

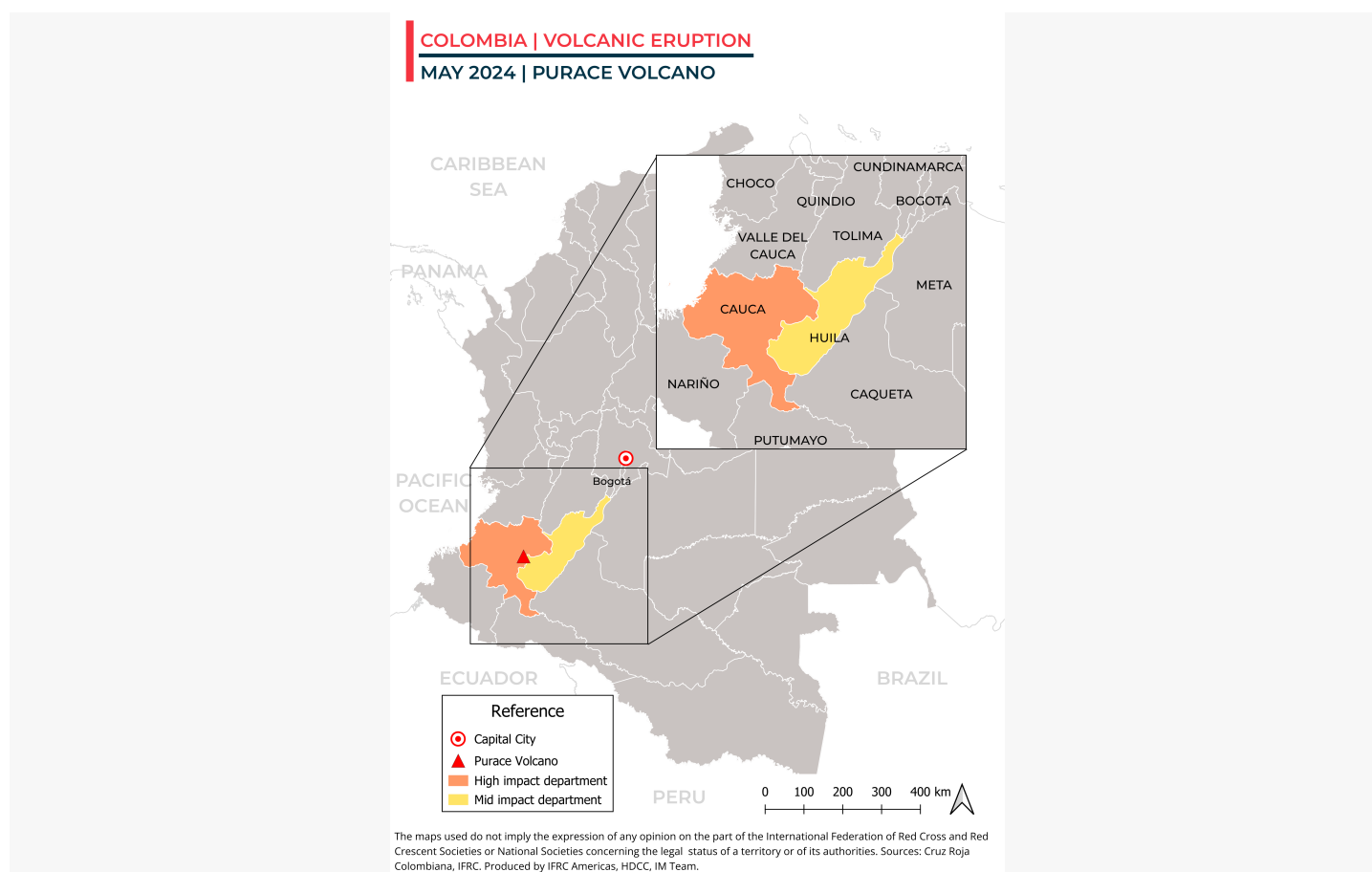


Shelter evaluation visit. La mina, Purace community. October, 2024. Source: IFRC

Appeal: MDRCO026	Total DREF Allocation: CHF 149,930	Crisis Category: Yellow	Hazard: Volcanic Eruption
Glide Number: VO-2024-000082-COL	People Affected: 40,000 people	People Targeted: 4,500 people	People Assisted: 3,044 people
Event Onset: Slow	Operation Start Date: 27-05-2024	Operational End Date: 31-10-2024	Total Operating Timeframe: 5 months
Targeted Regions: Cauca			

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



Source: <http://repositorio.gestiondelriesgo.gov.co/handle/20.500.11762/40953>

Approximate date of impact

The alert level of the Puracé Volcano changed from Yellow Level to Orange Level on 3 May 2024, which generated a warning of a probable eruption in a matter of days or weeks, which led local authorities to activate preparedness, mitigation and communication measures for response. On 5 July 2024, the alert status of the Puracé volcano changed to Yellow Level. Preparedness activities were carried out and a disaster risk management culture was generated with the community and institutions.

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

The Colombian Geological Service reported the change of Puracé's Volcanic Alert from Orange to Yellow on 5 July 2024, after identifying a gradual decrease in seismicity inside the volcanic structure, as well as the stabilization of other monitoring parameters of the volcano's behavior. The Yellow Alert represented that the volcano continued presenting a behavior above a base level, where seismicity continued, but in smaller quantities, surface deformation was still present, without abrupt changes, and fumaroles continued with a downward trend, according to the Colombian Geological Service. For this reason, it was considered to continue with the preparation processes with the communities and authorities developed.

During the state of Yellow Alert it is possible that some phenomena may occur that can cause serious and even fatal damage to people, such as sporadic ash emissions (minor eruptions), fracture and fluid seismicity with moderate levels and episodes of occasional increases, small explosions in the crater, precipitation of elemental sulfur and hydrothermal mud in the near zones of the crater and hot springs, occurrence of minor lahars, among others. Therefore, the Colombian Geological Service emphasized that a change in the alert level should not lead to complacency. In this sense, authorities and communities in the affected continued efforts in knowledge acquisition and preparedness.

According to the Colombian Geological Service, here is a summary of what was expected to happen:

Yellow level:

- Changes in the behavior of volcanic activity.
- Effects: There may be phenomena such as earthquake swarms, some of them noticeable; ash emissions; lahars; morphological changes; volcanic gas odors, among other, which may alter the quality of life in the area of volcanic influence.

