

## case study



# Leh, India Floods 2011 DREF Operation

## Country Context

India is the world's second most populous country with more than 1.2 billion people and geographically the seventh-largest country in the world. It has a coastline of more than 7,000 kilometres and its terrain ranges from deserts to plains to the Himalaya Mountains.

India is prone to a number of different disasters, including flooding, flash floods, and landslides caused by cyclones and monsoon rains. The vulnerability to these hazards is aggravated by environmental, social, cultural, economic, institutional and political factors in the country. While India is one of the fastest-growing economies in the world, 41.6 per cent of the population still live on less than 1.25 US dollars a day.<sup>1</sup> The country faces a major threat from the projected changes in climate and trends in climate-related disasters.

Leh is the capital of the Leh District and the largest town in the region of Ladakh, located in the state of Jammu and Kashmir in northern India. Mountains surround the city, with an average altitude of 3,500 metres, and the two main roads to Leh are only open on a seasonal basis due to heavy snowfall and frequent landslides. Its economy mainly depends on tourism in the seasonal months.

## Indian Red Cross Society

The Indian Red Cross Society (IRCS) was founded in 1920 and has since developed into a robust National Society within the International Red Cross and Red Crescent Movement (Movement) to provide relief in times of disasters and other emergencies and promote health and care of vulnerable people and communities. It has 35 state or union territory branches and more than 700 district or sub-district branches throughout the country. Its national headquarters in New Delhi is the home of its disaster management department and blood bank and supports the country's six regional warehouses as well as the state and district branches throughout India.

<sup>1</sup> United Nations Development Programme (UNDP) International Humanitarian Development Indicators. <http://hdrstats.undp.org/en/countries/profiles/IND.html>



## Leh Flash Floods

On 6 August 2010, unusual torrential rains triggered the floods and mudslides in Leh, which being in a cold desert, has an average of only 15 millimetres of rainfall during August.

The flash floods and mudslides caused the death of at least 200 people overnight. A wall of mud, debris and water destroyed houses in Leh and in several nearby villages, uprooted telephone towers, temporarily wiping out all communications networks, and covered highways with a reported four metres of mud. Officials estimate that 80 per cent of Ladakh's infrastructure was partially damaged or totally destroyed. Thousands of members of the local communities and authorities, residents and tourists took part in the relief efforts to evacuate people, establish relief camps, distribute aid, clear the main roads and restore telecommunications infrastructure.

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**“My team and I dug people out of the debris, administered first aid to the injured and we are now involved in relief item distribution and installation of water purification units. I am happy I have been able to put my training into action; now I truly know the meaning of humanity.”**

**Waseem, an IRCS volunteer from Srinagar who began working on the relief operation the day the flash floods hit**

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## Red Cross Action

As soon as the flash floods hit, the IRCS worked alongside government officials to respond to the emergency. Opportunely, an IRCS team of trained and experienced national disaster response team (NDRT) members was in Leh at the time to teach basic first aid to community members. They immediately went to the affected areas to assist the government-led search and rescue operations and provided first aid to the injured. The following day, the IRCS leadership and high-level government officials arrived in Leh to assess the disaster effects and determine the immediate needs of those affected. The imminent onset of winter in the following months made the relief efforts to villages even more urgent and the IRCS needed to use ample resources to help as quickly as possible.

As a result, the IRCS requested assistance from the International Federation of Red Cross and Red Crescent Societies' (IFRC) Disaster Relief Emergency Fund (DREF) in the form of a grant of 54,543 Swiss francs to help cover the anticipated costs of the urgent disaster response and complement local support.

The three-month IRCS disaster response operation consisted of the following:

- Deploying a team of 12 experienced disaster management staff and volunteers from six different state branches and headquarters to carry out the relief operation with the local volunteers and continually assess and monitor the situation.
- Helping more than 50 people who were unable to reach their families reconnect with them and exchange Red Cross messages.
- Distributing essential relief goods — flown in at no cost by local airline companies — including blankets, kitchen sets and tents to 5,000 people most affected by the flash floods.
- Providing safe drinking water for up to 3,600 people daily through two water purification units to reduce risks of waterborne diseases.

The team was deployed within three days of the disaster; the Red Cross message cases were completed within 15 days; the distribution of essential goods began within five days of the disaster and all were distributed within 45 days of the flash floods; and safe drinking water — meeting Sphere standards for water supply — reached up to 3,600 people for 90 days. All activities were implemented and completed within the targeted three-month period, just before the harsh local winter.

