



DREF Operation: MDRPE011	Glide No: EQ-2016-000083-PER
Date of issue: 26 April 2017	Date of disaster: 14 August 2016
Operation manager: Pabel Angeles – Regional Disaster Management Coordinator for South America - IFRC	Point of contact: Maria Josefina Garcia Roca – President of the Peruvian Red Cross (PRC)
Operation start date: 24 August 2016	Expected timeframe: 3 months
Overall operation budget: 246,893 Swiss francs (CHF)	
Number of people affected: 10,092 people affected	Number of families to be assisted: 1,000 families (5,000 people)
Host National Society Presence: 1 headquarters, 38 branches, 2,000 volunteers.	
Red Cross Red Crescent Movement partners actively involved in the operation: International Federation of Red Cross and Red Crescent (IFRC) Office in Peru. The National Societies present in the country are the American Red Cross, Spanish Red Cross, German Red Cross and the International Committee of the Red Cross (ICRC), which have offered their support if required.	
Other partner organizations actively involved in the operation: Governmental Organizations: National Civil Defence Institute (INDECI for its acronym in Spanish), Arequipa Regional and Province Government, Ministry of Health, Ministry of Agriculture, Ministry of Education, Ministry of Housing, Ministry of Transportation and Telecommunications, municipalities, the Adventist Development and Relief Agency (ADRA), United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA).	

[<Click here for the final financial report. Click here to view the contact information.>](#)

A. Situation analysis

Description of the disaster

On 14 August 2016, a 5.3 earthquake (on the Richter scale) struck Peru, affecting the province of Caylloma. The epicentre was in Chivay, Arequipa at a depth of 8km. According to the National Civil Defence Institute's 28 November report, the earthquake left 4 people dead, 67 injured and 10,092 homeless and affected, and caused 136 dwellings to collapse, rendered 953 uninhabitable and damaged 1,802 dwellings and 12 schools; the destruction was mainly due to the 'shallowness' of the quake, the geological fault, the type of housing (adobe, which is mud and straw, and pirca, which is stone and mud) and the fact that many of the impacted houses were old. In Caylloma, the affected districts included Ichupampa, Chivay, Achoma, Cabanoconde. Yanque, Coporaque, Maca, Madrigal, Tapay, Huambo and Lari.

Per Peru's Geophysical Institute (IGP), 36 aftershocks were recorded after the earthquake, many of which caused landslides that blocked access roads; this situation caused significant concern and stress among the population. On 16 August 2016, the government declared a 120-day state of emergency in the affected areas.

In addition, there was increased activity from the Sabancaya Volcano during the operation, triggering other earthquakes, volcanic explosions and spewing ash, which also caused concern among the affected families.



A shelter delivered by the PRC in the municipality of Achoma, Caylloma.
Source: PRC

Damages

Districts	Collapsed homes	Uninhabitable homes	Affected homes	Schools	Deaths	Homeless people	Affected people	Injured people
Ichupampa	58	127	52	2		462	156	6
Chivay	2	263	616	4		1,129	2,593	11
Achoma	19	149	118	1	1	488	356	26
Yanque	43	178	166	1	3	737	589	16
Coporaque	2	78	130	3		229	396	7
Maca	1	31	75			160	375	
Madrigal		2	131			7	329	1
Tapay		6	18			13	48	
Lari		52	176	1		160	704	
Tuti	4	10	98			32	283	
Cabanaconde		20	136			58	270	
Huambo	4	36	9			92	21	
Callalli	3	1	77			20	385	
Total	136	953	1,802	12	4	3,587	6,505	67

Source: INDECI 28/11 National Emergency Operations Centre (NEOC) – INDECI

The IFRC, on behalf of the Peruvian Red Cross would like to extend many thanks to all partners and donors for their generous contributions.

The balance of this operation (58,576 CHF) will be reimbursed to the DREF.

Summary of the current response

Through its National Society province branch in Arequipa, the Peruvian Red Cross (PRC) deployed a regional intervention team (RIT) on 15 August 2016 to conduct assessment and first aid care actions and to provide technical support to authorities in the area. The Peruvian Red Cross (PRC) maintained direct communications and contact with local and national government institutions, as well as with the humanitarian network to conduct activities in a complementary manner to optimize resources and generate synergies.

The National Society's president and its disaster risk management coordinator and the IFRC's disaster management coordinator for South America, together with field teams, assessed the magnitude of the emergency on site and provided support to the provincial branch on the development of the plan of action and its subsequent implementation. From the beginning of the operation, the National Society assigned a specific individual to oversee the provision of direct support to field actions, including the use of Open Data Kit (ODK) for the damage assessments and Mega V for the humanitarian aid distributions.

The Arequipa province branch deployed 57 volunteers to the field, as well as 8 National Intervention Team (NIT) members, who conducted damage assessment, psychosocial support (PSS) actions with affected families and delivered first response humanitarian aid to families who had lost their homes.

Overview of Red Cross Red Crescent Movement in country

The regional IFRC office in Lima, Peru, through which the PRC coordinated with the disaster management delegate for South America. The Spanish Red Cross and German Red Cross offices in Lima were kept informed about the situation, and they were in coordination with the National Society.

The IFRC monitored the situation and coordinated with the National Society, the International Committee of the Red Cross (ICRC) and the Humanitarian Network.

The ICRC offered to provide support on the restoration of family links if necessary at the onset of the emergency; however, these types of actions were deemed unnecessary following the assessments.

