



Presented By:
Shrad Shukla, Ph.D.
Assistant Researcher
Climate Hazards Group
Department of Geography
UC Santa Barbara



Department of Civil and Environmental Engineering



## Environmental Engineering Seminar 10th. 2017

Friday, February 10th, 2017
McDonnell Douglas Engineering Auditorium (MDEA)
1:30PM - 2:30PM

## Improving Drought Risk Management Through Improved Early Warning & Capacity Building

A proactive approach that relies on real-time drought monitoring and early warning is needed to mitigate socio-economic losses caused by drought events. This presentation provides an overview of efforts to improve drought monitoring and early warning, as well as to capacity building in East Africa for improved drought risk management. In the last few years alone this region has witnessed several severe drought (and famine) events such as 2010-11 drought in parts of Ethiopia, Kenya and Somalia, 2015 drought in Ethiopia and ongoing drought in Somalia. Repeated drought events have made regions' population further vulnerable to food and water insecurity. This presentation describes the tools, datasets and approaches being taken to improve drought monitoring and early warning in the region. It also describes the ongoing efforts to empower regional climate service agencies (such as the Regional Centre For Mapping Of Resources For Development (RCMRD)) by enhancing their access to advanced earth observations and model datasets, as well as their capability to train partner met agencies and end-users. The work described in this presentation is primarily supported by USGS, NASA, and NASA and USAID's SERVIR.





Shrad Shukla is an Assistant Researcher with the Climate Hazards Group (CHG, <a href="http://chg.geog.ucsb.edu/people/shrad-shukla/index.html">http://chg.geog.ucsb.edu/people/shrad-shukla/index.html</a>) at the Department of Geography at the University of California, Santa Barbara. His research primarily focuses on improving drought monitoring and early warning capabilities using remote sensing datasets, large-scale hydrologic models and weather/climate forecasts. As a member of the Famine Early Warning Systems Network (<a href="https://www.fews.net/">https://www.fews.net/</a>) team, his research is primarily focused on the Greater Horn of Africa region. Through his collaboration with the California Nevada Climate Applications Program (<a href="http://cnap.ucsd.edu/">https://cnap.ucsd.edu/</a>) he also focuses on using the state-of-the-art dynamical climate forecasts to meet the decision-making needs of the stakeholders in California and Nevada region. Shrad received his Ph.D in Civil and Environmental Engineering at the University of Washington, Seattle.