Orange level:

- Possible eruption in days or weeks with a moderate or high degree of danger
- Possible eruptive event (s) of explosive or effusive character, coupled with volcanic activity phenomena on yellow alert.
- Effects: Nasal irritation and discharge, throat irritation, and burning, sometimes accompanied by dry cough or respiratory distress, eye or skin irritation, indirect effects such as increased likelihood of traffic accidents, contamination of water sources, and risk of roof subsidence.

Red level:

- Erupting volcano or eruptive process in progress whose climax can occur in a matter of hours.
- It is characterized by multi-causality.
- Associated with pyroclasts falls, lava flows, ballistic projectiles, torrential floods, landslides, lahars, and forest fires.
- Effects: Injuries; loss of life; loss of farm animals, wildlife, and livelihoods; loss of housing and community infrastructure; isolation of communities; loss of crops, harvests, and subsistence items for food security and income generation; water shortages; sanitation and hygiene systems affected; increase and proliferation of vectors; high risk due to chemical elements, as well as risks of accidents or incidents due to contamination by weapons (antipersonnel mines - APM, unexploded ordnance - UXO - and booby traps - ET); damage to infrastructure; the disappearance of people; and psychological impact on the region's inhabitants.

The territories identified under the zone of influence of the Puracé volcano in the department of Cauca are: Puracé, Popayán, Sotará-Paisbamba, Timbío, Rosas, El Tambo, La Sierra, Patía, Bolívar, Sucre, La Vega, Totoró; and in the department of Huila they were: San Agustín, Isnos, Saladoblanco and La Argentina. Thus, according to the Colombian Geological Service and Cauca branch, around 40,000 people live under the influence of the volcano and could be affected. In the framework of the last update of final report, June 2025, the puracé volcano remains on yellow alert.



Disaster Preparedness for the Puracé Volcano activity Workshop. CRCS, Cauca Branch. August 2024. Popayán, Cauca.



Simulation preparation in Puracé community. September, 2024. Source: Colombian Red Cross Cauca Branch



Characterization of families in the area of influence of the Puracé volcano. August, 2024. Source: Colombian Red Cross Cauca Branch



Community first aid workshop. September, 2024. Source: Colombian Red Cross Cauca Branch



WASH training with Red Cross volunteers. September, 2024. Source: Colombian Red Cross Cauca Branch



Lessons learned workshop. Popayán, Cauca. October, 2024. Source: Colombian Red Cross

Scope and Scale

Puracé Volcano is an active volcano that has been under surveillance by the Colombian Geological Service and approximately 400,000 people live in the area of influence of the volcano, which rises to 4,640 meters above sea level. This volcano is located at the northwestern end of the Coconucos Volcanic Chain (CVLC), in the Cordillera Central of Colombia, on the border between the departments of Cauca and Huila. According to the volcanic threat map of the Puracé volcano, prepared by the Colombian Geological Service-SGC, the area of influence of this geological structure is mainly inhabited by indigenous and rural farming communities. The municipalities with the highest threat risk in the event of a significant eruption are Puracé, Popayán and Sotará, located in the department of Cauca. Also, the Puracé, Coconuco and Paletará Indigenous Reservation, the Juan Tama indigenous resettlement of the Páez ethnic group (Nasa people) and the settlement of the Misak people, indigenous territories belonging to the Coconuco ethnic group. Among the population most at risk are the elderly, people with disabilities, pregnant women, children under 5 years of age, and people living in rural areas or with limited access to early warning systems.

On 3 May 2024, the Colombian Geological Service (SGC) declared an orange alert status for the activity of the Puracé volcano. The orange alert in the activity of the Puracé volcano indicated that there were changes in: magma movements, changes in the shape of the volcano, as well as gas emissions. From the declaration of the orange alert, the alert preparedness response was activated in case of a possible eruptive event in the following days of weeks.

On 5 July 2024, the Colombian Geological Service (SGC) reported that the activity of the Puracé volcano decreased from orange to yellow alert. The yellow alert level indicates that volcanic activity continues at a lower intensity and scale. At this alert level, caution and monitoring of changes in the volcano's activity was required. The yellow alert in any case requires response actions and preparation of the population: for example, nearby communities should be informed and strengthened being prepared for a possible evacuation. And in Education and Communication, basic knowledge about the volcano and community and family emergency plans should be provided.

The activity of the Puracé volcano had a direct impact on the municipality of Puracé, a territory characterized by its ethnic and cultural diversity, where indigenous and mestizo communities coexist. The yellow alerts that have historically been issued for the Puracé volcano due to increased volcanic activity have caused communities located in the high threat zone to carry out temporary evacuations. Likewise, there had temporary interruptions in basic services, health problems due to ash and gases, damage to agriculture, and economic impacts due to restrictions on tourism.

The main impact on people living in the area of influence of the Puracé volcano was on respiratory health, due to the emission of gases and the fall of volcanic ash. Water sources were also compromised because the ash falling into rivers and lakes causes chemical and physical contamination, making the water unfit for human consumption and agricultural use. Families in the indigenous cabildos of Puracé, Kokonuko and Paletará depend in part on the income generated by tourism in Puracé National Natural Park. As a result of the volcanic activity, these families' incomes were reduced, limiting their ability to cover food and health care expenses.

These affectations impact all inhabitants of the area but had a more severe effect on children under 10 years of age, especially on the respiratory health of children from 0 to 5 years of age. Adults over the age of 60 living alone in the region experience coughing and eye irritation and often do not receive medical attention due to the lack of a nearby support network. In terms of health, these two population groups were the most affected by gas emissions and volcanic ash fall. Men and women of adult age (18 to 59 years old) see their agricultural productivity affected, as volcanic ash damages plants and soil, generating an increase in acidity and altering the pH, which negatively affects crop quality.

Source Information

Source Name	Source Link
1. Extraordinary bulletins of the Colombian Geological Service, for the period between April 30 and May 21 (21 bulletins have been generated).	https://www2.sgc.gov.co/Noticias/Paginas/Boletines-extraordinarios.aspx
2. Colombian Geological Service (SGC), Week Bulletin. July, 2024.	https://www2.sgc.gov.co/Noticias/Paginas/El-volcan-Purace-regresa-a-estado-de-alerta-Amarilla.aspx
3. Crisis room of 3 May 2024. Conducted by the National Unit for Disaster of Colombia with the entities of the National Disaster Risk Management System.	https://portal.gestiondelriesgo.gov.co/Paginas/Noticias/2024/Volcan-Purace-estado-de-alerta-cambia-de-amarillo-a-naranja.aspx



4. Circular No. 034. Guidelines for the preparation for the response, readiness, and emergency response to the State of Orange Alert of the Puracé Volcano	http://repositorio.gestiondelriesgo.gov.co/handle/20.500.11762/40953
5. Detail of Puracé Volcano, Colombian Geological Service	https://sgc.gov.co/detallevolcan/2/