Movement Coordination

The PRC coordinated with the IFRC's regional representative in Lima, the disaster management coordinator for South America, who monitored actions from the beginning, providing support to the assessments, helped define the plan of action in the field and coordinated and shared information with delegations from the American Red Cross, Spanish Red Cross, German Red Cross, the ICRC and regional National Societies.

Overview of current response by institutions

On 16 August 2016, through Supreme Decree No. 062–2016- PCM, the Council of Ministers' Chair declared a state of emergency in the districts of Chivay, Ichupampa, Achoma Yanque, Maca, Madrigal, and Coporaque in the province of Caylloma, Arequipa.

During the emergency, the government mobilized through INDECI: 147 tons of food, 8,000 blankets, 1,565 tents, 1,500 beds and 1,500 mattresses, shovels, pickaxes and spikes (50 of each), 20 wheelbarrows, as well as heavy machinery for clearing roads and removing rubble.

The Ministry of Defence reported that eight seriously injured people were transported to the city of Arequipa for emergency care thanks to an airlift provided by a Peruvian Armed Forces and National Peru Police (PNP) aircraft; moreover, 60 army troops provided support to the rubble removal efforts.

The Ministry of Housing, Construction and Sanitation (MVCS) reported that 785 temporary housing modules were sent to 11 municipalities in the province de Caylloma.

The Ministry of Health (MINSA) deployed two Initial Intervention brigades with medicine to the districts of Ichupampa and Yanque to provide medical care to the affected population, and Arequipa's Regional Health Manager travelled to the affected areas to assess the earthquake's impact on the population's health. Health centres provided healthcare throughout the emergency as they were unaffected by the earthquake.

The Ministry of Agriculture assessed the damage to the irrigation canals to restore service as soon as possible, and it deployed tools, such as spikes, pickaxes, shovels, wheelbarrows, sledgehammers and cement to assist with the actions that were taken to rehabilitate the damaged canals.

A Humanitarian Network mission conducted an inter-agency assessment in mid-August 2016, with participation from the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA), the World Food Programme (WFP), the International Organization for Migration (IOM), the United Nations Children's Fund (UNICEF), World Vision, Adventist Development and Relief Agency (ADRA), the IFRC and the Peruvian Red Cross.

Needs analysis, beneficiary selection, risk assessment and scenario planning

Health

MINSA sent a brigade of doctors specializing in emergency medicine, and it shipped one and a half tons of medication to assist the injured and homeless in the province of Caylloma, Arequipa.

Medicine kits for trauma and acute respiratory infections were sent to the cities Chivay, Achoma, Maca, Ichupampa and Yanque, which were the hardest hit and where most of the damage was reported.

The Ministry of Education reported socio-emotional damage to students in Caylloma affected by the earthquake, where four schools were damaged; as a result, a team from the sector was sent to the area to assess the damage caused by the earthquake and determine the needed strategies and immediate actions to restore educational services as soon as possible.

Food Security

This earthquake caused adverse effects to dwellings and families. The government provided a rapid and immediate response to the emergency by providing basic food kits and establishing community kitchens in the collective centres set up in each district.

INDECI deployed 147 tons of food for those affected, including canned goods, rice, oatmeal, sugar, oil, noodles and milk, which was be channelled through Arequipa's Regional Governorate to assist sector residents.

Livelihoods

The population's main source of income is from agriculture and livestock (sheep and cattle), and the residents of Colca Valley engage in experiential tourism as an alternative source of income. The earthquake damaged irrigation canals and collapsed water infrastructure, thereby jeopardizing the crops planned for August and September 2016.

The initial damage assessment carried out by the Ministry of Agriculture and Irrigation (MINAGRI) in the earthquake area verified that 15,000 metres of irrigation canals had been damaged in Yanque, Achoma and Ichupampa; many of these cracked and others were blocked by landslides, interrupting the water supply to at least 1,330 hectares of cultivated land.

Shelter and housing

Housing was more vulnerable to the impact of the 5.3 earthquake on 14 August 2016 because of the age of the buildings and the frequent earthquakes in the area; therefore, many collapsed or were rendered uninhabitable. The government delivered tents to the area, which were set up in the cities' main squares while the process to relocate residents back to their own homes was taking place. Lastly, the government built housing modules in the most affected areas.

Target Population:

The target population was in the province of Caylloma, and humanitarian assistance was provided to 1,000 families affected by the earthquake to complement response actions and fill humanitarian gaps.

The beneficiary families were distributed in the following sectors:

- PSS: at least 1,000 families in the province of Caylloma that were included in the emergency decree.
- Humanitarian Assistance: 500 families in the municipalities of Ichupampa and Achome.
- Temporary housing: 100 families in the municipalities of Ichupampa and Achome.
- Water and Sanitation: at least 500 families in the municipalities of Ichupampa and Achome.

Beneficiary selection:

The project focused on the province of Caylloma in the Arequipa region.

The following selection criteria was used to determine the beneficiary communities:

- Greatest number of destroyed homes
- Low socioeconomic level
- Psycho-emotional impact
- Damage to water systems
- Presence of humanitarian gaps

The following criteria was used to select the beneficiaries:

- Affected families in the most critical areas (structural damage, emotional and health impact in family members) who have not yet received sufficient and timely support.
- Families with children under 5 years of age, older adults, pregnant women and persons with disabilities
- Exposed to risks to health and lives.
- Not receiving similar, non-complementary assistance from other institutions.

