



DREF Operation-Update

Comoros | Yellow alert Volcanic eruption

DREF n°: MDRKM009	GLIDE n° VO-2022-000319-COM
Operation update n° 1. Date of issue: 30 January 2023	Timeframe covered by this update: 4 months from 21 September to 21 January 2023.
Operation start date: September 2022	Operation timeframe: 6 months with end date: 31 March 2023
Funding requirements (CHF): CHF 0	DREF amount initially allocated: CHF 172,379
N° of people being assisted: 308 328 people (61,666 households) in 6 regions Mbadjini, Hambou, Bambao, Itsandra, Washilli and Dimani.	
Red Cross Red Crescent Movement partners currently actively involved in the operation: The Comoros Red Crescent Society (CoRCS) leads the overall response operation. This action is supported by the International Federation of Red Cross and Red Crescent Societies (IFRC) and French Red Cross – PIROI.	
Other partner organizations actively involved in the operation: Civil Society Direction, Ministry of Health, UNICEF, OMS	

Summary of major revisions made to emergency plan of action:

This operation update aims to inform the stakeholders on the progress of this DREF operation since the launch on 21 September 2022 and explain some operational adaptation following the findings of the rapid assessment carried out by Comoros Red Crescent. It also explains the need to extend the National Society presence as the yellow alert has not yet been lifted since 17 August 2022.

The changes in this update include:

- The increase of region at risk from 4 regions to 6 regions which have cistern exposed to the possible volcanic waste.
- Following the assessment and cistern identified to be covered, the NS has increased the number of volunteers to be trained from 115 to 145. This has also had a budgetary impact on the number of villages to be monitored and the number of volunteers to be trained. However, the nature of the activities provided for in the DREF has not changed.
- Yellow alerts remain active since the 17 August official declaration.

Following the trigger for the different actions, National Society has started the sensitization and preparedness activities include:

- Assessment of Water point situation and mapping of at-risk cisterns and areas is completed
- Mobilization of 145 volunteers to conduct sensitization, protection messages, psychosocial support
- Training on CEA, Communication and PGI with the support of IFRC and CEA regional DREF officer
- Volunteers have started sequence of door to door and community discussion to disseminate prevention message, protection messages.

All the procurement has been held-on as the threshold is not yet reached to activate the early warning and procurement. In case of any change of the situation, NS can benefit from pNS stocks, so procurement will be activated in case the orange phase in the horizon based on National alert of changes in volcano activity.

A. SITUATION ANALYSIS

Description of the disaster

The Comoros archipelago consists of four islands; from east to west these are Mayotte (also called Maore), Anjouan (Nzwani), Moheli (Mwali) and Grande Comore (Ngazidja). Karthala volcano forms the southern two-thirds of Grande Comore Island. The Directorate of Civil Security in Comoros through the Observatoire Volcanologique du Karthala (OVK) has been established in 1988 with the scientific and technical support of the University of La Réunion and the Institut de Physique du Globe de Paris and much work has been done on Karthala volcano since then concerning the volcanology, structural geology, petrology, geochemistry, and geophysics. OVK has reported that a persistent microearthquakes on the western flank of Ngazidja Island on 15 July. The Directorate of Civil Security convened the first information meeting of all actors in risk and disaster management on August 22, 2022.

