DREF Final Report

Costa Rica: Volcanic Ash

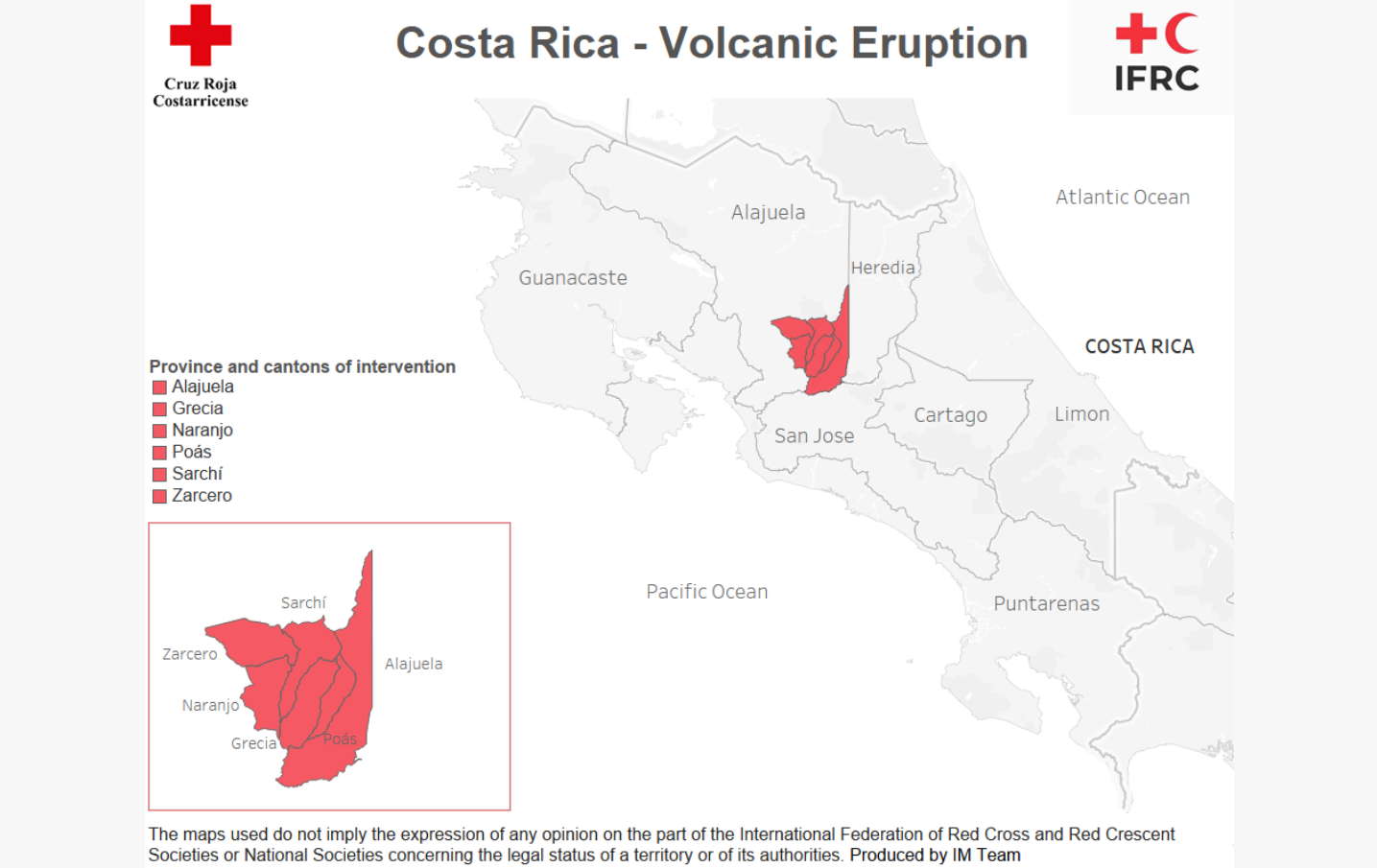
Health fair where practical measures for dealing with volcanic ash were shared, along with the distribution of face masks. Alajuela, July 2024. Source: CRCR.

Appeal: **MDRCR025**	Total DREF Allocation: **CHF 149,498**	Crisis Category: Yellow	Hazard: **Volcanic Eruption**
Glide Number: -	People Affected: **518,948 people**	People Targeted: **11,850 people**	People Assisted: **14,164 people**
Event Onset: **Slow**	Operation Start Date: **14-05-2024**	Operational End Date: **31-08-2024**	Total Operating Timeframe: **3 months**

Targeted Areas: **Alajuela**

The major donors and partners of the IFRC-DREF include the Red Cross Societies and governments of Australia, Austria, Belgium, Britain, China, Czech, Canada, Denmark, German, Ireland, Italy, Japan, Luxembourg, Liechtenstein, Malta, Norway, Spain, Sweden, Switzerland, Thailand, and the Netherlands, as well as DG ECHO, Mondelez Foundation, and other corporate and private donors. The IFRC, on behalf of the National Society, would like to extend thanks to all for their generous contributions.

Description of the Event



Province and cantons most affected and area of intervention with the IFRC-DREF. Source: IFRC.

Approximate date of impact

A dormant or active volcano generated eruptions and landslides unpredictably, often without early precursory signals detectable in advance in real time.

The inherent unpredictability of volcanic activity meant that precise predictions of the date of impact remained elusive. Instead, efforts focused on providing early warnings, closely monitoring volcanic activity, and implementing effective risk management strategies to minimize the impacts of eruptions on human lives and property.

