



Climate
Centre



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Red
Cross



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Heatwaves



Cold waves

Dushanbe

Tajikistan

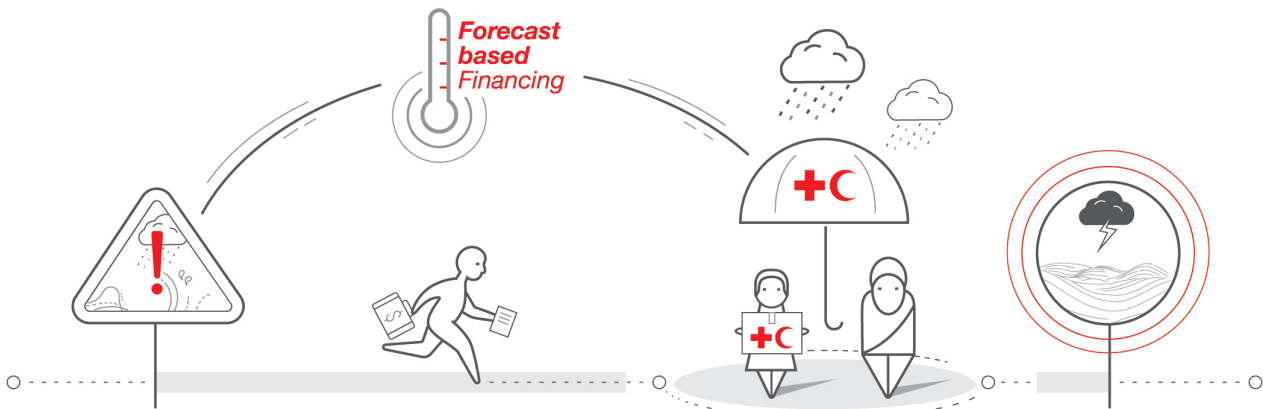
Forecast-based Financing

Tajikistan

The mountainous country of Tajikistan is the most climate-vulnerable country in Central Asia. During the past years, extreme weather events have become both more frequent and intense. The rainfall season has shortened in many parts of the country, air temperatures have risen markedly, glacial melting is accelerating and rates of soil erosion across the country are increasing. Frequent hydrometeorological disasters such as heatwaves, cold waves, droughts, mudflows and landslides are a result. The socio-economic impacts of these changes are considerable: livelihoods, agricultural productivity, water availability and hydroelectricity production are compromised. Disasters in Tajikistan, most of them linked to climate change, result in about 20% of the country's annual GDP loss. The Red Crescent Society of Tajikistan, together with the German Red Cross, implements Forecast-based Financing to reduce the humanitarian impact of these hazards through anticipatory action.

The concept of FbF

Anticipation instead of reaction: with **Forecast-based Financing (FbF)**, the International Red Cross and Red Crescent Movement is reshaping the future of the humanitarian system. Based on forecast information and risk analysis, FbF releases humanitarian funding for pre-agreed activities, referred to as **early actions**. These predefined measures aim to minimise the **impacts of extreme weather events and save human lives**. For early actions to be performed quickly and efficiently before disaster strikes, **funds are allocated automatically when a trigger** is reached, based on weather and climate forecasts. This is defined in the **Early Action Protocol (EAP)**. A **dedicated financing mechanism** is key for taking fast and effective action before disaster strikes: **Forecast-based Action by the DREF**.



The FbF project in Tajikistan

The **German Red Cross (GRC)** and the **Red Crescent Society of Tajikistan (RCST)** have been working on establishing FbF in Tajikistan since early 2019, with technical support of the **Red Cross Red Crescent Climate Centre (RCCC)** and financial support of the **Deutsche Bank Stiftung**. For RCST, the FbF project is a great opportunity to provide anticipatory humanitarian assistance to Tajik communities at risk before disaster strikes. To reach this goal, RCST is currently developing EAPs for heatwaves and cold waves. This will also help RCST advance its institutional capacity for Disaster Risk Reduction (DRR) and anticipatory actions, especially through trainings for the existing National Disaster Response Teams. Likewise, the EAP will also enhance the RCST's cooperation with DRR actors in high-risk areas, enabling it to provide faster and more effective humanitarian assistance to communities at risk.

- **Hydromet, CoES, REACT Partners, local authorities, community leaders, other regional agricultural and health agencies** each play a key role in the implementation of the EAPs.
- The EAPs should be part of the contingency plans of **national, regional and provincial government entities** as well as of the RCST. Roles of key actors are divided into three categories: coordination, communication and implementation of field actions.
- Activations of EAPs will be funded through the **International Federation of Red Cross and Red Crescent Societies' (IFRC) FbA by the DREF**. IFRC will further provide guidance and support for procurement, Planning Monitoring Evaluation and Reporting (PMER), and finance.

Partners in Tajikistan

FbF and the EAPs in Tajikistan are jointly developed and implemented by the following stakeholders:

- The **RCST** is the main implementing organisation, provides the organisational and staff capacity on the ground and is technically supported by the **GRC** and the **RCCC**.