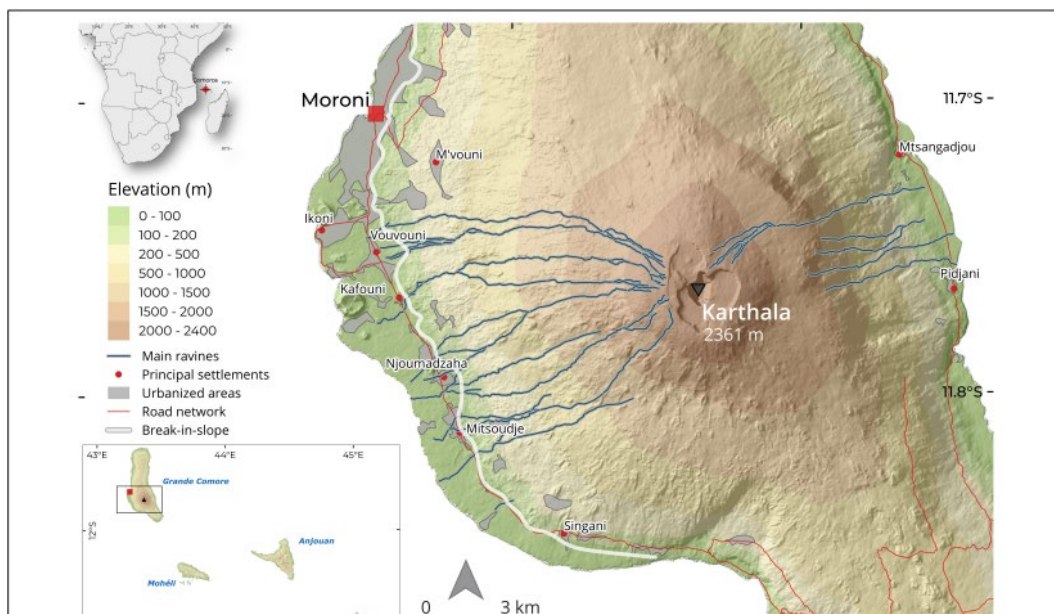


Figure 1: Karthala localization, (Dille et al, 2020¹)

Nevertheless, OVK reported on 4 October that activity at Karthala had significantly declined during the previous few days. OVK recommended that the alert Level remain at Yellow and residents were invited to limit activities on and around the volcano.

Indeed, Karthala erupted regularly (with an average frequency of one eruption every 6–8 years) over the past 100 years until the phreatic eruption of 1991. There are 115 villages in at-risk areas with an estimated population of 293,610 inhabitants throughout 44,042

persons could be displaced. Furthermore, peoples' livelihoods such as farming, livestock, fishing, and tourism are in high risk to be impacted and the socio-economic impact. Indeed, the price of foodstuffs would be likely to rise and the security of vulnerable people at the level of shelters would be likely to increase. Indeed, the eruptions were highly explosive phreatomagmatic to violent-strombolian eruptions (Smietana, 2007¹) and dispersed ashes and scoriaceous pumice over the island and posed major threats to the population and local economy. CO₂ fluxes and chemical and isotopic gas compositions acquired during two surveys in 2017 and 2020 are integrated with older datasets collected between 2005 and 2016, permitting the identification of a possible influence of the recent volcanic and magmatic activity in Mayotte (Liuzzo et al, 2022²). Therefore, it is necessary to prepare the response activities even if the alert is in yellow.

Since October, the yellow alert remains, so a vigilance spot is still on because the Karthala volcano can be unpredictable as reported by OVK, so the situation could still be possible to switch to orange or red alert. Karthala volcano is one of the most active African volcanoes and it is the second most active volcano in the Indian Ocean after Piton de la Fournaise in La Réunion Island.

Summary of current response

DG ECHO is replenishing the Disaster Response Emergency Fund (DREF) of the International Federation of Red Cross (IFRC) to prevent the already known consequences of Karthala volcanic eruptions by contributing to good population communication, contingency planning, and water protection in 4 Sub-divisions in the Grand Comoros island (Moroni).

Overview of Host National Society

¹ Smietana M (2007) Etude pétrologique et volcanologique des dépôts des quatre dernières éruptions du Karthala. MSc apprenticeship report, University of La Réunion, France, pp 51

² Liuzzo M., Di Muro A., Rizzo A.L., Caracausi A., Grassa F., Fournier N., Shafik B., BOUDOIRE G., Coltorti M., Moreira M., and F. Italiano (2022), Gas Geochemistry At Grande Comore And Mayotte Volcanic Islands (Comoros Archipelago), Indian Ocean

The CoRCS has been attending meetings organized by the provincial government to coordinate response since July 2022. CoRCS has outlined the concrete steps to collaborate with stakeholders and plan a response with international support by applying for a DREF request. CoRCS focused on the WASH, health, shelter, and protection gender and inclusion (PGI) area considering the capacity of the National Society and the request from the Government.

CoRCS has made a significant investment in developing its capacity in disaster response according to their experiences with past volcano disaster (2005 and 2006). 145 volunteers have been mobilized and trained on awareness among population on the prevention of water-related diseases in the event of water pollution by volcanic ash. Indeed 80% of the population living in Comoros will be affected by water pollution one of the main consequences of the latest volcanic eruptions. Indeed, CoRCS have trained their volunteers in aiding evacuees, assessing, and distributing supplies to affected areas, providing first aid support, coordinating with stakeholders.

