



SAHF IBF WG IMPLEMENTATION PLAN PROJECT

REGIONAL WORKSHOP ON IMPACT-BASED FORECASTING (IBF)

Heat Season Review & Cold Season Planning

29 September - 01 October 2026 | Bangkok, Thailand



Piloting Forecast-Based Early Action for Cold wave at Kurigram District in Bangladesh

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**Heat Season Review &
Cold Season Planning
Regional Workshop**

29 September - 01 October 2026

Pilot at a Glance

**Piloting Forecast-Based Early Action for Cold Waves
in Bangladesh**

**Location: Kurigram District — Rajarhat and Ulipur
Upazilas**

Implementing Partner: MJSKS

Duration: 3 months

Direct Reach: 1,500 households

Indirect Reach: 200,000 people

**Focus: Pilot testing of forecast-based early action for
cold-wave risks**



What does a cold wave mean for vulnerable households?

- **Health**
Increased risk of illness, particularly among vulnerable groups
- **Income & labour**
Disruption to daily work and income
- **Agriculture & assets**
Risk to crops, livestock and productive assets
- **Household economy**
Increased expenditure and negative coping mechanism

WHY ACT EARLY?

From forecast → early action → reduced impacts

Cold-wave forecast



Early warning / trigger



Pre-agreed anticipatory action



Protection of health, livelihoods & assets

Cold waves create predictable risks, and IBF provides a mechanism to act before those risks become impacts

Cold-Wave IBF Pilot: What Did We Test?

- **FORECAST → TRIGGER → EARLY ACTION → ASSESSMENT**
- **FORECAST**
Cold wave forecast & monitoring (From Bangladesh Meteorological department)
↓
- **TRIGGER
EARLY ACTION**
Pre-agreed support to vulnerable households
↓
- **ASSESSMENT**
Measure impacts and learning



Trigger and Threshold:

Option 1:

The forecasted temperature before 7 days shows the minimum temperature goes below 8°C and persists for at least 2 days at any district (ECMWF and WRF model)

Option 2:

If the forecasted temperature before 7 days shows 12°C or below and has a difference for Max and Min temperature of 6°C or less at any district (ECMWF and WRF model)

Option 3:

If the forecasted temperature before 7 days shows the Minimum temperature goes 6°C or below at any district (ECMWF and WRF model)

Activation Trigger from 15 January 2023 for the next (3-5)days.

- **Cash support to the 150 day-labourers (unemployment due to cold spell - BDT 600 for each family/day up to 5 days period.**
- **Continue Voice message advisory dissemination with the support from RIMES.**
- **Referral cases for health services.**
- **Continue to conduct HH-level mothers/caregiver courtyard awareness sessions on cold-related diseases - including printing IEC materials.**

Activities were undertaken Readiness period in readiness trigger (01-7 Jan 2023)

- Health awareness messages were developed and disseminated through 40 courtyard sessions.
- Health risk mitigation messages were displayed by festoon, banner, and leaflet to the targeted audience, local health clinics.
- 300 sets of child-friendly winter kits were distributed to each of the 300 families.
- Two batches of training/orientation was conducted to local farmers to protect their crops/assets from the next cold spell



EVIDENCE : WHAT WE OBSERVED?

Study approach: RCT with 220 households | Treatment vs. control | Household survey and community clinic records

Key Findings

- **Health:** Treatment households reported substantially lower average health expenditure (BDT 160) compared with control households (BDT 536.9).
- **Economic coping:** No borrowing was reported among cash recipients during the study period, while borrowing was reported among control households.
- **Livelihoods:** Trained smallholder farmers adopted cold-wave protective measures, with an estimated additional production/capital value of ~BDT 3,000 per farmer.

Overall learning:

- The findings indicate that timely, context-specific anticipatory actions can help reduce household economic pressures and protect livelihoods during cold-wave even

Learnings and Challenges

- False/accuracy of the forecast, fluctuating temperature, and interpretation of modeling.
- Meteorological weather observation stations are not available at-risk all districts in Bangladesh which in turn limits the anticipatory actions that can be taken in vulnerable locations to provide localized forecast.
- Only temperature was considering when establishing triggers and thresholds for cold waves. Additional chilling factors like wind speed and direction, Rainfall, population density, the difference between min and maximum temperature and fog should also be considered to determine how significant the impact will be.
- Intensive capacity building for DMCs, communities, and stakeholders.
- Need to establish impact-based forecasting focusing lower temperature considering all the associated impacts.

KEY TAKEAWAY AND WAY FORWARD

- A comprehensive analysis considering the localized forecast and threshold along with humanitarian situation analysis.
- Develop National Level Early Action Protocol.

Our Priorities for the Coming Cold Season

- **MONITOR → TRIGGER → PREPARE → ACT EARLY → LEARN**
- Monitor cold-wave forecasts and agreed indicators following BMD forecast
- Apply the agreed trigger and decision process
- Confirm priority households, actions and delivery readiness
- Leveraging existing partners and programme presence
- Deliver pre-agreed support before impacts peak with internal Humanitarian Fund
- Monitor outcomes and refine the mechanism

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THANK YOU
FOR YOUR ATTENTION