Provide any updates in the situation since the field report and explain what is expected to happen.

Volcanologists from the Costa Rican Volcanological and Seismological Observatory (OVSICORI) indicated that the current activity pattern of the Poás Volcano was similar to that observed in 2019, when the drying of the volcano's lagoon caused rock fracturing and subsequent ash emissions. Although the volcano's behavior did not change significantly, ash emissions continued.

On 1 April 2024, the National Emergency Commission (CNE) declared a Green Alert for Poás Volcano, affecting Poás, Grecia, Naranjo, Sarchí, Zarcero, and the central canton of Alajuela due to continuous ashfall and gas emissions since 29 March. An estimated 518,948 residents in these cantons were at risk (1).

On 3 April, representatives from various institutions, including the CNE and the Ministry of Environment and Energy (MINAE), met to discuss the situation. The CNE noted that wind and low atmospheric humidity also contributed to the dispersal of materials expelled by the active volcano directly into the atmosphere, reaching more distant areas and affecting nearby communities (2).

The Ministers of Environment and Energy, and of Agriculture and Livestock, reiterated the safety protocols in the park and preventive measures to protect the population and farmers in the area. The president of the CNE emphasized the importance of continuous

monitoring of the volcano and inter-institutional coordination to ensure the safety of residents and visitors in the affected areas.

On 4 April, OVSICORI reported incandescence in the volcano's crater and an ash column that rose at least 300 meters high (3).

Between 24 and 30 April, according to the latest weekly report by the Smithsonian Institution and the US Geological Survey, OVSICORI-UNA reported continued gas-and-steam emissions from vents Boca A and Boca C on the crater floor of Poás. Although emissions from Boca C occasionally contained low ash content, no ash was detected between 25 and 27 April. Plumes intensified on 28 April, rising several hundred meters high. A sulfur odor was reported in Sarchí and Grecia (both about 17 km SW) on 25 April. Incandescence from Boca A was visible at night on 27 and 28 April, and from both Boca A and Boca C at night on 29 and 30 April (4).

According to the latest Situation Update issued on 26 April by OVSICORI, although there seemed to be a decreasing trend in seismic activity and degassing, which was also reflected in eruptive activity, it was important to consider that the conduit remained open, and there was a possibility of a sudden increase in volcanic activity due to potential variations in the volcanic system. Such changes could lead to unpredictable phreatic eruptions, projecting acidic and ballistic sediments toward El Mirador for visitors and other surrounding areas. Furthermore, with the onset of the rainy season, acid rain was a potential risk (5).

Authorities continued to monitor the situation. At the same time, the Costa Rican Red Cross began collaborating with authorities to ensure safe access during monitoring visits.

Information booth and distribution of masks at a health fair. July 2024. Source: CRRC

Distribution of masks and dissemination of key prevention messages door-to-door. July 2024. Source: CRRC

Informative session for children on preventive measures against volcanic ash. June 2024. Source: CRRC

Scope and Scale

According to Costa Rica national census data and demographic information available to the Costa Rican Red Cross, it was estimated that approximately 518,948 people in the cantons of Alajuela, Poás, Grecia, Naranjo, Sarchí, and Zarcero, which were under the Green Alert issued by the National Commission for Risk Prevention and Emergency Attention (CNE), were at risk.

The cantons of Grecia, Poás, and Sarchí reported adverse health impacts among residents of highland areas attributed to volcanic activity at the time. According to the Costa Rica Volcanological and Seismological Observatory (OVSICORI), residents of communities such as Sucre de San Carlos, Zarcero, Naranjo, Grecia, Sabana Redonda, San Pedro de Poás, as well as Monte de la Cruz, San Rafael, and San Isidro de Heredia, experienced adverse health symptoms. These included headaches, nausea, irritation of the mucous membranes in the eyes, nose, mouth, and skin, as well as nosebleeds. These symptoms were likely related to exposure to volcanic gases and particles emitted during tremor events—a phenomenon involving the intense expulsion of vapors, gases, aerosols, water, and sediments through narrow passages, producing a loud noise at fumarolic vents.

Volcanic ashfall also posed a significant threat to the daily lives and livelihoods of people in affected areas. Ash could contaminate crops—the main source of income for many families—reducing yields and affecting the local economy. It could also pollute water sources, decreasing agricultural income and complicating access to drinking water. Furthermore, ash accumulation on infrastructure such as homes and roads increased the risk of structural damage and accidents, compromising mobility and safety. Ash particles could also cause respiratory and eye health issues, increasing the demand for medical services.

Source Information

Source Name	Source Link
1. Smithsonian institution - Weekly Report: 24 April-30 April 2024	https://volcano.si.edu/volcano.cfm?vn=345040

2. CNE - Alert issued for ash fall and gas emissions from Poas Volcano	https://www.teletica.com/sucesos/cne-emite-alerta-por-caida-de-ceniza-y-emanacion-de-gases-del-volcan-poas_355552
3. CNE - Declaration of green alert for volcanic ash	https://twitter.com/CNECostaRica/status/1774872156947542435
4. CNE - Institutions take measures in view of volcanic activity of Poás volcano	https://cne.go.cr/noticias/Instituciones%20toman%20medidas%20ante%20actividad%20volcanica%20del%20Volcan%20Poas.aspx
5. OVSICORI - Report of incandescence in the crater of Poas volcano	https://www.facebook.com/OVSICORI/videos/2763614147123173/

National Society Actions

Have the National Society conducted any intervention additionally to those part of this DREF Operation?	No
Please provide a brief description of those additional activities	-

IFRC Network Actions Related To The Current Event

Secretariat	The Central America Country Cluster Delegation (Disaster Management, PMER, Finance, Health, CEA, PGI, etc.) and the IFRC Regional Office DREF focal point provided close support in the formulation, implementation, and closure of this IFRC-DREF. Additionally, they offered essential technical guidance to ensure that the entire process met the required standards and expectations.
Participating National Societies	Throughout the entire process of this IFRC-DREF, no support was received from any PNS, considering that there is no PNS physically present in the country.

