

www.ifrc.org  
Saving lives,  
changing minds.

# Final Report

## Yemen: Dengue Fever Outbreak

 International Federation  
of Red Cross and Red Crescent Societies

<b>DREF operation</b>	<b>Operation n° MDRYE008;</b>
<b>Date of Issue: 05 March 2021</b>	<b>Glide number: <a href="#">EP-2019-000178-YEM</a></b>
<b>Operation start date: 26 December 2019</b>	<b>Operation end date: 30 October 2020</b>
<b>Host National Society: Yemen Red Crescent Society (YRCS)</b>	<b>Operation budget: CHF 278,498</b>
<b>Number of people affected: 59,486 people</b>	<b>Number of people assisted: 112,514 people</b>
<b>Red Cross Red Crescent Movement partners currently actively involved in the operation: International Federation of Red Cross and Red Crescent Societies (IFRC) and International Committee of the Red Cross (ICRC).</b>	
<b>Other partner organizations actively involved in the operation: Ministry of Public Health and Population (MoPHP), World Health Organization (WHO) and local government authorities</b>	

## A. SITUATION ANALYSIS

### Description of the disaster

Since the onset of the outbreak in Yemen and during the operation timeframe, dengue suspected cases continued to increase during 2020 comparing with 2019. The suspected cases by the end of 2020 reached seven times the cases in 2019, and six times the reported numbers in 2018, according to the Yemen Health Cluster (table on the right).

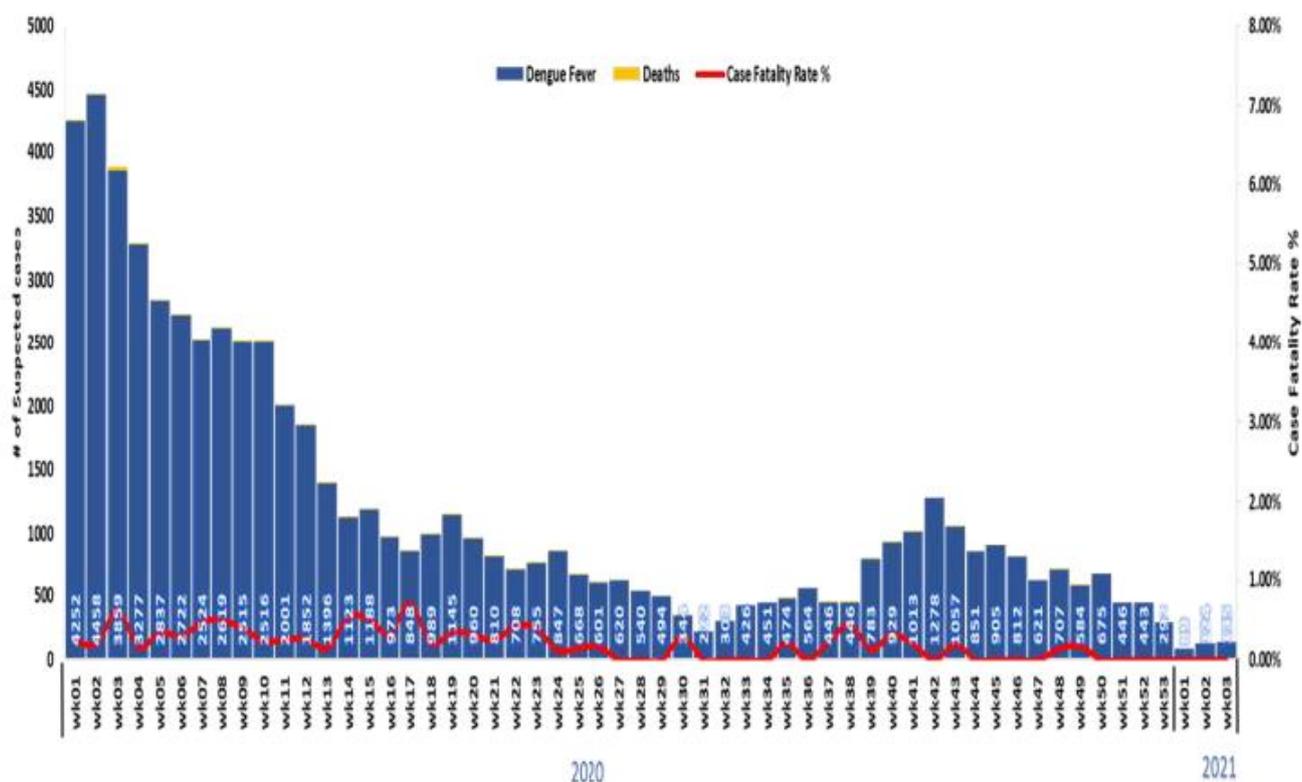
With the interventions implemented by actors including YRCS, focused on key vulnerable locations with the highest number of cases reported, the national overview indicates a decrease in 2021 in the first three weeks compared to 2020.

