WFP
World Food Programme

SAVING LIVES
CHAN GING LIVES

Weathering the storm

What makes anticipating cyclones a success

As weather-related shocks become increasingly frequent and severe worldwide, the World Food Programme (WFP) has significantly expanded its investment in Anticipatory Action (AA) to help countries proactively manage their impact. In tropical cyclone prone regions, storms are more likely to become major events, intensifying faster, producing more rainfall, with extreme windspeeds and coastal flooding prompting countries to invest in early warning systems and scale up AA to reduce impacts on communities, lives and livelihoods.

2024–2026 have been years of intense cyclone activity, with some of the most powerful storms on record, including Super Typhoon Uwan and Hurricane Melissa. WFP and partner governments have been on the front lines: supporting over 700,000 people at risk to protect themselves with anticipatory cash and/or in-kind food assistance, and over seven million people with early warning messages before the cyclones hit, across the varied contexts of Mozambique, Madagascar, Haiti, Cuba, Bangladesh and the Philippines. **This document reviews WFP's AA cyclone activations**, reflecting on the uniqueness of the operations and the key factors that led to successes and challenges, to help guide the development and improvement of cyclone AA programmes.

May 2026

ANTICIPATING CYCLONES: A UNIQUE CHALLENGE

Forecasts of tropical cyclone tracks are improving considerably

Up to 75% more accuarate than in 1990

The National Hurricane Center three-day forecast today is about as accurate as a one-day forecast in 2002 .

Acting on these enhanced early warnings and more accurate lead times is a collective responsibility, as lives are at risk.

Source: NOAA

Acting ahead of cyclones remains extremely challenging because storms can intensify rapidly, often leaving only a few days, or sometimes hours, before landfall, and forecasts can change during this formation phase. These challenges are at the forefront of cyclone prediction models, which are providing unprecedented insight and warning time into a cyclone's likely landfall location and intensity.

However, even with these advancements, interventions must remain highly flexible to adapt to shifting intensities, trajectories and geographies. **Acting too early for cyclones, risks misallocating resources, while acting too late can result in severe humanitarian and economic consequences.** As a result, AA programmes must strike a balance between the longest acceptable (skilful) forecast lead time and the time required to send warnings and provide assistance to people before landfall.

Reaching people before a hazard's impact can significantly reduce loss of life, protect livelihoods, and minimise economic damage. The successful implementation of AA for cyclones is possible due to the pre-registration of beneficiaries, advance financing mechanisms and standby contracts with major financial service providers.

Therefore, investing in pre-agreed actions, pre-arranged financing, and robust early warning systems ensures that, even under uncertainty, interventions can save lives and reduce suffering.

OVERVIEW OF WFP'S ANTICIPATORY ACTION AGAINST CYCLONES

MAIN STATISTICS

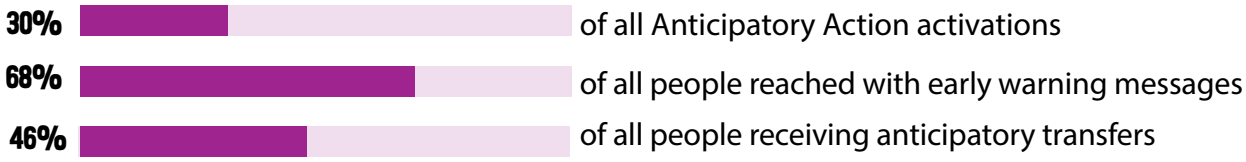
57 WFP ANTICIPATORY ACTION ACTIVATIONS SINCE 2019

OF WHICH **11** ACTIVATIONS AHEAD OF CYCLONES

5 CYCLONE ACTIVATIONS IN 2025 (2 in Mozambique, 1 in Haiti, 1 in Cuba and 1 in the Philippines)

AS OF MARCH 2026, **2** CYCLONE ACTIVATIONS HAVE TAKEN PLACE (in Mozambique and Madagascar ahead of Cyclone Gezani).

CYCLONE ACTIVATIONS IN 2025



The recent cyclone activations in Haiti and the Philippines demonstrate the significant efficiency gains achieved through AA. **In Haiti, WFP reached one-third of its total caseload with anticipatory cash transfers within just 48 hours ahead of Hurricane Melissa's landfall, operating approximately 12 times faster than the subsequent post-shock response.** Similarly, in the Philippines, WFP delivered anticipatory cash transfers to more than twice as many people as the post-shock response and at a speed roughly 23 times greater. Together, these results highlight the exponential improvements in timeliness and scale that AA can deliver for humanitarian action.