ICRC Actions Related To The Current Event

Throughout the entire process of this IFRC-DREF, no support was received from the ICRC, considering that there is no ICRC representation in the country.

Other Actors Actions Related To The Current Event

Government has requested international assistance	No
National authorities	The Ministry of Health issued an alert to residents near the Poás Volcano regarding ashfall and its potential adverse health effects. It urged those experiencing symptoms such as nasal irritation and congestion, coughing, difficulty breathing, sore or irritated throat, red or burning eyes, conjunctivitis, skin irritation, or gastric symptoms to seek immediate medical attention at the nearest health center. The Ministry closely monitored the situation and worked in coordination with municipal emergency committees to safeguard the health of the affected population.

	Additionally, representatives from the National Commission for Risk Prevention and Emergency Attention (CNE), the Ministry of Environment and Energy (MINAE), the Ministry of Agriculture and Livestock (MAG), the Ministry of Health, and other technical-scientific institutions convened to implement preventive measures in response to the continuous emissions of gases and ash from the Poás Volcano. Key measures included advising residents to seek medical attention if they experienced symptoms such as nasal irritation and congestion, coughing, difficulty breathing, sore or irritated throat, redness, burning eyes, conjunctivitis, skin irritation, or gastric discomfort. Preventive recommendations to minimize exposure to volcanic ash included avoiding unnecessary outdoor activities, using respiratory protection such as face masks or surgical masks in affected areas (or temporarily using a damp cloth mask if no other option was available), keeping windows and doors closed, placing damp cloths on thresholds and air inlets, wetting ash to reduce dust, protecting electronic equipment, and staying informed through official sources.
UN or other actors	Throughout the entire implementation of the IFRC-DREF, no internal alerts were activated, nor were any statements issued.

Needs (Gaps) Identified

Health

Volcanic ashfall posed numerous risks to public health. Among the most common effects associated with volcanic ash were traumatic injuries and burns, respiratory issues due to the inhalation of particles, skin and eye irritations, and, in extreme cases, potentially fatal asphyxiation. Additionally, ash could contaminate food, affecting both humans and domestic or farm animals, highlighting the importance of ensuring the availability of clean food supplies.

Basic services such as transportation and communications could also be disrupted, complicating access to and the effectiveness of health services, including the provision of essential medical care. The weight of the ash could cause building roofs to collapse, creating additional risks during the cleanup phase following ash emissions.

Children, the elderly, and those with pre-existing respiratory conditions were particularly vulnerable groups, as they could be disproportionately affected by the ash, experiencing increased coughing and irritation of the throat and larynx. Eye irritation and skin problems, though less common, were serious concerns, especially when the ash was acidic. These conditions required a rapid response, including the provision of medications, treatments, and personal protective equipment such as masks and goggles.

Furthermore, the psychological impact of these eruptions also required special attention. Both healthcare workers and the general population could experience negative effects such as stress, anxiety, depression, fatigue, headaches, gastrointestinal disorders, and changes in sleep patterns and appetite.

Water, Sanitation And Hygiene

Volcanic activity could generate a range of significant needs related to the provision of Water, Sanitation, and Hygiene (WASH) services, affecting the quality and availability of essential water resources and complicating the implementation of adequate hygiene practices. Volcanic ash, when entering surface and groundwater bodies, could introduce particles and compounds that significantly altered water quality. This included changes in turbidity, pH, and concentrations of chemical elements, some of which could be toxic at high concentrations.

An increase in water turbidity caused by the presence of ash particles could hinder water treatment processes, affecting both filtration and effective disinfection. Additionally, the acidity and soluble salts in ash particles could alter the water's pH and increase the concentration of metals and other elements. These changes largely depended on the amount of deposited ash, which was related to the type and duration of volcanic ash emanation.

In areas affected by continuous or recurrent volcanic activity, these problems could become chronic, requiring constant monitoring and

control of water quality. Water and sanitation infrastructure, including municipal aqueducts, could suffer significant damage, reducing access to safe drinking water and impacting the ability of communities to maintain basic hygiene practices, which is crucial for controlling the spread of diseases.

Protection, Gender And Inclusion

Volcanic ash could cause a series of health problems, including respiratory issues and eye and skin irritations, which required specialized attention for certain demographic groups during the emergency. In this context, it became necessary to recognize and address the needs of vulnerable groups within a framework of Rights Protection and Safeguarding the life and dignity of individuals. The lack of preparation and specific knowledge on how to act appropriately in the face of imminent risks exposed several groups to significant vulnerabilities.

Among the most affected populations were unaccompanied or separated children, who were not only exposed to the direct physical danger of ash but also to the risk of exploitation or abuse. Women and girls were particularly vulnerable to the risk of gender-based violence, including sexual violence, which tends to increase in emergency situations, especially in contexts such as temporary shelters activated during crises.

