerts, and providing critical time for users to seek cover or exit a building.



Project cycle



PSR SCORE



- 0 - 1 Red Flag
- 1 - 2 Yellow Flag
- 2 - 4 Green Flag

LEARNINGS

1. Risk and Lessons

1.1. Risk

1.1.1. What do you think is the biggest risk that threatens the achievement of the project objectives?

Haiti's political situation is unstable. This may add delay to sensor installations as Digicel will need to visit sites outside of Port au Prince which has security risks at the moment. However, Digicel does have to do this regardless of the security situation and so we expect it will not be delayed much.

1.2. Greatest Achievement or Failure

1.2.1. What has been the greatest achievement or failure in the last semester that affected the implementation of the project?

The dashboard, server infrastructure and detection system has all been created and tested. This is now very robust and can be readily applied in Haiti or future countries.

1.3. Findings and Lessons

1.3.1. What are the most useful findings and lessons from this project that when taken into consideration could improve the execution and results of existing projects and the design of similar projects in the future? A finding describes an action, circumstance or decision that was critical in determining the positive or negative evolution of the project (for example, switching from the development of a blockchain platform to a web-based shared database reduced the cost and time devoted to implementing the traceability capabilities required by the project). A lesson is a concrete, actionable proposal based on a finding that, in similar circumstances, would facilitate problem solving, risk mitigation, and the achievement of results (for example, Develop guidelines and criteria to identify candidates that could benefit from the implementation of a blockchain platform, and assess during the design if the selected project satisfies the criteria before committing to develop one).

The greatest finding is working with very good local partners has made progress possible, even in a difficult place like Haiti. the greatest lesson is working with our suppliers as much time in advance to overcome logistical challenges with components for our devices. This has been exacerbated since the pandemic began, and we must allow for more time for shipping and assembly.

2. Scalability and replicability

2.1. Scalability Plan

2.1.1. Now that the Project is in the execution phase, have you developed any concrete plan or action that will allow it to reach a greater number of users/clients/beneficiaries (or broader environmental or resilience to climate change and natural disasters impacts) in the future?

Digicel is exploring using Cell Broadcast (https://en.wikipedia.org/wiki/Cell_Broadcast), a technology used in Japan's early-warning system, which will allow mass transmission to all Digicel cell users. This will greatly expand the beneficiaries in future earthquakes.

2.2. Costs and Partners to Scale

2.2.1. Now that the project is in the execution phase, do you know how much it costs to offer your product / service per user / client / beneficiary? Is this a factor that could affect reaching a greater number of users / clients / beneficiaries in the future? Has any public or private institution requested this information from you, looking for scaling or replicating the model / product / service?

This is not yet known as we haven't started reaching beneficiaries yet. Once we have the final number we can present the cost per beneficiary.

2.3. Facilitating or Hindering Factors

2.3.1. Has any of these factors affected the number of users/clients/beneficiaries (more/fewer) reached by the project compared to what was originally planned (or environmental or resilience to climate change and natural disasters impacts)?

[Other]

Others, Which?

Political situation in Haiti

2.4. Scalability Scope

2.4.1. How feasible it is that the organization could reach a number of users/clients/beneficiaries 5, 10 or 100 times the number originally planned in the project design, five years after the project ends?

[It could reach more than 100 times the number of users/clients/beneficiaries originally planned in the project design five years after its closure.]

2.4.2. How likely is the organization to reach that number five years after the project ends?

[Probable (more than 50% but less than 90% chance)]

2.5. IDB Group business relation

2.5.1. Has a business relation been created with another part of the IDB Group different from IDB Lab?

No

2.6. Replicability Partners

2.6.1. Are you aware of any other entity at a national or international level that has copied / replicated completely or partially the business model of the project? Did you collaborate in the process with that entity?

[Yes]

If Yes, Explain

Shakealert in USA and SASMEX in Mexico have also produced early-warning systems, but they are operated by the government which is why they took decades and 10s millions dollars to build.

2.7. Replicability Scope

2.7.1. Number of users / clients / beneficiaries reached by entities that have fully or partially replicated / copied the business model / products / services implemented with the support of the project?

[At least 10 times but less than 100 times the number of users / clients / beneficiaries planned in the original project design]

2.7.2. Have you experienced, in the last year, significant expansion (50% or more) of the reach of the business model of the project beyond what was expected in the original project design (due to increasing of the organizational size, operational scope or geographic spread)?

[No]

2.8. Sustainability

2.8.1. How do you think the project will continue once the IDB Lab financing ends? Examples: it has identified external financing sources to continue operating, it has reached the breakeven point through the sale of services and products, it has obtained the support of public institutions or the private sector, it will adjust the business model to remain viable (via franchises, etc.)

We will seek business opportunities around the sales of alarms in Haiti, and we will seek assistance from Digicel if this proves to be a service valued by its customers.