Overview of Red Cross Red Crescent Movement in country

IFRC CCD provides technical and coordination support for CoRC as well as based in Madagascar. Nonetheless, IFRC has organized a mission in Comoros to support the local team such as the communication officer who undertook a mission in November to assess and strengthen the capacities of volunteers in terms of communication capacity.

French Red Cross/PIROI also provide technical and financial support and will be allocated the provision of tarpaulin to protect the tanks that are not closed against pollution with volcanic ash. The CoRCS held regular meetings with those partners to brief and to follow up the implementation of the DREF activities.

Overview of non-RCRC actors in country

The Government throughout the Ministry of the Interior has set up a multisectoral response plan and holding coordination meetings of risk management actors in the country every 15 days at the headquarters of the civil security. A technical commission with the participation of the CoRCS and the French Red Cross was appointed and worked on the development of the national response plan and the various messages to be passed on to the population at risk.

10 civil security officers participated in the training carried out at the Comorian Red Crescent within the framework of the DREF.

Needs analysis and scenario planning

Needs analysis

A need assessment has been conducted from 28 October 2022 to 7 November 2022 to assess the current needs, gaps, and level of vulnerability of households and the water supply system in the villages.

Based on the assessment and update meetings with Civil security, the number of regions is now 6 instead of the 4 initially identified. Meaning Mbadjini, Hambou, Bambao and Itsandra initial at risk with 293,610 people live in the risk zones; we now have additional Washilli and Dimani.

During the volcanic eruptions of 2005 and 2006, the water of the rainwater collection cisterns, the main source of water at the island level, was affected by volcanic ash. Based on those lessons learned, it was urgent to know the number of cisterns that are not closed to raise awareness to cover them and prepare tarpaulins to close them in case the volcanic eruption is imminent. Therefore, the cistern assessments have been a priority during the assessment conducted. The assessment of rainwater collection cisterns in 115 at-risk villages took place on 27 October 2022 and affected 1,560 cisterns. The results found out 189 tanks were closed with concrete, 693 tanks closed with corrugated iron, 678 tanks not closed, and 250 tanks were very dirty. The last one (250 tanks) required urgent cleaning before covering them.

Following the above results, National Society have increased the number of volunteers to be trained from 115 to 145 by adding one volunteer for each village.

The results of the assessment confirmed the risk already highlighted in the EPoA and have identified the necessity to focus on:

- (i) Cleaning of polluted water cisterns,
- (ii) Protection of water sources by tarpaulin.
- (iii) Distribution of kitchen kits.
- (iv) Psychosocial support to address the emotional stress arising from the extended and ongoing risk of continued ashfall and eruption.

Special consideration may need to be given to persons with disabilities, the elderly, women, and children to ensure that they are safe in terms of their shelter, water access, sanitation, health, and basic needs and not further exposed to any harm. Protection messaging and psychological first aid support will also be disseminated when doing distributions.

In addition, the [Emergency Plan of Action](#) has detailed reference for the need analysis and a multidimensional vulnerability analysis with indicator and forecasts monitored by National Society on each scenario planning.

Operation Risk Assessment

The scenario planning remains the same as at scenario 1 as are still under the 6 months since the alert, it tends to fit under the scenario 2 as from the analysis developed in the [EPoA](#). Indeed, there is a high risk of this operation to be extended beyond the 6 months. NS is monitoring the situation with the information from team in the field and observatory agency reports and civil protection.

That scenario will imply some risk such as:

- Yellow alert maintained beyond the 6 months. As such, Comoros Red Crescent is coordinating with IFRC for the possibility to supply the gap on the risk reduction through a simplified early action protocol.
- The risk associated to ongoing COVID 19: Indeed, the volunteers is following safe practices established by government for all operation implemented in community.
- The risk of heavy ashfall to also impact the health and safety risks for CoRCS staff and volunteers deployed to the field is still on top of risk matrices. Health risks include respiratory illness, contaminated water and lack of food. Nonetheless, appropriate personal protective equipment (PPE) will be provided for staff and volunteers involved in the imminent DREF operations (goggles, masks etc.) as soon as possible. In addition, early warning action systems were already identified for safe evacuation in accordance with the authorities. The CoRCS has planned like all the Ministries involved in disaster management to move to the North of the island which is considered the only safe zone where everyone must be evacuated in case of volcanic eruption with lava flow.

