

DREF operation



International Federation
of Red Cross and Red Crescent Societies

Peru and Bolivia: Dengue outbreak

DREF operation n° MDR46001
18 February 2011

The International Federation of Red Cross and Red Crescent (IFRC) Disaster Relief Emergency Fund (DREF) is a source of un-earmarked money created by the Federation in 1985 to ensure that immediate financial support is available for Red Cross and Red Crescent emergency response. The DREF is a vital part of the International Federation's disaster response system and increases the ability of National Societies to respond to disasters.

78,781 Swiss francs have been allocated from the IFRC's Disaster Relief Emergency Fund (DREF) to support the Peruvian Red Cross (PRC) and the Bolivian Red Cross (BRC) in delivering immediate assistance to at least 3,000 families. Unearmarked funds to repay DREF are encouraged.

Summary:

At the beginning of 2011, the country of Peru and the country of Bolivia experienced a significant increase of dengue cases, particularly in the Loreto region and the department of Beni, respectively. The dengue outbreak has required significant mobilization of financial and human of resources. The Pan



The Iquitos Regional Hospital is being equipped to confront the dengue outbreak. Source: Medical School of Peru.

American Health Organization (PAHO) reports that by the sixth epidemiological week there were 22,556 dengue cases, 469 severe cases of dengue and 24 deaths in the Andean region. In addition, the presence of the La Niña weather phenomenon represents an increase of risk, with its periods of intense rains and the continuation of the macro-factors which exacerbate dengue in Region.

The National Societies of Peru and Bolivia have proposed a plan of action to respond to the outbreak that will target at least 3,000 families. The Red Cross National Societies will complete activities that focus on vector control to limit transmission, including nets distribution and cleaning campaigns, as well as activities that focus on preventive health at the community level.

This operation is expected to be implemented over three months, and will therefore be completed by May 2011; a Final Report will be made available three months after the end of the operation (by August 2011).

[<Click here for the DREF budget; and here for contact details>](#)

The situation

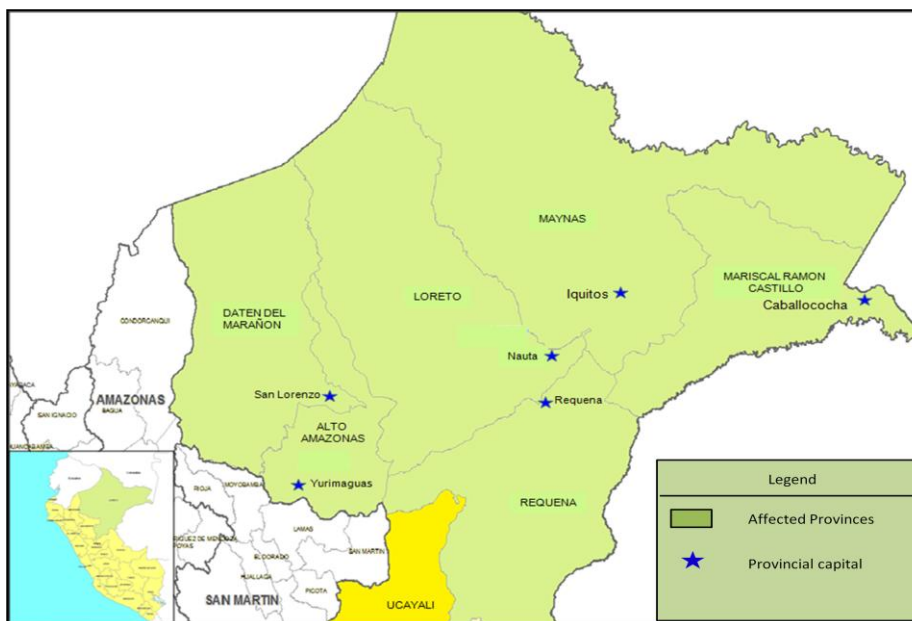
A dengue outbreak started in **Peru** in the last week of December 2010, affecting the region of Loreto on the north-eastern side of the country. The region, part of the Amazonia, is covered by tropical rain forest with an average temperature of 24 to 29 °C and humidity above 80 per cent. The area is often the focal point of a number of endemic diseases, including malaria and dengue. Of the 2,919,505 inhabitants of Loreto, around 54 per cent has piped water in their homes, 63 per cent has access to sanitation facilities and 52 per cent has electricity. About 54 per cent are single-parent households led by women.