National Society Actions

Have the National Society conducted any intervention additionally to those part of this DREF Operation?	Yes
Please provide a brief description of those additional activities	In Coordination: - Participated in the meetings of the National Committee for Disaster Management and Crisis Rooms convened by the National Unit for Disaster Risk Management with the participation of the Disaster and Crisis Management Manager of the EGRD of the National Society of the Colombian Red Cross. - Participated in the Municipal and Departmental Councils for Disaster Risk Management by the Cauca Branch Disaster Risk Management Coordinator. - Met with the Governor's Office of Cauca and the Mayor's Office of Puracé, with the participation of the Disaster Risk Management Coordinator of the Cauca Branch, in which a collaborative work agreement was proposed and established to strengthen the communities' capacities to prepare for a possible emergency due to the activity of the Puracé volcano. In National Society Readiness: - Capacities and needs update of the National Society was carried out on May 16 and 17 for Cauca Branch Volunteers in volcanic risk scenarios. In evaluation: - Field visits by the Disaster Risk Management Coordinator of the Cauca Branch were carried out during the month of June to some of the indigenous communities located in the area of influence of the Puracé volcano, where interest was expressed in working with the Colombian Red Cross in their community emergency plans to prepare for volcanic activity. In activation of contingency plan: - Activated the National Contingency Plan of the Colombian Red Cross following the declaration of the Orange Alert due to the activity of the Puracé volcano. Updated the contingency plan of the Cauca Branch. In Community Engagement and Accountability: - Coordination of response actions in conjunction with indigenous authorities of the cabildos of Puracé, Kokonuko and Juan Tama, carried out by the Cauca Branch Disaster Risk Management Coordinator in coordination with the Colombian Geological Service and the Departmental Risk Management Advisory Office, for the diagnosis of needs and capacities required for response in the event of a volcanic eruption.

IFRC Network Actions Related To The Current Event

Secretariat	On May, a field report was generated on the IFRC's GO platform to update the geological information of the risk zone. Likewise, permanent communication maintained with the IFRC on the evolution of this event. Based on the forecasts, the IFRC Delegation in Colombia supported the formulation of an IFRC-DREF for an imminent event. In addition, for the response to the orange alert due to the activity of the Puracé volcano, the IFRC activated the Emergency Response Fund (DREF) which supported the
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	Colombian Red Cross and the Cauca Branch, through capacity building activities for response at the community and local volunteer level. Likewise, the IFRC generated capacity building in the staff of the Colombian Red Cross through training in the DREF project formulation methodology. It also reinforced knowledge of technical guidelines on temporary shelter for the National Disaster Risk Management Team and the Cauca Branch. It also followed up on the project, which generated permanent feedback to the operation, and actively participation during the operation.
Participating National Societies	The Colombian Red Cross Society maintains constant coordination with the Movement partners present in the country. In Colombia, the German, American, Spanish, and Norwegian Red Cross are present through the Country Delegation respectively, and are part of the coordination processes to provide technical and operational guidance to the National Society.

ICRC Actions Related To The Current Event

The ICRC is present in the country and carries out coordination activities with the Colombian Red Cross Society through its Operational Partnership Agreement. In the affected area, the ICRC, through the Cali Sub-delegation, worked in coordination with the Cauca Branch to ensure safety conditions and Safer Access for the National Society's staff and volunteers.

Other Actors Actions Related To The Current Event

Government has requested international assistance	No
National authorities	Crisis Room meetings: Meetings were activated in the Crisis Room of the National Risk Management System to coordinate the response to the situation. Disaster Management Committees: Committees were held at different levels (national, regional and territorial) to assess the situation and plan response actions. Informative Meetings: Informative meetings were organized with local authorities, the Geological Service, the Colombian Red Cross and the indigenous communities involved, to explain the context of the volcanic activity and the measures to be taken. Municipal and Departmental Councils: Risk Management Councils were held at different levels, where prevention and response strategies were discussed, as well as the participation of community leaders. Information Dissemination: The National Unit for Disaster Risk Management (UNGRD) issued Circular 034 on May 8, 2024 in which it established guidelines for preparedness and response to the change in the volcanic alert status of Puracé. The recommendations of the circular were: - Identify and inform community alarm mechanisms to warn communities in risk areas. - Strengthen knowledge of volcanic risk. - Prepare continuity plans for institutional operation in case the natural phenomenon affects. Local authorities were present throughout the implementation of the operation, accompanying and participating in training activities at both the institutional and community levels, which demonstrated strong inter-institutional coordination at the local level.
UN or other actors	The Pan American Health Organization (PAHO) carried out a field visit to support the capacity analysis in the health sector.

The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) developed for all the Partners of the Humanitarian Team an extraordinary bulletin with updated reports on the situation of the Puracé Volcano.

The Colombian Red Cross Cauca Branch convened and coordinated with OCHA a visit to the prioritized cabildos, in which delegates from the United Nations Children's Fund (UNICEF) and the World Food Program (WFP) participated. From this visit UNICEF prioritized working with educational institutions in the area of influence of the Puracé Volcano in the development of School Plans for Risk Management.

Are there major coordination mechanism in place?

At the national level, the Colombian Red Cross coordinates Disaster Risk Management processes with the National Unit for Disaster Risk Management (UNGRD), the government entity that coordinates and articulates the National Disaster Risk Management System in Colombia. The actions carried out within the framework of the Puracé Volcano DREF project were permanently coordinated with the Municipal and Departmental Disaster Risk Management Advisory Offices. Technical consultations were also carried out with the Colombian Geological Service - Popayán Volcanological and Seismological Observatory - SGC.

The Colombian Red Cross, through the Cauca Branch, actively participated in various coordination spaces to address the situation generated by the orange alert of the Puracé volcano. In the Disaster Management Committees, it contributed to the evaluation of the situation and the planning of response actions at regional and territorial levels. It also organized informative meetings with local authorities of the municipality of Puracé, accompanied some visits of the Geological Service to indigenous communities, where the context of the volcanic activity and the measures to be implemented were explained. The Red Cross was also present in the Municipal and Departmental Councils for Risk Management, where prevention and response strategies were discussed with the participation of community leaders. In addition, it promoted the dissemination of crucial information on risks and safety measures to communities in vulnerable areas.