WHAT DID WFP DO?

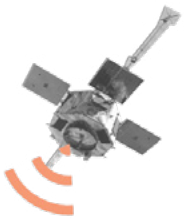
MAY & JULY 2024

CYCLONE REMAL & JAMUNA FLOODS — BANGLADESH

< 24 HOURS: Anticipatory cash delivered to **150,000 people one day before Cyclone Remal landfall**, despite rapid intensification and a weekend trigger.

TWO MONTHS LATER: WFP reached **478,140 people** with anticipatory cash and sent early warning messages to **1,5 million people two days ahead of the Jamuna floods**.

WHY THIS MATTERS: The same readiness systems enabled fast protection across hazards, when every hour counts.



DEC 2024/JAN 2025/ MAR 2025

CYCLONES CHIDO, DIKELEDI AND JUDE — MOZAMBIQUE

< 2 OR 3 DAYS: Before landfall, early warning messages reached **over 5 million people**, while **evacuation and food assistance supported 1,080 people** ahead of **three cyclones**. Standby agreements with local providers enabled **hot meals in shelters within 48 hours** of triggers being reached

WHY THIS MATTERS: Thanks to AA readiness investments, **crisis coordination now takes place up to five days earlier,** strengthening the disaster management cycle.

OCTOBER 2025

HURRICANE MELISSA — HAITI

~ 48 – 24 HOURS: Digital cash was transferred to **over 47,000 people one day ahead of Hurricane Melissa** landfall, while **more than 3.5 million people** received early warning messages via SMS.

NEXT THREE MONTHS: Enabled by **digital wallets and pre-registration through the social protection system**, WFP went on to assist 170,000 people, **one-third of them already reached through anticipatory assistance**.

WHY THIS MATTERS: AA enabled WFP to reach people **around 12 times faster** before impact than through post-shock response, helping households avoid debt and negative coping strategies.

* The efficiency gain was calculated by comparing the average delivery rates between two periods. For the three-month period, the total number of people reached (170,000) was divided by an assumed 90 days to obtain an average daily reach. For the 48-hour period, the number of people reached (48,000) was divided by 2 days. The efficiency gain represents the ratio of the two rates—that is, how many times faster people were reached in the shorter period compared to the longer one. This approach measures relative improvements in operational speed rather than absolute time savings.

OCTOBER 2025

HURRICANE MELISSA — CUBA

WITHIN 48 HOURS: **697 metric tons of food** to provide **hot meals for over 180,000 people in shelters** ahead of Hurricane Melissa.

WHY THIS MATTERS: Pre-positioned supplies and strong government coordination enabled timely, large-scale assistance **despite acute fuel and supply constraints**.

NOVEMBER 2025

SUPER TYPHOON UWAN — THE PHILIPPINES

WITHIN 48 HOURS: **Digital cash reached over 210,000 people three days before Super Typhoon Uwan** made landfall, enabled by advance financing, pre-registration through the social protection system and clear activation protocols.

WHY THIS MATTERS: Anticipatory Action reached **two-thirds of people around 23 times faster**** than post-shock response, showing how acting early dramatically improves speed and scale.

FEBRUARY 2026

CYCLONE GEZANI — MADAGASCAR

< 24 HOURS AHEAD: WFP delivered **anticipatory cash to 3,150 people and early warning messages to over 5,000 people one day before Cyclone Gezani** made landfall. This marked the **first time in Africa** that WFP delivered cash ahead of a cyclone, and the first such activation in Madagascar.

WHY THIS MATTERS: Acting before impact **protected one in six affected people ahead of landfall**, giving the response a vital head start and improving overall speed and effectiveness.

** The efficiency gain was calculated by comparing the average number of people reached per day under AA and post-shock response. For AA, the total number of people assisted (210,000) was divided by 2 days to obtain the daily delivery rate. For the post-shock response, the number of people reached (96,125) was divided by 21 days (three weeks). The efficiency gain represents the ratio between these two rates, illustrating how many times faster AA enabled assistance to be delivered compared to post-shock operations.