## Added Value of DREF

**Necessary resource:** Each year, the IRCS responds to major disasters, such as the 2011 Bihar floods, and many more local disasters, such as fires, and has enough capacity and resources within the National Society to respond appropriately and successfully. At times, however, when an acute disaster occurs, external assistance from its Movement partners is indispensable to rapidly reach thousands of vulnerable people in remote communities. The 2010 Leh flash floods operation was one such case. Due to the availability of the DREF funds, the IRCS was able to send goods within days to reach the people in Ladakh when roads and communications networks were cut off.

**Timeliness:** The IRCS's timely intervention was crucial in providing relief items, family-linking services and safe water to thousands of people hit by the flash floods. With the support from IFRC staff and the DREF, the International Committee of the Red Cross (ICRC), and other Red Cross and Red Crescent societies in India and abroad, the IRCS was able to begin helping people hours after the disaster struck. It was also able to reach many more people with an appropriate and planned response within five days of the disaster. Further, this prompt response has raised the profile of the National Society throughout the region.

**Water and sanitation:** In 2009, the IRCS responded to floods in the south-western state of Andhra Pradesh and the south-eastern state of Karnataka, also with

## What is DREF?

The International Federation of Red Cross and Red Crescent Societies' (IFRC) Disaster Relief Emergency Fund (DREF) is a source of un-earmarked funds to ensure immediate financial support is available for Red Cross and Red Crescent emergency disaster response operations. The DREF is a vital part of the IFRC's disaster response system and increases the ability of Red Cross and Red Crescent National Societies to respond rapidly to humanitarian crises and disasters around the world.





the support of the DREF. After the 2009 response operation, the IRCS carried out a lessons learned workshop to highlight operational success and improvements for future responses. One key recommendation was to upgrade the IRCS's water and sanitation equipment and provide technical training for the national disaster water and sanitation team (NDWST) members on how to utilize, maintain and repair these units. Subsequently during the Leh flash floods in 2010, the IRCS mobilized two water treatment units and an eight-person NDWST, deployed in three rotations, who applied the water and sanitation skills they gained in the training. The IRCS identified the water treatment units as a crucial need and appropriate response as the pumping station in Leh township had been washed away and the water pipes completely damaged; no one in Leh District had access to water. The IRCS provided safe water in Leh for an estimated 3,600 people daily for three months; patients at the hospital in Leh were one of the most vulnerable groups targeted for receiving this safe water.

## IRCS's Operational Lessons Learned

- **Recovery after response:** After the immediate response in Leh, an urgent need arose to address the medium- and long-term recovery and rehabilitation needs for those who lost their possessions, homes and livelihoods. The situation remained precarious for thousands of families and all humanitarian actors recognized the need to scale-up and expand operations to continue in the recovery. One of the biggest challenges was — as often in the case of many lesser-known and small-scale disasters — funds were only available for the immediate response and many outstanding needs remain. In this particular case, reconstructing homes was a challenge as the region's harsh winter set in. The Government has been addressing this ongoing situation.
- **Preparedness through capacity building:** The IRCS has a long history of responding to natural and man-made disasters and the National Society continues to build upon its experience and lessons learned from previous responses. As in the case of Leh, a pool of well-trained volunteers in the disaster-prone zones of India can speed up the disaster response operation. Despite the overall number of IRCS volunteers, some areas throughout the country still lack trained and experienced disaster responders. Therefore, the IRCS will further strengthen its national disaster response mechanisms through several training programs, including its NDRT, NDWST, state disaster response team and district disaster response teams. The National Society recognizes the critical role it plays in disaster response throughout the country and is dedicated to building its capacity to improve responses with support from its Red Cross and Red Crescent partners.
- **Water and sanitation:** After analysing its response to the Leh flash floods, the IRCS identified an additional need to generate standard operating procedures for the storage, maintenance and deployment of water treatment units. This work is in progress to ensure an even better response to provide safe water to those affected by any future disasters.

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**“The quick reaction of the Indian Red Cross Society disaster response teams and volunteers — who rapidly provided vital support to those affected by the floods — demonstrated the positive impact of the Indian Red Cross Society's investment in its disaster management training.”**

**John Roche, head of the IFRC's India delegation**

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