
ENSO Transition Creates Agricultural Planning Crisis as La Niña Weakens

EngineHouse Analysis

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Overview

Weak La Niña conditions are rapidly losing strength across the tropical Pacific, creating a 60% probability of ENSO-neutral conditions through May 2026. This transition coincides with critical planting seasons globally, generating agricultural planning uncertainty that threatens food security in vulnerable regions.

SECTION 2

Main Findings

What the evidence shows

Key Findings

- La Niña weakening accelerates: Weak La Niña conditions losing strength since mid-February 2026 — matters because it disrupts established weather patterns during critical agricultural periods — implies farmers cannot rely on historical seasonal patterns for crop planning
- ENSO-neutral transition probable: 60% probability of neutral conditions March-May 2026 with El Niño probability rising to 40% by May-July — matters because neutral periods often bring unpredictable weather variability — implies seasonal forecasts become less reliable precisely when farmers need them most
- Spring predictability barrier compounds uncertainty: Forecast reliability naturally decreases during spring transition period — matters because this coincides with global planting seasons — implies agricultural decision-making occurs with maximum uncertainty about coming weather patterns

SECTION 3

Evidence

Key passages from the source

Key Passages

- WMO Global Producing Centres report tropical Pacific sea surface temperatures and atmospheric indicators show weak La Niña conditions losing vigor since mid-February 2026, transitioning toward ENSO-neutral conditions
- Latest forecasts indicate 60% probability of ENSO-neutral conditions in central and eastern equatorial Pacific for March-May 2026, with La Niña persistence probability declining
- WMO members will continue close ENSO monitoring with climate prediction experts providing detailed regional climate variability interpretations through National Meteorological Services

SECTION 4

Consequences

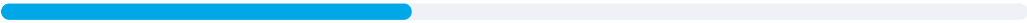
Human and systemic impacts

ENSO Probability Forecast

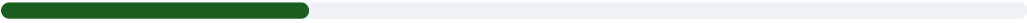
ENSO-Neutral (Mar-May) **60%**



El Niño (May-Jul) **40%**



La Niña Persistence **30%**



Human Consequences

Farmers across ENSO-sensitive regions face critical crop planning decisions without reliable seasonal forecasts during the spring predictability barrier. Food prices risk spiking as agricultural uncertainty disrupts global commodity markets, particularly affecting vulnerable populations who spend disproportionate income on food. Rural communities dependent on rain-fed agriculture may experience displacement if planting decisions prove catastrophically wrong. The transition's timing during peak planting seasons amplifies systemic risks to global food security, as farmers cannot rely on historical La Niña patterns while neutral conditions bring inherently unpredictable weather variability.

SECTION 5

Why This Matters

Broader significance

WMO MONITORING COMMITMENT

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— WMO Global Producing Centres

Significance

This ENSO transition represents a perfect storm of agricultural vulnerability, combining maximum forecast uncertainty with critical planting season timing. It demonstrates how climate system transitions can create cascading food security risks even without extreme weather events.

Sources & Provenance

- WMO Global Producing Centres for Seasonal Climate Predictions - ENSO status and forecast bulletin, April 2026
- Analysis based on tropical Pacific sea surface temperature observations and atmospheric indicators from WMO monitoring network