3. Implementation

3.1. Facilitating or Hindering Factors

3.1.1. What specific aspects have (positively or negatively) affected the implementation of the project the most?

[External shocks that affect the economy in general (natural disasters)]

Others, Which?

The security situation in Haiti.

3.1.2. Explain in detail how these factors that you identified have made the implementation of the project easier or more difficult

The security situation in Haiti has made travelling there more difficult, installing sensors more time consuming, and is a distraction for our partners such as Digicel.

3.2. Novel Technologies Factors

3.2.1. If the project makes use of novel technologies or methodologies, what factors have facilitated or hindered the implementation of the technological solution initially proposed by the project?

[Previous experience of the executing agency / client with the technology, Access to subject matter experts by executing agency/client, Public recognition of the innovation of the project, Data availability, Telecommunications network coverage]

4. Development Outcomes (Quantitative)

4.0 Has your project contributed to any of the following indicators in the last 12 months (last year)?

[4.6. Not contribute]

5. Development Outcomes (Qualitative)

5.1. Target population identified in the design

Is the target population that was identified in the design being reached by the project? Select the target population actually reached by the project that was originally identified in the project design.

[Poor/vulnerable/low income population, Child and young, Women, People with disabilities, Urban/periurban population, Rural population]

5.2. Population served NOT identified in the project design

5.2.1. Select if there are Groups that were NOT originally identified in the project design but are being reached in the execution phase?

[None]

5.3. Facilitating or Hindering Factors

5.3.1. Factors that have affected (facilitated or hindered) reaching these groups, or the resilience/environmental impacts, in the numbers/dimensions that the project had originally planned.

[Other]

Others

Organizing workshops outside Port au Prince with the security situation.

5.3.2. Explain in detail how these factors that you have identified have affected the ability of the project to reach the groups (achieve resilience/environmental impacts) in the numbers/dimensions originally expected

To date they have not affected our overall project goals as we will make up for these workshops with partners.

INDICATORS

 Overachieved  Achieved  Pending  In process  Overdue

C1: Implementation

Weight: 35%

Qualification: Unsatisfactory

0%

Indicators	Planned	Achieved	Status
I1 Delivery of sensor to Haiti	100 (2025-03-10)		
I2 % of which successfully installed and functioning	90 (2025-03-10)		
I3 Delivery of alarm devices	5 (2025-03-10)		
I4 % Of which successfully installed and functioning	100 (2025-03-10)		
I5 End to End Cloud system operational	1 (2023-09-10)		
I6 Engagement with local community to educate on system usage (number)	3 (2025-03-10)		

C2: Definition

Weight: 35%

Qualification: Satisfactory

50%

50%

Indicators	Planned	Achieved	Status
I1 Development of functional dashboard	1 (2023-09-10)	1 (2022-09-10)	
I4 Test timeliness of algorithm with existing Haitian data (Alert issued since initial sensor detection). Number = seconds	5 (2023-09-10)		
I2 Development of detection algorithm for Haiti	1 (2023-09-10)	1 (2022-09-10)	
I3 Test precision of algorithm with existing Haitian data (M4+ eq <100km)	95 (2023-09-10)		

C3: Knowledge and Dissemination

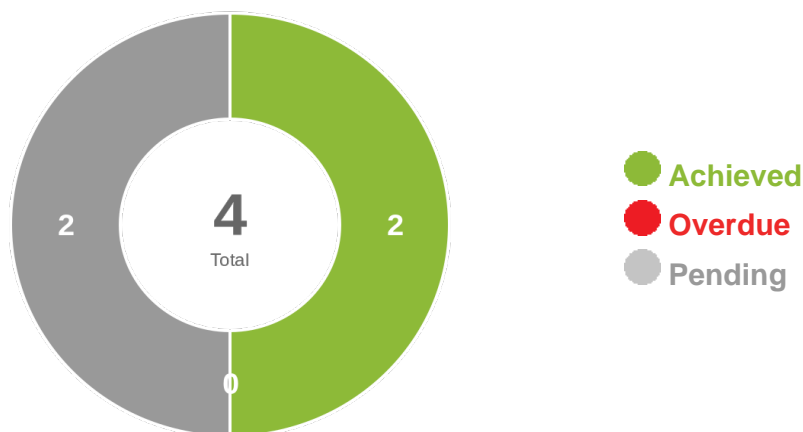
Weight: 30%

Qualification: Satisfactory

0%

Indicators	Planned	Achieved	Status
I1 Successful workshop with local community to receive feedback.	1 (2023-09-10)		
I2 Evaluation report on system performance	1 (2023-09-10)		
I3 Institutional and operational framework of management system	1 (2023-09-10)		

MILESTONES



Milestones	Achieved Value	Due Date	Achieved Date	Status
*Condiciones Previas / Prior Conditions	1	2022-09-10	2022-04-06	✓
*Development of EEW software	1	2022-12-31	2022-09-10	✓
*Deployment of sensors	90	2023-06-30		⋮
*Evaluation and Knowledge Dissemination	1	2023-12-31		⋮