Local Opportunities to Respond to Global Climate Teleconnections. (A08-hansen125406-Oral)

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Abstract:

Year-to-year climate variations are influenced by large-scale interactions between the atmosphere and its underlying ocean and land surfaces, such as those associated with the El Nino-Southern Oscillation in the tropical Pacific. Improvements in our understanding of those interactions, advances in modeling the global climate system, and investment in ocean monitoring now provide some predictability at a seasonal lead time (i.e., several months) in many places. Examples of efforts to use this predictability include: Florida potato farmers clearing publicly-owned drainage canals; communal farmers in Zimbabwe adjusting total areas planted; an Africa-wide input supplier marketing cultivars based on seasonal rainfall forecasts; Australian farmers using crop simulation results to explore risk implications of forecast use; grain farmers in the Argentine Pampas modifying the proportion of crops grown; and smallholder farmers in southern India working with scientists to explore a range of decision options. The latter example illustrates the range of preconditions to effective use of seasonal forecast information, the use systems analysis to understand the livelihood implications of seasonal forecast use, and the value of farmer participation.

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