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Decadal and interannual SST influences on Central American precipitation

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High mountains divide Central America (CA) in two main climate regions, the Pacific and Caribbean slopes that are lee and windward respectively, according to the North Atlantic trade winds. The rain in the Pacific slope has a bimodal annual cycle, having two maxima, one in May-June and other in August-September-October (ASO), separated by the Mid Summer Drought in July. Most of the extreme events are found during ASO. CA has periodic Regional Climate Outlook Forums (RCOFs) to elaborate seasonal predictions. Recently, meetings after RCOFs with different socioeconomic stakeholders, take place to translate the probable climate impacts from predictions. From the feedback processes of these meetings, has emerge that extreme event and rainy days seasonal predictions are also necessary for different sectors. As is showed in this work, these predictions could be tailored using Canonical Correlation Analysis for rain during ASO, showing that extreme events and rainy days in CA are influenced by interannual variability related with El Niño-Southern Oscillation and decadal variability associated mainly with Atlantic Multidecadal Oscillation. Analyzing the geographical distribution of the ASO-2010 disaster reports, we noticed that they didn't necessarily agree with the geographical extreme event distribution, it means that social variables, like population vulnerability, should be included in the extreme events impact analysis.