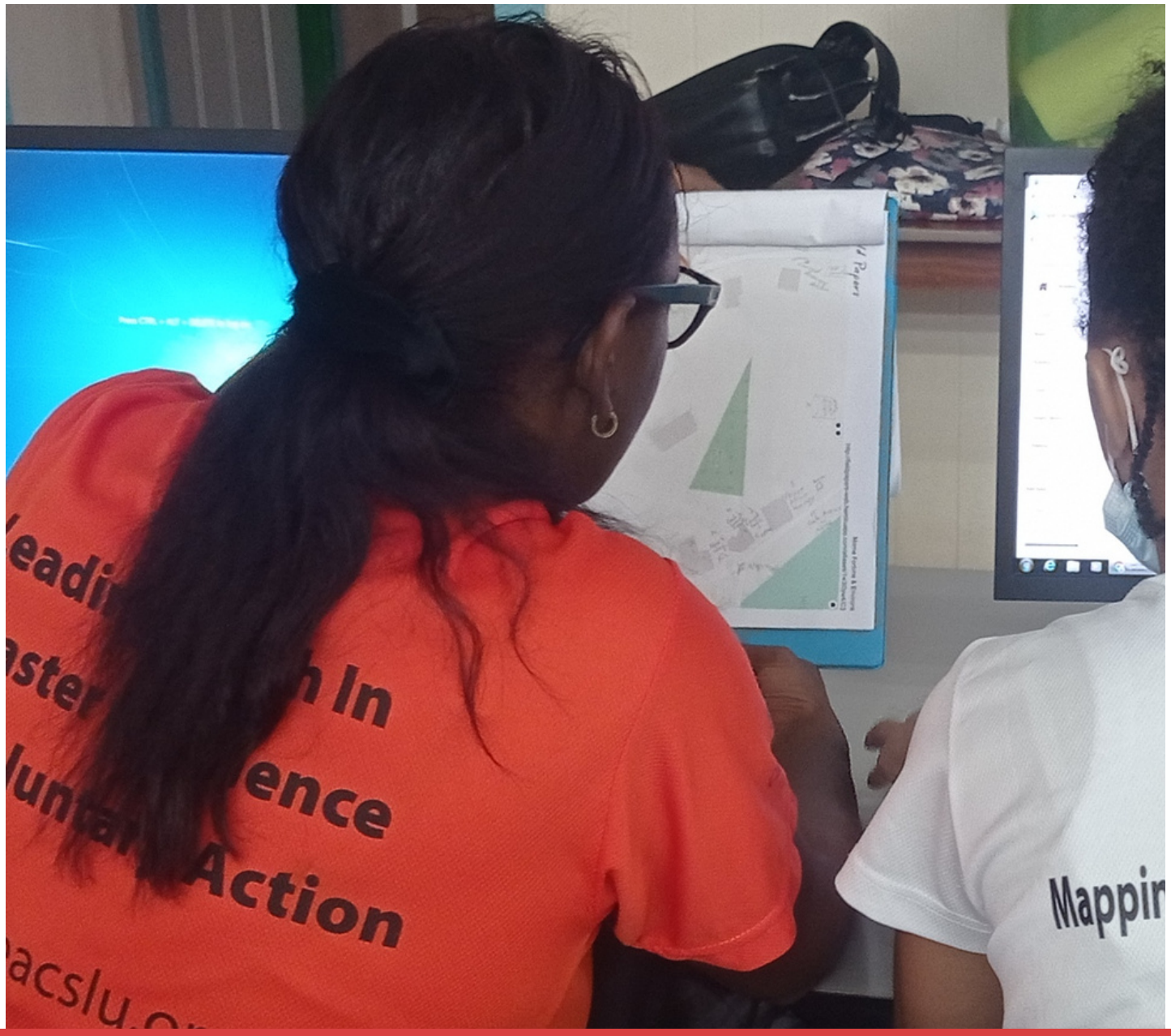
Humanitarian OpenStreetMap Team

IN COLLABORATION WITH HOT
Open Mapping Hub
LATIN AMERICA & THE CARIBBEAN



OPEN CITIES

Latin America and the Caribbean, Saint Lucia

IMPACT REPORT

Introduction

The Caribbean island of Saint Lucia is generally known for its natural beauty culture. However, in the backdrop of climate change and the island's inherent susceptibility to natural disasters, the livelihoods and environment is at increasing risk. Saint Lucia's vulnerability to these environmental threats has raised critical concerns regarding the resilience of its communities. In response to these challenges, we recognised the importance of the mapping of unplanned settlements for the island nation. It offers an opportunity for the country to mitigate the impacts of these hazards through the enhancement of the us of geospatial data. This project aims to provide a methodology for assessment of the island's unplanned settlements, serving as the foundation for well-informed policies and sustainable development strategies.

Project goals

1. To create and publish high-quality open spatial data to inform resilient urban planning that benefits the international risk-modeling community.

2. To improve local capacity and institutional development in order to support evidence-based urban resilience interventions.