Risk assessment

A number of aftershocks occurred after the earthquake, and the occurrence of another earthquake was a constant threat; in addition, the Sabancaya Volcano near the western Colca River bank was active during the operation.

Overall objective

Provide humanitarian assistance to 1,000 families (5,000 people) affected by the earthquake in the province of Caylloma in the Arequipa region through psychosocial support, shelter, and water and sanitation actions.

Proposed strategy

Coordination between Peruvian Red Cross and various entities was essential to enhancing the impact of the actions and ensuring the best care to the affected population. The implementation of the plan of action was conducted in coordination with the emergency operations centres (regional, provincial and municipal governments), ensuring relevance, community identification and needs, as well as the safety of those involved in the operation throughout its duration.

The following actions were included within the strategic operations plan's lines of intervention for 1,000 families in the province of Caylloma in the Arequipa region.

Health actions

The response focused mainly on psychosocial support actions for the affected population since the Ministry of Health was already covering healthcare needs, and the scope of the actions included all the affected municipalities and those under a state of emergency.

- PSS workshops for volunteers on the implementation of various PSS tools.
- PSS care in schools, community centres and others.
- Workshops on dealing with anxiety, grief and stress.
- Workshops to raise awareness and reduce the perception of risk
- PSS workshops for volunteers
- Support from the PSS NIT.

Shelter and settlements

Distribution of supplies to improve the living conditions of the homeless population through non-food humanitarian assistance and temporary housing in the districts of Ichupampa and Achoma

- Distribution of 500 kitchen kits to 500 homeless families.
- Distribution of 1,000 tarpaulins to 500 homeless families (2 per family) living in collective centres or in their own collapsed houses.
- Construction of temporary housing for 100 homeless families using emergency shelter approved by the shelter cluster in Peru in 2015.
- Distribution of 300 tarpaulins for building temporary housing, which was assessed using vulnerability criteria for the selection of beneficiaries.
- Distribution of 200 tarpaulins to affected families for those whose houses were awaiting repairs.
- Delivery of non-conditional cash transfer to 100 affected families that received emergency shelter with a focus on the recovery of household items.
- Training workshops for volunteers on resistant adobe construction.
- Training workshops for communities on resistant adobe construction.
- Materials and tools to build and instruction on how to build a reinforced adobe home; an adobe pilot home was built using a participatory approach to improve affected community members' understanding of how to repair a damaged adobe home.
- Use ODK and Mega V workshop during the distributions.

Water and Sanitation actions

Meet the water needs of the population affected by the damage to drinking water sources in the districts of Ichupampa and Achoma.

- Setting up of four water bladders for mass distribution.
- Distribution of 1,000 jerry cans.
- Distribution of 500 hygiene kits.
- Conduct hygiene promotion and water care activities.

Human resources:

Volunteers from the Arequipa branch, NIT members and headquarters staff were deployed during the operation, and the IFRC provided support through its ODK and MEGA V General Regional Intervention Team (RIT) member and the disaster management coordinator for South America.

The following human resources were required for the operation

- 1 Operations coordinator for three months
- 1 Field administrator/logistician for three months
- 1 PSS coordinator for three months
- 1 Shelter coordinator for three months
- 1 General RIT member specializing in ODK and Mega V for one month.
- 80 Volunteers

The operation also covered the costs for a driver and for the technical construction personnel who assisted in building the collective centres.

Logistics and supply chain

With support from the team from the PRC's headquarters, the administrator/logistician provided administrative, financial and logistical support to the operation. There is a pre-established National Society document for procurement and fund management procedures, and there is a warehouse in the city of Arequipa and a temporary warehouse in the District of Chivay in the province of Caylloma. The national headquarters has pick-up trucks that deployed to the targeted areas to carry out the planned activities. Volunteers engaging in community activities were transported in 1 4-wheel drive vehicle, 1 ambulance, 1 12-passenger vehicle to transport staff and a 12-tonne truck for cargo.

The Logistics Unit provided support on the purchase of 500 kitchen and hygiene kits, tarpaulins, jerry cans and 4 bladders as part of the replenishment of humanitarian assistance supplies mobilized from the Peruvian Red Cross's warehouse.

Information technologies (IT)

The communications system needed to be strengthened given the location of the targeted areas and the field work involved. ODK y Mega V equipment was used for assessments, surveys and aid distributions.

Communications

The National Society disseminated information regarding their actions through its headquarters and Arequipa province branch social networks, press releases and interviews. Disseminating the actions through these means provided visibility and improved the National Society's positioning at the national and international level.

Links to media and institutional videos:

- <http://www.elperuano.com.pe/noticia-gobierno-ejecuta-una-atencion-rapida-caylloma-por-sismo-44707.aspx>
- <http://elcomercio.pe/sociedad/arequipa/sismo-arequipa-damnificados-duermen-calles-fotos-noticia-1924557>
- <http://diariocorreo.pe/edicion/arequipa/sismo-en-arequipa-vias-bloqueadas-muertos-y-casas-colapsadas-en-el-valle-del-colca-691349/>
- <https://www.youtube.com/watch?v=BKi07gDKy1w>
- <https://www.youtube.com/watch?v=iJVz8DIEUac>
- https://www.youtube.com/watch?v=1T2_-YvnmMw

Security

The risk of further aftershocks and a volcanic eruption remained throughout the entire operation; consequently, a security plan was drawn up and measures were taken to protect against the ash spewed by Sabancaya Volcano.

