

# SEVERE CLIMATE CONDITIONS AND RESERVOIR STATUS UPDATE

Date: Wednesday, 27 November 2024 | Time: 09:00 HR

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## 1. KEY OBSERVATIONS:

Persistent Flash Flood Threat (26 November till 1200 UTC):

Moderate to High flash flood threat in the southeastern regions (e.g., Hambantota, Monaragala) due to rainfall over fully saturated soils in watersheds and low-lying areas.

24-Hour Flash Flood Risk Outlook (Till 0600 UTC, 27 November):

High flash flood risk expands to Northern, Eastern, and Central Sri Lanka, encompassing districts like Trincomalee, Batticaloa, Kilinochchi, Mullaithevu, Jaffna, Vavuniya, Mannar and Polanaruwa

Surface runoff and inundation are likely in low-lying areas due to continuous rainfall

## 2. FLASH FLOOD RISK OVERVIEW

### KEY HIGHLIGHTS:

- **Current Threat:** Moderate to High flash flood risks due to saturated soils and continuous rainfall.
- **Affected Regions:** North, East, and Central Sri Lanka, including Trincomalee, Batticaloa, Kilinochchi, Mullaitivu, Jaffna, Vavuniya, Mannar, and Polonnaruwa.
- **Primary Risks:**
  - Surface runoff and inundation in low-lying areas.
  - Spillage and breaches in irrigation tanks.

### SUMMARY OF TANK STATUS:

- Total Tanks Monitored: **54**
- Tanks Spilling/Full Capacity: **45 (83%)**
- Tanks Above 75% Capacity: **5 (9%)**
- Critical Areas: **Kilinochchi, Vavuniya, Mullaitivu**

### 3. WEATHER FORECAST

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#### CURRENT SYSTEM:

- A Deep Depression over the Southwest Bay of Bengal, centered 190 km southeast of Trincomalee, is intensifying into a cyclonic storm.
  - Movement: North-northwestward at 10 km/h, expected to impact the eastern and northern coasts.
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#### RAINFALL FORECAST BY REGION:

- **Eastern Province (e.g., Trincomalee):** Heavy rainfall (100–150 mm/day) expected to inundate low-lying areas near rivers and reservoirs.
  - **Northern Province:** Extremely heavy rainfall (150–200 mm/day), with some areas experiencing up to 250 mm.(Annexure 01)
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### 4. IRRIGATION AND FLOOD RISK ASSESSMENT

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#### CRITICAL TANKS AND RISK AREAS:

- **Kilinochchi East:** High flood risk in areas downstream of Iranaimadu Tank (Marthutanagar, Panankandy). – (Annexure 2)
  - **Kilinochchi West:** Increased flooding risk due to overflows from Vavuniya tanks. Key areas include Akkarayankulam and Maniyamkulam.
  - **Vavuniya and Cheddikulam:** Critical flooding anticipated in downstream areas, with all tanks in this region spilling.
  - **Mullaitivu (e.g., Vavunikulam):** Severe flooding near breached tanks.
  - **Mannar:** Moderate risk from inflows into saturated reservoirs.
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#### KEY INSIGHTS:

- **Highest Rainfall Recorded:** Kanakarayan Kulam (298 mm).
  - **Critical Tanks:**
    - **Iranamadu Tank:** Approaching spill levels due to heavy inflows from upstream areas.
    - **Thanimurippu Tank:** About to spill, with all gates fully open.
    - **Madawalasingam Tank:** Spilling observed, with seepage detected.
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## 5. SUMMARY OF RISKS

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### HIGH RISK:

- Downstream areas of Iranaimadu Tank (Kilinochchi).
  - Villages near breached tanks in Vavunikulam and Mullaitivu.
  - Low-lying areas in Vavuniya and Mullaitivu.
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### MODERATE RISK:

- Mannar District: Villages near tanks like Periyamadhu.
- Muththuiyan Kaddu Division: Areas downstream of breached tanks like Niththakaikulam.