C OPERATIONAL STRATEGY

Proposed strategy

CoRCS action focuses on and readiness with three main areas of support:

- Supplying the population** with essential household Items to protect their assets and especially water cisterns, kitchen kits, blankets, and generators for electrification
- Monitoring the current situation** and ensuring the information were shared through the responsible:
 - Mobilizing 145 volunteers to provide early warning information to the community and most vulnerable of the threat and risks of the volcano eruption. Information will also be disseminated to people via megaphones and social media.
 - Ensuring that staffs, assets, and resources were readily available by: (i) activating the 24-hour response team on-duty at the chapter, (ii) prepositioning and mobilization of the PRC assets in strategic areas, (iii) Ensuring availability of emergency funds to support chapter operations. (iv) Ensuring relief stocks were available at various warehouses
- Mobilization of personnel and assets to support evacuations**, provide first aid, as well as underpinning a commitment to quality programming that involves continuous and in-depth assessments and analyses to inform the design and ongoing implementation of the programme. The personnel will be refreshed to the adherence to PGI measures once these actions will be triggered by the orange/red alert.

The [MDRKM009 Comoros operation](#) was approved on 21 September 2022 for 4 months with an allocation of CHF 172,379 which covers some readiness activities during the Yellow phase and some actions when the orange phase is on the horizon or activated (evacuation, distribution of protections). NS has implemented 80% of the activities triggered by this yellow alert. The remaining activities are the procurement of tarps and PPE/mask and the early actions activities triggered by a transition to the orange or red phase as planned under the strategy section in the EPoA.

The request for extension follows the fact that the yellow alert has not yet been lifted and the communities are still alert and afraid on the permanent risk. NS in this extension intend to keep the focus on the above areas of support, keep their presence and readiness at community level, remain in alert and start the groundwork to support for a simplified EAP which can ensure a 2-year readiness and presence of NS as the alert is likely to be extended beyond 2023.

IFRC will provide all technical support and guidance to the actions during this extension.

Logistics and supply chain

Logistics activities aim to effectively manage the supply chain, including procurement, customs clearance, storage, and transport to distribution sites following the operation's requirements and aligned to IFRC's logistics standards, processes and procedures. Procurement possibility is assessed but based on likely of the yellow alert to continue beyond the DREF, procurement will be completed once the OVK will update on increased volcanic activities. Partners stocks also available as explained under the EPoA.

Planning, monitoring, evaluation, and reporting (PMER)

Reporting on the emergency plan of action will be carried out according to IFRC minimum standards. Monitoring visits to the affected communities will also be conducted to assess progress regularly and guide any required adjustments to the proposed response. The PMER should also undertake a daily team monitoring with CoRCS staff to ensure the data quality and timely.

After the operation, a reflection workshop should be carried out and a final lesson learned workshop to reflect on the intervention and generate reflections on volcano early warning early action plans, procedures, and processes for the future.

C. DETAILED OPERATIONAL PLAN

Water, sanitation and hygiene



People reached: 234,888
 Male: 51%: 119,793
 Female: 49%: 115,095

Outcome 1: Immediate reduction of waterborne disease risk in targeted communities

Output 1.1: Water protection and treatment is provided through awareness raising and water cistern covers

Indicators:	Target	Actual
# of population supported for water cistern protection	1,500 households	0
# of people reached by awareness raising activities	93,610 people	234,888 people
# of volunteers and staff trained	TBD	0

Progress towards outcomes

Prevention of water access is playing an important role on population vulnerability and protection against the possible risk during the volcano eruption. After learning about the very dirty cisterns based on assessment results, a team of 145 volunteers will clean and disinfect them with chlorine. The trained volunteers also raise awareness of the importance of covering cisterns, on drinking water consumption, water hygiene and the prevention of water-related diseases.

Disaster Risk Reduction



People reached³: 10,687
 Male: 51%: 5413
 Female: 49%: 5274

Outcome 1: communities in high-risk areas are prepared for and able to cope with the disaster

