

# EFFUSIVE ERUPTION AT LA SOUFRIÈRE VOLCANO, ST. VINCENT

## SITUATION REPORT No. 3

AS OF 8:00 PM ON JANUARY 8, 2021

### Volcanic Activity Continues at La Soufrière, St. Vincent Alert Level Remains at Orange

#### LOCATION:

**La Soufrière Volcano, Saint Vincent and The Grenadines**

#### PRESENT ACTIVITY:

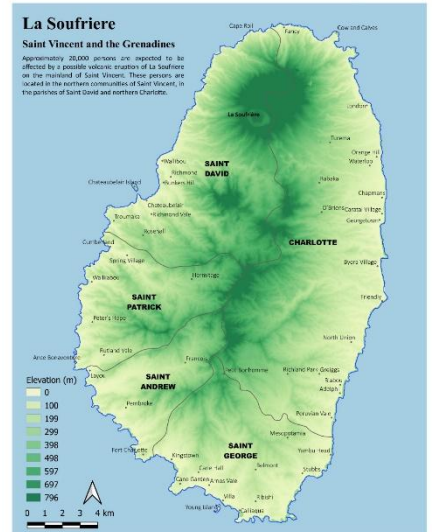
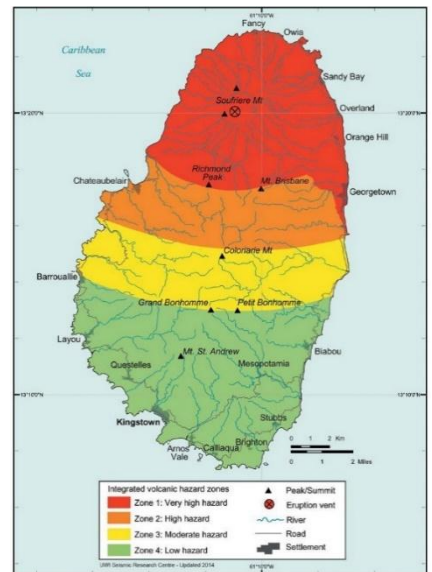
**Effusive eruption, ongoing fumarolic activity, formation of a new volcanic dome, evaporation of the crater lake and increased seismic activity**

**ALERT LEVEL: ORANGE**

#### SITUATION OVERVIEW

On 29<sup>th</sup> December 2020 the alert level for the La Soufrière volcano in St. Vincent and the Grenadines was elevated to **Orange** because of increased activity at the site. The volcano has had an effusive eruption, with visible gas and steam eruption and the formation of a new volcanic dome. The Volcano continues to exude magma on the surface and gas emissions can be observed from the Belmont Observatory. The small crater lake has almost evaporated, and the dome has grown. A UWI Seismic Research Centre team is currently in St. Vincent to support monitoring and data collection and analysis.

An Orange Level alert means that there is highly elevated seismicity or fumarolic activity, or both, or other highly unusual symptoms. Eruptions may occur with less than 24 hours notice. Monitoring systems are continuously manned and there is regular visual inspection of potential vent areas as well as continuous ground deformation and hydrothermal monitoring.



**No Evacuation Orders  
have been issued. Access to the  
volcano is strictly prohibited.**

## SITUATION cont'd

Strong, greyish-white gas emissions are visible from the satellite dome and are being seen above the general area of the crater. The small crater lake has almost completely dried up. NASA FIRMS satellite imagery continues to register a hotspot anomaly in the crater. Analysis of ground deformation data from the cGPS station at the Belmont Observatory (~9 km away from the volcano) shows no detectable deformation associated with the current magma extrusion in the dome.

The UWI SRC has advised that, based on the complex patterns of previous eruptions, it is too early to conclude that the current activity will remain a simple dome extrusion event. There is still a possibility of a shift to an explosive phase. A definitive prognosis on the current unrest episode cannot be provided until further data analysis is completed. The alert level remains at Orange as the volcano continues to exude magma on the surface. Steam can still be observed from the Belmont Observatory and the new dome also continues to increase in size.

Persons living in areas close to the volcano should expect strong sulphur smells for several days to weeks, depending on changes in wind direction.

Reports received from the Richmond Vale Academy indicated that exposure to the gases being released from the new dome is causing vegetation on the downward slopes of the volcano to become discoloured as a result of exposure.

A reconnaissance flight was conducted on January 6, 2021 with support provided by the French navy. Two possible sites were identified on the volcano for deployment of stations and possible helicopter landing sites.

Vincentian Geologist Prof. Richard Robertson, leader of the Team from the Seismic Research Centre, University of the West Indies, St. Augustine Campus (UWI-SRC) briefed Cabinet on the current status of the La Soufriere Volcano on Wednesday 6th January, 2021.