Regarding local inter-institutional coordination, the project activities involved the participation of the National Unit for Disaster Risk Management, the Colombian Geological Service, the Cauca Governor's Office, the Risk Management Advisory Office, the Puracé Mayor's Office, the Cauca Sectional Civil Defense, the Popayán Fire Department, the Indigenous Authority of the Puracé Cabildo and the Indigenous Authority of the Coconuco Indigenous Cabildo.

In these spaces, gaps were identified regarding the preparedness of the institutions for emergency response, which evidenced the need to improve coordination through the exchange of information and contingency plans to facilitate collaboration between different agencies, emergency services and local authorities. In addition, the importance of strengthening Community Preparedness was highlighted, increasing risk awareness and taking advantage of local knowledge. Finally, areas for improvement were identified, highlighting the need to strengthen continuous communication in crisis management and the deployment of resources during the preparation of the response to the Puracé volcano activity.

Needs (Gaps) Identified



Shelter Housing And Settlements

There was insufficient information on the capacities, conditions, and establishment of temporary shelters for the population located in the affected area. In case evacuation, These shelters must meet the minimum standards for their operation, with dignity and well-being for communities at risk. Likewise, the knowledge of the communities and their perception of risk was not clear in terms of an evacuation process and the use of temporary shelters, particularly in the areas closest to the volcano, rural and remote areas.

For this reason, vulnerability and capacity assessments on collective shelters in Cauca was conducted with support from the IFRC Americas Regional Office to identify the needs of the shelters in case of evacuation, together with the institutions of the System, and an Action Plan was developed to strengthen them.



Health

Due to the exposure to volcanic ash, a change in air quality was expected that could hurt some population groups, such as children, pregnant women, and older adults, increasing the risk of respiratory problems, dermatological conditions, and eye problems, among



others, for which it was identified the need to support the communities with N95/FFP2 masks. The increased activity of the Purace Volcano could have had an impact on some people's mental health due to concerns about the imminence of a volcanic eruption and its associated risks.

Community sessions for health promotion, self-care, and key messages for the management of physical and psychosocial health risks were planned, especially in the communities within the area of greatest influence of the Purace volcano.

It was identified that the capacities of the health system in the municipality of Purace are limited because there is no high-level center or capacity to attend to multiple injured people at the same time in the event of a volcanic eruption, which is why it was planned to support the local health system in the identification of potential expansion zones for the attention of multiple victims in the event of a volcanic eruption.

The communities and first response groups such as volunteers from the Branch, civil defense, and firefighters needed to strengthen their first response capabilities by reinforcing their knowledge of first aid and psychosocial support. The project contemplated the prepositioning of first aid kits that enable an immediate response in the event of a volcanic eruption.



Water, Sanitation And Hygiene

Communities affected by volcanic ash face significant Water, Sanitation and Hygiene (WASH) challenges, highlighting the need to implement specific measures to ensure their well-being. Among the main needs in the community was the storage of and access to safe water. Considering that the quality of water sources was affected by the presence of contaminants (particulate matter, gases) that can have implications on the health of people and animals.

Considering the possible change in the physicochemical and microbiological characteristics of the water sources from which they collect water in conventional water treatment systems such as rural and urban aqueducts. Some of the families do not have adequate water reservoirs, which would facilitate the exposure of the water to contaminating agents as previously mentioned.

Likewise, there was a need to understand in more detail the water storage and care practices of the population in the affected area, taking into account that most of the population at risk are indigenous communities and some live in rural and dispersed areas, which do not have an aqueduct that guarantees access to water with minimum quality standards for water treatment.

Therefore, the prepositioning of a portable water treatment plant was a strategy to deploy and operate in a timely manner with an alternative source to supply water suitable for human consumption to the population affected by water shortages.

Education in personal hygiene practices was another latent need, so there was a clear need to provide information on how to handle ash safely to minimize exposure to harmful particles. Awareness campaigns and educational workshops can teach communities proper hand washing techniques, use of masks, and cleaning of clothing and footwear to reduce the risks of respiratory and skin problems associated with volcanic ash.



Protection, Gender And Inclusion

In the event of a volcanic ash emergency, it is necessary to integrate a Protection, Gender, and Inclusion (PGI) strategy to ensure equitable access to prevention and care measures for the entire population, taking into account differences in sex, gender, socioeconomic status, disability and other particular circumstances. It is crucial that preventive and educational health actions address these dimensions to effectively protect all citizens.

In addition, information on the emergency, available services, and protection measures must be accessible in various formats and languages, following ancestral knowledge and a language adapted to the indigenous populations present in the affected area, when necessary, with special consideration for people with disabilities, the elderly and other vulnerable groups.

Ensure that people with disabilities have access to appropriate services and aids, including assistive devices, sign language interpreters, and, where possible, accessible transportation. It is also important to take accessibility needs into account in all actions being considered for implementation.

Given the location of the volcano around coverage of the Cauca Branch, where the presence of actors linked to the armed conflict is significant, it was essential to strengthen the knowledge of volunteers in Operational Security in conjunction with the Minimum Protection Approach. The objective was to identify the risks for the personnel involved in the response and for the affected communities, as well as to establish analysis criteria to guarantee a harmless intervention.





Risk Reduction, Climate Adaptation And Recovery

To maintain an effective response preparedness process, it was necessary to validate the Community Risk Management Plans of the communities located in the area affected by the Puracé volcano. Therefore, as an anticipatory measure, it was identified the importance to carry out a diagnosis of the capacities and knowledge of the volcanic threat to which the neighboring communities are exposed, reinforce the communication network of the Branch, and strengthen the processes of organization, training, equipment, and preparation of the community.

There are limitations in the interventions of local authorities in disaster risk management, which evidences the need for actions to retrain previously formed community committees, as well as families in the affected territory, on issues such as family emergency plans, identification of evacuation routes, emergency coordination, and response planning.

Strengthening the capacities of community teams for emergency response, as well as ensuring knowledge of the Family Emergency Plan, were key components to mitigate the adverse effects of a volcanic eruption and thus ensure that response processes are carried out in a timely manner in accordance with the effects of an Orange Alert and a probable Red Alert in the event of an imminent volcanic eruption.



Community Engagement And Accountability

Due to the fact that most of the communities in the area of greatest influence of the Puracé volcano are indigenous communities, there was a need to promote spaces that encourage the participation of indigenous communities in order to identify and understand the perception of their risks and the needs of the community based on the context of the communities and their cultural beliefs. Based on this, there was a need to have a space for dialogue with community leaders, indigenous guards, and the community in general to strengthen community preparedness mechanisms under an ethnic and cultural approach. Likewise, the need to develop community materials adapted to the context of the different indigenous reserves in the most at-risk areas had been evidenced.