The elderly and persons with disabilities also required specialized attention, as their physical and medical needs might not have been fully met in emergency shelters or during evacuation. These individuals could face additional barriers to accessing the information and resources necessary to adequately protect themselves from the effects of ash.

In addition, migrants could be at a disadvantage due to linguistic and cultural barriers that limited their access to crucial information and emergency services. Effective coordination and communication between authorities and these communities became fundamental to ensure that all those affected understood the risks and protective measures.

Emergency response personnel also faced challenges, including a lack of specific training in the framework of Protection, Gender, and Inclusion (PGI). It was essential for these teams to be well-informed and equipped to carry out effective protection actions, identify and manage protection cases, and activate care pathways with authorities for the restoration of rights. These actions needed to be designed to minimize exposure to harm or abuse, mitigate impacts that limited access to rights, and avoid re-victimization.

Community Engagement And Accountability

The management of emergencies resulting from volcanic ash fall evidences significant needs in terms of community participation. Often, affected communities are not sufficiently involved in the planning and response process, which can result in strategies that are not fully aligned with their specific needs and local contexts. This lack of participation can diminish the effectiveness of interventions and erode trust in the authorities and organizations in charge of managing the emergency. In addition, there is insufficient communication mechanisms between emergency managers and communities, making it difficult for affected people to access crucial information and voice their concerns.

Another latent need is the lack of accurate and timely information. This lack of information not only prevents communities from fully understanding the risks and necessary protective measures, but also encourages the proliferation of rumors and misinformation. During volcanic ash events, rumors can generate unnecessary panic and risky behavior among the population. Without effective communication channels that provide clear and verified data, affected people may resort to unofficial or unreliable sources, exacerbating confusion and fear.

Operational Strategy

Overall objective of the operation

Through this IFRC-DREF operation, the Costa Rican Red Cross aimed to contribute to the implementation of anticipatory actions to assist at least 11,850 people in the most vulnerable communities from six cantons of Alajuela at risk due to ash eruptions from the Poás Volcano. This was achieved through the implementation of activities under Health, Water, Sanitation, and Hygiene (WASH), Protection, Gender and Inclusion (PGI), and Community Engagement and Accountability (CEA).

At the conclusion of the operation, a total of 14,164 people were reached through the implementation of the proposed actions in health, CEA, and PGI.

Operation strategy rationale

The operational strategy for this IFRC-DREF was based on the need to support the implementation of anticipatory actions in response to the ashfall from the Poás Volcano, which had been placed under a green alert by the National Emergency Commission (CNE). The strategy relied on official data from the CNE, the Costa Rican Volcanological and Seismological Observatory (OVSICORI), and the Ministry of Health, supplemented by information gathered through field assessments conducted by the Costa Rican Red Cross committees and collaborative meetings with the Municipal Emergency Committees (CME).

It is important to note that the Costa Rican Red Cross had an Early Action Plan (EAP) for volcanic ash in place. However, since this modality is designed for extreme events, the required triggers for its activation were not reached. For this reason, the National Society launched this imminent IFRC-DREF operation with similar triggers to the EAP but at lower thresholds, aiming to mitigate the potential impact of volcanic ash in at-risk communities.

Acknowledging the broad impact of volcanic ash on public health and safety, the National Society's strategy prioritized four key sectors: Health, Water, Sanitation and Hygiene (WASH), Protection, Gender and Inclusion (PGI), and Community Engagement and Accountability (CEA). This prioritization ensured a comprehensive and effective intervention that addressed immediate health and WASH concerns while also strengthening resilience and inclusion within the most affected communities.

Early Actions Phase 1 (Associated with Trigger 1)
During this phase, the National Society implemented the following actions:

Health Sector:
Personal protective equipment was procured and distributed. Community health fairs were organized to disseminate essential information and resources to address health risks related to ash exposure. These efforts were complemented by educational talks in schools within the most affected communities to raise awareness and prepare children, adolescents, and youth. Additionally, talks were provided to staff and volunteers on the effects of volcanic ash and practical prevention measures.

Protection, Gender and Inclusion (PGI) Sector:
Informative sessions were conducted for staff and volunteers on PGI minimum standards, focusing on community-based safeguarding principles, including how to identify and respond to potential cases of abuse or exploitation in the volcanic ash context. Safe spaces for children were created during the activities, and their inclusion in the distribution of personal protective equipment was ensured.

Community Engagement and Accountability (CEA) Sector:
A rapid, comprehensive CEA strategy was developed to address community needs during emergencies. Staff and volunteers were trained on the CEA approach, tailored to the volcanic ash emergency context, ensuring that affected communities actively participated in prevention efforts in addition to receiving assistance.

As part of the preparedness phase, the Costa Rican Red Cross issued a preventive institutional alert at Response Level 3, aligned with the National Emergency and Disaster Response Plan. Monitoring and prevention protocols were established, and support was provided to ensure safe access for volcanologists to the volcano area, facilitating periodic on-site assessments. Auxiliary Committees in the Alajuela region collaborated with the CMEs to coordinate and communicate initial actions. Educational talks were conducted in schools and communities to share necessary health measures against the effects of volcanic ash. Additionally, as part of a communication campaign developed under the EAP framework for volcanic ash, key messages promoting practical preventive measures were disseminated on social media.