Planning, monitoring, evaluation, & reporting

National health, volunteer, administration and finance coordinators, as well as executive management, provided support and monitoring of the plan of action. Communication and coordination was also maintained through the IFRC's disaster management coordinator for South America, which included the submission of reports.

Administration and Finance

The finance team at PRC's headquarters supported the administrator/logistician on all the necessary activities to ensure the proper use of financial resources. Resource use was per National Society procedures and Disaster Relief Emergency Fund (DREF) use guidelines. The Finance department held two finance workshops for National Society operational personnel.

DETAILED OPERATIONAL PLAN

Quality programming/ Areas common to all sectors

Outcome 1: Continuous and detailed assessment and analysis are used to inform the design and implementation of the operation	Outputs		% achieved
	Output 1.1: Initial needs assessments are carried out in consultation with beneficiaries and authorities		100%
	Output 1.2: A comprehensive monitoring and assessment of the plan of action is conducted		100%
Activities	Implementation on time?		% of progress
	Yes	No	
Rapid emergency assessment	X		100%
Sectorial evaluation	X		100%
Coordination meetings with regional emergency operations centre (REOC) and authorities	X		100%
Monitoring and follow-up by the IFRC	X		100%
Monitoring visits to the targeted communities	X		100%
General RIT in ODK and Mega V support mission	X		100%
ODK and Mega V workshop for volunteers	X		100%
Beneficiary satisfaction survey	X		100%

Progress toward results

- Rapid emergency assessment**

Beginning on 15 August 2016, the RIT conducted Damage Assessments and Needs analysis (DANAs) by sector in the districts of Ichupampa, Achoma, Yanque, Coporaque, Madrigal, Cabanaconde, Lari and Maca. According to the assessments, the most affected areas were Ichupampa, Achoma and Yanque, which was where the plan of action efforts were focused in order to address the humanitarian gap and complement the assistance provided by the government and local authorities; the IFRC disaster management coordinator and the National Society's president risk management coordinator supported the realization of these assessments.

- Sectorial evaluation**

Health, psychosocial support, water and sanitation and shelter departments conducted field assessments to identify both the specific needs and the approach strategy.

- Coordination meetings with REOC and authorities**

The PRC participated in emergency operations centre (EOC) meetings attended by district municipalities, the regional government and non-governmental organizations (NGOs); these meetings were held to report on Peruvian Red Cross activities and to coordinate activities in the province of Caylloma. Coordination and reporting meetings were held with the municipalities of Ichupampa, Achoma, Chivay, Maca, Madrigal, Lari, Coporaque and Yanque, where the Red Cross provided advice and support on the organization of the operation in the most affected municipalities

- Monitoring and follow-up by the IFRC**

The IFRC's regional disaster management coordinator for South America continuously monitored the activities carried out in the field throughout the operation. A general Livelihoods RIT was deployed to targeted areas to provide technical support on the plan of action's implementation.

- **Monitoring visits to the targeted communities**

The PRC's national headquarters conducted regular monitoring visits to the targeted communities, which helped to ensure the actions' quality.

- **Support mission general RIT in ODK and Mega V**

A general ODK and MEGA V RIT from the Guatemalan Red Cross was deployed to provide support to the operation for one month.

- **ODK and Mega V workshop for volunteers**

A national-level ODK and MEGA V workshop was held in the city of Arequipa, which was attended by 15 people from branches throughout the country; this strengthened the National Society for future emergency interventions.

- **Beneficiary satisfaction survey**

A total of 120 beneficiary satisfaction surveys were conducted, of which 51 per cent were in Achoma and 49 per cent in Ichupama. Mobile devices with the ODK tool were used for this activity, with the following results:

- Question: Have you received psychosocial support? 89 per cent of the population received psychosocial support, while 11 per cent did not.
- Question: How would you rate Peruvian Red Cross' psychosocial support efforts? 81 per cent rated them as good or very good, while the remaining population rated them as fair.
- 96 per cent of interviewees stated that the quality of the humanitarian aid elements delivered was very good and good.
- 93 per cent felt that humanitarian aid was delivered in a timely manner and 7 per cent thought it was late.
- 91 per cent of the population surveyed received the water and sanitation lecture and 9 per cent did not; 90 per cent of people believed that the workshop's content and message was very good or good; and 97 per cent felt that delivering water via the bladders was a very good or good action.
- 70 per cent of families rated temporary housing as very good and 30 per cent as good; likewise, families surveyed found the housing to be very useful.
- 72 per cent of the population surveyed received temporary housing workshops and 28 per cent had not; 34 per cent rated the knowledge acquired at the workshop as very good, while 32 per cent thought it was good, 9 per cent thought it was fair, and 25 per cent did not attend the workshop; 0 per cent rated the workshops as poor or very poor.
- Question: How do you rate Peruvian Red Cross staff's manner and behaviour during humanitarian aid deliveries? 75 per cent of the population surveyed considers Red Cross' treatment as very good, 23 per cent as good and 2 per cent as fair; 0 per cent thought the treatment was bad or very bad.
- Question: How would you rate Peruvian Red Cross' work until now? 81 per cent thought PRC's work was very good, 18 per cent believed it was good and 1 per cent thought it was fair; 0 per cent thought the work was bad or very bad.

Challenges:

The Peruvian Red Cross did not have a branch near the affected areas, and the extension, the distances and landslide-blocked roads hindered assessment and intervention.