*Aerial Photos of La Soufriere, St. Vincent taken on 3<sup>rd</sup> January 2021.  
(Source: NEMO St. Vincent and the Grenadines  
<https://www.facebook.com/nemosvg/>)*

## Updates from Impacted CDEMA Participating State

The Caribbean Disaster Emergency Management Agency (CDEMA) has been in regular contact with the National Disaster Coordinator in St. Vincent and the Grenadines and the following was reported:



### ST. VINCENT AND THE GRENADINES

1. The National Emergency Management Organisation (NEMO) met with residents of Sandy Bay and surrounding communities on January 7, 2021 at Sandy Bay Government School to update residents on the present situation at the La Soufriere Volcano and to review the Community Volcano Emergency Plan.
2. On Saturday 9th January 2021, NEMO will meet with residents of Georgetown and surrounding areas at the Georgetown Secondary School at 3:00 p.m. to update residents on the present situation at the La Soufriere Volcano and to review the Community Volcano Emergency Plan.
3. The National Emergency Management Organisation is reminding the public that no evacuation order or notice has been issued.
4. NEMO continues to appeal to the public to desist from visiting the La Soufriere Volcano until the scientists advise that it is safe to do so.
5. NEMO will continue to provide regular updates on all activities taking place at La Soufriere.
6. NEMO continues to be in constant communication with the Seismic Research Centre of the University of the West Indies and the SRC scientific team on the ground, regarding activities at the La Soufriere volcano.
7. The Hon. Prime Minister and the Cabinet continue to receive briefings from NEMO and the Seismic Research Centre on the ongoing eruption.
8. The National Volcano Emergency Plan remains activated and the National Emergency Operations Centre (NEOC) partially activated.
9. NEMO will issue an official needs list where necessary upon consultation with the Government of St. Vincent.

## THREAT LEVELS

Below is a summary of the threat alert levels for the La Soufriere volcano:

**LA SOUFRIERE VOLCANO HAZARD ALERT LEVEL**

<b>Alert Level</b>	<b>Symptoms</b>	<b>Action Scientist</b>	<b>Action: Civil Authorities</b>
<b>Green</b>	Volcano is quiescent (quiet): seismic and fumarolic (steam vent) activities are at or below the historical level at this volcano. No other unusual activity has been observed.	Normal monitoring	Undertake ongoing public awareness campaign and work on volcanic emergency plans.
<b>Yellow</b>	Volcano is restless: seismic or fumarolic activity or both are above the historical level at this volcano or other unusual activity has been observed (this activity will be specified at the same time that the alert level is raised).	Monitoring system will be brought up to full capability. Civil authorities alerted.	Undertake ongoing public awareness campaigns and work on volcanic emergency plans. Advise vulnerable communities of evacuation procedures in the event of an emergency.
<b>Orange</b>	Highly elevated level of seismicity or fumarolic activity or both or other highly unusual symptoms. Eruptions may occur with less than 24 hours notice.	Monitoring system continuously manned. Regular visual inspection of potential vent areas. Continuous ground deformation and hydrothermal monitoring. Daily assessment reports to civil authorities.	Coordinate evacuation (if necessary) based on hazard zones. Entry to the restricted access zone by scientist will be permitted after evacuation on a case-by-case basis. Organize regular radio and television announcements.
<b>Red</b>	Eruption is in progress or may occur without further warning	Measurements as permitted by safety condition. Civil authorities advised continuously.	Coordinate continued evaluation as necessary. Organize regular radio and television announcements.

## **Caribbean Disaster Emergency Management Agency (CDEMA) Actions**

The CDEMA Coordinating Unit (CU) continues to operate in accordance with the standard operating procedures (SOPs) of the Regional Coordination Plan (RCP) which includes maintaining contact with the threatened states and Regional Response Mechanism (RRM) partners.

- I. The CDEMA Coordinating Unit has undertaken technical consultations with the UWI Seismic Research Centre on the status of La Soufriere volcano.
- II. The Regional Coordination Plan was activated at 6:00 PM December 29, 2020.
- III. The Regional Coordination Centre was activated at 9:30 AM December 30, 2020.
- IV. The CDEMA Coordinating Unit has also undertaken consultations with the National Disaster Coordinator of the Subregional Focal Point in Barbados which stands ready to provide support.
- V. In accordance with the Volcanic Annex of the RCP, the following Regional Response Mechanism (RRM) Teams have been placed on ALERT:
  - a) CARICOM Disaster Assessment and Coordination (CDAC)
  - b) CARICOM Operational Support Team (COST)
  - c) Rapid Needs Assessment Team (RNAT)
  - d) Caribbean Disaster Relief Unit (CDRU)
- VI. Emergency telecommunications tests between the CDEMA CU and St. Vincent are being undertaken.
- VII. The CDEMA Coordinating Unit will provide initial technical assistance to the National Emergency Management Organization in the following areas:
  - a) Evacuation Planning
  - b) Logistics Planning
- VIII. The CDEMA CU has secured a helicopter to assist the Government of St. Vincent and the Grenadines through the support of the UK FCDO to support the SRC scientists with observations of the volcano and transport of equipment for installation amongst other things.