Early Actions Phase 2 (Associated with Trigger 2)
During this phase, the National Society had planned to implement the following actions, which were not carried out as Trigger 2 was not activated:

WASH Sector:
Distribution of water storage containers and household cleaning kits. These supplies were intended for families most in need, prioritized based on demand and urgency in each region.

The IFRC-DREF supported the strengthening of the National Society by covering essential costs such as telephone and internet communications, financial expenses, and visibility materials, including banners and posters. Thermal protective equipment for volunteers and staff was also provided. Furthermore, a lessons learned workshop was held at the conclusion of the operation. A project technician and an administrative assistant were hired to directly support the management and implementation of the operation.

The Costa Rican Red Cross maintained accountability through continuous monitoring, both virtual and in the field, using mechanisms already established within the National Society. Field visits were conducted by Headquarters authorities and IFRC representatives. Regular meetings with the IFRC Central America Cluster team ensured real-time monitoring and the resolution of challenges,

guaranteeing an effective response aligned with emerging needs.

An evaluation and follow-up protocol was established to address changes in alert levels issued by the CNE. If the green alert was withdrawn without being escalated to a higher level, the National Society conducted an internal evaluation to determine whether to continue early actions or conclude them. This decision was based on internal assessments, situation analysis, and collected data, as well as monitoring and evaluations carried out at the community level.

Targeting Strategy

Who was targeted by this operation?

The Costa Rican Red Cross planned to assist 11,850 people residing in the province of Alajuela, specifically in the six cantons of Poás, Grecia, Naranjo, Sarchí, Zarcero, and the central canton. These areas were under a green alert issued by the National Emergency Commission (CNE) due to volcanic ash activity.

Explain the selection criteria for the targeted population

The Costa Rican Red Cross defined two fundamental criteria to determine the targeted population:

Criterion 1: Geographic – It focused on people residing in the cantons of the province of Alajuela that were under a green alert, as established by the National Emergency Commission (CNE).

Criterion 2: Most affected communities according to case attention – Based on the conclusions of meetings held by the branches of the National Society operating in the affected cantons, in collaboration with the Municipal Emergency Committees (CME), people residing in the most impacted communities were identified, taking into account the increase in reported cases. This included students from educational centers located in these communities.

Additionally, through continuous updates from the Auxiliary Committees, the CME, and the Community Engagement and Accountability (CEA) mechanisms, other vulnerable people requiring assistance were identified.

Total Targeted Population

Women	3,525	Rural	70%
Girls (under 18)	2,400	Urban	30%
Men	3,525	People with disabilities (estimated)	0%
Boys (under 18)	2,400		
Total targeted population	11,850		

Risk and Security Considerations

Please indicate about potential operation risk for this operations and mitigation actions

Risk	Mitigation action
Delay in the distribution of Personal Protective Equipment (PPE).	a) Establish PPE stocks at strategic points prior to the eruption and hurricane season to ensure rapid distribution when the alert is activated. b) Coordinate with local suppliers to ensure the availability and rapid access to additional PPE in case of need. c) Implement logistics systems that allow for the efficient tracking and distribution of these materials to all affected areas, ensuring

	that personnel, volunteers and affected communities have immediate access to adequate protection.
Activation of the Ash Early Action Plan (EAP) in communities not included in the initial intervention.	a) Develop and maintain a robust contingency plan that includes sufficient human and material resources to simultaneously manage multiple operations. This should include protocols for rapid mobilization of additional personnel and support logistics.
Combination of heavy rains and volcanic ash can increase the risk of landslides and lahars (volcanic mudflows).	a) Strengthen early warning systems to monitor both volcanic and meteorological activity. b) Prepare and implement evacuation plans that consider the possibility of lahars.
Limited access to affected communities.	a) Coordinate with local and national authorities to ensure cleaning and maintenance of highways and roads. b) Prepare alternative routes and means of transportation for delivery of supplies and evacuation if necessary. c) Establish emergency supply warehouses at strategic points to facilitate quick and efficient access.

Please indicate any security and safety concerns for this operation

No additional security elements were foreseen. At all times, personnel and volunteers were fully trained in safety, ensuring their familiarity with the specific safety protocols for this type of event. Additionally, the National Society ensured that all individuals involved in the operation had adequate personal protective equipment specifically designed to address the conditions generated by volcanic ash. This included masks, safety goggles, and protective clothing, ensuring that the response was not only effective but also maximized the safety of everyone on the ground.

Has the child safeguarding risk analysis assessment been completed?

Yes

Implementation

Health

Budget: CHF 90,125
Targeted Persons: 11,850
Assisted Persons: 14,164

Indicators

Title	Target	Actual
Number of community health fairs held.	24	24
Percentage of target population provided with Personal Protective Equipment (PPE).	100	100
Number of prevention talks given to students.	48	18
Number of workshops for the distribution of personal protective equipment to students in the most affected communities.	12	18
Number of informative talks given to personnel and volunteers by	12	10

technical entities.		

Narrative description of achievements

In coordination with municipalities, community leaders, development associations, and branches of the Costa Rican Red Cross, spaces were set up in community halls and parks to host 24 community health fairs in the areas of Sarchí, Grecia, Alajuela Centro, Naranjo, and Poás. These activities reached a total of 4,000 people, providing key information on protecting oneself from volcanic ash, skin care, and proper mask use. During these fairs, first aid services such as vital signs checks and general consultations were also offered. Additionally, KN95 masks were distributed, enhancing the protection of the affected communities.