Lessons learned

An operations centre was set up in the city of Chivay near affected areas to facilitate local coordination, logistics and operational management.

Parallel work teams were established to optimize the time and the operation's coverage

Health and Care

Needs analysis:

The earthquake caused an emotional impact on the population in the affected areas, mainly vulnerable groups. At the operational level, actions focused mainly on humanitarian aid distribution and relief activities at the community level.

The Ministry of Health deployed its staff to meet the population's needs, and all the health centres in the affected districts were in operation; therefore, the PRC prioritized PSS actions because it was a need. All the proposed actions were in coordination with other initiatives driven from the Ministries of Education and Health during the initial period, providing tools to the population to reduce anxiety and stress as well as to reduce the perception of vulnerability to the situation

Population to be assisted:

At least 1,000 families through psychosocial support in the affected municipalities in Caylloma

Outcome 2: The risk of adverse effects on emotional health due to the emergency of at least 1,000 families affected in earthquake-affected districts is reduced	Outputs		% achieved
	Output 2.1: Families affected by the earthquake and humanitarian assistance staff have emotional support		100%
Activities	Implementation on time?		% of progress
	Yes	No	
Coordination meetings/workshops; presentation of actions and planning; PRC - MINSA	X		100%
Community PSS workshops for volunteers	X		100%
Design, printing and purchase of materials	X		100%
PSS workshops for the affected population	X		100%
Develop a referral system to ensure clinical care to people requiring specialized support, in coordination with health authorities	X		100%
Carry out activities that reduce the population's feeling of vulnerability to earthquakes, in coordination with National Society risk management staff	X		100%
Conduct briefings and debriefings with volunteers	X		100%
Carry out group actions with volunteers to reduce the risk of adverse effects on their mental health due to this event	X		100%

Progress toward results

- **Coordination meetings/workshops; presentation of actions and planning; PRC - MINSA**

Through its on-site team, the Peruvian Red Cross held constant meetings and coordination with the Ministry of Health to complement its actions and synergy; it also presented its plan of action aimed at the health, water and sanitation sectors.

- **Community PSS workshops for volunteers**

PSS workshops were held to train 50 volunteers from the Red Cross' Arequipa branch to build their capacity to serve the affected population; the workshops were conducted by the operation's health coordinator who specializes in PSS, and they were held in the branch in the city of Arequipa and in the affected communities.



Psychosocial support activities with children in a school in Chiva - Source: Peruvian Red Cross

- **Design, printing and purchase of materials**

Nine PSS material kits were prepared to conduct PSS activities. Kits included stationery, pens, coloured pencils, basic toys, educational games and musical instruments, among others to facilitate the accomplishment of strategies that are achieved through dynamics.

- **PSS workshops for the affected population**

Various workshops were held with the affected population, dealing with issues such as mourning, loss, stress and coping with it, anger management, resilience, as well as prevention workshops from the perspective of before, during and after the earthquake. This was conducted from a knowledge b behavioural standpoint, making them see the importance of making positive decisions to enhance their own safety; this activity was attended by 5,156 people, including older adults, adults, adolescents and young children in eight municipalities in the Province of Chivay.

Municipality	Older adults	Adults	Adolescents	Children	Total
Madrigal	0	0	36	53	89
Maca	0	0	32	43	75
Lari	55	41	254	112	462
Yanque	0	107	394	453	954
Coporaque	0	59	0	0	59
Achoma	128	347	11	219	705
Ichupampa	0	132	65	66	263
Chivay	0	781	1,115	653	2,549
Total	183	1,467	1,907	1,599	5,156

- **Develop a referral system to ensure clinical care to people requiring specialized support, in coordination with health authorities**

No clinical cases were reported; however, mourning and loss processes were monitored, considering that this type of process is consistent with the situation they experienced.

- **Carry out activities that reduce the population's feeling of vulnerability to earthquakes, in coordination with National Society risk management staff**

Community awareness-raising was performed under previous coordination with district authorities in the province of Caylloma, specifically in Achoma, Ichupampa, Chivay, Coporaque, Lari and Yanque, with support from 14 volunteers from branches in Maynas, Chiclayo, Trujillo and Arequipa. The PRC also coordinated with primary and secondary school directors to train their staff. The family card prepared by the IFRC was used to provide information on the source of the earthquakes and the preparedness measures that families need to take. In total, 316 students from 8 educational centres participated in this process and in disaster preparedness, as did 1,123 adults.

TOTAL NUMBER OF EDUCATIONAL INSTITUTIONS TRAINED

DISTRICT	Educational institute (I.E. in Spanish)	Males	Females	TOTAL	%
ACHOMA	DANIEL ALCIDES CARRIÓN	10	12	22	7.0
ICHUPAMPA	I. E. 40386 TÚPAC AMARU	10	14	24	7.6
CHIVAY	FRANCISCO GARCÍA CALDERÓN	34	43	77	24.4
	I. E. CEBA 40375 MARÍA AUXILIADORA	14	12	26	8.2
LARI	I. E. 40387	45	44	89	28.2
YANQUE	I. E. 40397 SAN ANTONIO DE PADUA - PRIMARIA	4	16	20	6.3
	I. E. AGROPECUARIO - SECUNDARIA	10	10	20	6.3
COPORAQUE	I. E. 40382 VIRGEN DE CHAPI	20	18	38	12.0

	Total	147	169	316	100
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- **Conduct briefings and debriefings with volunteers**

All volunteers and support staff in the field were briefed and debriefed daily to facilitate personal interrelationships and perform more effective work.