As a consequence of the outbreak, a red alert was declared in Loreto on 4 February that will be in place for a period of 60 days, allowing the governmental authorities to access more resources. There is also a yellow alert in 14 other at-risk areas (Madre de Dios, Amazonas, San Martín, Ucayali, Tumbes, Piura, Lambayeque, La Libertad, Cajamarca, Ancash, Huánuco, Junín, Cerro de Pasco and Lima). The most affected area is the city of Iquitos, the provincial capital of Maynas province, which can only be reached by air and boat. The four districts that form the city, Belén, Iquitos, Punchana and San Juan, report 83 per cent of all the cases, including all reported deaths in the Loreto region. The province of Alto Amazonas (within the Loreto region) has 6.4 per cent of the cases while all other cases are distributed throughout the rest of the Loreto region, including the town of Nauta, Barranca and Requena. Some cases have also been reported outside the affected region of Loreto: four cases in Lima, one case in Piura, and several in Cuzco. As of 12 February, there were 15,055 reports of suspected dengue cases in the city of Iquitos as stated in the table below:

Number of cases	
Without warning symptoms	12,797
With warning symptoms	2,165
Severe cases	93
Deaths	14

Of the 14 cases in which patients died, eight had serotype 2, one case had serotype 4, and the other five cases were not identified. The majority (64 per cent) of fatalities were of children under the age of 15; therefore, the authorities are now hospitalizing all suspected cases in children due to the higher probability of complications. In total, 1,995 people have been hospitalized.

The reasons for the gravity of the current outbreak are varied. The serotype 2 (VD2) was identified in the region for the first time in November 2010. In addition, in the province of Alto Marañón there were more cases of serotype 1 rather than serotype 4 that was formerly the predominant one. Furthermore, the population is vulnerable due to the overall situation; people are obliged to store water given the lack of water supply and often it is not kept appropriately; moreover, the region does not have an appropriate waste disposal system. In addition, the population tends to avoid medical supervision and is resistant to control methods like fumigation and larvae removal and there is inadequate coordination and few economic resources amongst all stakeholders involved in preventive measures.



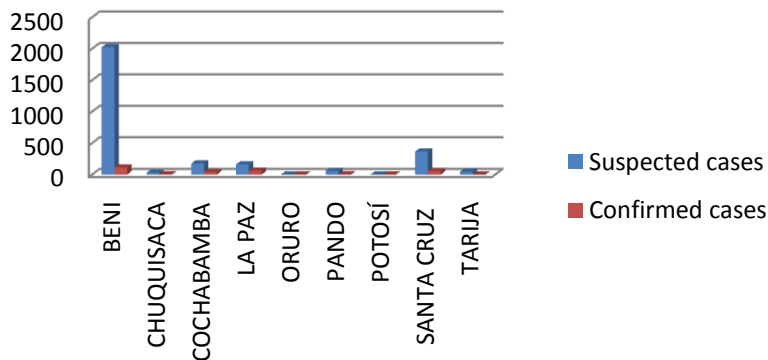
In Peru, the area most affected by the current outbreak is the Amazonia area of Loreto.
Source: SINPAD, Peru

region. Since November 2010, there has been an increase of dengue cases in the department of Beni, and

In the case of **Bolivia**, dengue has been an endemic disease for the last five years, particularly in the last quarter of 2008 and the first quarter of 2009, when the country had the most serious outbreak in the

the Governor of the department declared a Sanitation Alert in December 2010. In the month of January alone, Beni had 2,024 suspected cases, 112 confirmed ones and 8 deaths. Approximately 83 per cent of these cases took place in the Trinidad municipality, followed by Guayaramerín (7 per cent), Santa Ana (3 per cent), Riberalta (3 per cent), San Ignacio de Moxos (2 per cent), San Borja (1 per cent) and Magdalena (1 per cent). There is also a reported increase of cases in other departments, mostly in La Paz and Santa Cruz. The current outbreak is overwhelming the public health system in Bolivia, particularly as the population prefers to seek treatment in hospitals and not at the health centres at the community level.

Cases of dengue by department in Bolivia, January 2011



The main difference between the outbreak in 2009 and the current one is that the habitat of the mosquito in 2009 was mostly urban while the affected area this year is mostly rural.

In addition, it is becoming clear to the authorities that dengue is reappearing in areas where the vector *Aedes aegyti* was thought to have been under control. Furthermore, the mosquito seemed to become resistant after the fumigations carried out during the outbreak of 2009, and the new fumigation campaigns are not as effective. Thus, a different approach

is needed, preferably which includes a more active participation of the population in the identification and removal of potential *Aedes aegyti* breeding-grounds and does not rely solely on extermination through chemical products.