Output 1.1: communities take concrete steps to strengthen preparedness for rapid and effective disaster response		
Indicators:	Target	Actual
# of people reached by awareness raising on volcano risk	293,610 people	10,687 people
# of people benefiting from the distribution of dust masks	15% of the population at risk	0
# of volunteers trained on risk communication	70	145
Outcome 2 : Disaster response and risk reduction capacity building activities		
Output 2.1: Maintaining effective response preparedness and maintaining the NS emergency response capability mechanism		
Indicators	Target	Actual
# of Security briefing for volunteers	1	1
Progress towards outcomes		
<p>The CoRS with DREF funding is carrying out the priority activities highlighted in the national action plan. These are activities related to the reduction of risks to the protection of the population in the event of a volcanic eruption, WASH activities for the protection of drinking water from volcanic ash pollution and health activities related to the prevention of water-related diseases in the event of water pollution by volcanic ash.</p> <p>The activities carried out are:</p> <ul style="list-style-type: none"> • The training of 145 volunteers took place at the headquarters of the regional office of Ngazidja from 24/10/2022 to 5/11/2022 as well as 10 civil security agents. A communication module was added to the training curriculum to strengthen participants' skills in how to get the message across to the population. 6 trainers ensured the implementation of this training. • Engagement of civil security agent has contributed to coordination with civil security and set basis of understanding of the role of NS. • The volunteers began community awareness, to conduct awareness based on the types of alert and possible scenario. The awareness was about the protecting drinking water against the risks of pollution and the prevention of water-related diseases. As of December 5, 2022, reports from volunteers shown that 10,687 people have been reached by community outreach with the following distribution, 5413 men, 5274 women and 40 young adolescents. • Communication tools have been developed to support awareness. There are 400 posters and 400 leaflets. Posters were displayed in public squares in at-risk villages and leaflets were shared with community outreach volunteers. 140 T-shirts have been produced with a volcanic alert message and distributed to volunteers who provide community awareness on the risks associated with the volcanic eruption. 		

Strengthen National Society		
Outcome 1 National Society capacity building and organizational development objectives are facilitated so that National Societies have the legal, ethical and financial foundations, systems and structures, skills and capacities to plan and implement activities (This Implementation Strategy should not be included in an action plan for a DREF operation)		
Indicators:	Target	Actual
# of volunteers mobilised and deployed	70	145
# of volunteers briefed on security measures	70	145
# of volunteers trained in CEA/PGI and volcanic prevention measure	70	145
Output 1.1: National Societies have the necessary infrastructure and institutional systems		
Indicators:	Target	Actual
# of villages covered by the teams deployed	115	145
# of cars deployed	TBD	1
# of monitoring mission conducted by branch	16	3
# of monitoring mission HQ conducted	2	1
# of IFRC monitoring and technical support	2	1

Output 1.2: Capacity building of NS to support disaster risk reduction, response and preparedness at local level		
#of surge deployed (01)	1	0
#of mission from IFRC delegation (02)	2	1
# of Coordination meetings with local authorities /government/KVO and partners (08)	8	2
# of Security briefing for volunteers (1)	1	1
# Lessons learnt conducted	1	0
# Lessons learnt report	1	0
Progress towards outcomes		
<p>The Surge has not been deployed in the last 4 months since the yellow alert has not changed and NS was finally not in need of additional support to manage the intervention. It was planned that the Surge will support the NS in communication related to volcanic eruption and in designing the S-EAP. As this has not been done, it will absolutely be implemented during this extension. A remote support from the IFRC CCD office has been regular to the NS through meetings and working sessions. The Communication Officer from the Cluster Delegation office has conducted a 10 day support mission in Comoros to support the NS in training volunteers and staff in communication methodologies, developing communication messages, etc.</p> <p>Deployment cost to be used to support the groundwork for collecting information to start a Simplified EAP development process with IFRC support.</p> <p>As such, support from IFRC will be needed for common filing of learnings that will inform S-EAP and future operations.</p>		

D. Financial Report

Budget and allocation remain at 172,379 CHF as summarised in the EPoA. Implementation is ongoing and 35% of that budget has already been reported.

Reference documents



Click here for:

- Previous Appeals and updates
- Emergency Plan of Action (EPoA)

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For In-Kind donations and Mobilization table support:

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How we work

All IFRC assistance seeks to adhere to the **Code of Conduct** for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGO's) in Disaster Relief and the **Humanitarian Charter and Minimum Standards in Humanitarian Response (Sphere)** in delivering assistance to the most vulnerable. The IFRC's vision is to inspire, **encourage, facilitate and promote at all times all forms of humanitarian activities** by National Societies, with a view to **preventing and alleviating human suffering**, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The IFRC's work is guided by Strategy 2020 which puts forward three strategic aims:



Save lives,
protect livelihoods,
and strengthen recovery
from disaster and crises.



Enable **healthy**
and **safe** living.



Promote social inclusion
and a culture of
non-violence and **peace**.