Presentation Title:
National Security is Dirt and Knowledge

Presenter:
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Presentation Abstract:
The pressures on farmland, farmers and farming in the U.S. are presently creating undesirable results affecting future security of existing and potential regional and local food systems and other values by adversely affecting the capacity to produce food, feed, and ecosystem services and to produce without high dependence on imported inputs to production. These results will not be better with climate and extreme weather impacts, as the IPCC SREX summary has again noted. This presentation will expand upon earlier CPASW and other presentations by the author and will focus on review of some of the more unfavorable trends with examples from Colorado and the Western U.S., to relate them to predicted weather extremes and climate impacts. Among the conditions discussed will be the bifurcation of farming and farmers into the very small and the very large, and their conservation behaviors (or misbehaviors) which will be exacerbated by such changes as increased intensity of precipitation. Loss of local and regional knowledge and linkages interact with this bifurcation and its long-term effects. Soil erosion has long been expected to be significantly increased by extreme events and climate change, and other soil quality issues will be noted. The dominance of corn (maize) and industrial monocultures in much of the U.S. and climate and weather issues will be a particular focus. Non-point-source pollution from agriculture will be discussed in relation to extreme events. The presentation will conclude with suggestions for potential improvements in Western and Great Plains regional farming to achieve increased resilience and food system security using decision-supporting climate forecasting and climatologies related to increased extreme events. The oral presentation will be drawn from a larger referenced set of powerpoint ™ slides that will be posted by the author and may be posted by the meeting organizers.