Operational Strategy

Overall objective of the operation

Through this IFRC-DREF Operation, the Colombian Red Cross Society aims to prepare 4500 people located in the area of greatest influence of the Puracé Volcano and the Cauca Branch with the participation of the Branches that are part of the first response ring of the Colombian Red Cross Society, to respond in an efficient, timely and early manner in case of an eruption of the Puracé Volcano, through the sectors of Health, Water, Sanitation and Hygiene, Protection, Gender and Inclusion, Community Engagement and Accountability, Risk Reduction, Climate Adaptation and Recovery, Secretariat Services and National Society Strengthening. At the end of the operation, 3044 people were reached.

Operation strategy rationale

The National Society of the Colombian Red Cross, within the framework of its humanitarian and operational actions, has activated its contingency plans for this volcanic event, both at the national level and mainly in the Cauca Branch, as well as in the Branches of the first response ring: Nariño, Valle del Cauca and Huila.

From the moment the Colombian Geological Service issued the Extraordinary Bulletin of 3 May 2024, the National Directorate of the Colombian Red Cross Society and its branches activated their response capacities, as well as active participation in national, regional and local coordination spaces (crisis rooms, Unified Command Posts (PMU) and Disaster Management Committees).

Through this DREF, the main objective of the Colombian Red Cross Society was to carry out readiness and prepositioning activities and prioritize some early actions around influence of the volcano in order to reduce the impact as a result of an increase in the activity of the Purace volcano or its eruption.

The following is a summary of the prioritized activities by sector:

Health

Priority has been given to the distribution of N95/FFP2 masks among the communities closest to the area of influence due to the deterioration of air quality. The communities and community first response teams will also be trained in first aid.



Likewise, priority has been given to the retraining in physical and psychological first aid of first response teams such as volunteers from the Cauca section, civil defense volunteers and firefighters, the pre-positioning of first aid equipment and tents to locate expansion areas in the event of a volcanic eruption, in coordination with the local health network.

Water, Sanitation and hygiene promotion

In the communities in the areas of influence of the volcanic activity, it is planned to strengthen the capacities of the households affected to improve the supply and quality of water suitable for human consumption, through the delivery of kits for the transport, treatment and storage of safe water at the household level, training and awareness of the communities in water treatment and safe storage of water at the household level, hygiene promotion, prevention of water-related diseases, basic sanitation and vectors, as well as the prepositioning of a Mobile Drinking Water Treatment Plant for response in case there is an increase in the activity of the Puracé volcano and the main water sources are affected, so that drinking water can be supplied to the affected communities at an early stage. It is also planned to support the communities by conducting technical water quality tests to monitor water quality due to the high risk of contamination.

Additionally, a Water, Sanitation and Hygiene in Emergency and Community Workshop will be developed for employees and volunteers of the Colombian Red Cross Cauca Branch to improve the response capacity of the Branch.

Risk reduction, climate adaptation and recovery

Training sessions will be held with the communities in the area of influence of the Puracé volcano, in the department of Cauca, in order to build community risk management plans in a collaborative and participatory manner, emphasizing evacuation to safe areas and family emergency plans.

The following activities will be carried out with each community:

- Coordination meetings with community leaders
- Training of community risk management teams
- Provision of basic first response elements
- Delivery of informative material

It is planned to improve the signs of the current evacuation routes and/or provide new signs in case of absence, indicating the direction to safe places in case of a change of alert status in the event of an imminent eruption, in coordination with the institutions that are part of the system.

Finally, in order to maintain a response preparedness process, the Cauca Branch current telecommunications network will be maintained in order to maintain radio communication in the municipalities located in the high and medium threat area.

Shelter, housing and settlements

A capacity assessment will be carried out to identify the needs of the shelters in case of evacuation and, together with the institutions of the System, an Action Plan will be developed to strengthen them, as well as the integration of the Framework for Safer Access tool and the incorporation of awareness-raising workshops on Protection, Gender and Inclusion, which will ensure the dignity and well-being of the families affected by a possible volcanic eruption who will have to evacuate to a safe shelter during the emergency.

Targeting Strategy

Who was targeted by this operation?

In the readiness stage of intervention, 4,500 people will be reached, who will be part of the capacity-building actions for the prevention of emergencies. The target population for the Orange Alert trigger is made up of people prioritized in the high and medium threat zones around the influence of the Puracé volcano in the departments of Cauca and Huila, specifically in the indigenous reservations of Puracé, Coconuco, Paletará and Juantama, characterized by the regional and local authorities.

Likewise, for institutional strengthening activities, Red Cross volunteers and personnel who are part of the first response ring in the departments of Cauca, Nariño, Huila, and Valle del Cauca will be reached. In addition, the Colombian Geological Service, Civil Defense, Firefighters, and National Unit for Disaster Risk Management also participated.

Special consideration will be given to the needs of the most vulnerable people, such as: children and adolescents, pregnant and lactating women, people with chronic diseases, people with disabilities, and the elderly, as well as migrants, refugees, and people affected by internal displacement. Considering that most of the high-impact area is made up of indigenous and peasant populations.



Explain the selection criteria for the targeted population

The prioritization of the affected population were developed taking into account the area of greatest influence of the recent activity of the Puracé volcano and the governmental guidelines for preparedness and preventive evacuation. Local censuses were conducted by the Red Cross and other relief and risk management groups, as well as the most vulnerable populations identified by the teams. It was planned to reach four indigenous reservations (Puracé, Coconuco, Paletará, and Juantama), among which three communities per reservation were prioritized.

Emergency Humanitarian Assistance and anticipatory actions focused on the populations located within the 15 kilometer ring, who must evacuate in case of volcanic eruption. During the application, it was not possible to determine the effects on homes, however, it was identified the importance that these populations cannot be located in these sites, because of the risk and exposure to their physical and mental health due to the effects that can generate an eruptive event such as the one expected. Ash, gases, high temperatures and the presence of pyroclasts are the most critical events. Therefore, it was necessary that these people be informed about shelters, refuges and other areas different from their homes, and thus, receive the call for preventive enlistment to meet their needs in a dignified manner.

Likewise, the main criterion was to coordinate with governmental entities on the population that could not be assisted by the State, to avoid duplication, and to reach people who did not receive other forms of assistance. Through the Cauca Branch in coordination with the other institutions and authorities that make up the national disaster risk management system, a characterization of the families were developed in indigenous reservations and communities located in the area of greatest exposure of the Puracé volcano, which allowed to guide the activities planned for the operation and to define the total number of people reached.

