

Imminent DREF Operation

Costa Rica: Floods



CRRC rescue team on alert due to flood forecast. September 2025. Source: CRRC.

Appeal: MDRCR027	DREF Allocated: CHF 80,000	Hazard: Flood	Country: Costa Rica		
Population at risk (if available):	Operation Start Date: 20-09-2025	Operation End Date: 30-11-2025			
Event Onset: Sudden	Forecasted day of event (or peak): 2025-10-01	Operation Timeframe: 45 days			
Targeted Regions: Alajuela, Cartago, Heredia, Limon, San Jose					



Scenario analysis

When and where is the hazard expected to happen?

The event is expected to occur between 1 and 15 October 2025, primarily affecting the Pacific slope (Guanacaste, Puntarenas, and western areas of Alajuela, San José, and Cartago), the Northwestern Zone (Upala, Los Chiles, and Guatuso in Alajuela province), the Central Valley (provinces of San José, Alajuela, Heredia, and Cartago), the Northeastern Zone (Sarapiquí in Heredia and northern parts of Limón), and the Northern Caribbean (northern cantons of Limón such as Pococí and Siquirres). According to the seasonal climate forecast issued by the National Meteorological Institute (IMN) for the September–November 2025 period (1), these regions are projected to experience above-normal rainfall, with estimated increases of up to 15%. In addition, as of 13 August, a total of 22 tropical waves have been recorded, having directly or indirectly affected the country, leading to high levels of soil saturation.

The combination of this prior saturation with continued rainfall forecasts significantly increases the likelihood of flooding, landslides, and other impacts on vulnerable communities living in high-risk areas, particularly those with limited infrastructure or low drainage capacity. Alajuela, Cartago, Heredia, Limon, San Jose

Explain the underlying vulnerabilities and risks the hazard poses for at-risk communities?

Costa Rica experiences one of the longest rainy seasons in the region, lasting over six months from May to the end of November. However, in areas such as the Caribbean and the Northern Zone, rainfall occurs throughout the year due to prevailing wind and atmospheric patterns, resulting in persistently saturated soils. This condition is compounded by structural vulnerabilities, including deforestation, the settlement of communities along riverbanks, outdated or insufficient drainage infrastructure, and high exposure among populations with low Human Development Index (HDI) scores, as highlighted in the 2024 Cantonal Human Development Atlas (2).

The threat of flooding in these vulnerable communities poses significant risks, including the loss of household assets, deterioration of health conditions, disruption of livelihoods and productive activities, damage to homes, and, in extreme cases, loss of life. This situation is particularly critical in cantons like Guatuso, located in the Northwestern Zone, which has already recorded severe rainfall levels even before entering the year's final quarter. Rainfall in this area is expected to exceed normal levels by an additional 15 percent. Guatuso is also among the cantons with the lowest HDI in the country, which increases its vulnerability and reduces its capacity to respond effectively to emergencies (3).

Source Name	Source Link
1. MAE – Seasonal Forecast (September – November 2025)	https://www.imn.ac.cr/documents/10179/29808/PerspClimaCR 20 2508/90fb7d45-05f0-4ebd-bf6c-2ae235c9d0ad
2. UNDP – Cantonal Human Development Atlas / Costa Rica 2024	https://www.undp.org/es/costa-rica/atlas-de-desarrollo-humano-cantonal-2024
3. CR Hoy – 53 Flood-Related Incidents Reported in Guatuso	https://www.crhoy.com/lluvias-generaron-al-menos-53-incidentes-por-inundaciones-especialmente-en-guatuso/

Plan

Which of the expected severe humanitarian impacts of the hazard are your actions addressing? Why were these impacts chosen?

The prioritized actions aim to reduce the most severe humanitarian impacts anticipated as a result of flooding in exposed communities. These populations rely heavily on agricultural, commercial, or informal sector activities, all of which are highly sensitive to climatic conditions. The expected floods could lead to the loss of crops, work tools, livestock, commercial inventories, and basic infrastructure, seriously compromising the economic security of affected households. Such losses may trigger longer-term consequences, including food insecurity, indebtedness, and internal displacement.

