



CVF
V20

SCIENCE
BULLETIN

EL NIÑO HAS FORMED AND IS FORECAST TO REACH “VERY STRONG” INTENSITY IN 2026-2027



BULLETIN NO. 2
15 June 2026

Office of the Chief Scientist
CVF-V20 Secretariat

BOTTOM LINE

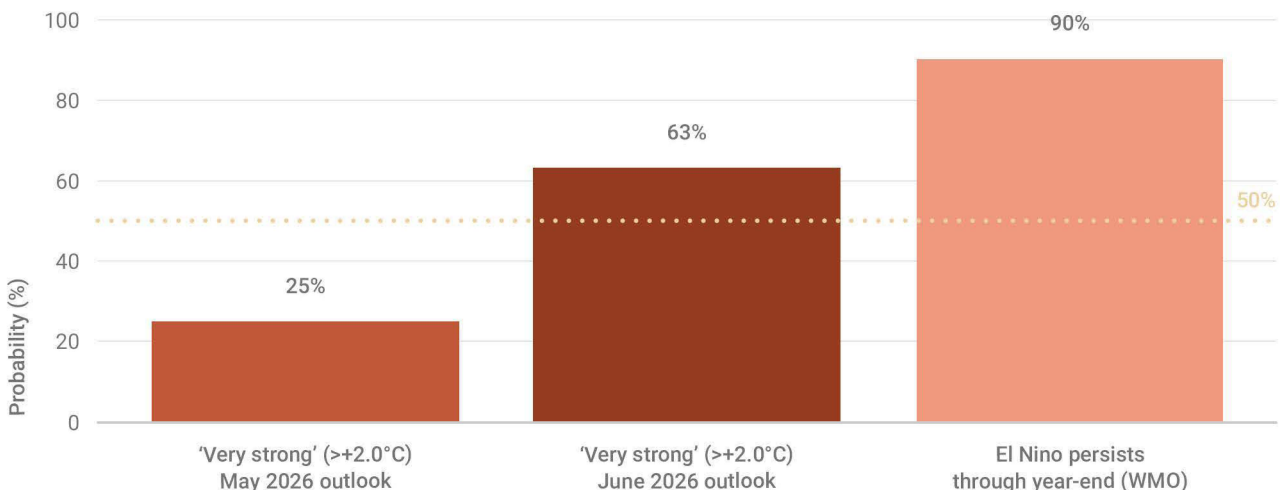
El Niño has now developed in the tropical Pacific. On 11 June 2026, NOAA upgraded its alert status from an El Niño Watch to an **El Niño Advisory**, confirming that the event is underway rather than merely probable.¹ More consequentially for our membership, NOAA now places a **63 percent probability that this becomes a "very strong" El Niño**, with the Niño-3.4 sea surface temperature anomaly exceeding +2.0°C during the November–January peak, an event that would rank among the largest in the historical record going back to 1950.² This is a material escalation from our Science Bulletin No. 1, which assigned roughly a 1-in-4 chance of reaching that threshold. The central question for CVF-V20 governments has shifted from whether to prepare to how fast. The next 12 to 18 months carry a high risk of compounding food, water, health, and fiscal shocks, layered on top of an already record-warm climate baseline.

WHAT HAS CHANGED SINCE SCIENCE BULLETIN NO. 1

Three developments stand out.

First, the event is no longer a forecast. NOAA's 11 June ENSO Diagnostic Discussion reports that El Niño conditions are present, supported by above-average sea surface temperatures across the central to eastern equatorial Pacific. The latest weekly Niño-3.4 index stood at **+0.7°C**, up from the +0.52°C reading at the time of our Science Bulletin No. 1, with the far-eastern

FIGURE 1:
NOAA / WMO ENSO PROBABILITY OUTLOOK, JUNE 2026.
THE "VERY STRONG" (>+2.0°C) PROBABILITY ROSE FROM 25% IN MAY TO 63% IN JUNE.