Total Targeted Population

Women	1,800	Rural	51%
Girls (under 18)	540	Urban	49%
Men	1,755	People with disabilities (estimated)	1%
Boys (under 18)	405		
Total targeted population	4,500		

Risk and Security Considerations (including "management")

Please analyse and indicate potential risks for this operation, its root causes and mitigation actions.	
Risk	Mitigation action
Protection risks, presence and territorial control of Organized Armed Groups	Induction and previous training in Operational Safety, and delivery of the Manual Serie 1000 to the Branches and Operational personnel involved. Operational Communication with the delivery of the Summary of the Humanitarian Intervention to be carried out by the Colombian Red Cross Society around influence of the volcano. Prior security monitoring with the support of the ICRC at the national (Bogota) and local (Cali Sub-delegation) levels. Institutional Identification and Visibility, through the provision and/or delivery of Red Cross Flags as indicative or protective flags for all operational vehicles; Institutional Bibs for the operational personnel of the Sections activated for this contingency and "No Weapons" decals for institutional vehicles.



	Reports and permanent follow-up during the development of all activities in the humanitarian intervention zones.
Rainfall, landslides and other events caused by the current rainy season may limit land access to the emergency zone.	-Projection of transportation and logistics according to the current characteristics of the territory. - Coordination with authorities operating in the area. - Coordination of activities with the National Unit for Disaster Risk Management (UNGRD) and the Territorial Disaster Risk Management Councils.
Health risks for people and animals due to falling pyroclasts or ashes that affect the respiratory system, visibility and limit land and air access to the emergency.	-Communication on health risks for people and animals due to falling pyroclasts or ashes -Preventive delivery of personal protective equipment to the exposed population in the high threat zone.
Insufficient or unavailable personnel to implement the response plan.	Enlistment and preparation of trained emergency response personnel.
Coordination risks	High demand for coordination spaces at the Branch and National levels, with the System.
Psychological impact of the threat or occurrence of a volcanic eruption.	Psychological first aid training activity was included for first responders and volunteers who can manage this impact at the community level.
Risks in changes of seismic and volcanic activity and alert.	In case of red alert, activation of the response plan. The National Society team would formulate a response IFRC-DREF. In case of yellow alert, there is a Branch and communities strengthened to respond to changes in the activity of the active volcano.
Disruptions in communications due to volcanic activity or severe weather conditions	The maintenance of the Cauca Branch's telecommunications network was included as part of the operation's activities to ensure communication and coordination of the response.
Evacuation risks	Work was carried out jointly with the communities and the local Disaster Risk Management System to identify evacuation zones and mitigate risks that may arise during an evacuation process.
Shortage of resources, limited availability of essential resources such as water, food and medical supplies	The National Society's response plan includes the support of the operation through the response rings of the closest branches to the department of Cauca. In addition, joint support and coordination with the National Headquarters was also envisaged, to cover the needs identified during a prolonged volcanic eruption.
Supply chain risks	Compliance measures of the suppliers with respect to their stock and logistics, linked to the contract.

Please indicate any security and safety concerns for this operation:

The area of influence of the Puracé Volcano corresponds to a strategic corridor for the organized armed groups involved in the conflict, i.e. for the National Liberation Army (ELN, by its initials in Spanish) and the Central General Staff, a dissident group of the now-demobilized Revolutionary Armed Forces of Colombia (FARC-EP, by its initials in Spanish) through two Blocks (Western and Central), which constitutes a multi-threat and possibly multi-affecting scenario. In 2024, the Office for the Coordination of Humanitarian Affairs has registered 58 events of violence (associated with armed actions in the department). The most critical areas are in the north and southwest of the department.

In this regard, the procedures established in the Colombian Red Cross Society Operational Security Manual (Series 1,000) 2024–2028 shall be applied unrestrictedly. Likewise, the provisions established in the Tripartite Agreement signed in 2009 by the IFRC, the ICRC,

and the Colombian Red Cross Society, as well as in the framework of the Multilateral Coordination and Security Agreement signed in 2006 between the IFRC, the ICRC, and the PNSs, will be taken into account, considering the roles of each mandate and the responsibility to coordinate the security aspects that we develop in the country as a Movement (Seville Agreement 2.0). The Colombian Red Cross Society has the acceptance of all parties and therefore has guaranteed safe access to the area of influence of the volcano; however, in case of accident or incident, there is an action protocol, that includes preventive, proactive, and reactive security measures for personnel exposed in the field.

All actions will be carried out following the norms, protocols, and procedures established by the Colombian Red Cross Society, following full compliance with the Humanitarian Principles. For mobilization and permanently, the members of the Participating National Societies and components of the Movement will strictly follow the procedures and security measures provided for in the National Society Contingency Plan for the Puracé volcano.

Has the child safeguarding risk analysis assessment been completed?	Yes
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Implementation



Budget: CHF 8,951
Targeted Persons: 30
Assisted Persons: 29

Indicators

Title	Target	Actual
Number of first responders trained in physical and psychological first aid	30	29
Number of first aid kits prepositioned at Red Cross branches	5	5

Narrative description of achievements

- 29 of the 30 target people were trained in physical and psychological first aid, reaching 97% of the goal. This achievement improved the skills of volunteers to respond effectively to emergencies, strengthening the intervention capacity of the Cauca Branch in the communities.
- Five BLS Type C first aid kits with accessories: briefcase and rigid stretcher, were distributed to the municipal support groups of the Cauca Branch, a resource that will allow each team to attend to emergencies more quickly and efficiently, providing an immediate response in critical health situations in their respective localities.
- A health care tent was delivered for prepositioning in the Cauca Branch to strengthen the capacity of Red Cross teams to provide first aid in community settings. The tent facilitates immediate attention to people in emergency situations, expanding the coverage of health services and improving logistics for community support.

Lessons Learnt

- Despite having achieved a high percentage of participation in the training, it is crucial to develop strategies that allow reaching 100% of the expected participants, identifying and overcoming logistical and accessibility barriers that may limit attendance.

Challenges

- Challenge of sustainability of acquired skills: Maintain and improve the skills of volunteers in first aid through recurrent training and periodic updates, ensuring the continuity of their skills.
- Capacity building challenge: Strengthen the internal coordination of the National Society to overcome logistical barriers and optimize emergency response.