Coordination and partnerships

In Peru, a regional health Emergency Operations Centre (EOC) was installed on 9 February, which will meet every week for the duration of the emergency. The first meeting was attended by representatives from Loreto’s Regional Health Authority (Dirección Regional de Salud- DIRESA), sanitation officials from the Peruvian Air Force, the Peruvian Army and National Police. Representatives from private clinics and the Peruvian Red Cross were also present. A day later, on 10 February, the first meeting of the National Humanitarian Network was also held. To combat the outbreak, the Peruvian government has a three level strategy: vector control, communication campaign and training of personnel. To control vectors, Loreto’s DIRESA is visiting homes, fumigating and removing larvae in the districts of Punchana, San Juan, Iquitos and Belén. Thus far, 71,772 homes have been reached, 86 per cent of all houses in Iquitos. A communication and information campaign started in January, but it is facing challenges due to lack of sufficient human and financial resources and has reached only 10 per cent of its target goal. DIRESA is also training personnel on epidemiologic surveillance, treatment of cases, and fumigation and larvae removal. The Pan American Health Organization supported DIRESA in the training of mayors, municipal health personnel and other governmental officers.

The National Society in **Bolivia** is coordinating with the Departmental Health Services (Servicio Departamental de Salud) and surveillance committees in Beni, Cochabamba, La Paz, Pando and Santa Cruz. The BRC has been monitoring the outbreak from the outset through its branches, collecting and comparing information that was used to decide on actions to be taken. As part of its response, the BRC formed a strategic alliance with the Ministry of Health and Sports, the Ministry of Education, PAHO and UNICEF to form a community-based movement that incorporates high school students and teachers in all prevention activities.

Red Cross and Red Crescent action

In Peru, the PRC branches in the affected region are actively participating in the Regional Health EOC, gathering information and coordinating with different representatives of DIRESA. The volunteers of the branches in Iquitos, Punchana and San Juan are providing information through basic treatment points, while

also participating in waste removal campaigns organized by DIRESA. In addition, volunteers in the affected areas participated in two-day larvae control training and they will start a 20-day campaign to control the vector.

The PRC's headquarters is also increasing its coordination role. On the one hand, it is participating in the National Health EOC, collaborating with the Ministry of Health and the National Emergency and Disasters Committee. On the other hand, the PRC is ensuring information flow between the National Society and the IFRC, providing several situation reports. Furthermore, the PRC's headquarters is providing technical support to the branches in all affected areas.

In **Bolivia**, the National Society has been monitoring the development of the emergency, gathering information and analyzing it to create a plan of action that deals with the main aspects of the outbreak. The BRC is paying particular attention to activities that could have a long-term impact and to methods that involve stakeholders at different levels, from community-based organizations to government institutions and international organizations, including the UN system.

The needs

The needs to respond to the current dengue outbreak and reduce mortality and morbidity are varied. Firstly, it is important to strengthen institutional coordination for a comprehensive and integrated response. Secondly, there is a strong need to increase the community information and education campaign, reaching the population at educational centres. Thirdly, professional health personnel working in isolated or small health centres, as well as volunteers and community organizations, need to be trained in different response and preventive measures. Fourthly, sanitation equipment and safety gear are also needed. Finally, there are not enough human resources to cover the current demand and the gap will need to be covered.

Selection of people to be reached:

The BRC will be working in the Riberalta municipality in the department of Beni; while the PRC will be working in the district of Puchana in the Loreto Region. Both areas are located within the regions with the highest rates of dengue cases. The National Societies will identify those communities with high levels of vulnerability and poverty.

The proposed operation

Both National Societies, the Bolivian Red Cross and the Peruvian Red Cross, propose a plan of action at two levels that will target at least 3,000 families. At the first level, activities are focused on controlling the breeding grounds of the mosquito *Aedes aegypti* and reducing the contact between the mosquito and humans through the distribution of mosquito nets. At the second levels, activities aim to increase the awareness of the affected communities, incorporating the educational system (teachers and students) in the intervention and distribution of information materials.

In coordination with the National Societies, the IFRC has Regional Intervention Team (RIT) members at its disposal to travel to Peru and Bolivia to support the operations as required.