Sources: NOAA CPC (11 June 2026); WMO (June 2026)

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Niño-1+2 index already at **+2.1°C**.³ The coupled ocean-atmosphere system, including weakened trade winds and a negative Southern Oscillation Index, now reflects a genuine El Niño onset rather than a borderline signal.

Second, the probability of a high-end event has more than doubled. NOAA’s 63 percent chance of a “very strong” El Niño⁴ replaces the approximately 25 percent “super” probability we reported in Science Bulletin No. 1. NOAA expects the event to intensify to at least moderate-to- strong levels by the Northern Hemisphere autumn.⁵ The World Meteorological Organization’s June bulletin is more conservative on peak strength but agrees on direction, estimating an 80 percent probability of El Niño through June–August, rising to around 90 percent through the remainder of the year, and judging the event likely to be at least moderate with the possibility of becoming strong.⁶

Third, the spring prediction barrier we flagged in May is now largely behind us. Forecasts issued in June carry materially more skill than those issued in April and May, which is precisely why confidence has risen. This was the anticipated inflection point, and it has arrived on the more alarming side of the range we communicated.

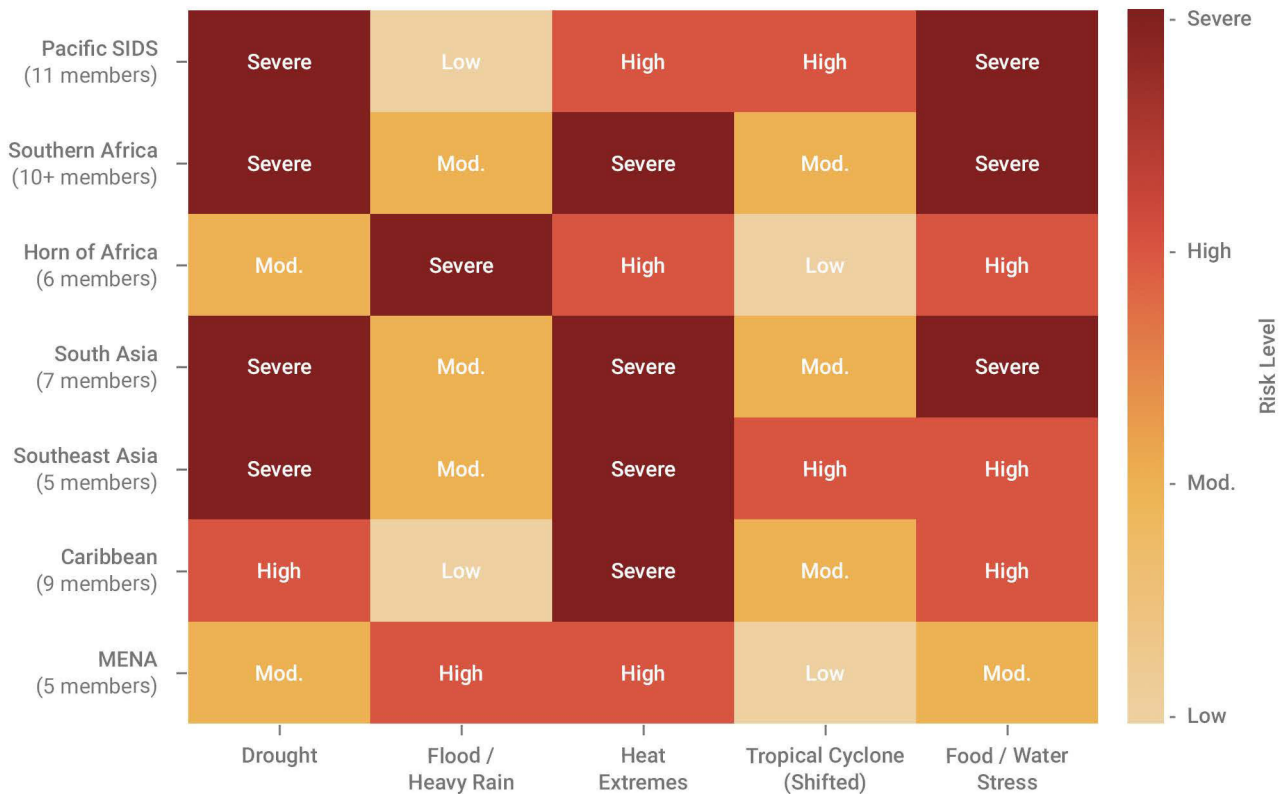
A note on terminology. NOAA officially adopted