The number of cases during the last quarter of 2020 showed huge decrease comparing to the beginning of the year and further decrease in cases with associated deaths reported during the first three weeks of 2021. (see table below)

### Overview of Dengue Fever From Wk1-WK3,2019,2020 and 2021

Indicators (From Week 01 to Week 03)			
Indicator المؤشر	Year 2019	Year 2020	Year 2021
<b>Suspected Cases</b> حالات الاشتباه	1673	12569	348
<b>Death Cases</b> حالات الوفيات	4	19	0
<b>CFR%</b> معدل الإماتة	0.2%	0.2%	0.0%
<b>Attack rate /10,000</b> معدل الهجمة / ١٠,٠٠٠	0.6	4.2	0.1
<b>Positive RDT (IgM)</b>	62	335	1
<b>%from total tested</b>	36% from total tested (170)	36% from total tested (919)	11% from total tested (9)
<b>Affected Governoate</b> المحافظات المتأثرة	16 Gov.(70%)	21 Gov.(91%)	4 North Gov.(28%)
<b>Affected Districts</b> المديريات المتأثرة	85 Dist. (26%)	141 Dist. (42%)	19 North Dist. (9%)

## Epidemiological curve of Dengue Fever Cases with CFR% (Cumulative from WK1 ,2020 to WK3 ,2021)



### Summary of response

#### Overview of Host National Society

Yemen Red Crescent Society (YRCS) has a nationwide presence in Yemen, with 22 branches in the different governorates across the country. Health humanitarian services are a priority for YRCS including primary health care, community-based health and public health in emergencies. With more than 3,500 volunteers throughout the country, YRCS has the capacity to reach most of the areas and engage in first response actions related to the humanitarian crisis and other situations such as this outbreak.

YRCS is a recognized health humanitarian actor in first aid response and ambulance services and leading in providing first aid trainings and health education activities to local communities by trained community volunteers. YRCS implements integrated health, WASH and PSS activities in emergency and non-emergency situations and covers the needs of the displaced population (IDPs) affected by conflict and natural disasters.

Since the beginning of the outbreak, the YRCS has been coordinating with MoPHP at national level through Health Cluster Coordination meetings and closely checked the reports with information from branches. MoPHP requested support from humanitarian health actors in the country, including YRCS, to respond to the dengue outbreak. YRCS, supported by Red Cross Red Crescent (RCRC) Movement partners in Yemen, coordinated and responded to the outbreak collectively. With support from this DREF allocation, YRCS developed and implemented the plan to provide assistance to up to 35,000 people in the most affected governorates of Shabwah, Hudaidah, Aden, Taiz through health and hygiene messaging, provision of hygiene kits and mosquito nets as well as fogging in high-risk areas. Further information is reported below against the detailed operational plan.

#### Overview of Red Cross Red Crescent Movement in country

Movement coordination mechanism in the country is very active with regular strategic, operational and technical levels meetings. Health technical working group is established and meets with the Movement partners in-country regularly every two months and/or as needed for coordination, information sharing, harmonization and standardization of support to YRCS. Aside from IFRC and ICRC, Danish Red Cross, Norwegian Red Cross, German Red Cross and Qatar Red Crescent are present in the country, supporting projects and programmes to the YRCS in Health, WASH, Disaster Management and National Society capacity strengthening.

Prevention and control of dengue are incorporated in primary health care services provided by the YRCS, and supported by Movement partners. It is also included in the training of epidemic control, hygiene promotion, and first aid trainings

in operational areas of support. YRCS coordinated with the in-country Movement partners and ICRC health unit regarding the response of the dengue outbreak and shared the information and request from MoPHP and Health cluster. ICRC responded to the outbreak through provision of treatment kits/medicines to the government health facilities supported by ICRC in Hudaidah and Taiz.