Water, Sanitation And Hygiene

Budget: CHF 55,308

Targeted Persons: 1,500

Assisted Persons: 1,522

Indicators

Title	Target	Actual
Number of people that received safe water storage, transport, and treatment kits	1,475	1,497
Number of Drinking Water Treatment Plants prepositioned in the Cauca Branch	1	1
Number of Staff and volunteers trained in Water, Sanitation and Hygiene in Emergencies	25	25

Narrative description of achievements

- 500 water storage, transportation and treatment kits were distributed, improving access to safe water in the indigenous communities of the municipality of Puracé. Each kit contained: a jerry can for transport, a container for storage and a clay filter with its container for water storage.
- A water treatment plant was installed at the Cauca Red Cross Branch, guaranteeing a greater capacity to respond to emergencies that require access to drinking water. In the same line, water quality tests were conducted to determine the physicochemical and microbiological characteristics of the raw water samples and show that the water is not safe for human consumption in the villages; consequently, all families in the rural area of the municipality of Puracé must boil the water, filter or decant it at home to reduce the risk.
- 25 staff and volunteers were trained in water, sanitation, hygiene and treatment plant management, ensuring their preparedness to implement emergency interventions and guarantee water quality.

Lessons Learnt

- It was identified that it is essential to complement the delivery with more frequent follow-up sessions to ensure that families continue to use the kits correctly and that they fully understand the recommendations to maintain access to safe water in the long term.
- To maximize the impact of training, it is necessary to implement periodic refresher programs, as well as practical simulations that reinforce the knowledge acquired, especially in high-pressure situations. As well as, perform regular drills/simulations and operational tests of the water treatment plant to ensure that the equipment can be developed and used quickly in emergency situations, avoiding operational delays.

Challenges

- Ensure the continuous and correct use of the water kits by the beneficiary families in the long term. This challenge implies establishing a post-delivery follow-up to ensure that the recommendations for safe water management are followed.
- Maintain the operational capacity and constant preparedness of staff to deploy the water treatment plant in emergency situations. This requires the implementation of regular drills, updating staff competencies, ensuring a rapid and effective response to critical events.



Protection, Gender And Inclusion

Budget: CHF 253

Targeted Persons: 25

Assisted Persons: 49



Indicators

Title	Target	Actual
Document formulated with the risk analysis for the protection of children within the framework of the operation.	1	1
% of people from the Colombian Red Cross Society and Cauca Branch, involved in the operation who improve their knowledge in the approach to Gender Based Violence and Sexual Violence.	80	100
% of people from the Colombian Red Cross Society and Cauca Branch, involved in the operation, who improve their knowledge regarding the Prevention of Sexual Exploitation and Abuse	80	23

Narrative description of achievements

- Application of the child protection framework in the context of the operation: The child protection risk analysis tool was applied in the operational context.
- Actions for the prevention of sexual exploitation and sexual abuse (PEAS in spanish): The total number of people involved in the project (staff and volunteers) participated in a virtual session on the prevention of sexual exploitation and abuse. This progress was supported by the dissemination of visual materials and the implementation of complaint boxes under the "Cruz Roja Te Escucha" (Red Cross Listens to You) initiative.
- Strengthening of knowledge on gender-based and sexual violence in the Red Cross staff and volunteers: A session on gender-based and sexual violence was held with the participation of 23% of the Colombian Red Cross staff involved in the operation, improving their knowledge and fostering greater understanding and response capacity. Material such as banners and the diffusion of the listening channel were elaborated to promote that the project's actions are carried out in respectful spaces.

Lessons Learnt

- Continue to promote training and awareness-raising actions to ensure the Protection, Gender and Inclusion approach in the operations, in order to fill the knowledge gaps for the application of this approach in the field.
- Promoting the methodology of continuous training to actively integrate these principles in the actions carried out. Fostering an organizational culture that promotes this approach as a central component in building resilient and equitable communities.

Challenges

- Limited evaluation mechanisms: There is a need to strengthen follow-up mechanisms to measure the implementation and effectiveness of Protection, Gender and Inclusion policies in emergency response.
- This is in addition to the time pressure and complex conditions in emergency contexts.



Risk Reduction, Climate Adaptation And Recovery

Budget: CHF 35,905

Targeted Persons: 3,000

Assisted Persons: 3,019

Indicators

Title	Target	Actual
Number of members of the risk management system that improve their preparedness for a potential eruption of the Puracé volcano.	25	28

Number of people in the prioritized communities that carry out or update their family emergency plan.	2,975	2,991
Number of communities prepared and equipped to evacuate and respond in case of emergency	12	12

Narrative description of achievements

- Improved preparedness of the risk management system: 28 people participated and improved their preparedness. This strengthens the capacity for coordinated response to a volcanic emergency.
- Family emergency plans updated in the communities: 997 people (family representatives) in the prioritized communities carried out or updated their family emergency plan, reaching the expected goal. This activity strengthens community resilience and improves the response capacity of families in the event of a volcanic emergency.
- Communities prepared and equipped for evacuation: 12 communities were able to strengthen their response capacity and received elements to evacuate and respond in the event of an emergency, meeting the established goal. The activities included training in emergency plans, provision of evacuation elements (first aid kits, stretcher, megaphone, flashlights, signage) and maintenance of communication devices, which guarantees a better response to possible emergencies or disasters.
- Installation and operation of communication systems at Cerro Puzná and Puracé volcano: The installation of communication equipment was successfully completed and essential materials were received in a timely manner.

Lessons Learnt

- Training activities and meetings with community leaders are fundamental to improve emergency preparedness, and continuity in training and constant coordination with the communities are essential to maintain and update the knowledge acquired, ensuring that all the actors involved are aligned and prepared for possible contingencies.
- The updating and development of family emergency plans in the prioritized communities highlighted the importance of empowering families to take a proactive role in their own protection.

Challenges

- Although maintenance activities were carried out on the communication devices, ensuring that these critical tools are always operational remains a constant challenge. Adverse conditions, prolonged use and lack of technical resources can compromise their operation.
- Continue promoting the dynamics of culture for risk prevention in the communities after the operation has ended, such as the constant revision and updating of family emergency plans.



Community Engagement And Accountability

Budget: CHF 2,326

Targeted Persons: 100

Assisted Persons: 124

Indicators

Title	Target	Actual
Number of community focal groups for context and needs analysis, and feedback	4	5
Number of people participating in community focus groups and interviews for context and needs analysis, and feedback	100	124

Narrative description of achievements

- Conducting community focus group: 5 focus groups were carried out, surpassing the initial goal, the participatory dialogue that provided insight into the context and needs of the communities. This direct feedback improved the understanding of the participants' priorities and concerns, harmonizing their expectations and needs with the project scope. Focus groups with members of the indigenous communities of Puracé, Kokonuko, Juan Tama and Paletará. Among the main conclusions, the communities recognized the importance of the Red Cross action to carry out prevention and anticipation actions in the face of the threatening event. The indigenous reservations recognize the importance that the Red Cross took into account their cosmovision in relation to the Puracé volcano, and their participation from the beginning to the end of the operation.
- Virtual socialization of the CEA approach: with employees and volunteers of the Colombian Red Cross Cauca Branch, Colombian Geological Service, Popayán Fire Department, Popayán Civil Defense, Red Cross Support Groups, Puracé Mayor's Office, Indigenous Authorities of Puracé and Kokonuko, Departmental Risk Management Advisory Office.
- The project activities involved the participation of the communities from start to finish, including their knowledge and cosmology for the understanding of risk, as well as the authorities and institutions involved in the national disaster risk management system for its sustainability.