the **Relative Oceanic Niño Index (RONI)** in February 2026 as its primary monitoring metric. Unlike the traditional Oceanic Niño Index, RONI removes the long-term background warming trend, making it more reliable for distinguishing a true El Niño signal from general ocean warming.⁷ “Super El Niño” remains an informal media shorthand for events above +2.0°C; NOAA’s formal term for this category is “very strong.”

EXPECTED REGIONAL IMPACTS ON CVF-V20 MEMBERS

The following regional summary draws on historical patterns from the 1997–1998 and 2015–2016 events, both of which produced documented hardship across our membership, now read against a markedly higher-probability high-end outlook for 2026–2027.

**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–March wet season. The 2015–2016 very strong 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.⁸ With the high-end scenario now more likely than not, this is the reference case planners should use, not a tail risk. West African Sahel

countries should monitor for delayed or weaker monsoon onset.

ASIA

The India Meteorological Department’s pre-season outlook 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.⁹ Stronger El Niño events tend to tilt these odds further toward rainfall deficits as the season progresses. South-east Asia, particularly the

Philippines, Vietnam, and Cambodia, typically experiences below-normal rainfall, heightened wildfire risk, and reduced reservoir levels for hydropower. The 2015–2016 event caused crop damage in the Philippines alone of around US\$217 million. Bangladesh and Nepal should plan for heat extremes.

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

CARIBBEAN AND LATIN AMERICA

El Niño typically suppresses the Atlantic hurricane season through increased wind shear, and NOAA has indeed issued a below-normal 2026 Atlantic hurricane outlook.¹⁰ This is a partial reprieve, but a single landfalling storm remains capable of devastating any small economy, and the suppression does not extend to the eastern and central Pacific basins. 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 2015–2016 very strong 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 4–5 percent of global GDP at the time, with the burden disproportionately borne by developing economies.¹¹ With NOAA now assigning better-than-even odds to a comparably intense event in 2026–2027, this loss profile moves from a plausible scenario to the central planning assumption. It 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 event is unfolding against a baseline that warming has already made roughly 1.3–1.5°C

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hotter than pre-industrial temperatures. Thus, the absolute heat, marine heatwaves, and temperature records during the event are human-caused even where the El Niño cycle is itself a natural phenomenon. We also note that while the IPCC AR6 report finds no model consensus that anthropogenic forcing has systematically changed the amplitude of El Niño sea surface temperature swings, the report assesses it as very likely that the rainfall extremes that define strong El Niños, the floods and droughts that drive most of our members' losses, will intensify in a warming world regardless of whether the ocean signal changes.

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. The shift from a probable to a confirmed event sharpens the argument that this finance must be available before, not after, the peak in late 2026.

Second, it underscores the urgency of operationalizing early warning systems under the WMO Early Warnings for All initiative. The WMO notes that 128 countries now report having multi-hazard early warning systems in place, but coverage across our most exposed members, particularly atoll states and the least-developed economies, remains incomplete.

Third, the temperature trajectory sharpens the 1.5°C debate at COP31. Carbon Brief assesses that 2026 is on track to be the second-warmest year on record, with a best estimate of about 1.47°C above pre-industrial levels and a roughly 1-in-5 chance of surpassing 2024 as the warmest year. Critically, because the global temperature response lags the Pacific peak by about three months, the larger effect of a very strong El Niño would land in 2027, which would then be the strong favorite to set a new record.¹² A record-setting 2027 driven by a very strong El Niño would arrive directly into the COP31 negotiating cycle.

