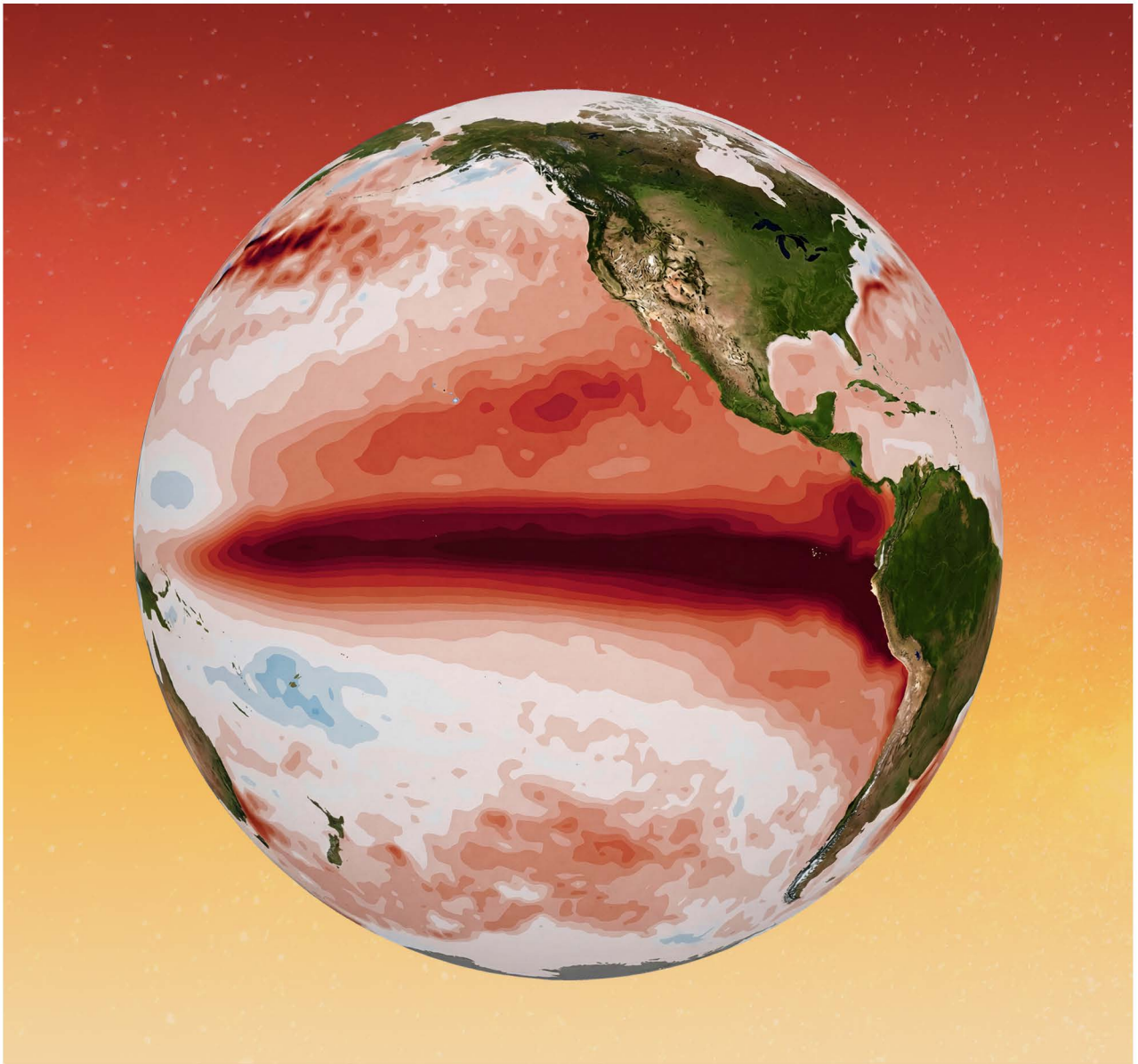




CVF  
V20

SCIENCE  
BULLETIN

# PREPARING FOR A POTENTIAL “SUPER” EL NIÑO IN 2026 TO 2027



**BULLETIN NO. 1**  
19 May 2026

Office of the Chief Scientist  
CVF-V20 Secretariat

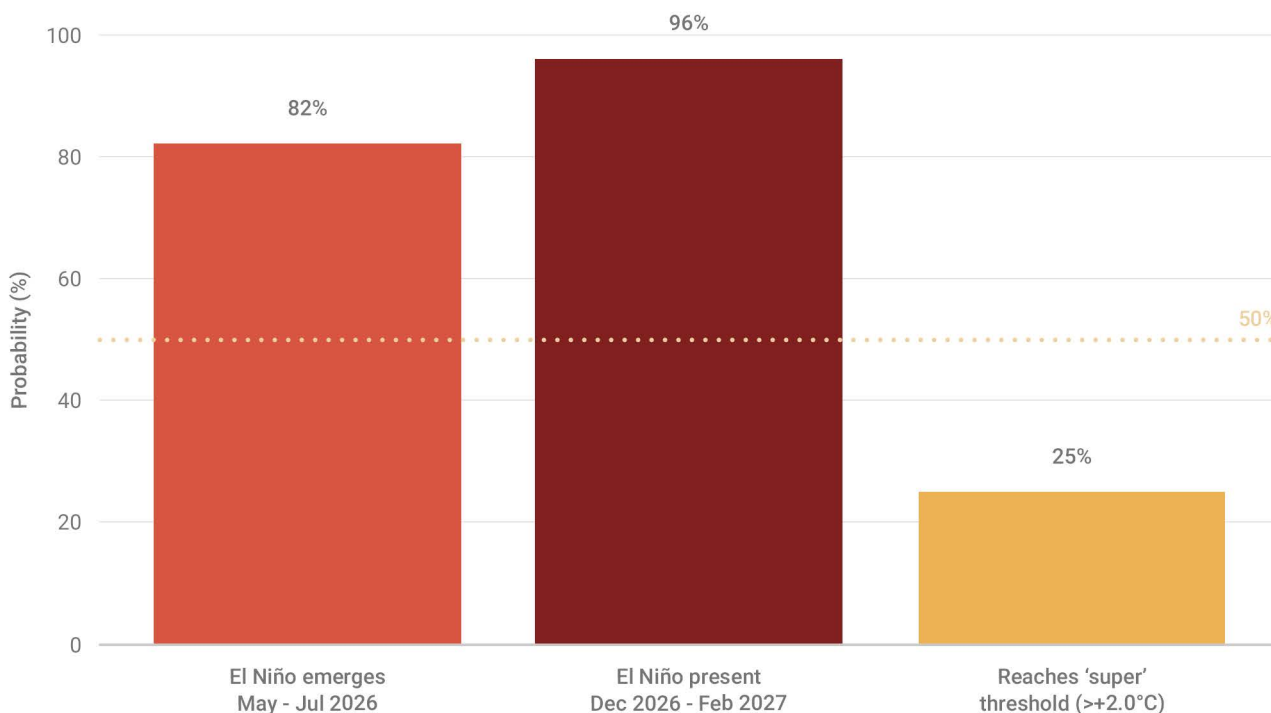
# OVERVIEW

A strong El Niño event is now highly likely to develop in the tropical Pacific between June and September 2026, and to persist through the Northern Hemisphere winter of 2026 to 2027. There is a real, though not certain, possibility that this event will reach “super” El Niño intensity, a category previously seen only in 1982 to 1983, 1997 to 1998, and 2015 to 2016. For our 74 member states, the next 18 months therefore carry the risk of compounding food, water, health, and fiscal shocks layered on top of an already record-warm climate baseline. This memo summarizes what we know, what remains uncertain, and what CVF-V20 governments should be doing now.

