Context

On 9 April 2021, La Soufrière volcano in Saint Vincent and the Grenadines erupted, with multiple explosions occurring over a period of several weeks, affecting most of the island’s population and displacing thousands due to the mandatory evacuation issued the day before. The farmers and local communities in critical areas – red and orange zones – have been hardly hit by the heavy ash fall and pyroclastic flows, especially in the towns closest to the volcano in the northern part of the island. Other vulnerable affected groups include female-headed households, pregnant women and girls, fisherfolks, people living with disabilities or HIV/AIDS, the lesbian, gay, bisexual, transgender, queer, intersex community, youths and children, and elderly people.

The effects of the disaster on the country’s main economic activities – agriculture and tourism – add to the already complex situation due to the largest wave of coronavirus disease 2019 in the country coupled with the worst outbreak of dengue fever in recent history in the region. Severe poverty was also already expected to increase from 2.9 to 11.9 percent due to the pandemic.

Reports show extensive damage and losses in critical areas. Forests and farms have been wiped out, along with the destruction of large areas of staple crops, such as bananas and plantain, and the loss of tools and productive assets. In addition, recent heavy rains have caused both flooding and lahar flows across various parts of the country. This has severely disrupted the livelihoods of vulnerable populations who depend on agriculture, livestock, fisheries and forestry for their subsistence.

Objective

Recover the livelihoods of the most vulnerable, affected farmers, livestock owners and fishers, while strengthening their resilience against multiple hazards and systemic risks, as well as complex emergencies affecting and threatening the entire food system.
Impact assessment

A detailed damage sectoral analysis for agriculture, health and water/sanitation was conducted as part of the Caribbean Regional Response Mechanism. The agriculture sector assessment was conducted by a multi-disciplinary team from the Ministry of Agriculture, the Inter-American Institute for Cooperation on Agriculture (IICA), the Caribbean Agricultural Research and Development Institute (CARDI) and the Food and Agriculture Organization of the United Nations (FAO). A complementary rapid satellite-based assessment of impacts on croplands and infrastructure was also conducted by FAO’s Geospatial Unit.

The agriculture sector (crops, livestock, fisheries and forestry) suffered significant damage and loss which were estimated at USD 52.7 million, of which USD 43 million for crops. The red and orange zones constitute an estimated 40 percent of the country’s agricultural production. The extent of the damage from ashes ranges from 7 percent in the green zone to 100 percent in the red zone. Agriculture infrastructure also suffered extensive damage (assessment ongoing), including research and demonstration farms, laboratory buildings, greenhouses, crop multiplication centres, processing facilities, feeder roads, etc. The agriculture sector was already significantly impacted the effects of the pandemic. The lockdowns in Trinidad and Tobago and Barbados – the main regional markets for agricultural produce from Saint Vincent and the Grenadines – resulted in disruptions to the supply chains and reduced demand for commodities, further affecting a market already depressed due to the collapse of tourism and the depreciation of the local currency.

Furthermore, there was significant loss of pastures in the red and orange zones. Some privately-owned livestock were let loose following advice from the Ministry given the nature of the emergency. Trees within the upper portions of the watersheds in the red and orange zones also sustained significant damage, while impacts to the fisheries sector include damages to boats, engines, gear and infrastructure.

The figures linked to damages and loss are expected to increase as additional data is collected, especially from previously inaccessible areas.
Ongoing response

FAO is currently implementing various activities aimed at protecting livestock-based livelihoods through the Anticipatory Action window of FAO’s Special Fund for Emergency and Rehabilitation Activities, in close coordination with the Government’s response. The ongoing activities are in line with the Volcano Eruption Preparedness and Emergency Response Protocols for Agriculture that FAO helped the Government to develop through a multi-step consultation process from January to February 2021. In addition, FAO’s requirements and response fall within the framework of the UN Funding Appeal for Saint Vincent and the Grenadines issued by the United Nations in Barbados and the Eastern Caribbean to provide immediate assistance to save lives and support the livelihoods of the most vulnerable, affected people, as well as strengthen coordination, planning and delivery of food security interventions.