### Overview of non-RCRC actors in country

MoPHP has implemented treatment campaign in Hudaidah governorate specially in Bait Al Faqeeh district. It has also been coordinating with the Health Cluster to channel support of the humanitarian actors. YRCS has been attending and participating in the Health Cluster meetings regularly to get the gap analysis, in order to arrange the intervention and avoid any duplication with other stakeholders. MoPHP led the response with technical guidance and operational support from WHO coordinated through governorates and district level health systems. Locally appropriate information materials were made available to humanitarian actors for production and utilization. Local authorities support in coordination and meetings with the community.

### Needs analysis and scenario planning

Please refer to [Operation Update no. 2](#) for the needs analysis and operation risk assessment.

## B. OPERATIONAL STRATEGY

### Proposed strategy

#### Overall Operational objective:

The overall objective of this operation is to reduce the risks of dengue for 35,000 people in 13 prioritized districts in five affected governorates: Shabwah, Hudaidah, Hajjah, Aden, Taiz, through the implementation of a community mobilization strategy on risk prevention and health hygiene promotion activities. Assessment results led to a reallocation of resources and focus, with Hajjah removed from areas of intervention, to increased activities in Hudaidah that recorded the highest number of cases and was expected to further increase if not responded to preemptively.

## C. DETAILED OPERATIONAL PLAN

	<p><b>Health</b>  <b>People reached: 112,514</b>  Male: 58,507  Female: 54,007</p>	
<b>Outcome 1: The immediate risks to the health of affected populations are reduced</b>		
<b>Indicators:</b>	<b>Target</b>	<b>Actual</b>
# of people reached by NS with services to reduce relevant health risk factors.	35,000	112,514
<b>Output 1.1: Populations living in areas with high incidence of dengue have increased access to information regarding early identification of dengue signs and symptoms, prevention and control.</b>		
<b>Indicators:</b>	<b>Target</b>	<b>Actual</b>
# of people reached by community-based health activities 100 of health care workers trained on case management	35,000	112,514
<b>Output 1.2: Epidemic prevention measures carried out in communities</b>		
# of mosquito nets distributed (to reach 1,666 HHs under this Operation while the rest of the Mosquito nets will be provided by other partners)	5,000	6,000
# of communities in 13 priority districts in five governorates supported by fogging	13	10
<b>Narrative description of achievements</b>		
<p>YRCS started this operation by coordinating with the MoH offices in the targeted branches and the National Malaria Programme (NMP), and it was agreed to have full package for the response to the outbreak. The package included awareness sessions, entomological investigation campaign, mosquito breeding site removal and swamp filling as well as fogging campaign.</p>		

The campaign has included volunteers from YRCS and the MoH office to participate in the intervention and the response to the DF outbreak. Those volunteers had received number of prior trainings to obtain better understanding and knowledge such as ECV, procedures and precaution during fogging, and DF case management.

YRCS has intervened in ten (10) communities in four governorates Aden, Taiz, Shabwa and Hudaidah. These communities included hospitals and health centers in the targeted communities, where staff, patients and visitors were provided with awareness materials and other activities.

In addition, YRCS distributed mosquito nets in the targeted communities, 6,000 nets were procured through this operation and 2,130 were provided by the National Malaria Programme. Two thousand families had received mosquito nets in the four (4) targeted branches and 39 hospitals and health centers were supported with mosquito nets.

Based on the evolving situation and assessment results on the ground, activities in Hajjah were cancelled due to diminished needs, and resources were reallocated to reach additional communities in Hudaidah, the governorate that recorded the highest number of cases, as a pre-emptive measure to contain the outbreak before it further worsened.

With support from this DREF operation, YRCS procured 15 fogging machines along with the necessary chemicals (Deltamethrin material) for fogging. YRCS volunteers were trained by MoH on the safe and appropriate use of these materials as a part of the fogging exercise carried out in the identified locations.

At the end of the operation, a year-on-year comparison of reported dengue cases in the areas of intervention shows a sharp decrease, reflecting the contributed impact of YRCS actions supported by the DREF.

### Challenges

- The security situation in country remains the main challenge during the implementation of the operation.
- Difficulties in coordination with the various authorities.
- COVID-19 outbreak was also a key challenge during the implementation where volunteers were not able to move in the field.
- The fuel crisis in target governorates was challenging to the implementation as YRCS had to secure fuel through coordination with different levels.
- Procurement of the necessary chemicals required for fogging was an initial challenge in terms of availability in the market as well as the impact of funding transfers to YRCS, this was resolved through cooperation with the NMP, where the chemicals from NMP stocks for other locations were shared based on urgency of intervention while YRCS procurement was underway, and the chemicals returned to NMP for other locations as soon as completed, so as to deliver the activities in a timely manner.