To complement these activities, the National Society designed and distributed informational materials (flyers) addressing the risks associated with volcanic ash and preventive measures focused on protecting homes, crops, and animals. This effort significantly contributed to strengthening community preparedness and resilience in response to the emergency.

As part of a comprehensive educational strategy, the Costa Rican Red Cross conducted 18 preventive talks in educational centers within the communities of Sarchí, Naranjo, Grecia, and Zarcero, reaching a total of 2,160 students. These talks covered topics such as What is volcanic ash and how does it affect us?, Health risks, and Preventive measures. Although 48 talks were initially planned, this target was not met due to the overlap with school vacation periods. To optimize resources and time, the distribution of personal protective equipment (masks), initially planned as an additional activity, was integrated into the educational talks. Educational materials such as bookmarks with key messages on volcanic ash prevention and children's coloring books related to volcanic activity were also distributed. This approach effectively reinforced learning in a playful and engaging manner.

Additionally, as part of efforts to safeguard public health, the National Society implemented a strategy to distribute KN95 masks door-to-door in severely affected communities such as Zarcero, Naranjo, Sarchí, and Grecia, reaching a total of 7,850 people. This activity not only promoted direct protection for residents but also fostered community awareness.

Finally, to strengthen internal capacities to address the emergency, 10 informative sessions were conducted for National Society staff and volunteers. These sessions addressed risks associated with volcanic ash, such as health issues, damage to properties, crops, and livestock, operational disruptions, and the actions that the Costa Rican Red Cross can undertake as an auxiliary to public authorities. These sessions reached 154 people, improving team preparedness and their ability to respond effectively to this type of emergency. Initially, 14 talks were planned; however, considering the availability of staff and volunteers, the content was reorganized into 10 sessions, ensuring the quality of the learning spaces at all times.

For this sector, the initial target was to reach 11,850 people; however, through the implementation of health fairs, it was possible to reach a larger number of individuals. As a result, the original goal was exceeded, with a total of 14,164 people reached.

Lessons Learnt

• The design and distribution of specific materials, such as bookmarks and coloring books with key messages, proved effective in strengthening learning across different age groups, especially among children, fostering greater understanding and awareness of the risks associated with volcanic ash.
• The combination of activities, such as educational talks and the distribution of personal protective equipment to students, allowed for maximizing the impact of the actions with the available resources, reducing operational costs, and efficiently reaching one of the most affected groups.

Challenges

• The overlap of educational activities with school vacation periods limited the total reach of the planned talks, highlighting the need for more flexible planning that considers local school calendars.
• The purchase of coloring books and other outreach materials faced obstacles due to the limited availability of suppliers who met quality requirements and delivery deadlines. This caused delays in distribution during the planned activities.

Water, Sanitation And Hygiene

Budget: CHF 29,075
Targeted Persons: 6,500
Assisted Persons: 0

Indicators

Title	Target	Actual
Number of families that have received water storage containers and household cleaning kits.	1,300	0

Narrative description of achievements

If Trigger No. 2, related to the implementation of early actions, had been activated, 1,182 water storage containers and 2,352 household cleaning kits would have been distributed. However, since Trigger No. 2 was not activated, these distributions were not carried out. Despite this, the Costa Rican Red Cross completed the procurement of the supplies as planned. It is worth noting that there was a variation between the initially planned items and those ultimately purchased, as the National Society prioritized maximizing the number of items acquired within the allocated budget to reach more affected people in the trigger 2 activation.

Currently, the supplies are stored in the National Society warehouse and will be available for use in a future IFRC-DREF operation, following the guidelines established by the IFRC for such processes.

Lessons Learnt

• Prioritizing the procurement of distribution supplies at the beginning of the operation ensures timely acquisition and immediate availability of the items when needed, thereby enhancing the efficiency and readiness of the response.

Challenges

• Train staff and volunteers in the anticipatory management of supplies, ensuring they understand the established procedures for storage, distribution, and monitoring, particularly in cases of changes to the operational plan.
• Define clear strategies for the redistribution of unused supplies if the planned conditions do not materialize, ensuring their efficient use in future DREF operations.

Protection, Gender And Inclusion

Budget: CHF 2,450
Targeted Persons: 90
Assisted Persons: 49

Indicators

Title	Target	Actual
Number of staff and volunteers reached through informative talks on PGI in community spaces.	90	49

Narrative description of achievements

The Costa Rican Red Cross, as part of its efforts to ensure that all interventions are oriented towards the most vulnerable groups, conducted four training sessions on the implementation of the Protection, Gender, and Inclusion (PGI) approach in the context of a volcanic ash emergency. These sessions focused on training staff and volunteers to identify highly vulnerable groups, leveraging the Community Engagement and Accountability (CEA) approach, and ensuring that all interventions and materials were appropriate and accessible for different population groups. These trainings reached a total of 49 individuals, including staff and volunteers from the National Society branches involved in the interventions.

Although the initial plan aimed to reach 90 individuals, scheduling conflicts and the availability of staff and volunteers made it challenging to achieve full participation. Nonetheless, the individuals who participated gained essential tools to strengthen inclusion and protection within their operational activities, marking a significant step forward in the integration of PGI and CEA cross-cutting approaches.

Aligned with its commitment to ensuring inclusion during emergencies, the National Society also developed specific PGI guidelines for this operation, ensuring that all individuals involved in the response were familiar with and clearly applied them. This effort aimed to promote a uniform and consistent approach across all activities carried out.

