

Soe W. Myint

Professor, School of Geographical Sciences and Urban Planning

Senior Sustainability Scientist, Global Institute of Sustainability

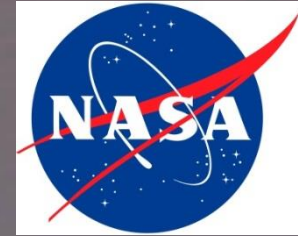
Co-Director, Environmental Remote Sensing and Geoinformatics Lab, Arizona State University

Member, USGS Global Cropland and Water Use for Food Security

Program Coordinator, Land Degradation and Desertification (1993 – 1998)

United Nations Environment Program (UNEP), Environment Assessment Program for Asia and the Pacific

(1) NASA (Myint – Lead PI) Understanding Impacts of Desert Urbanization on Climate and Surrounding Environments to Foster Sustainable Cities Using Remote Sensing and Numerical Modeling (2012-2015).



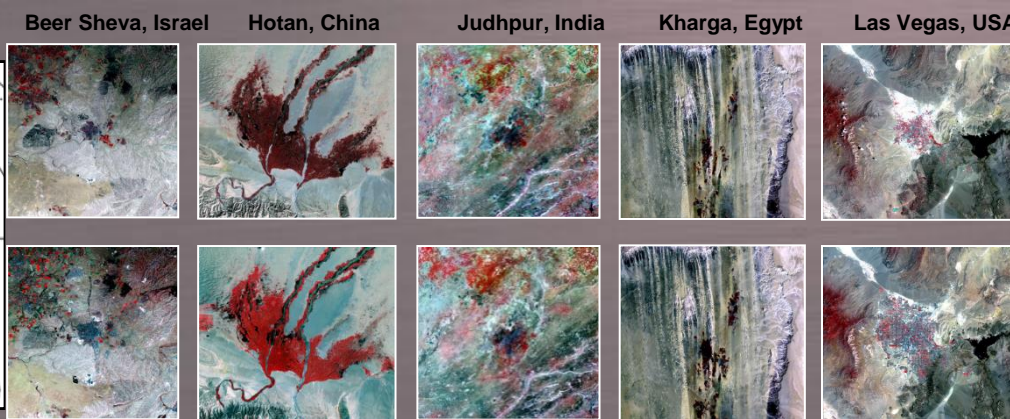
(2) NOAA (Myint – Lead PI) Evaluation of Drought Risks and its Impact on Agricultural Land and Water Use to Support Adaptive Decision-making (2012-2014).



(3) NSF (Myint - Lead PI) Wavelet Analysis of High Spatial Resolution Imagery for Urban Mapping Using Infinite Scale Decomposition Techniques (2012-2014).



LCLU Change vs. Climate Change

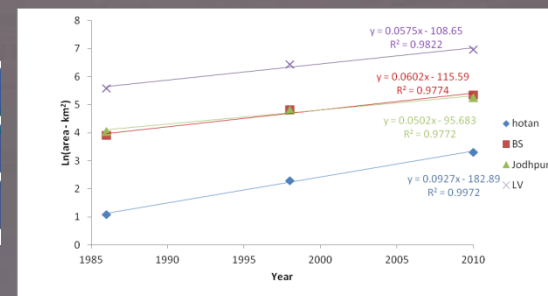
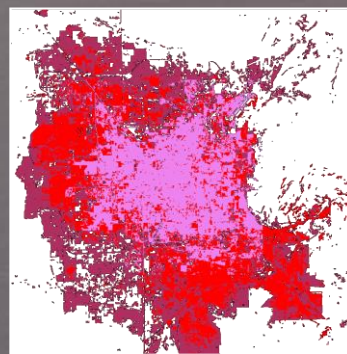
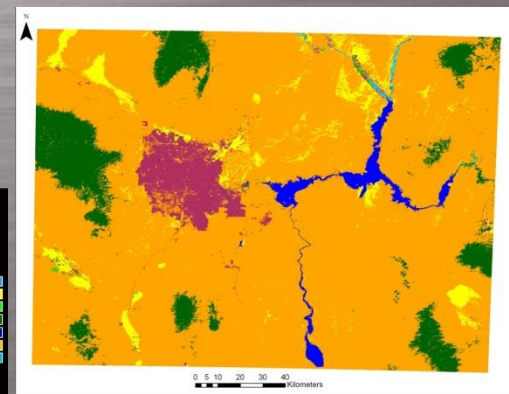


QuickBird, Output Map (2.5 m)

Landsat Output Map 1986, 1998, 2011 (30 m)

Desert Urban expansion

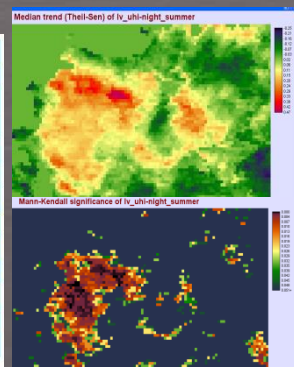
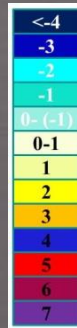
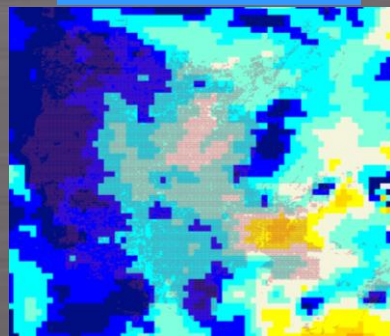
Desert Urban Growth Rates



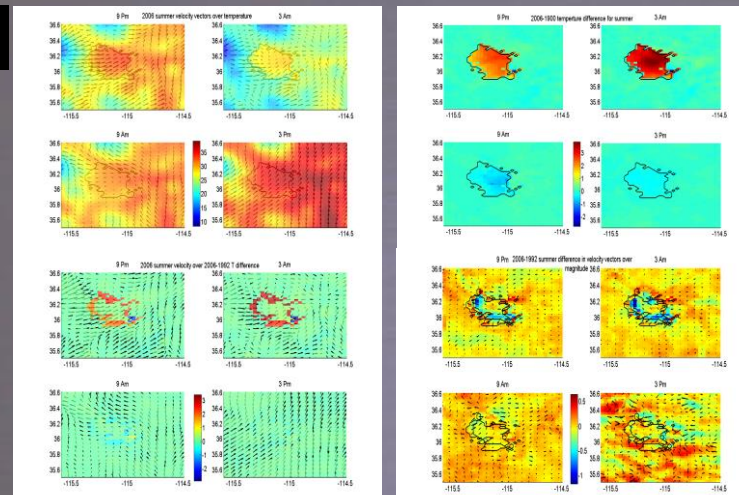
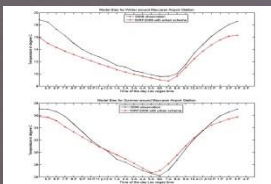
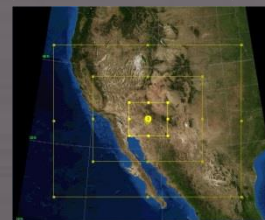
Local Climate Change

$$\text{Urban Heat Island} = T_{\text{urban}} - T_{\text{rural}}$$

day(2012 DOY 185)



The Weather Research and Forecasting (WRF - NCAR/NOAA)



Thank you for your attention