## Annexure 1: Rainfall Data (26–27 November 2024)

The rainfall data for the Northern Province is summarized as follows:

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### 1. KILINCHCHI DISTRICT:

- Total Rainfall Recorded:
- Iranaimadu Tank: 212.3 mm
- Akkarayan Kulam: 168.5 mm
- Kariyalai Nagapaduwan: 165.0 mm

Key Insights:

Iranaimadu Tank received the highest rainfall in the Kilinochchi district, contributing to potential increases in water levels and inflows.

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### 2. JAFFNA DISTRICT:

- Total Rainfall Recorded:
- Jaffna: 240.2 mm
- Thondamanaru: 147.0 mm

Key Insights:

Jaffna recorded the highest rainfall in the district, indicating a significant contribution to water inflow in lagoon systems.

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### 3. VAVUNIYA DISTRICT:

- Total Rainfall Recorded:
- Vavuniya: 200.0 mm
- Kanakarayan Kulam: 298.0 mm
- Chemmadu: 195.0 mm

Key Insights:

Kanakarayan Kulam received the highest rainfall in the Northern Province at 298.0 mm, leading to heavy inflows to downstream reservoirs like Iranaimadu Tank.

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### 4. MANNAR DISTRICT:

- Total Rainfall Recorded:
- IE's Office, Pallamadu: 235.0 mm
- Thiruketheeswaram: 200.0 mm

Key Insights:

Moderate to heavy rainfall was recorded, contributing to significant increases in tank water levels in the Mannar division.

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#### 5. MULLAITIVU DISTRICT:

- Total Rainfall Recorded:
- Muththuiyan Kaddu: 228.3 mm
- Udayarkaddukulam: 145.0 mm
- Thanimurippu Kulam: 165.0 mm
- Kanukkerny: 28.0 mm
- Maruthamadukulam: 221.0 mm
- Mankulam: 289.5 mm
- Vavunikulam: 234.0 mm
- Iyankankulam: 205.0 mm
- Amplaaperumal: 120.0 mm
- Kalvilankulam: 170.0 mm
- Mallavilkulam: 220.0 mm
- Panankamamkulam: 220.0 mm

#### Key Insights:

- Mankulam received the highest rainfall in Mullaitivu (289.5 mm), while Kanukkerny recorded the lowest (28.0 mm).
- Heavy rainfall is consistent across this district, contributing to widespread tank overflows and breaches.

## Annexure 2: Tank Capacities and Spilling Levels

1. Iranamadu Tank:
  - o Water Level: 31'06" (FSL: 36'00")
  - o Spilling: Not yet spilling
  - o Inflow: 2.652 MCM/hr
  - o Outflow: 0.810 MCM/hr
  - o Expected Water Level: 42'01"
  
2. Kanagarayankulam Tank:
  - o Water Level: 14'03" (FSL: 13'00")
  - o Spilling: 1'03"
  
3. Thannimurippu Tank:
  - o Water Level: 21'00" (FSL: 21'00")
  - o Spilling: About to spill over
  - o All gates fully opened
  
4. Madukanda Tank:
  - o Water Level: 14'01" (FSL: 13'03")
  - o Spilling: 1'00"
  
5. Muththuiyankaddu Tank:
  - o Water Level: 21'00" (FSL: 24'00")
  - o Gates Open:
    - § Radial Gate 1: 6'
    - § Radial Gate 2: 6'06"
    - § Radial Gate 3: 4'
    - § Radial Gate 4: 6'
  
6. Madawalasingam Tank:
  - o Water Level: 17'06" (FSL: 16'03")
  - o Spilling: 1'03"
  
7. Viswamadu Tank:
  - o Water Level: 21'07" (FSL: 20'03")
  - o Spilling: 1'04"
  
8. Mankulam River:
  - o Left Bank: 9'06"
  - o Center: 15'00"
  - o Right Bank: 7'06"