

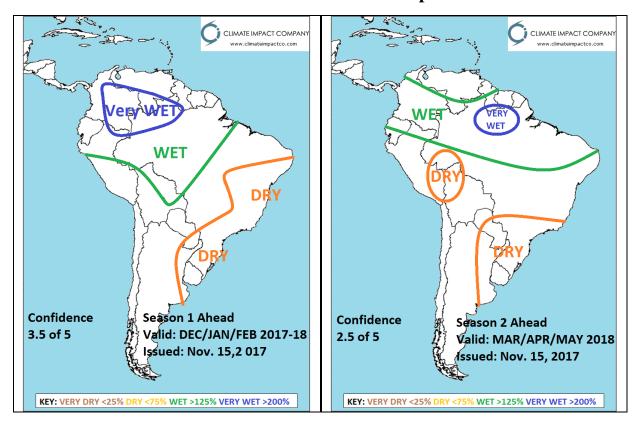
Scott A. Yuknis
High impact weather forecasts, climate
assessment and prediction.
14 Boatwright's Loop
Plymouth, MA 02360
Phone/Fax 508.927.4610
Cell: 508.813.3499
Climatelmpact@comcast.net

## Climate Impact Company Season 1-3 Ahead Outlook for South America

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**Executive Summary:** The Climate Impact Company season 1-3 ahead climate outlooks for South America are updated. The outlooks are based on weak-to-moderate La Nina climate through quarter 1 of 2018 and neutral ENSO into next winter. Near to above average forecast confidence is indicated for the summer forecast. Confidence decreases slightly next autumn. The precipitation outlook is likely wetter-than-normal during summer across central and western Brazil while eastern Brazil to northeast Argentina are drier than normal. Soil moisture is wet in northeast Argentina now and a drier reversal will attempt to generate. The dryness in northeast Argentina to southeast Brazil is likely to continue next autumn. Significant drying in northeast Argentina to far southeast Brazil is possible by late summer. Attendant searing heat accompanying dryness is not expected.

## **South America Summer & Autumn Precipitation Forecasts**



Climate discussion: A new version of La Nina is forecast through the next 2-4 months. Currently, the global SSTA analysis reveals a fairly potent La Nina signal in the northeast portion of the South Pacific with significant influence on South America climate (Fig. 1). As an example, the colder SSTA trend off the west coast of South America foreshadowed an unusually deep upper trough pattern across the southern half of South America during October. However, in the northern hemisphere a lot of warmer than normal water in the eastern Pacific is preventing the typical cool horseshoe arc from the Gulf of Alaska to the west coast of North America and into the equatorial East Pacific that fortifies La Nina. This condition is not expected with this La Nina event rendering La Nina 2017-18 weak (Fig. 2) although in the southern hemisphere this La Nina may be fairly vigorous. Following La Nina 2017-18 ENSO will transition to neutral phase during quarter 2 of 2018. A strong, long-lasting La Nina episode ahead is not expected. Analogs indicate the second half of 2018 is split between neutral ENSO and El Nino (Fig. 3). During the approach of summer regional soil moisture increases influence on the prevailing thermal climate. The drought condition in Brazil (Fig. 4) foreshadows a hotter than normal summer ahead. However, wet weather is expected in central Brazil during summertime while the dryness shifts eastward.

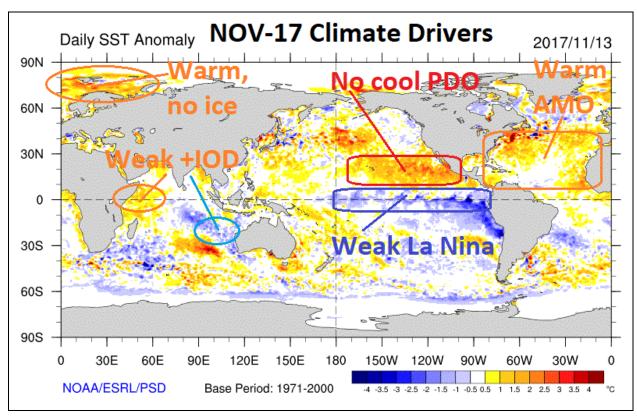


Fig. 1: Global SSTA analysis from NCDC/PSD indicates primary regional SSTA influences on global climate as 2018 approaches. South America will be affected by a moderate La Nina event.