- **Carry out group actions with volunteers to reduce the risk of adverse effects on their mental health due to this event**

At the end of the activities, support and volunteer staff were brought together so they could share their experiences, both negative and positive; this activity also provided them with emotional support so that they could continue with their work in the field in an optimal way. Several recreational activities were also held to demonstrate the value of teamwork and *esprit de corps*, which helped the volunteers maintain a positive attitude and the desire to continue helping.

Challenges:

The earthquake and constant aftershocks caused concern and stress among the population, which was further exacerbated by the increased volcanic activity.

Lessons learned:

Psychosocial support activities had to focus on specific groups according to age. Various methodologies were employed to provide support to communities

Shelter and settlements (and non-food items)

Needs analysis:

The homes in the affected communities are adobe or *pirca*; additionally, many of them are decades old, have not received proper maintenance, and they have been affected over the years by previous earthquakes as these types of construction are not earthquake-resistant.

Authorities distributed tents to people who had lost their homes or whose homes were uninhabitable, as well as blankets, cots and mattresses. One of the main needs was to provide safe emergency housing that was adapted to high Andean areas, as well as to help recover their belongings and household goods and start the process of rebuilding their homes.



Beneficiary in Achoma district
Jose Isauro Taco Vilca Source:
Peruvian Red Cross

Population to be assisted:

At least 500 affected families in the districts Ichupampa and Achome in the province of Caylloma through the improvement of their living conditions.

Outcome 3: The needs of 500 families in collective centres and settlements in the targeted populations are covered	Outputs		% achieved
	Output 3.1 500 homeless families receive non-food humanitarian assistance		100%
	Output 3.2 100 homeless families have temporary shelters		100%
	Output 3.3: At least 500 families know how to build with reinforced adobe		100%
Activities	Implementation on time?		% of progress
	Yes	No	
Distribution of 500 kitchen kits	X		100%

Distribution of 1,000 tarpaulins for humanitarian relief families whose homes collapsed or are uninhabitable (2 per family)	X		100%
Construction of temporary housing for 100 homeless families	X		100%
300 tarpaulins for building temporary shelters (3 units per shelter)	X		100%
Distribution of 200 tarpaulins for affected families	X		100%
Delivery of cash transfer for 100 affected families	X		100%
Training workshop for volunteers on resistant adobe construction	X		100%
Training workshop for communities on resistant adobe construction	X		100%
Materials and tools to build an adobe home model and instruction on how repair an adobe home	X		100%

Progress toward results

- Distribution of 500 kitchen kits**

Standard IFRC kitchen kits were delivered to 500 affected families in the municipalities of Ichupampa (227 kitchen kits for 227 families) and Achoma (273 kitchen kits for 273 families) in the province of Caylloma; the kitchen kits contained utensils for a family of five.

- Distribution of 1,000 tarpaulins for humanitarian relief to families whose homes collapsed or are uninhabitable (2 per family)**

A total of 1,000 tarpaulins (2 per family) were distributed to 500 affected families in the municipalities of Ichupampa and Achoma. Families used tarps to reinforce and cover earthquake-affected areas and makeshift housing.

Province	Municipality	N° of tarpaulins	N° of families served
CAYLLOMA	ICHUPAMPA	454	227
	ACHOMA	546	273
Total		1,000	500

- Construction of temporary housing for 100 homeless families and 300 tarpaulins for building temporary shelters (3 units per shelter)**

Temporary housing was built for 100 affected families whose homes were destroyed or became uninhabitable and met vulnerability criteria established in the plan of action; this housing design was based on previous emergency experiences and validated by the Ministry of Housing and local authorities. The temporary shelters were 18 metres square and made of eucalyptus slats (available in the area), three tarpaulins, zinc sheeting, nails, wire, and cement with stone and sand to help reinforce the foundation. Trained volunteers, who were assisted by the beneficiaries themselves and by technical personnel hired to facilitate construction, built the housing.

Province	Municipality	N° Shelters	N° Tarpaulins	N° of families served
CAYLLOMA	ICHUPAMPA	40	120	40
	ACHOMA	60	180	60
Total		100	300	100

- **Distribution of 200 tarpaulins for affected families**

This aid focused mainly on providing tarpaulins to families whose homes had suffered little damage or minor damage to roofs and walls and who were not selected by Red Cross to receive standardized kits and temporary housing. In total, 200 tarpaulins (2 per family) were distributed to 100 families in targeted areas and in the municipality of Yanque.

Province	Municipality	N° Tarpaulins	N° of families served
CAYLLOMA	ICHUPAMPA	60	30
	ACHOMA	66	33
	YANQUE	74	37
Total		200	100

- **Delivery of cash transfer for 100 affected families**

Market research conducted by a livelihoods RIT established the feasibility of delivering cash transfers to earthquake affected people; this assistance was intended to improve the living conditions of 100 families living in the temporary housing built through the plan of action. A cash transfer of 365 soles (equivalent to \$USD110) was distributed to families through a local cooperative.

- **Training workshop for volunteers on resistant adobe construction**

The improved adobe workshop was provided to 25 volunteers from the Arequipa branch, and a specialist trained by the National Construction Training Service (SENCICO) facilitated it; the facilitator stressed the importance of adobe in the area, of choosing a safe location and of solid foundations and walls for building safe adobe housing.