RECOMMEN- DED ACTIONS FOR MEMBER STATES OVER THE NEXT 90 DAYS

The recommendations from our Science Bulletin No. 1 stand, but the confirmation of the event and the higher intensity odds raise their priority. CVF-V20 members are encouraged to:

1. Convene or reconvene a national inter-ministerial briefing involving finance, agriculture, health, water, energy, and disaster management, anchored on the 11 June NOAA Advisory, the June WMO bulletin, and national meteorological service advisories.
2. Adopt the 2015–2016 event as the central budgetary planning scenario rather than a stress-test tail, with particular attention to food import bills, fuel subsidies, and emergency response provisions, and stress-test against an even stronger event given the elevated very-strong probability.
3. Review and pre-position humanitarian and emergency supplies, including water storage, seed stocks, and essential medicines, in high-risk subnational zones, with atoll states prioritizing drinking-water security ahead of the post-peak dry period.
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, recognizing the narrowing window before peak conditions.

5. Update public communications to reflect the new status: an El Niño Advisory is now in effect, a strong event is highly likely, and a very strong ("super") event is now more likely than not, while continuing to communicate that local impacts remain variable.

WHAT THE CVF-V20 SECRETARIAT WILL DO

The Office of the Chief Scientist will issue its next technical update following the NOAA ENSO Diagnostic Discussion scheduled for 15 July 2026, and monthly thereafter for as long as the event remains active. We will continue to coordinate with the WMO Regional Climate Centres serving our membership to channel tailored seasonal forecasts to national focal points. Fiscal implications of the event will be circulated ahead of the IMF and World Bank Annual Meetings in October 2026 to reflect the higher-intensity outlook.

Questions on this brief should be directed to the Office of the Chief Scientist and Science Advisor at kq@cvfv20.org and sgoffice_ml@cvfv20.org respectively copy to secretariat@cvfv20.org.

ENDNOTES




- ¹ NOAA Climate Prediction Center, ENSO Diagnostic Discussion, 11 June 2026. El Niño Advisory; Niño-3.4 +0.7°C; 63% chance of a very strong El Niño during November–January. cpc.ncep.noaa.gov
- ² NOAA CPC, ENSO Forecast Strength Probabilities (RONI-based). cpc.ncep.noaa.gov
- ³ NOAA Climate Prediction Center, "El Niño/La Niña Current Conditions and Expert Discussions" (weekly ENSO update), accessed June 2026. cpc.ncep.noaa.gov
- ⁴ NOAA Climate Prediction Center, "ENSO Diagnostic Discussion," 11 June 2026. cpc.ncep.noaa.gov
- ⁵ NOAA, "El Niño forms, expected to strengthen, say NOAA forecasters," news release, 11 June 2026. noaa.gov
- ⁶ World Meteorological Organization, El Niño/La Niña Bulletin (June–August 2026), statement by Secretary-General Celeste Saulo, 2 June 2026. wmo.int
- ⁷ NOAA CPC, Relative Oceanic Niño Index (RONI) announcement, February 2026. cpc.ncep.noaa.gov
- ⁸ AGRA, "Drought Crisis in Southern Africa: The 2015–2016 El Niño-induced drought." agra.org
- ⁹ India Meteorological Department, 2026 southwest monsoon pre-season outlook. pib.gov.in
- ¹⁰ NOAA, "NOAA Predicts Below-Normal 2026 Atlantic Hurricane Season," news release, 21 May 2026. noaa.gov
- ¹¹ Nature Communications, "Nonlinear El Niño impacts on the global economy under climate change" (2023). nature.com
- ¹² Carbon Brief, "State of the climate: Strong El Niño puts 2026 on track for second-warmest year," Z. Hausfather, 21 April 2026. carbonbrief.org





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