Hazard specific structures and shelters are being put in place to protect about 700 livestock in identified safe sites. These include the retro-fitting or upgrading of existing government-owned livestock shelters; the design and construction of modular, multi-use livestock emergency shelters; and the retro-fitting or upgrading of selected privately-owned shelters.

Anticipatory actions are also being implemented to protect the nutritional status of about 2,000 livestock evacuated to safe sites. These include support to the procurement of feed and forage; the provision of water tanks and water distribution tools; and support for the construction of small-scale, low-cost livestock forage and feed storage/silos.

Other anticipatory actions are undertaken to ensure animal health, such as technical support for the implementation of livestock emergency and environmental animal health measures, the procurement of veterinary supplies, and support to improve the traceability and recording of animals during emergency activities.

Targeted livestock include small ruminants and swine. FAO is closely coordinating its response with the Ministry of Agriculture to ensure that the various activities adapt to the evolving conditions on the ground, and is prioritizing evacuated government-owned animals which are critical sources of breed stock for livestock farmers in the country.

Prior to the explosive eruptions, FAO had already distributed water tanks (volume of over 37,850 litres) to be used in the livestock evacuation centres as part of the anticipatory action, preparedness and response planning support provided to the Ministry of Agriculture.

Planned recovery and rehabilitation activities

Given the dynamic nature of the explosive eruption, the multiple primary and secondary volcanic hazards that can interact with other risks (e.g. volcanic ash deposits and debris combined with heavy rainfall can turn into lahar well after the eruptive phase) and the upcoming 2021 Atlantic hurricane season, urgent assistance is needed to recover the livelihoods of the most affected farmers, livestock keepers and fishers while strengthening their resilience against multiple shocks.

FAO’s recovery and rehabilitation activities are aligned with the UN Funding Appeal for Saint Vincent and the Grenadines and affected neighbouring countries.
Livestock
- Provide hazard-specific structures and shelters to protect livestock (small ruminants and swine).
- Recover, maintain and improve the nutritional and health status of livestock, including in view of the upcoming 2021 Atlantic hurricane season.
- Facilitate access to good quality breed stock and livestock restocking.
- Rehabilitate livestock pens/shelters.
- Rehabilitate land and support forage production.
- Replace/repair livestock production tools and equipment.

Crops
- Provision of seeds and fertilizers for nutrient-rich short-cycle cash crop production along with the implementation of cash-based interventions for the construction of vegetable gardens.
- Clear and plough at least 1,215 ha of farmland covered with volcanic ash and debris; rehabilitate soil; and provide fertilizers.
- Rehabilitate farmland (soil, drainage, irrigation canals, etc.).
- Facilitate access to quality planting materials and other inputs to resume crop production.
- Replace/repair damaged farming tools, equipment and infrastructure.
- Rehabilitate communal agriculture infrastructure (irrigation canals, pump houses, greenhouses and seeds silos, and post-harvest processing hubs) and increase access to income-generating opportunities (including for youths).

Forestry
- Support in-depth impact assessments and rehabilitation planning.

Fisheries
- Support to the restoration of selected fisheries-based livelihoods activities through in-kind and cash-based interventions, including processing activities benefiting women.
- Carry out impact assessment and rehabilitate mangroves, seagrass beds and coral reefs affected by the fall of ashes and pyroclastic density currents.
- Repair/replace fishing gears and tools.
- Rehabilitate damaged fisheries support infrastructure, such as fish landing sites, jetties, ice plants and post-harvest/processing centres.

Partnerships
FAO’s response has been implemented in a complementary and coordinated manner in collaboration with the Ministry of Agriculture and other United Nations agencies, as well as IICA and CARDI. In addition, FAO is a member of the Food Security, Livelihoods and Cash Working Group and is currently in discussion with the World Food Programme for the implementation of recovery and rehabilitation activities.

Furthermore, FAO is working with the Ministry of Agriculture, the Caribbean Development Bank and other partners on the Community Profile and Livelihood Baseline Assessments covering the majority of the most affected communities. These documents are expected to provide extensive complementary information needed for recovery and rehabilitation planning and implementation.

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