- **Training workshop for communities on resistant adobe construction**

Training on reinforced adobe construction was provided in three earthquake-affected districts. The adobe technique was developed by SENCICO in 2001 through research conducted to find a suitable combination of mud and straw, as well as measures for reinforcing corner joints; This technique also includes using geogrids, which provide greater strength and flexibility to walls during earthquakes. Although this technique is not new, it has not been adequately disseminated. Much of the dwellings in Peru's high mountain and Andean zones are built of adobe. In 2007, the Red Cross applied this technology while rebuilding reinforced adobe dwellings in the area affected by the Ica earthquake.



Making improved, earthquake-resistant adobe with the population. Source: PRC

The workshops were both theoretical and practical; each workshop lasted five hours and dealt with topics such as safe building locations, foundations, adobe, wall construction, reinforcements in adobe dwellings and conclusions on the part of participants. The workshop was facilitated by a SENCICO-trained expert. Four workshops were held in Ichupampa, Achoma and Yanque, and they were attended by 95 people from the various affected families.

- **Materials and tools to build an adobe home model and instruction on how to repair an adobe home**

The plan of action included building reinforced adobe housing to help communities learn about its use. During the field interviews, community leaders remembered that SENCICO had built a model reinforced adobe dwelling in 2001, which was in the community of Achoma and found to be structurally sound despite the earthquakes, aftershocks and rains since that have occurred since it was built; however, its teak roof, plaster and paint were damaged due to lack of maintenance. In coordination with local authorities, the model home was refurbished and used to hold training sessions and provide information on construction techniques, especially for the 583 families affected in the area, which demonstrated to the families its usefulness over time.



Intervention in earthquake-resistant home Achoma community kitchen "Virgen de Chapi". Source: PRC

Challenges:

This operation was the first time these temporary housing units were used. Modules were constructed of wood, eucalyptus slats, zinc sheeting and tarps, and the wood's hardness and strength made these modules difficult to assemble.

The Sabancaya Volcano's increased activity hindered the efforts of the teams that were building the temporary housing.

It was difficult to get the affected families to attend the training workshops because they were otherwise engaged in community activities involving the delivery of modules by the government, rebuilding activities, field activities, etc.

Lessons learned:

The design of the temporary housing was improved in the field, and tools suitable for working with eucalyptus wood were purchased. Volunteers learned the shelter construction technique, which reinforced the actions conducted by hired technical personnel.

Due to the increase the volcano's explosiveness and ash emissions in the area, construction teams were provided with protective gear such as masks and goggles

The National Society coordinated with communities, especially with target beneficiaries, so that they could participate in the community workshops.

Water and sanitation

Needs analysis:

The water supply infrastructure in the province of Caylloma, specifically in the districts of Achome and Ichupampa, was damaged by the 5.3 earthquake that hit on 14 August 2016. Water had to be provided to the population for the first week, which the authorities did via tanker trucks; therefore, the PRC identified the necessity of maintaining drinking water services through strategic and accessible storage points during the emergency phase and the rehabilitation of the water and sanitation network were identified.

Population to be assisted:

A total of 500 families in communities and districts in Achoma and Ichupampa in Caylloma, Arequipa.

Outcome 4: The water and hygiene needs of 500	Outputs	% achieved
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families are met	Output 4.1 Water distribution and hygiene promotion are provided to the target population		100%
Activities	Implementation on time?		% of progress
	Yes	No	
Deployment of bladders	X		100%
Setting up bladders and training on their use	X		100%
Delivery of hygiene kits (DREF will replenish the kits)	X		100%
Distribution of 1,000 jerry cans	X		100%
Hygiene promotion workshop for volunteers	X		100%
Hygiene promotion and safe water handling workshops for communities	X		100%

Progress toward results

- Deployment, setting up bladders tanks and training on their use**

The need for drinking water during the operation was important. Families initially waited for the trucks that transported the water, which arrived at different times. The deployment of bladders tanks to the affected area was a key aspect in being able to set up specific water storage points. The local government's tanker trucks were responsible for refilling the bladders to meet the needs of affected families. Volunteers set up three bladders under the direction of a NIT member and informed the population in Ichupampa (two bladders) and Achoma (one bladder) about their use. A total of 151,400 litres of drinking water were distributed through these bladders (62,300 litres in Achoma and 89,100 litres in Ichupampa).



Setting up bladders in Ichupampa to distribute drinking water to affected families Source: Peruvian Red Cross

- Delivery of hygiene kits (DREF will replenish the kits)**

A total of 500 hygiene kits (1 per family) were distributed to affected families (227 kits to 227 families in the municipality of Ichupampa and 273 kits to 273 families in the municipality Achoma in the province of Caylloma); the kits came from pre-positioned stock in the Peruvian Red Cross warehouse in Lima. The operation covered transport, distribution and replenishment costs.

- Distribution of 1,000 jerry cans**

In total, 1,000 jerry cans (2 per family) were distributed to 500 families (454 jerry cans to 227 families in Ichupampa and 546 jerry cans to 273 families in Achoma) affected by the earthquake in the municipalities of Ichupampa and Achoma; the jerry cans were distributed in the first days of the emergency, and they facilitated the transport and storage drinking water.

- Hygiene promotion workshop for volunteers**

Seventeen Arequipa branch volunteers held a hygiene promotion and water and sanitation workshop, which was delivered by a water and sanitation NIT member using the participatory hygiene and sanitation transformation methodology (PHAST); the workshop included both practice and theory, and it helped clear up the participants' doubts.