EMERGING TRENDS FROM ANTICIPATING CYCLONES

The **main common factors** that enabled a successful implementation of these activations include:

- **Investing heavily in readiness** becomes the decisive factor between staying ahead of the disaster or falling behind its impact. This includes pre-targeting and pre-registering beneficiaries, advance financing and stand-by agreements ready to be deployed and clear activation protocols.
- **Real-time coordination and adaptiveness**. The nature of this hazard demands exceptionally close coordination between meteorological agencies, various government ministries and communities to ensure real-time updates and informed decision-making, alongside the rapid release of funds. Continuous communication at the community level is crucial, as AAs often involve relocating people and assets and safeguarding critical infrastructure before the hazard strikes. The adaptiveness is directly correlated with the dynamic intensity and trajectory of cyclones.
- **Governments leadership.** The strong coordination and leadership shown by the governments involved in all these activations signals that AA is no longer a small-scale humanitarian sector pilot project, but a central pillar of national disaster risk management strategies and social protection systems. In Mozambique, it was the ground-breaking use of national funds and resources to assist thousands of people three days ahead of cyclone landfall – which cements the mainstreaming and centrality of AA in national disaster management cycles. This spells the beginning of a new age where anticipating hazards can become the norm and not the exception.
- **Improved cyclone forecasts**: Ever-improving early warning systems (EWS) enable earlier, more precise forecasts of cyclone trajectories. In WFP's experience in 2025, this allowed an earlier kick-off with enough time to roll out coordinated actions and real-time adjustments based on forecast updates. In the Philippines, this meant that assistance was provided three days before landfall so that people could secure their houses, protect livelihoods and evacuate safely.

LEARNINGS FROM ANTICIPATING CYCLONES

In addition, these activations so far point to several important **lessons learned** in terms of how to handle the unique challenges that AA for cyclones poses in terms of context-specificity, timeliness and scale. Below is a summary of how WFP has managed to address these so far:

1. Maintaining context-specificity while scaling up

WFP's AA work is not only defined by its scale but also by its growing sophistication and versatility. These cyclone activations across such different contexts as Mozambique, Madagascar, Cuba, Haiti, Bangladesh and Philippines demonstrate the flexibility and adaptiveness of WFP's AA programmes showing that it is not a one-size-fits-all but a context-sensitive approach.

WFP ensures context-sensitive design without sacrificing scale by:

- **Dual delivery modalities:** Digital cash transfers have proven to be the most timely and effective modality for providing assistance ahead of cyclones, as seen in Haiti, Madagascar, Bangladesh and the Philippines. In contexts where markets are not functioning or there are connectivity challenges, in-kind assistance and hot meals are an alternative (as in Cuba), but they require different and resource-intensive procedures.
- Where possible, WFP delivers anticipatory cash **through social protection systems**, embedding AA into government disaster planning. In Haiti and the Philippines, AA beneficiaries were part of the social registry and received top-ups ahead of landfall through digital wallets or bank transfers.
- **Local partnerships**: Agreements and detailed activation protocols with local suppliers and service providers enable rapid disbursement of cash, stocks and fuel solutions, ensuring readiness and delivery even under severe constraints.

2. Managing uncertainty without compromising timeliness

While cyclone forecasting has improved significantly, achieving longer lead times remains challenging: storms can still intensify rapidly or shift trajectory close to landfall, often leaving only 1–5 days for activation. This requires interventions that scale quickly without compromising efficiency. WFP addresses this by:

- **Pre-targeting and pre-registration**: People at-risk are identified and registered ahead of each season where feasible, which requires resources and careful management of community and individual expectations. However, when done well, it eliminates delays once a trigger is reached and provides high-quality data that can accelerate both AAs and any subsequent response. In Bangladesh, WFP was able to leverage the AA beneficiary database to also target and assist cyclone-affected people just three days after Cyclone Remal's landfall, compared to the usual 30 days required in traditional emergency response. This resulted in a 27-day time saving, which represents a 90 percent reduction in targeting time for digital cash transfers[1] . The impact evaluation, conducted using a randomised controlled trial methodology, demonstrates that households receivingassistance prior to the onset of the shock were able to maintain their food security and avoid deterioration. It also shows a measurable reduction in the use of harmful coping strategies among these households. Furthermore, qualitative findings indicate that anticipatory cash transfers enabled households to undertake

1 The speed-up in targeting was calculated by comparing the average time required to identify and reach beneficiaries in a traditional emergency response (30 days) with the time required using the AA beneficiary database (3 days). The time saved equals the difference between the two approaches (27 days). The acceleration factor was calculated by dividing the traditional timeline by the AA timeline (30 ÷ 3 = 10), indicating that the process was ten times faster. This also represents a 90 percent reduction in targeting time. This is the case for beneficiaries of digital cash transfer where Know Your Client regulations apply before delivering the assistance.

concrete preparedness actions, including food storage and evacuation planning[2] .

