A mixed methods approach to understanding drought in the Caribbean

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The Caribbean is a region that experiences a decrease in rainfall or "drought" in the midst of its rainy season. Farmers have always had to adjust their practices to deal with this mid-summer dry spell (MSD). Now, with global warming, drought is becoming commonplace in the Caribbean and it is expected to worsen in the future according to global and regional climate models. Essentially, the MSD climate mode will strengthen and impact a larger proportion of the summer growing season. In addition, increasing temperatures year-round will lead to further water loss and agricultural stress. While the understanding of the atmospheric causes of drought in the Caribbean has advanced greatly over the last several years, what is less well understood is the farmers' perception of drought and their adaptation strategies. Many other non-climatic factors are critical to the resiliency of farming in the face of drought, including access to irrigation, personal capital, social networks, and government assistance. This paper explores the impact of the MSD and climate change on agricultural productivity through satellite and station observations in the Caribbean and presents some preliminary interview data to gain some insight on the farmer's perspective on drought: is it a problem, and if so can lessons from the MSD help farmers to adapt?