### Lessons Learned

Coordination of the National Malaria Programme, a first for YRCS, should be maintained as it has an important role in facilitating activities implementation in the field especially in relation to vector-borne diseases. Based on the positive experience made possible by the DREF operation, YRCS continues to coordinate with NMP beyond this operation, to work together in longer-term health interventions.

YRCS were also sufficiently comfortable with the DREF tool to amend and adjust the original proposed operation based on continued assessments and needs of communities, in close coordination and with the support of IFRC.

As part of the preparedness measures, the coordination with NMP will be a supportive element in future response.



## Water, sanitation and hygiene

People reached: 92,529

Male: 48,115

Female: 44,414

### Outcome 1: Immediate reduction in risk of waterborne and water related diseases in targeted communities

Indicators:	Target	Actual
% of people practicing good water handling practices which includes use of sufficient water storage container	20%	15%

### Output 1.1: Hygiene promotion activities which meet Sphere standards in terms of the identification and use of hygiene items provided to target population

Indicators:	Target	Actual
# of people reached by hygiene promotion activities	35,000	92,529
<b>Output 1.1: Hygiene-related goods (NFIs) which meet Sphere standards and training on how to use those goods is provided to the target population</b>		
Indicators:	Target	Actual
# of HHs received hygiene kits	2,000	2,000
<b>Narrative description of achievements</b>		
<p>YRCS has produced 8,000 leaflets and 8,000 posters and provided the volunteers with caps for visibility. These Information, Education, and Communication (IEC) materials were used during the awareness campaign in the targeted communities. The awareness campaign also included distribution of hygiene kits to 2,000 families in the four targeted governorates of Aden, Shabwa, Taiz and Hudaidah. During this operation YRCS continued to deliver awareness sessions to targeted communities on the dengue fever with key messages while ensuring using the protective measures. The actual number of people reached have increased during this operation due to the fact that YRCS went to more households in the targeted communities based on the request and the coordination with the NMP.</p> <p>YRCS, with support from NMP, printed 500 copies of the booklet covering information on safe handling and management of fogging. These materials were subsequently distributed to the branches volunteers who were mobilized to carry out the activities in the planned locations.</p>		
<b>Challenges</b>		
<ul style="list-style-type: none"> <li>- Access to the communities is the main challenge due to the current situation in country.</li> <li>-Transportation of items between governorates at time of implementing the operation was challenging due to the COVID-19 measures and restrictions that were in place.</li> </ul>		
<b>Lessons Learned</b>		
<p>While the operation was well and closely managed by the YRCS operations manager, there was a shortage in systematic documentation of monitoring activities. It is important to have an M&amp;E plan in future interventions to ensure implementing it along with the operation plan to measure the impact of the response in a more systematic way. YRCS have identified this as an area that needs further strengthening within their organization and have put a strong emphasis on prioritizing this aspect of their work to improve the quality of their interventions and manage programmes and operations. A scale up in support to strengthen this capacity was identified in Q3 of 2020, and planned for 2021 onwards.</p>		

<b>Strategies for Implementation</b>		
<b>Outcome S1.1: National Society capacity building and organizational development objectives are facilitated to ensure that National Societies have the necessary legal, ethical and financial foundations, systems and structures, competences and capacities to plan and perform</b>		
Indicators:	Target	Actual
# of NS to adopt logistics and financial standards procedures during the operation	1	1
<b>Output S1.1.1: National Societies have effective and motivated volunteers who are protected</b>		
Indicators:	Target	Actual
# of volunteers insured and involved in the operation	100	139
<b>Output S1.1.2: Effective and coordinated international disaster response is ensured</b>		
Indicators:	Target	Actual
# of YRCS branches participated in the kick-off workshop by the start of the operation	5	5
<b>Output S1.1.3: IFRC produces high-quality research and evaluation that informs advocacy, resource mobilization and programming</b>		
Indicators:	Target	Actual
# of lesson learned report produced and published	1	0
<b>Narrative description of achievements</b>		

This dengue fever operation was started with kick-off meeting with participation of the five branches along with relevant staff from the HQ. But due to the change in the needs based on several factors including the escalation of cases, projected vulnerabilities and identified breeding sites, a final total of four branches implemented this operation. The kick-off meeting was used by YRCS to disseminate the objective of the operation and the activities to be implemented in order to prevent dengue outbreak in country.