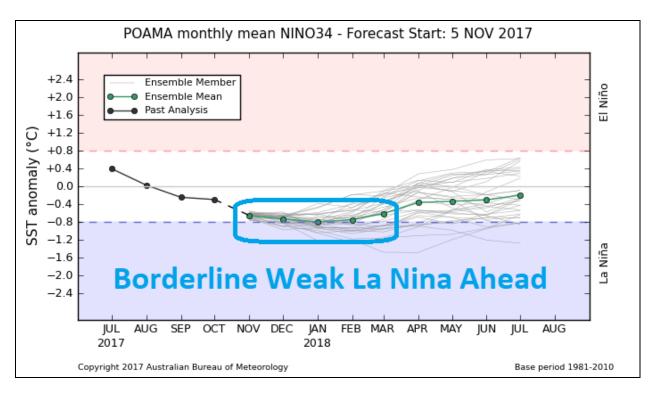


Fig. 2: The Bureau of Meteorology/Australia Nino34 SSTA forecast indicates weak La Nina ahead for late 2017 and early 2018.

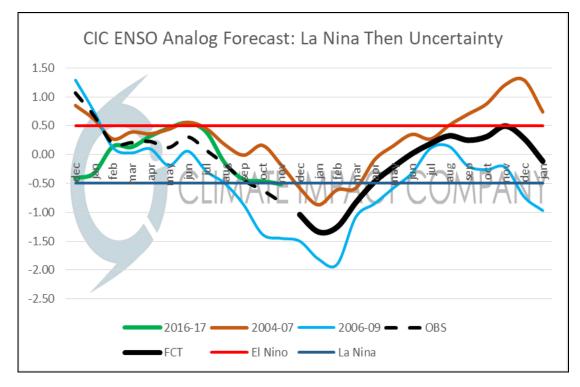
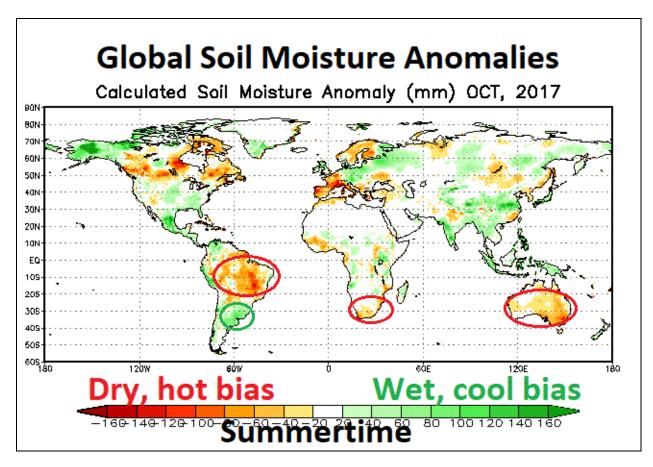


Fig. 3: The Climate Impact Company Nino34 SSTA forecast through 2018 indicates La Nina weakens next year with neutral ENSO or El Nino to follow.



*Fig. 4:* Global soil moisture anomalies for October 2017 with emphasis on southern hemisphere (soil moisture) influence on the thermal climate.

**DEC/JAN/FEB 2017-18:** Meteorological summer is forecast drier than normal over far northeast Brazil, Uruguay, southeast and east Brazil. In northeast Argentina soils are wetter than normal and dryness ahead is likely to reverse the soil moisture trend much drier especially the second half of summer. The (current) dry soil moisture regime over central Brazil weakens while eastern Brazilian dryness is likely to strengthen. Borderline anomalous heat affects most of the dry climate forecast areas.

Rainfall could be excessive across northwest portions of South America. The front end of the wet regime extends to central Brazil.

