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Developing a new methodology to define national droughts

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In recent years, several drought indices have been developed and used to monitor local to regional scale droughts on various temporal scales. However, to our knowledge, there are no generalized criteria to define a threshold to declare a national level drought using these drought indices. The thresholds to declare drought in particular areas (such as a certain percent of geographical area affected by the drought of different severity in countries, states or provinces) are different from country to country and within the countries (from local to national level). EM-DAT (a global database on natural and technological disasters) lists disasters (including drought) from 1900 until the present is gathered from various organizations like United Nations Institutes, Governments, etc. and do not cover all disasters or have political limitations that could affect the numbers. In this background, we present a generalized approach to defining droughts at a national scale. We hypothesize that if a country's crop production has been significantly affected by a drought, then it should be regarded as a national scale drought emergency. The research approach presented is expected to open a discussion on 'how to define droughts at national scale or when to declare drought as a national emergency?'