- **Hygiene promotion and safe water handling workshops for communities**

Community awareness raising was conducted in conjunction with district authorities in the province of Caylloma, specifically in Achoma, Ichupampa, Chivay, Coporaque, Lari and Yanque, and support from 14 volunteers from the branches in Maynas, Chiclayo, Trujillo and Arequipa; the PRC also coordinated with primary and secondary school directors to train their staff. Information was provided, and 1,439 adults and 632 students from eight schools participated in the workshops.



Water, sanitation and hygiene promotion workshop for volunteers. Source: Peruvian Red Cross

House-to-house visits were made to provide information on water, sanitation and hygiene promotion to families, and students and teachers in schools also received training in this regard through the PHAST methodology.

Simultaneous workshops were held on health, water and sanitation, and hygiene promotion, which reduced costs along this line of action.

Challenges:

Collapsed community networks and the limited number of tanker trucks made it difficult to access the communities, and aftershocks damaged connections that had already been repaired.

Volcanic ash emissions affected areas targeted by the operation.

Lessons learned:

Bladders were set up in order to have specific points to distribute water to affected communities, and when closed, bladders facilitate safe water handling in the field; the jerry cans also bolstered safe water handling.

Contact information

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

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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**.

Disaster Response Financial Report

MDRPE011 - Peru - Earthquake

Timeframe: 24 Aug 16 to 24 Nov 16

Appeal Launch Date: 24 Aug 16

Final Report

Selected Parameters

Reporting Timeframe	2016/8-2017/3	Programme	MDRPE011
Budget Timeframe	2016/8-2016/11	Budget	APPROVED
Split by funding source	Y	Project	*
Subsector:	*		

All figures are in Swiss Francs (CHF)

I. Funding

	Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability	TOTAL	Deferred Income
A. Budget		246,893				246,893	
B. Opening Balance							
Income							
<u>Other Income</u>							
<i>DREF Allocations</i>		246,893				246,893	
C4. Other Income		246,893				246,893	
C. Total Income = SUM(C1..C4)		246,893				246,893	
D. Total Funding = B + C		246,893				246,893	

* Funding source data based on information provided by the donor

II. Movement of Funds

	Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability	TOTAL	Deferred Income
B. Opening Balance							
C. Income		246,893				246,893	
E. Expenditure		-188,317				-188,317	
F. Closing Balance = (B + C + E)		58,576				58,576	

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Subsector:	*		

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III. Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance
		Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability		
	A					B	A - B	
BUDGET (C)			246,893			246,893		
Relief items, Construction, Supplies								
Shelter - Relief	52,896		54,314			54,314	-1,418	
Shelter - Transitional			0			0	0	
Construction Materials	4,787		3,375			3,375	1,412	
Water, Sanitation & Hygiene	26,884		22,061			22,061	4,822	
Medical & First Aid			0			0	0	
Teaching Materials	42,125		9,278			9,278	32,847	
Utensils & Tools	13,260		13,140			13,140	120	
Other Supplies & Services			346			346	-346	
Cash Disbursement	10,531		11,015			11,015	-484	
Total Relief items, Construction, Sup	150,483		113,529			113,529	36,954	
Land, vehicles & equipment								
Computers & Telecom			0			0	0	
Total Land, vehicles & equipment			0			0	0	
Logistics, Transport & Storage								
Storage	1,532		2,972			2,972	-1,440	
Distribution & Monitoring	949		2,990			2,990	-2,041	
Transport & Vehicles Costs	16,180		9,053			9,053	7,127	
Logistics Services	5,381		5,389			5,389	-9	
Total Logistics, Transport & Storage	24,041		20,404			20,404	3,637	
Personnel								
International Staff	4,308		3,735			3,735	574	
National Society Staff	14,648		13,626			13,626	1,022	
Volunteers	13,078		14,620			14,620	-1,542	
Other Staff Benefits	1,723		433			433	1,290	
Total Personnel	33,758		32,414			32,414	1,344	
Consultants & Professional Fees								
Consultants			543			543	-543	
Professional Fees			82			82	-82	
Total Consultants & Professional Fees			625			625	-625	
Workshops & Training								
Workshops & Training	12,063		3,330			3,330	8,733	
Total Workshops & Training	12,063		3,330			3,330	8,733	
General Expenditure								
Travel	4,883		6,038			6,038	-1,155	
Information & Public Relations	3,638		2,650			2,650	988	
Office Costs	862		1,418			1,418	-556	
Communications	1,714		379			379	1,334	
Financial Charges	383		-3,964			-3,964	4,347	
Total General Expenditure	11,479		6,521			6,521	4,958	
Indirect Costs								
Programme & Services Support Recover	15,069		11,494			11,494	3,575	
Total Indirect Costs	15,069		11,494			11,494	3,575	
TOTAL EXPENDITURE (D)	246,893		188,317			188,317	58,577	
VARIANCE (C - D)			58,577			58,577		

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Subsector:	*		

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IV. Breakdown by subsector

Business Line / Sub-sector	Budget	Opening Balance	Income	Funding	Expenditure	Closing Balance	Deferred Income
BL2 - Grow RC/RC services for vulnerable people							
Disaster management	246,893		246,893	246,893	188,317	58,576	
Subtotal BL2	246,893		246,893	246,893	188,317	58,576	
GRAND TOTAL	246,893		246,893	246,893	188,317	58,576	