In this context, the anticipatory provision of cash through the Cash and Voucher Assistance (CVA) programme is an effective and dignified strategy to mitigate these impacts. Financial support delivered before the event will enable families to prepare more adequately, strengthening their ability to respond and recover. With this support, households will be able to purchase key supplies to protect their



assets (such as plastic sheeting for waterproofing, fuel for transportation or evacuation, and livestock feed), reinforce their homes, safeguard livelihoods, and relocate valuable belongings. At the same time, cash assistance enhances household decision-making power and promotes dignity by allowing families to prioritize their own needs.

This modality also takes into account different contextual scenarios, such as early evacuations, where many people prefer to stay with relatives or acquaintances in safe areas rather than move to shelters. Anticipatory CVA will enable these families to meet their basic needs independently, without placing additional pressure on host households. Early access to resources will also allow families to stock up on medicines, reinforce temporary shelters, and protect productive assets, contributing to community resilience and sustaining local markets in the face of potential disruptions caused by the floods.

Complementing this, a strategy for disseminating early warning messages will be implemented, based on official information from the National Risk Management System (SNGR). These messages will be shared through the Access RC application, printed and digital materials, and other community channels identified through Community Engagement and Accountability (CEA) actions, to ensure that people receive clear and timely information. This intervention seeks to further mitigate impacts such as loss of life, injuries and accidents, damage to homes and property, disruption of access to basic services (water, health, transport), forced displacement, and local economic losses. The activity is expected to directly reach approximately 850 people in prioritized communities, strengthening their capacity to act early and reduce the humanitarian consequences of the emergency to the greatest extent possible.



Proposed Actions

	Sector	Activities	Budget (CHF)	
Early Actions	DRR	 Use of the Access RC application, including the design and updating of digital information materials. Dissemination of messages through printed and audiovisual materials, ensuring accessibility for different population groups. Local in-person campaigns in prioritized communities, supported by community volunteers, covering costs of mobilization, materials, and resource preparation. Sharing of messages via instant messaging and social media platforms, to achieve broader and faster outreach. Mass dissemination of messages in coordination with local and regional media outlets, to strengthen the impact of early warning. 		
	Livelihoods and basic needs	 Conduct a feasibility study to define the transfer value, delivery mechanism, and final number of families, ensuring that the intervention is adapted to market conditions and community needs. Acquire and distribute prepaid cards with a preliminary transfer of 200 CHF per family, with the amount or number of families subject to adjustment based on the results of the feasibility study. Procure mobile phone kits to facilitate the safe and efficient delivery of Cash and Voucher Assistance (CVA) to the selected households. Deploy teams to identify and register eligible families in prioritized communities, applying the agreed vulnerability criteria. Organize training sessions for staff and volunteers on CVA processes and anticipatory action to strengthen their technical and operational capacity. Design, print, and disseminate information materials to ensure transparency, accountability, and informed decision-making by the communities. Cover support costs related to office operations and vehicle use to enable effective implementation and monitoring of CVA activities. Implementation of CVA programme for at least 170 families in prioritized communities that meet the following criteria: located within the influence of a tropical wave where rainfall increases of more than 15% are forecasted by the National Meteorological Institute (IMN), situated in areas with soil saturation levels above 80%, and belonging to cantons with a low Human Development Index (HDI). 	CHF 56,250	



Early Response	CEA	 Support the operation of the National Emergency Operations Centre (COE/CECOE) for up to five days once a yellow alert is declared, based on National Directorate for Emergency Response (DINARE) criteria, including the potential deployment of staff to regional coordination centres (CCOR) as required. Finance the response of specialized units, including land, urban, aquatic, and canine search and rescue (K-SAR), as well as National Rapid Response Teams (ENI), to cover immediate needs in the first five days following impact. Implement CEA activities during emergencies by providing affected communities with timely and accessible information, establishing feedback and complaint mechanisms to ensure community voices are heard and acted upon, and deploying audiovisual tools and field teams to facilitate two-way communication and strengthen accountability throughout the response. 	CHF 18,750
		Sub-total	CHF 75,000
Indirect Cost			CHF 5,000
		Total	CHF 80,000



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