The forecast trend is less hot for summer 2017-18 while despite a drier outlook northeast Argentina is borderline cooler than normal for upcoming meteorological summertime. The rainfall forecast trends drier in eastern Brazil while northern Argentina is less dry.

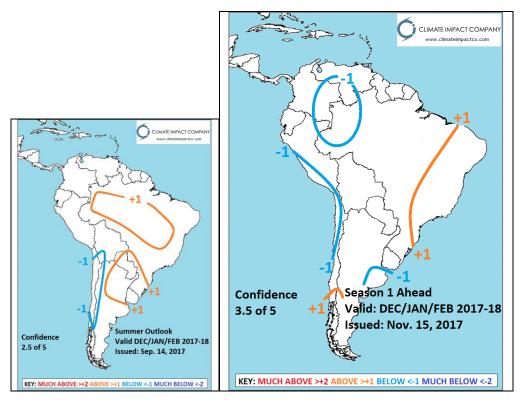


Fig. 5-6: The Climate Impact Company DEC/JAN/FEB 2017-18 temperature anomaly forecast for South America. The previous forecast is left.

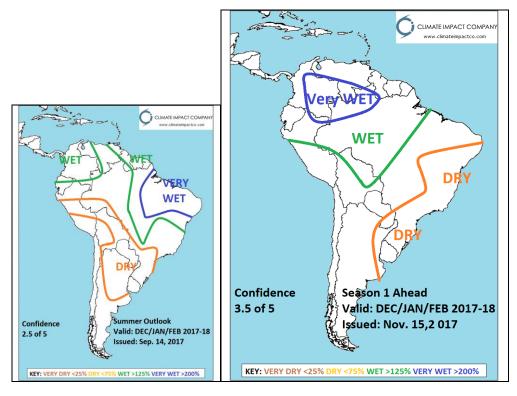


Fig. 7-8: The Climate Impact Company DEC/JAN/FEB 2017-18 precipitation anomaly forecast for South America. The previous forecast is left.

MAR/APR/MAY 2018: The autumn outlook indicates risk of lingering summertime heat and dryness northeast Argentina to southeast Brazil. Central and northern Brazil are wetter than normal.

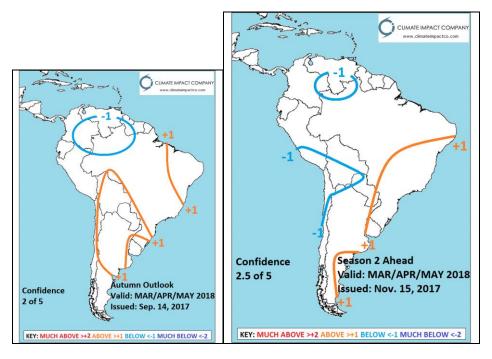


Fig. 9-10: The Climate Impact Company MAR/APR/MAY 2018 temperature anomaly forecast for South America. The previous forecast is left.

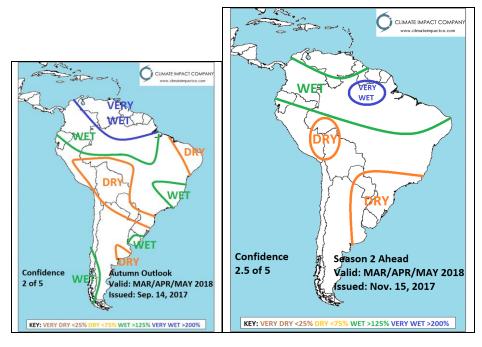


Fig. 11-12: The Climate Impact Company MAR/APR/MAY 2018 precipitation anomaly forecast for South America. The previous forecast is left.

JUN/JUL/AUG 2018: A warmer than normal winter is forecast across much of Brazil and northern Argentina.



Fig. 13: The Climate Impact Company JUN/JUL/AUG 2018 temperature anomaly forecast for South America.



Fig. 14: The Climate Impact Company JUN/JUL/AUG 2018 precipitation anomaly forecast for South America.