Additionally, as part of the initial planning, the creation of child-safe spaces was proposed. However, after evaluating the activation of Trigger 1 and considering the nature of the activities implemented, it was determined that such spaces were not necessary, as the interventions did not require them in this specific context.

Lessons Learnt

• The combination of the Protection, Gender, and Inclusion (PGI) and Community Engagement and Accountability (CEA) approaches enabled the design and implementation of more inclusive and effective interventions, ensuring that the needs of vulnerable groups were identified and adequately addressed, which strengthened community trust.
• Continuous evaluation and the ability to adapt to the real needs of the operation, such as the decision not to implement child-safe spaces due to the nature of the activities carried out, reflected efficient resource use and a focus on emergency priorities.

Challenges

• Despite initial planning, varying schedules and the availability of staff and volunteers made it challenging to meet the target number of participants in the training processes, highlighting the need for more flexible strategies when scheduling trainings.

Community Engagement And Accountability

Budget: CHF 2,450
Targeted Persons: 90
Assisted Persons: 89

Indicators

Title	Target	Actual
Number of staff and volunteers reached through informative talks on CEA.	90	89

Narrative description of achievements

Ensuring that all personnel and volunteers involved in emergency operations are properly trained is essential to strengthening their knowledge of key tools that promote community participation in emergency situations. At the same time, it reaffirms the Costa Rican Red Cross commitment to implementing people-centered actions, promoting and applying mechanisms and channels tailored to the local context and the nature of the emergency.

In this context, the National Society conducted seven training sessions focused on the minimum standards and commitments for Community Engagement and Accountability (CEA), as well as on CEA strategies and tools applicable to emergency contexts. These sessions included concrete examples related to the volcanic ash emergency. A total of 89 people (47 men and 42 women), including personnel and volunteers from the four regions most affected, actively participated in these trainings, demonstrating significant progress in raising awareness and preparing to integrate this approach into response actions. There is a slight variation between the proposed target and the actual achievement, which was due to one participant being unable to attend the process due to an emergency situation.

Additionally, with the aim of strengthening and ensuring the application of the CEA approach within the operation, the National Society, with technical guidance from the national CEA focal point, developed a document of specific strategic parameters for implementing this IFRC-DREF for volcanic ash. These parameters guided the effective inclusion of the CEA approach in all planned actions within the health and WASH sectors, ensuring that the interventions not only addressed immediate needs but also fostered active participation and trust among affected communities.•

Lessons Learnt

• Having clear guidelines for the implementation of the Community Engagement and Accountability (CEA) approach ensures that planned actions are people-centered and supported by simple mechanisms that allow for adaptations to guarantee their relevance and appropriateness.

Challenges

• Ensuring that the guidelines for the implementation of the CEA approach are effectively communicated to all individuals involved in the operation. This is essential to guarantee proper and sustained application of the approach throughout the operation.
• Systematizing the experiences gained from the implementation of the CEA approach and sharing these insights within the National Society to encourage its application and strengthen its use in future operations.

Secretariat Services

Budget: CHF 6,923
Targeted Persons: 0
Assisted Persons: 0

Indicators

Title	Target	Actual
Number of field monitoring visits conducted by IFRC staff.	1	1

Narrative description of achievements

Representatives from the Central America Country Cluster Delegation conducted a field monitoring visit to follow up on the points discussed during virtual follow-up meetings with the Costa Rican Red Cross implementation team for the IFRC-DREF operation. The visit was led by the Disaster Management Coordinator, the Senior Officer for Planning, Monitoring, Evaluation, and Reporting (PMER), and the Health Assistant.

During the visit, a meeting was held with the National Society technical and operational team, allowing for an evaluation of the operation's progress and challenges. Additionally, visits were conducted to two key locations where the operation was implemented, providing an opportunity to closely observe the prevention and community engagement approach in practice. Furthermore, the team participated in a knowledge-sharing meeting led by a volcanologist from the National University of Costa Rica, who worked closely with the Costa Rican Red Cross as part of this operation.

In addition, at the request of the National Society to the IFRC team, and in response to structural changes within the Costa Rican Red Cross, the lessons-learned session was expanded to include a training and update process on the IFRC emergency response framework. This space allowed for an in-depth understanding of the available financing tools, with a particular emphasis on the DREF mechanism.

The process was led by the Disaster Management Coordinator and the Senior PMER Officer, with support from the Operational Procurement Manager of the IFRC Americas Office – HUB. The primary goal of this initiative was to ensure that all individuals within the National Society involved in the various stages of operations had the necessary information to make informed and effective decisions.

Lessons Learnt

• Conducting joint field monitoring visits between technical areas not only optimizes resources but also provides a comprehensive perspective of the operation. This approach enables more timely and real-time support to the National Society while simultaneously offering a retrospective analysis of the operation, enhancing overall effectiveness and learning.

Challenges

• Synchronizing schedules and timelines between the technical areas and the National Society to efficiently coordinate and conduct a comprehensive field visit.

• Conducting the monitoring visit at the beginning or midpoint of the operation implementation to maximize its effectiveness and allow for timely adjustments to planned actions.