- **Advance financing and standby agreements:** Pre-arranged funds shorten delivery by days, enabling procurement and partner engagement without delays. Agreements with financial service providers, suppliers, and telecommunication companies ensure readiness for rapid activation, even during weekends or holidays.
- **Clear activation protocols**: Country-specific decision-making processes ensure speed. For example, Mozambique activates through National Disaster Management Institute formal approval, Cuba through swift government approval and the WFP-coordinated United Nations Emergency Technical Team (UNETE), Haiti through inter-ministerial meetings, and Bangladesh via internal WFP country team calls.
- **Regional coordination**: During Hurricane Melissa, WFP offices and governments in Cuba, Haiti, Dominican Republic and Jamaica coordinated closely. The Dominican Republic shared impact-based forecasting via its Anacaona tool, activated the humanitarian corridor with Haiti, and Jamaica supported Cuba with critical supplies, showcasing the importance of cross-border collaboration for scale.

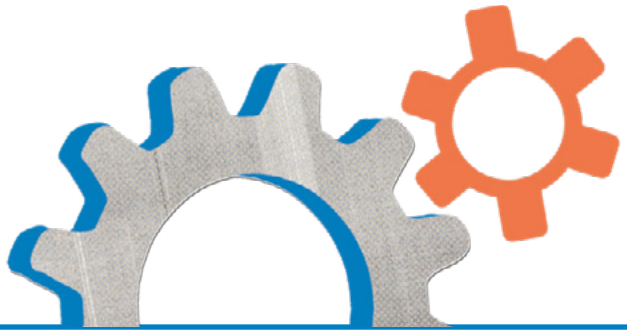
These measures ensure that assistance reaches people ahead of impact, despite forecast uncertainty and operational constraints.

2 Bangladesh, Nepal - Reproducibility package for Fast Action for Floods: RCT Evidence on Forecast-based Cash Transfers from Bangladesh and Nepal

WHAT DIDN'T GO AS PLANNED

There remain several persistent challenges that are not specific to AA but are inherent to the broader humanitarian programming context in which operations take place. These include:

- **Complex and fragmented delivery systems**: technically complex and fragmented delivery systems whether cash or in-kind, frequently undermine speed, usability and beneficiary understanding.
- **Inaccessible or poorly planned distribution locations**: distance, enough liquidity or stocks, and unclear site selection impose physical barriers to access the assistance.
- **Limited direct communication** with communities and inconsistent messaging reduce clarity and increase confusion at community level, whether for evacuations, early warning messages or delivery of assistance.



THE WAY FORWARD

WFP's AA cyclone activations in 2024-2026 have demonstrated that enabling communities to protect themselves before a cyclone is not only feasible, but necessary. Experiences from Mozambique, Madagascar, Cuba, Haiti, Bangladesh and Philippines showcase the importance of establishing sustainable and scalable AA systems to maximize impact. Achieving long-term effectiveness will require progress in the following areas:

- **Sustainable and predictable financing to support readiness efforts**, including investments in pre-targeting, pre-registration, and stand-by agreements that can be activated within hours. These are recurring readiness costs that should not fall solely on humanitarian budgets; they can and should be shared across development and climate financing, given that the benefits extend far beyond AA activations. They strengthen broader disaster risk reduction and management systems, creating value well beyond a single trigger event.
- **Leverage existing databases and registries** whether from social protection systems or humanitarian actors with the required verifications, data compliance and assurance processes. This speeds up the process and makes it more efficient, with spillover effects for the post-shock response.
- **Strengthen national forecasting systems to better anticipate cyclone** tracks, associated rainfall and winds - with higher reliability, and granularity, including rapid-intensification potential—is essential for AA.
- **Enhance local communities and partners capacities** to communicate cyclone uncertainties in a timely and actionable way, enabling them to make informed decisions and activate early measures at the safest and earliest feasible moment.
- **Enable a digital inclusive environment so that AA can be delivered faster and more efficiently.** The integration of new technology and automation of currently manual processes represents an opportunity for greater precision and speed while strengthening assurance and accountability.

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