Lessons Learnt

- Giving community members a voice provides valuable perspectives that allow for the design of more effective interventions tailored to local realities.
- The focus groups allowed obtaining critical information and direct feedback from the community. This practice should be continued and expanded in future interventions because it facilitates the diagnosis of needs and fosters trust and a sense of belonging among participants.
- A good practice was to rely on the large scale experience and reach of the Cauca Branch, which has worked in the indigenous reservations during decades in the territory, which allowed a great interest from the prioritized communities due to the trust that the Red Cross has built in their territories.

Challenges

- Ensure that all voices within the community are represented, especially those of more vulnerable or marginalized groups. A proactive approach is required to identify and facilitate the inclusion of these perspectives.
- Turn feedback into concrete and effective actions. This involves not only listening to the needs of the community, but also implementing tangible changes that respond to those concerns in a timely and effective manner.



Secretariat Services

Budget: CHF 4,425

Targeted Persons: 0

Assisted Persons: 0

Indicators

Title	Target	Actual
Number of monitoring visits	3	3

Narrative description of achievements

- Optimization of project management and planning: budget execution and transportation logistics were improved, ensuring greater efficiency in field activities, while the incorporation of technical recommendations and coordination with community strengthened the commitment to the project.
- Evaluation and improvement of temporary shelters in Puracé: A detailed technical analysis of the shelters was carried out using the IFRC methodology, identifying improvements in accessibility, security and reception capacity, and providing key recommendations to ensure optimal safety and welfare conditions in the event of a possible evacuation.



Lessons Learnt

- Timely monitoring and adjustments in budget execution and logistics improve operational efficiency and ensure that project objectives are met.
- Inclusion and coordination with local communities strengthens their commitment and ensures the success of project activities.
- Periodic technical evaluations of critical infrastructure, such as temporary shelters, identify improvements needed to ensure safety and well-being in emergency situations.

Challenges

- The geographic and socioeconomic characteristics of the municipality of Puracé can present challenges in the implementation of temporary shelters. Solutions need to be adapted to local realities to ensure their effectiveness and acceptance.
- Administrative and logistical set-up times affected the schedule of planned actions.



National Society Strengthening

Budget: CHF 42,762

Targeted Persons: 25

Assisted Persons: 25

Indicators

Title	Target	Actual
Number of staff and volunteers providing feedback to the operation	25	25
Number of lessons learned workshop developed	1	1
Number of NIT deployed to support the operation	1	1

Narrative description of achievements

- Volunteer identification and welfare: The acquisition and distribution of uniforms (t-shirts, caps and ID holders) to volunteers not only improved their identification, but also contributed to their well-being and morale during project activities. In addition, volunteer leadership was promoted at the local level for the development of project activities.
- Reflection and collective learning: A lessons learned workshop was held to reflect on project experiences, identify successful practices and highlight opportunities for improvement for future interventions.
- Development of training workshops for capacity building with the participation of volunteers and staff of the Colombian Red Cross at national and branch level.

Lessons Learnt

- The training of staff in rights-based perspectives, combined with collective reflection on the project's experiences, highlighted the importance of implementing emergency response actions in a responsible manner, avoiding damage and guaranteeing respect for the rights of the communities.
- The acquisition and distribution of uniforms to volunteers allowed the project to encourage volunteer work.

Challenges

- Ensure strategies to motivate the volunteers at all times, to ensure the project's impact on both the community and the team.
- The administrative and project enlistment processes generated significant challenges for the scheduling of activities. Affecting the expectations of the local team in the field.

Financial Report

DREF Operation

FINAL FINANCIAL REPORT

MDRCO026 - Colombia - Volcanic eruption

Operating Timeframe: 27 May 2024 to 31 Oct 2024

Selected Parameters			
Reporting Timeframe	2024/5-2025/4	Operation	MDRCO026
Budget Timeframe	2024-2025	Budget	APPROVED

Prepared on 27/May/2025

All figures are in Swiss Francs (CHF)

I. Summary

Opening Balance	0
Funds & Other Income	149,930
DREF Anticipatory Pillar	149,930
Expenditure	-99,714
Closing Balance	50,216

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	8,405	7,700	705
PO05 - Water, Sanitation & Hygiene	51,933	42,110	9,822
PO06 - Protection, Gender and Inclusion	237	234	3
PO07 - Education			0
PO08 - Migration			0
PO09 - Risk Reduction, Climate Adaptation and Recovery	42,864	9,212	33,652
PO10 - Community Engagement and Accountability	2,184	604	1,580
PO11 - Environmental Sustainability			0
Planned Operations Total	105,623	59,860	45,763
EA01 - Coordination and Partnerships			0
EA02 - Secretariat Services	4,155	7,745	-3,590
EA03 - National Society Strengthening	40,152	32,108	8,044
Enabling Approaches Total	44,307	39,853	4,454
Grand Total	149,930	99,714	50,216

[Click here for the complete financial report](#)

Please explain variances (if any)

A total of CHF 149,930 was allocated from the Disaster Response Emergency Fund (DREF) for the implementation of this operation. By the end of the operation, total expenditures amounted to CHF [99,714]. The unspent balance of CHF 50,216 will be returned to the DREF.

There were no significant variations within the framework of the project; the difference between the execution of technical indicators vs. budget is due to the fact that the National Society achieved a great optimization of the funds allocated to the project.



Contact Information

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

National Society contact: Juvenal Francisco Moreno, National Executive Director, francisco.moreno@cruzrojacolombiana.org

IFRC Appeal Manager: Tiziana Bonzon, Head of Country Delegation, tiziana.bonzon@ifrc.org

IFRC Project Manager: Edwin Armenta, Coordinator, Programs and Operations, edwin.armenta@ifrc.org

IFRC focal point for the emergency: Edwin Armenta, Coordinator, Programs and Operations, edwin.armenta@ifrc.org

Media Contact: Susana Arroyo, Manager, Regional Communications, susana.arroyo@ifrc.org

[Click here for reference](#)