# WHAT THE SCIENCE CURRENTLY SAYS

The U.S. National Oceanic and Atmospheric Administration (NOAA), in its May 2026 ENSO Diagnostic Discussion, places the probability of El Niño emerging during May to July 2026 at 82 percent, rising to 96 percent for December 2026 to February 2027. NOAA assigns roughly a 1-in-4 probability that the Niño-3.4 sea surface temperature anomaly will exceed +2.0°C, the informal threshold used by many forecasters

FIGURE 1:  
NOAA ENSO PROBABILITY OUTLOOK, MAY 2026.



Source: NOAA Climate Prediction Center, ENSO Diagnostic Discussion, May 2026



and media outlets to label an event “super.” The World Meteorological Organization (WMO) confirms a clear shift in the equatorial Pacific, with some model ensembles giving a 50-50 chance of breaching the super threshold. The Australian Bureau of Meteorology reports the most recent Niño-3.4 index value, for the week ending 10 May 2026, at  $+0.52^{\circ}\text{C}$ , still within the neutral range but on a clear warming trajectory.

Three important caveats should be communicated alongside any public messaging.

First, “Super El Niño” is not an official NOAA designation but is typically used by forecasters and journalists to describe events with Niño-3.4 anomalies above  $+2.0^{\circ}\text{C}$ . CVF-V20 members should be precise about this distinction in formal communications to avoid misattribution.

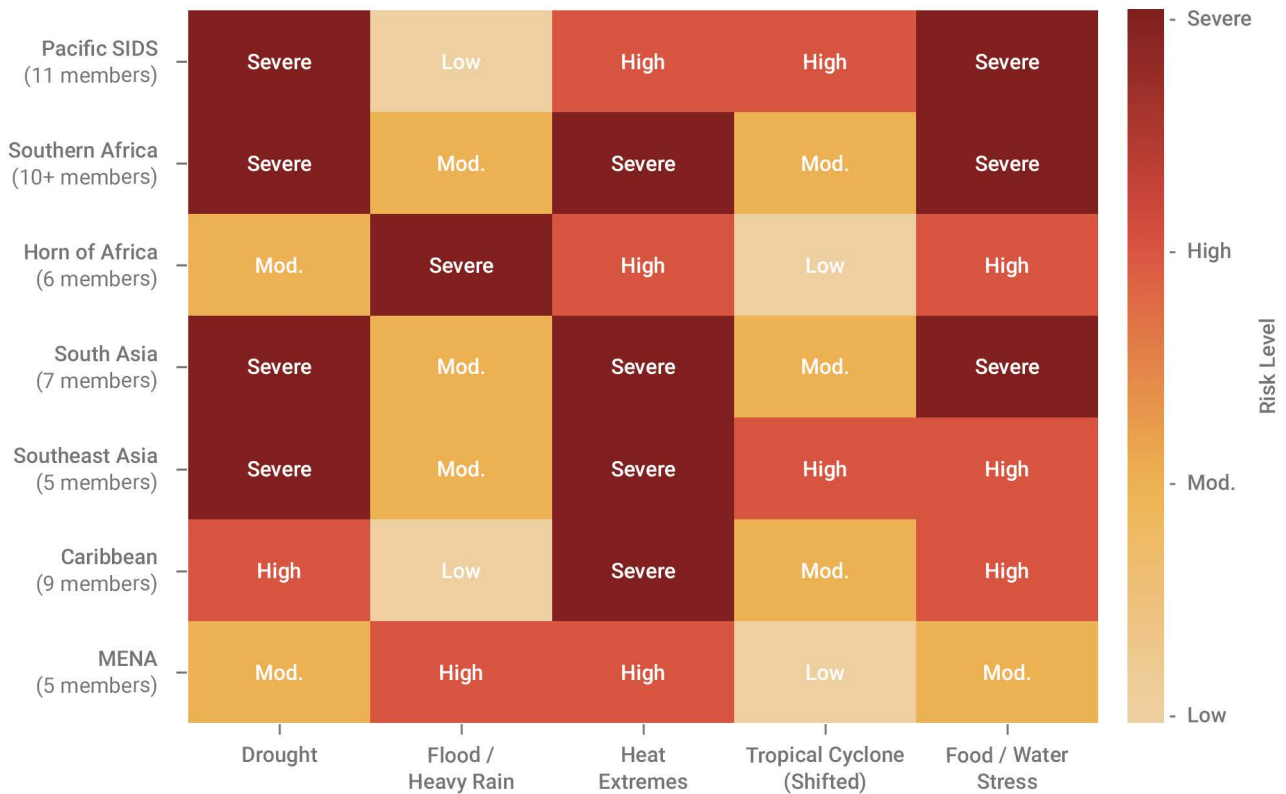
Second, forecasts issued in April and May suffer from the well-documented “spring prediction barrier,” which reduces the skill of ENSO forecasts made at this time of year. Confidence will rise materially after the next official update on 11 June 2026, and again as the Northern Hemisphere summer progresses.