3. To develop specific tools that support interested stakeholders in their use of disaster risk data for their cities.

4. To promote interaction and feedback mechanisms and consolidate regional networks through OpenStreetMap and open-source communities.

Development

The focus was on Open Data for Resilience and Risk Management, developing the digital map of Saint Lucia and stimulating the ecosystem required for the efficient use and management. This was achieved by collecting building data across Saint Lucia, while focusing mapping tasks and field mapping activities primarily on the flood-prone communities of Bexon, Castries and La Ressource, Vieux-Fort.

The workflow focused heavily on training, sharing and creation of tools and strengthening of local communities through participatory assessments. The aim was to ensure sustainability by empowering stakeholder agencies to enhance their decision-making, through better data access and to gain the ability to create, analyse and utilise open data as part of their decision systems and culture. The Project activities fell under four (4) phases as outlined below:

Phase 1: Evaluation and planning

A series of meetings were held with key local stakeholders (governments, disaster response agencies, global partners, private sector and civil society) to introduce the project, get buy-in and feedback.

A data assessment that highlighted the sparse amount and outdated geospatial data available was conducted.

Phase 2: Data collection and analysis

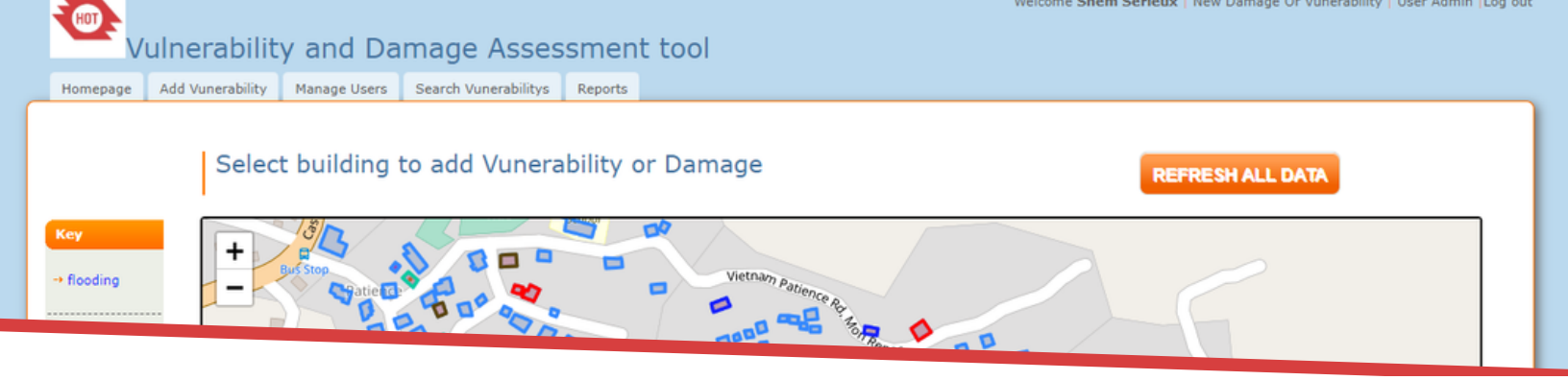
Several training events focused on basic mapping techniques for buildings and roads. This involved introduction to open mapping, remote and field mapping as well as validation. The development of an OpenStreetMap (OSM) chapter also was recognised as a need for kickstart.

Phase 3: Design

The design of a tool for this project to be used by emergency organizations (Including the Red Cross and the Youth Emergency Action Committee) as they conduct Damage Assessments and Needs Analysis.

Phase 4: Development and presentation

The Disaster Vulnerability and Impact Assessment Tool (DVAT) was developed based on the needs of disaster response agencies.The application uses OSM data so that users can add information to the households that disasters affect. It provides a visual representation reporting impact facilitated by the public GIS boundaries for settlements and districts. It serve as an updated and shareable database between disaster management personnel.



Outcomes

The DVAT tool is expected to improve response time and shareability across responder teams and agencies. Thus, it serves as a basis for more efficient collection and sharing of data on disasters within and between response agencies in Saint Lucia. This will improve planning of relief efforts; and shorten the time gap from event to rescue and/or relief. Upon strategising the hosting and sharing capabilities, agencies will have a unified platform to start building on their database at a national level.

Additionally, the project served and an introduction to OSM though a large capacity building drive. The OSM St lucia chapter has commenced the process of formalization, as well as coordinated with other islands to fulfill the vision of an Eastern Caribbean Regional OSM community.

The project involved 135 new participants (44% of whom were women), engaged with 3 public institutions. In addition, 11,159 buildings were mapped , impacting approximately 81,279 people.