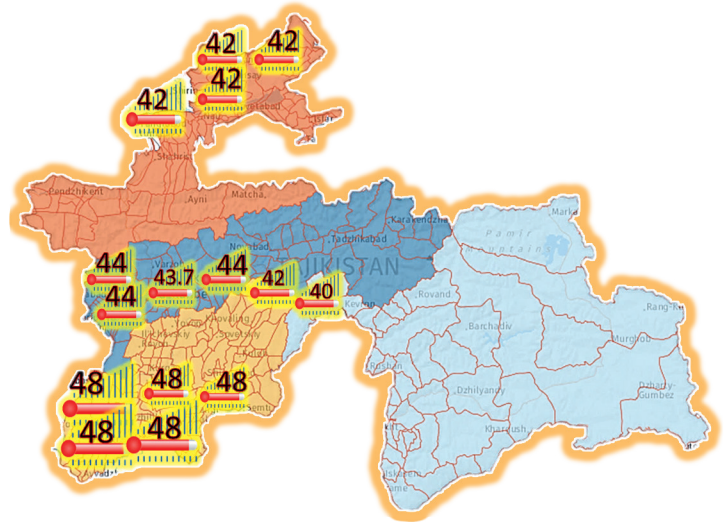


Early Action Protocol: Heatwaves

Heatwaves are meteorological phenomena that occur in Tajikistan from June to September, with their intensity varying from year to year. The lowlands in the Tajik east are most affected. Over the past decade, extreme temperatures reached up to 48°C in some parts of the country, leading to severe health impacts for the most vulnerable population groups and affecting their livelihoods and livestock.

How do heatwaves affect the population?

Extreme heat increases mortality among young children and the elderly, often due to cardiovascular stress. Communities and humanitarian actors identified the most severe heatwave impacts among pregnant women, people with disabilities, elderly people living alone, children and people with non-communicable diseases. Particularly, heatwaves affect farmers in rural areas who go out to tend the crops despite the soaring temperatures. Agriculture is one of the main contributors to Tajikistan's GDP. A small share of arable land (7%) and heavy reliance on agriculture means that the impact of heat – and other extreme weather events – on crops leads to food insecurity and substantially damages livelihoods and the overall economy.



In the past, in some regions temperatures of up to 48°C have been recorded. Heatwave events are expected to become even more extreme with climate change.



Heatwave Early Actions

The heatwave EAP is still under development. In summer 2019 – to test the early actions that are being considered – RCST responded to a heatwave alert issued by Tajik Hydromet for the southern, northern and central part of the country for the duration of 8 days with temperatures soaring as high as 44–46°C. The alert was extended two times and the heatwave continued for four weeks.

Early actions from the draft EAP include:

- **Distribution of drinking water supplies** to vulnerable population groups. In summer 2019, this was carried out in the Orzu village in northern Tajikistan, which, in a countrywide analysis, was identified as one of the most vulnerable communities, as heat has made access to drinking water difficult in the past. 900 people received drinking water at a rate of 15 liters per person per day in line with SPHERE standards. By August 8, 2019, nearly 400,000 liters of water had been distributed over a 29-day stretch
- **Information campaigns in target communities, hospitals, as well as in public places** to increase knowledge on how to mitigate the risk of a heatstroke
- **Distribution of hats and caps, as well as umbrellas** to provide shade against the sun (e.g. for farmers and school children)



Distribution of water during a heatwave.



Early Action Protocol: Cold waves

Cold waves occur mainly between December and March in the high-altitude parts of Tajikistan. The harsh conditions of the winters 2011–2012 and 2012–2013 affected close to 500,000 people. Cold waves in Tajikistan dramatically challenge the lives and security of people, triggering health problems, significant losses in livestock, reduction of agricultural productivity and food shortages.

How do cold waves affect the population?

In recent years, Tajikistan has faced extremely hard winters, which have had a serious impact on food security and the livelihoods of the most vulnerable. Extreme cold weather conditions impact water and electrical supply systems and can lead to the isolation of mountain villages. Heavy snowfall and ice often block roads between districts, severely limiting access to supplies of food, fuel and other basic commodities as well as to health services. In past cold waves, access to basic healthcare services was also severely reduced as many hospitals and health centers closed or worked during restricted hours due to limited availability of electricity, heating and running water. At the same time cold waves cause an increase in diseases, such as acute respiratory diseases. As a consequence of the extreme temperatures, the livestock of many families suffers from diseases and death. As these constitute the main source of income of many rural families, they find themselves lacking money for heating oil and warm clothing.

Cold waves chiefly impact people living below the national poverty line. Infants, children under 5 years, pregnant women, single mothers, people with disabilities, lone elderly and people with chronic diseases are most at risk.



Cold wave Early Actions

The cold wave EAP is still being drafted, but FbF early actions will likely be activated based on forecasts with a lead time of five to seven days. The EAP will probably focus on the areas of health and livelihoods and include the following actions:

- **Awareness campaigns** (Radio, TV, Newspaper) with messages on cold wave protection measures
- **Distribution of coal** for heating the homes of the most vulnerable families in poor rural communities
- **Provision of blankets, mattresses, clothing** to the most vulnerable families, who often sleep on cold floors
- **Improving insulation of windows**
- **Distribution of essential food commodities**, such as wheat flour, vegetable oil, salt, sugar, pasta, rice and tea

The RCST has the necessary experience to carry out these actions based on their cold wave response activities from 2008 to 2014, supported by the IFRC.



Heavy snowfall and avalanches can block roads, jeopardizing the population's access to food and basic supplies.

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