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## **Caribbean Disaster Emergency Management Agency (CDEMA) Actions**

- IX. The Core-Coordination Group on Volcanic Hazards (CCG-VH) has been established as a thematic coordinating cell of the Regional Coordination Centre and had its first meeting on January 7 2021. The CCG-VH which comprises key representatives of political, scientific and technical institutions in the region has agreed to undertake the following:
- a) To work in support of the National Disaster Office of the threatened or impacted State under the scientific guidance of the UWI Seismic Research Centre or other designated scientific entity.
  - b) To provide guidance for the provision of regional and international assistance to affected populations, with a focus on preparedness actions to address possible effects/impacts of the volcanic hazard.
- X. The CU will continue to monitor the situation in collaboration with the UWI Seismic Research Centre, the St. Vincent and the Grenadines NEMO and the national disaster management offices of Participating States in close proximity to the volcano and will provide updates to the RRM partners as necessary.

The CDEMA CU urges all Participating States and members of the RRM to monitor the progress of this volcanic event. The public should continue to monitor the releases from their local national disaster management office.

## List of preparatory actions being undertaken by the RRM Partners



### LOGISTICS SUPPORT

- The Foreign Commonwealth and Development Office (FCDO) has pledged support to facilitate the procurement of helicopter services for a 7-day period, to aid the SRC team in transporting staff and equipment, conducting aerial investigations, photogrammetry and gas measurements, among other scientific requirements valued at £51,000.
- The Regional Security System (RSS) airplane has provided transportation support for the SRC team deployment to St. Vincent on 31<sup>st</sup> December 2020.
- The World Food Programme (WFP) preparedness and response mechanisms are on standby to assist, including logistical equipment, food kits and cash transfers.



### AGRICULTURE & FOOD SECURITY

- The UN Food and Agriculture Organisation (FAO) is supporting the Ministry of Agriculture in their plans for evacuation of livestock.



### SECURITY

- An RSS Warning Order has been issued to its Member States to standby for deployment if requested by the impacted State.

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## List of preparatory actions being undertaken by the RRM Partners cont'd

### GENERAL COORDINATION

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- The Core-Coordination Group on Volcanic Hazards (CCG-VH) was established as coordinating cell of the Regional Coordination Centre and had its first meeting on January 7 2021. The CCG-VH is providing technical support to Saint Vincent and the Grenadines through the following partnerships-
  - a. CDEMA (Chair)
  - b. National Disaster Organisation, St. Vincent and the Grenadines
  - c. CARICOM Implementation Agency for Crime and Security (IMPACS)
  - d. CARICOM Secretariat
  - e. Caribbean Public Health Agency (CARPHA)
  - f. Caribbean Institute for Meteorology and Hydrology (CIMH)
  - g. Organisation of Eastern Caribbean States (OECS) Commission
  - h. Regional Security System (RSS)
  - i. University of the West Indies (UWI) Seismic Research Unit (UWI SRC)
  - j. CDEMA Sub-Regional Focal Point (SRFP)
  - k. Earthquake Unit, University of the West Indies, Mona, Jamaica
  - l. Caribbean Alliance of National Psychological Associations (CANPA)
  - m. Montserrat Volcano Observatory (MVO)
  - n. Volcanological and Seismological Observatory, Martinique
  - o. Volcanological and Seismological Observatory, Guadeloupe



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## List of preparatory actions being undertaken by the RRM Partners cont'd

### GENERAL COORDINATION

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- The Caribbean Development Bank (CDB) has expressed its commitment to support the Government of SVG and CDEMA and is on standby to provide assistance as needed.
- The International Federation of Red Cross and Red Crescent Societies (IFRC) has been in contact with the St. Vincent Red Cross Society and is on standby to provide assistance as requested.
- UNDP has alerted its national focal points and is closely monitoring the situation.
- UNFPA has contacted its national focal points and is available to provide support in key areas including the prevention of gender-based violence in emergencies.
- USAID/DHS Disaster Risk Management Specialists are in contact with the National Disaster Coordinator in St. Vincent. They are also in contact with regional partners and on standby to provide assistance.
- The Caribbean Water And Wastewater Association (CWWA) indicated that its resources are available to provide support as needed
- The World Bank (WB) Group has been in contact with the ministry responsible for economic planning and is on standby to provide support as requested.
- FCO UK has been in contact with NEMO and identified the UK Commission in St. Vincent & the Grenadines as the contact for direct requests for assistance.
- The Government of Canada (GAC) is closely monitoring the developing situation. as needed.