National Society Strengthening

Budget: CHF 18,478
Targeted Persons: 90
Assisted Persons: 90

Indicators

Title	Target	Actual
Number of volunteers and staff with thermal protection equipment.	90	90
Number of personnel hired specifically for the DREF operation.	2	2

Narrative description of achievements

Lessons learned from previous IFRC-DREF operations have highlighted the importance of having dedicated personnel to coordinate and provide specialized technical support for operations. This ensures that planned activities are implemented in alignment with the established schedule and meet minimum quality standards. In this context, the Costa Rican Red Cross hired two key staff members: a project technician and an administrative assistant, thereby strengthening operational management.

Additionally, recognizing the importance of visibility for the operation—both to share key messages related to its central objective and to highlight its implemented actions—the National Society designed and printed banners. Likewise, as part of its commitment to the safety of personnel and volunteers, visibility and personal protective equipment were procured and distributed, ensuring safe and appropriate conditions for those participating in field activities.

Finally, reaffirming its commitment to accountability, the Costa Rican Red Cross held an in-person lessons-learned workshop. This workshop included participation from management, administrative, technical, and volunteer teams involved in the various phases of the operation. Facilitated by the Senior Officer for Planning, Monitoring, Evaluation, and Reporting (PMER) of the Central America Country Cluster Delegation, the workshop provided a space for reflection, analysis, and the development of strategic recommendations. Additionally, it promoted the creation of an internal action plan aimed at further strengthening the National Society's operational capacities for future interventions.

Lessons Learnt

• The inclusion of specialized technical and administrative personnel from the start of the operation significantly strengthens the coordination and execution of planned activities. This approach ensures that actions are carried out in compliance with established quality standards and within the scheduled timelines, optimizing operational efficiency and delivering effective results.
• The visibility of the operation, through materials such as banners and personal protective equipment, is essential not only to ensure the safety of staff and volunteers but also to effectively communicate the central objective of the operation and the actions undertaken. This helps to build trust among affected communities and to position the interventions of the Costa Rican Red Cross clearly and professionally.

Challenges

• Effectively coordinate the integration of specialized personnel into the operational team from the beginning of the operation, ensuring a smooth transition and the fulfillment of roles and responsibilities to maximize the impact of planned activities.
• Ensure the timely availability and distribution of visibility materials and personal protective equipment, especially in situations where logistical resources may be limited, to guarantee both the safety of staff and volunteers and the effective communication of the operation's objectives.

Financial Report

Selected Parameters			
Reporting Timeframe	2024/5-12	Operation	MDRCR025
Budget Timeframe	2024/5-8	Budget	APPROVED

DREF Operation

FINAL FINANCIAL REPORT

Prepared on 25/Mar/2025

All figures are in Swiss Francs (CHF)

MDRCR025 - Costa Rica - Volcanic Ash

Operating Timeframe: 14 May 2024 to 31 Aug 2024

I. Summary

Opening Balance	**0**
Funds & Other Income	**149,498**
DREF Anticipatory Pillar	149,498
Expenditure	**-102,005**
Closing Balance	**47,493**

II. Expenditure by planned operations / enabling approaches

Description	Budget	Expenditure	Variance
PO01 - Shelter and Basic Household Items			**0**
PO02 - Livelihoods			**0**
PO03 - Multi-purpose Cash			**0**
PO04 - Health	93,748	53,041	**40,707**
PO05 - Water, Sanitation & Hygiene	27,300	29,058	**-1,758**
PO06 - Protection, Gender and Inclusion	2,300	1,053	**1,247**
PO07 - Education			**0**
PO08 - Migration			**0**
PO09 - Risk Reduction, Climate Adaptation and Recovery			**0**
PO10 - Community Engagement and Accountability	2,300	1,993	**307**
PO11 - Environmental Sustainability			**0**
Planned Operations Total	**125,648**	**85,145**	**40,503**
EA01 - Coordination and Partnerships			**0**
EA02 - Secretariat Services	6,500	4,755	**1,745**
EA03 - National Society Strengthening	17,350	12,105	**5,245**
Enabling Approaches Total	**23,850**	**16,860**	**6,990**
Grand Total	**149,498**	**102,005**	**47,493**

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[Click here for the complete financial report]

Please explain variances (if any)

A total of 149,498 CHF was allocated from the DREF Fund for the implementation of this DREF Operation. The Costa Rican Red Cross spent a total of 102,005 CHF. The remaining balance of 47,493 CHF will be returned to the Disaster Response Emergency Fund (DREF).

The most significant variances in the budget versus the actual expenditure include:

-Delays in staff recruitment: Initially, there was a delay of approximately two months in hiring two key positions for the operation: a project officer and a procurement assistant. This delay resulted in a budget surplus.

-Resignation of the project officer: After being hired, the project officer resigned, which led the National Society's project manager to temporarily assume the responsibilities of the role. As a result, the budget line allocated for the project officer remained unspent, since no salary payments were made during that period.

-Savings in procurement of supplies: The National Society was able to obtain reduced prices for several supplies, generating surpluses across different budget lines. Additionally, some purchases were managed through the IFRC's Regional Logistics Unit (RLU), which helped optimize costs.

Also, the National Society has 2,352 brooms and 1,182 water containers that were not distributed because Trigger 2 was not activated. Additionally, there is a remaining stock of 20 helmets and 55 goggles, which were not used as the necessary quantities had already been distributed to the personnel and volunteers involved in the operation.

In this context, these supplies will remain stored in the National Society warehouses and will be available for use in future operations under the IFRC-DREF framework, following a detailed distribution plan to ensure their efficient and strategic utilization.

Contact Information

For further information, specifically related to this operation please contact:

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Click here for reference