YRCS also procured Personal Protective Equipment (PPE) for the volunteers including masks, gloves, gowns, rubber gloves and boots. They were used by volunteers during the implementation of activities to ensure their protection against the risk of COVID-19 outbreak.

During the operation period 139 volunteers were involved in the trainings and to support the training of the health workers in their respective governorates. The lesson learned workshop was not conducted during the timeframe of the operation since more focus was to be placed on implementing the final activities, as a result of two consecutive delays in the transfer of funds to the National Society.

### Challenges

Access to the communities to implement the activities in the field, especially with the movement restriction imposed as a result of COVID-19, is the key challenge.

Another significant challenge was the delay in transferring funds due to restriction on foreign currencies and the process for cash transfer to Yemen. This resulted in delays in payments and carrying out activities in a timely manner, impacting volunteer mobilization, payment for equipment and tools as well as transportation of both volunteers and materials to locations for the implementation of the activities.

### Lessons Learned

The key lesson learned from this operation for enabling better implementation is to have a mechanism in place to allow the NS to effectively respond to emergencies, with a fast-track option to ensure emergency funding for a time-bound response, especially in a country where ongoing sanctions further impact the timeliness of the transfers. A part of this includes having a pre-disaster agreement in place where it will allow the NS to better and efficiently respond with the assurance of funds available in-country as soon as the application for DREF is approved.

Outside of this operation, YRCS have also seen the value of owning an emergency fund for initial actions and have established their own Emergency Response Fund (ERF) at national level, mirrored after the DREF, for minor emergencies. This is currently being piloted and is meant to be complementary to the support from Movement partners and IFRC including the DREF itself, for emergency responses below the threshold of international assistance.

## D. Financial Report

**CHF 278,498** was allocated from the DREF for this operation to respond to the Dengue Fever outbreak. CHF 260,641 was utilized during this operation and the remained amount CHF 17,857 will be returned to the DREF.

Some variances in the account codes based on the revised operation and some booking errors have resulted in the detailed differences in the final financial report.

# DREF Operation

FINAL FINANCIAL REPORT

Selected Parameters			
Reporting Timeframe	2019/12-2020/999	Operation	MDRYE008
Budget Timeframe	2019/12-2020/10	Budget	APPROVED

Prepared on 04/Mar/2021

All figures are in Swiss Francs (CHF)

## MDRYE008 - Yemen - Dengue Fever

Operating Timeframe: 25 Dec 2019 to 31 Oct 2020

### I. Summary

<b>Opening Balance</b>	<b>0</b>
<b>Funds &amp; Other Income</b>	<b>278,498</b>
DREF Allocations	278,498
<b>Expenditure</b>	<b>-260,641</b>
<b>Closing Balance</b>	<b>17,857</b>

### II. Expenditure by area of focus / strategies for implementation

Description	Budget	Expenditure	Variance
AOF1 - Disaster risk reduction			0
AOF2 - Shelter			0
AOF3 - Livelihoods and basic needs			0
AOF4 - Health	208,208	213,413	-5,206
AOF5 - Water, sanitation and hygiene	50,588	45,677	4,911
AOF6 - Protection, Gender & Inclusion			0
AOF7 - Migration			0
<b>Area of focus Total</b>	<b>258,795</b>	<b>259,090</b>	<b>-295</b>
SFI1 - Strengthen National Societies	15,975		15,975
SFI2 - Effective international disaster management			0
SFI3 - Influence others as leading strategic partners	3,728	1,551	2,177
SFI4 - Ensure a strong IFRC			0
<b>Strategy for implementation Total</b>	<b>19,703</b>	<b>1,551</b>	<b>18,152</b>
<b>Grand Total</b>	<b>278,498</b>	<b>260,641</b>	<b>17,857</b>

# DREF Operation

FINAL FINANCIAL REPORT

Selected Parameters			
Reporting Timeframe	2019/12-2020/999	Operation	MDRYE008
Budget Timeframe	2019/12-2020/10	Budget	APPROVED

Prepared on 04/Mar/2021

All figures are in Swiss Francs (CHF)