Third, even strong El Niño events do not produce uniform impacts. The interaction with the Indian Ocean Dipole, the Madden-Julian Oscillation, and regional sea surface temperature anomalies can amplify or partially offset the canonical El Niño signal in any given country.

## EXPECTED REGIONAL IMPACTS ON CVF-V20 MEMBERS

The following regional summary draws on historical patterns from the 1997 to 1998 and 2015 to 2016 events, both of which produced documented hardship across our membership, alongside current modeling for 2026 to 2027.

**FIGURE 2:**  
**EXPECTED HAZARD PROFILE ACROSS CVF-V20 REGIONS IN A STRONG-TO-SUPER EL NIÑO.**  
**QUALITATIVE SCALE BASED ON CANONICAL IMPACTS FROM 1997-98 AND 2015-16 EVENTS.**



Source: Synthesis by Office of the Chief Scientist, CVF-V20, drawing on NOAA, WMO, BoM, and peer-reviewed literature.

## AFRICA

The Horn of Africa typically sees enhanced short rains, raising flood and landslide risk in Kenya, Somalia, and Ethiopia. Southern Africa, including Madagascar, Malawi, Mozambique, and Tanzania, faces elevated drought risk during the December to March wet season. The 2015 to 2016 super El Niño produced Southern Africa's most severe drought in nearly 120 years, leaving an estimated 40 million people acutely food insecure and reducing regional maize yields by approximately 15 percent against the five-year average. West African Sahel countries should monitor for delayed or weaker monsoon onset.

## ASIA

The Indian Meteorological Department has indicated a 30 percent probability of drought and a 40 percent probability of below-normal rainfall for the 2026 southwest monsoon, with potentially adverse consequences for the roughly 60 percent of Indian farmers dependent on monsoon rains. Southeast Asia, particularly the Philippines, Vietnam, and Cambodia, typically experiences below-normal rainfall, heightened wildfire risk in peat and forest areas, and reduced reservoir levels for hydropower. The 2015 to 2016 event caused crop damage in the Philippines alone of around US\$217 million.

Bangladesh and Nepal should plan for heat extremes, particularly in pre-monsoon and post-monsoon periods.

## **PACIFIC SMALL ISLAND DEVELOPING STATES**

Atoll states face the most acute compounding risks. Historical El Niño events have driven severe drought in Kiribati, Marshall Islands, and Tuvalu in the year following peak conditions, with documented drinking water shortages and saltwater intrusion into shallow groundwater lenses. Sea level falls of several tens of centimeters in the western Pacific can expose and damage coral reefs and disrupt subsistence fisheries. Tropical cyclone tracks shift, raising risk for parts of Polynesia and reducing it for western Micronesia, but no Pacific member should treat the season as low risk on this basis alone.

## **CARIBBEAN AND LATIN AMERICA**

The Atlantic hurricane season is typically suppressed by El Niño through increased wind shear, which is a partial reprieve, but a single landfalling storm remains capable of devastating any small economy. More material for Caribbean members, is the tendency toward below-normal

rainfall, water stress, and elevated heat. Central and northern South America, including Guyana and Suriname, can experience pronounced drought in the upper Amazon and northeast.