Emergency health

Outcome: Dengue-related morbidity and mortality is reduced through a comprehensive approach to preventive health and increased awareness through community mobilization	
Outputs	Activities planned
In Peru, at least 2,000 families and 4,200 students are reached with information and educational campaigns.	<ul style="list-style-type: none"> • Train volunteers and health staff in epidemic control. • Conduct house-to-house educational campaigns for 2,000 families • Conduct 20 talks in schools targeting 4,200 students • Conduct a communication campaign (distribution of informative materials).
In Bolivia: Output 1: At least 1,000 families are reached with information and educational campaigns	<ul style="list-style-type: none"> • Train volunteers and health staff on epidemic control and community health education. • Train high school students and teachers on epidemic control and community health education. • Conduct five dengue awareness-raising fairs at educational

Output 2: The community is better prepared to manage future health emergencies	<p>centres.</p> <ul style="list-style-type: none"> Assess the population's knowledge of the disease and the sanitation practices at the household level. Conduct a communications campaign using recreational materials such as "Denguelandia".
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Water, sanitation and hygiene promotion

Outcome: The risk of dengue fever is reduced through vector control activities including identification and cleaning of breeding grounds through cleaning campaigns and fumigation.	
Outputs	Activities planned
At least 1,000 families (500 in Peru and 500 in Bolivia) are assisted with community cleaning campaigns and mosquito nets.	<ul style="list-style-type: none"> Coordinate with local authorities the design and implementation of activities. Distribute two mosquito nets per family to 500 families. Complete cleaning campaign targeting mosquito-breeding grounds with the participation of the community. Assist the local government authorities in community and household fumigation activities as needed. Procure cleaning equipment and personal protective equipment for Red Cross personnel participating in the fumigation activities.

Dengue is a vector-borne disease, for this reason the proposed operation does not include water or personal hygiene promotion at the individual level, but is rather focused on basic community and household sanitation activities related to vector control.

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 Disaster 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:

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.

Contact information

For further information specifically related to this operation please contact:

- In Bolivia: Ruben Gonzalez, Relief Director of the Bolivian Red Cross; phone: + 591 2 2202934; and email: socorro@cruzrojaboliviana.org.
- In Peru: Patricia Hoempler, Head of Programmes of the Peruvian Red Cross; phone: + 511 989 594 5512; and email: patricia.hoempler@cuzroja.org.pe.
- In Peru: Fernando Casanova; Regional Representative for the Andean Region; phone: + 511 221 8333; and email: fernando.casanova@ifrc.org.
- In Panama: Jorge Zequeira, PADRU coordinator; phone: + 507 316 1001; fax: + 507 316 1082; and email: jorge.zequeira@ifrc.org.
- In Panama: Francisco Maldonado; PADRU Disaster Management delegate; phone: + 507 316 1001; fax: + 507 316 1082; and email: francisco.maldonado@ifrc.org.
- In Panama: Marta Trayner, Emergency Health coordinator; phone: + 507 317 3074; and email: marta.trayner@ifrc.org
- In Geneva: Pablo Medina, Operations Coordinator for the Americas; phone: + 41 22 730 4381; fax: + 41 22 733 0395; and email: pablo.medina@ifrc.org

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International Federation of Red Cross and Red Crescent Societies

PERU AND BOLIVIA DENGUE OUTBREAK MDR46001

date
16/02/2011

BUDGET SUMMARY

Budget Group	DREF Grant Budget	TOTAL BUDGET CHF
Shelter - Relief		-
Shelter - Transitional		-
Construction - Housing		-
Construction - Facilities / Infrastructure		-
Construction - Materials		-
Clothing & Textiles	13,374	13,374
Food		-
Seeds & Plants		-
Water & Sanitation		-
Medical & First Aid		-
Teaching Materials		-
Ustensils & Tools		-
Other Supplies & Services & Cash Disbursements	26,304	26,304
Total Supplies	39,678	39,678
Land & Buildings		-
Vehicles		-
Computer & Telecom		-
Office/Household Furniture & Equipment		-
Medical Equipment		-
Other Machinery & Equipment		-
Total Land, vehicles & equipment	0	0
Storage		-
Distribution & Monitoring		-
Transport & Vehicle Costs	2,907	2,907
Total Transport & Storage	2,907	2,907
International Staff		-
Regionally Deployed Staff	7,000	7,000
National Staff		-
National Society Staff	6,978	6,978
Other Staff benefits		-
Consultants		-
Total Personnel	13,978	13,978
Workshops & Training	4,070	4,070
Total Workshops & Training	4,070	4,070
Travel	7,946	7,946
Information & Public Relation	1,938	1,938
Office Costs	1,454	1,454
Communications	1,163	1,163
Professional Fees		-
Financial Charges	839	839
Other General Expenses	0	-
Total General Expenditure	13,339	13,339
Cash Transfers to National Societies		-
Cash Transfers to 3rd parties		-
Total Contributions & Transfers	0	0
Program Support	4,808	4,808
Total Programme Support	4,808	4,808
Services & Recoveries	0	0
Shared Services		0
Total Services	0	0
TOTAL BUDGET	78,781	78,781