## MDRYE008 - Yemen - Dengue Fever

Operating Timeframe: 25 Dec 2019 to 31 Oct 2020

### III. Expenditure by budget category & group

Description	Budget	Expenditure	Variance
<b>Relief items, Construction, Supplies</b>	<b>7,500</b>	<b>131,522</b>	<b>-124,022</b>
Clothing & Textiles		17,136	-17,136
Water, Sanitation & Hygiene		26,476	-26,476
Medical & First Aid		2,474	-2,474
Utensils & Tools		39,795	-39,795
Other Supplies & Services	7,500	45,642	-38,142
<b>Land, vehicles &amp; equipment</b>	<b>6,500</b>		<b>6,500</b>
Medical Equipment	6,500		6,500
<b>Logistics, Transport &amp; Storage</b>	<b>16,000</b>	<b>44,542</b>	<b>-28,542</b>
Storage		258	-258
Distribution & Monitoring	5,000	6,468	-1,468
Transport & Vehicles Costs	11,000	37,817	-26,817
<b>Personnel</b>	<b>103,000</b>	<b>49,222</b>	<b>53,778</b>
National Society Staff	5,000	10,563	-5,563
Volunteers	98,000	38,659	59,341
<b>Workshops &amp; Training</b>	<b>76,000</b>	<b>11,690</b>	<b>64,310</b>
Workshops & Training	76,000	11,690	64,310
<b>General Expenditure</b>	<b>52,500</b>	<b>7,756</b>	<b>44,744</b>
Travel	15,000	587	14,413
Information & Public Relations		5,273	-5,273
Office Costs		313	-313
Communications	37,500	1,284	36,216
Financial Charges		298	-298
<b>Indirect Costs</b>	<b>16,998</b>	<b>15,908</b>	<b>1,090</b>
Programme & Services Support Recover	16,998	15,908	1,090
<b>Grand Total</b>	<b>278,498</b>	<b>260,641</b>	<b>17,857</b>

---

## Contact information

Reference documents



Click here for:

- [Previous Appeals and updates](#)
- [Emergency Plan of Action \(EPoA\)](#)

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

### In the Yemen Red Crescent Society

- Fuad Al-Makhethi, Secretary General, Email: [makhdi-fo@yemenredcrescent.org](mailto:makhdi-fo@yemenredcrescent.org)
- Rosly Al- Hmati, Executive Director, Email: [executive-director@yemenredcrescent.org](mailto:executive-director@yemenredcrescent.org)

### In the IFRC

- **IFRC MENA Regional Office / DCPRR Unit:**  
Dr. Hosam Faysal, Head of Disaster, Climate and Crisis (Prevention, Response and Recovery); phone: +961 71 802 916; email: [hosam.faysal@ifrc.org](mailto:hosam.faysal@ifrc.org)
- **IFRC Yemen Country Office:**  
Ruben Romero, Head of IFRC Country Office in Yemen; phone: +967 730 400 110; email: [ruben.romero@ifrc.org](mailto:ruben.romero@ifrc.org)

### In IFRC Geneva

- Rena Igarashi, Operations Coordinator for Asia Pacific and MENA; phone: +41 79 251 8004; e-mail: [rena.igarashi@ifrc.org](mailto:rena.igarashi@ifrc.org)
- Esther Matyeka, DREF Senior Officer; phone: +41 75 419 8604; e-mail [eszter.matyeka@ifrc.org](mailto:eszter.matyeka@ifrc.org)

### For In-Kind donations and Mobilization table support:

- **Dharmin Thacker**, Acting Head of Logistics, Procurement and Supply Chain Management, phone: +961 5 428 505, email: [dharmin.thacker@ifrc.org](mailto:dharmin.thacker@ifrc.org)

### For IFRC Resource Mobilization and Pledges support:

- **IFRC Regional Office:** Anca Zaharia, Regional Head of Partnerships and Resource Development; phone: +961 81311918; e-mail: [anca.zaharia@ifrc.org](mailto:anca.zaharia@ifrc.org)

### For Performance and Accountability support (planning, monitoring, evaluation and reporting enquiries)

- **IFRC Regional Office:** Nadine Haddad, PMER Manager; phone: +961 71 802 775; e-mail: [Nadine.Haddad@ifrc.org](mailto:Nadine.Haddad@ifrc.org)

---

## 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.

[www.ifrc.org](http://www.ifrc.org)

Saving lives, changing minds.



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

1. Save lives, protect livelihoods, and strengthen recovery from disaster and crises.
2. Enable healthy and safe living.
3. Promote social inclusion and a culture of non-violence and peace