## **MIDDLE EAST AND NORTH AFRICA**

Members in this region should monitor for above-normal winter rainfall, with documented flood signals in past events for parts of the Levant and the Arabian Peninsula.

# **FISCAL AND LOSS-AND-DAMAGE IMPLICATIONS**

A peer-reviewed study published in Nature Communications estimated that the 2015 to 2016 super El Niño produced cumulative global economic losses of approximately US\$3.9 trillion over the event year and the three years that followed, equivalent to roughly 4 to 5 percent of global GDP at the time. The burden was



Photo credit: March 2016. Effects of drought seen in Sylhet, Bangladesh | HM Shahidul Islam | Shutterstock



disproportionately borne by developing economies. For CVF-V20 members, a comparable event in 2026 to 2027 would arrive at a time when many member countries are already operating with constrained fiscal space, elevated debt service costs, and limited access to concessional liquidity.

This has three implications for our collective advocacy.

First, it strengthens the case the CVF-V20 has been making in the run-up to COP31 for pre-arranged finance, including expanded use of climate-resilient debt clauses, contingency lines from multilateral development banks, and rapid disbursement windows under the Loss and Damage Fund.

Second, it underscores the urgency of operationalizing early warning systems under the WMO Early Warnings for All initiative, particularly for member states without national meteorological capacity to interpret ENSO signals locally.

Third, the projected acceleration of global mean temperature in 2026 and 2027, with Carbon Brief and other analysts placing 2026 on track to be the second-warmest year on record after 2024, will sharpen the 1.5°C debate at COP31 and may strengthen the legal and moral basis for ambitious mitigation finance commitments from major emitters.

## RECOMMEN- DED ACTIONS OVER THE NEXT 90 DAYS

Members are encouraged to:

1. Convene a national inter-ministerial briefing involving finance, agriculture, health, water, energy, and disaster management, anchored on the most recent NOAA, WMO, and national meteorological service ENSO advisories.
2. Stress-test national budgets and contingency reserves against a scenario consistent with the 2015 to 2016 event, with particular attention to food import bills, fuel subsidies, and emergency response provisions.
3. Review and pre-position humanitarian and emergency supplies, including water storage, seed stocks, and essential medicines, in high-risk subnational zones.
4. Accelerate any pending applications to the Green Climate Fund, Adaptation Fund, and Loss and Damage Fund that relate to

drought, flood, and heat resilience.

5. Communicate clearly and consistently with the public, distinguishing between what is currently known (an El Niño Watch is in effect), what is probable (a strong event by late 2026), and what remains uncertain (whether it reaches “super” intensity).

## NEXT STEPS

The CVF-V20 Secretariat will issue a follow-up technical update immediately after the next NOAA ENSO Diagnostic Discussion on 11 June 2026, and monthly thereafter for as long as the event remains active. We will also coordinate with the WMO Regional Climate Centers serving our membership to channel tailored seasonal forecasts to national focal points.

Questions on this brief should be directed to the Office of the Chief Scientist and Science Advisor at [kq@cvfv20.org](mailto:kq@cvfv20.org) and [sgoffice\\_ml@cvfv20.org](mailto:sgoffice_ml@cvfv20.org), copy: [secretariat@cvfv20.org](mailto:secretariat@cvfv20.org).

## ANNEX: KEY SOURCES

NOAA Climate Prediction Center, ENSO Diagnostic Discussion (May 2026).

World Meteorological Organization, El Niño likelihood update.

WMO, 2026 Super El Niño preparedness for Latin America and the Caribbean.

Australian Bureau of Meteorology, ENSO Outlook.

Carbon Brief: Strong El Niño puts 2026 on track for second-warmest year (Hausfather, April 2026).

CNN: A Super El Niño is coming (Freedman, 7 April 2026).



Nature Communications: Nonlinear El Niño impacts on the global economy under climate change (2023).




AGRA, Drought Crisis in Southern Africa: The 2015 to 2016 El Niño-induced drought.





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