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Tools/products interatives maps or portales developped

24,035

New features added on the map

381

km of roads mapped

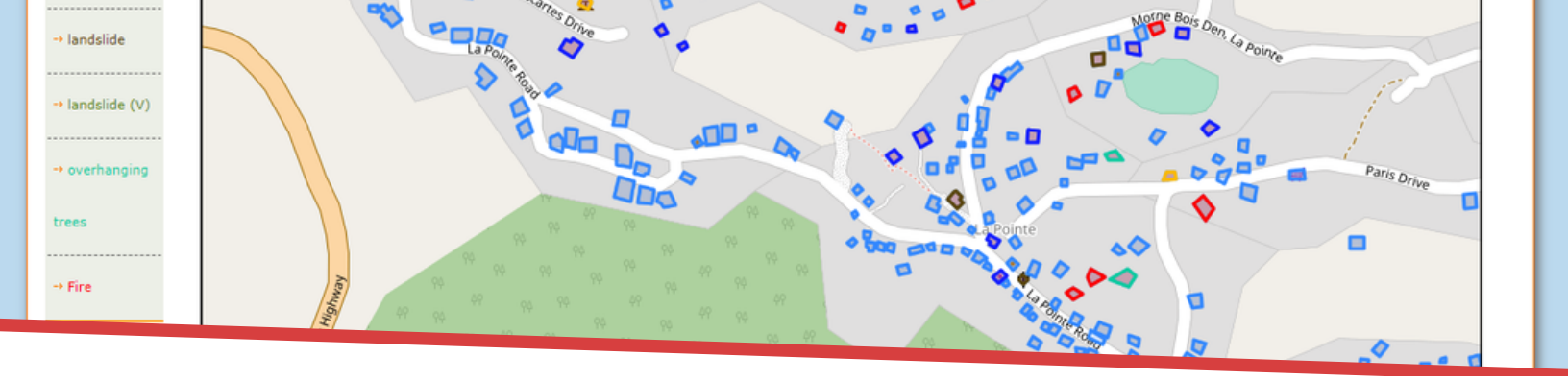
135

Trained Particiapants which 44 % were women

Project Platform

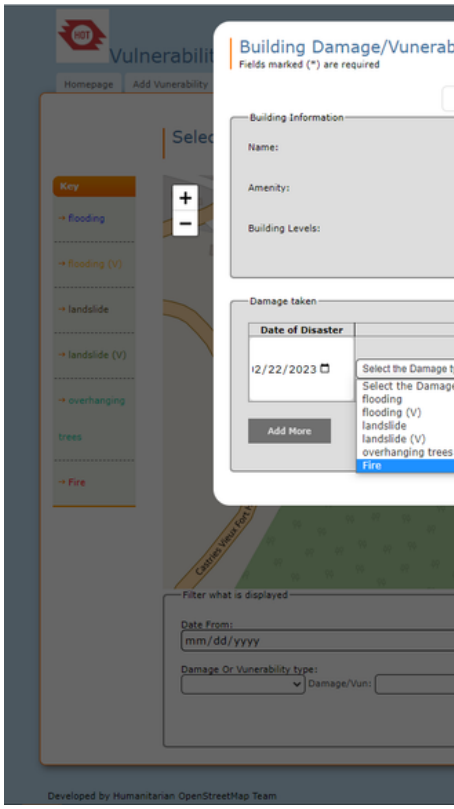
DVDAT utilizes the building data from OpenStreetMap and allows users to append details on the damage from an event onto the building. It also allows them to enter additional profile information on the use of and structure of the buildings. The tool pulls building data from OpenStreetmap.org. The app allows users to load all buildings within an area of interest ensuring real time OSM data acquisition.The DVDAT tool is web-based but not public facing. This allows only the registered organizations on the online application access to it through the relevant credentials.

The map interface gives a visual representation of the damage and gives an accurate picture of the damage caused by the event. It has color coordinated graph-like visuals providing a picture of the damage or vulnerability with a report generation feature. It also boast improved data storage, management and reporting related to disasters on a user-friendly interface.



Lessons learned

- Community building is an ongoing process and perhaps of equal importance to mapping. OpenStreetMap is a volunteer project and new mappers must be recruited to the project. In our experience, the nascent mapping community in Saint Lucia is motivated primarily by regular mapping events. The education institutions offer a solid path to growing the Saint Lucian mapping community.
- The development of data validators to the process was key in growing a cadre of mappers who can focus on ensuring that the quality of data meets threshold usability standards as outlined in the data schema.
- The DVDAT tool requires further efforts for integration into the relevant agencies. The hosting and data privacy protocols have to be discussed among the key uses for the best local adoption. As a database, hosting cost poses a challenge that again needs to be reviewed by key stakeholders for the greatest sustainability.



Sustainability plan

The Youth Emergency Action Committee (YEAC) has been identified as the pilot agency of the platform. A plan is proposed for DVDAT to be hosted via Amazon Web Services (AWS) for the initial year. Following this, YEAC is prepared to take responsibility of hosting. An agreement needs to be finalized between AWS and YEAC.

YEAC plans on utilising this product and in becoming a model agency, in coordination with the National Emergency Management Agency (NEMO) in the improved efficiency of responders. Joint activities in this regard can be facilitated through the existing HOT-YEAC MOU that could include training and other technology support.

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Youth Emergency Committee Saint Lucia

Saint Lucia Red Cross

Caritas Antilles

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