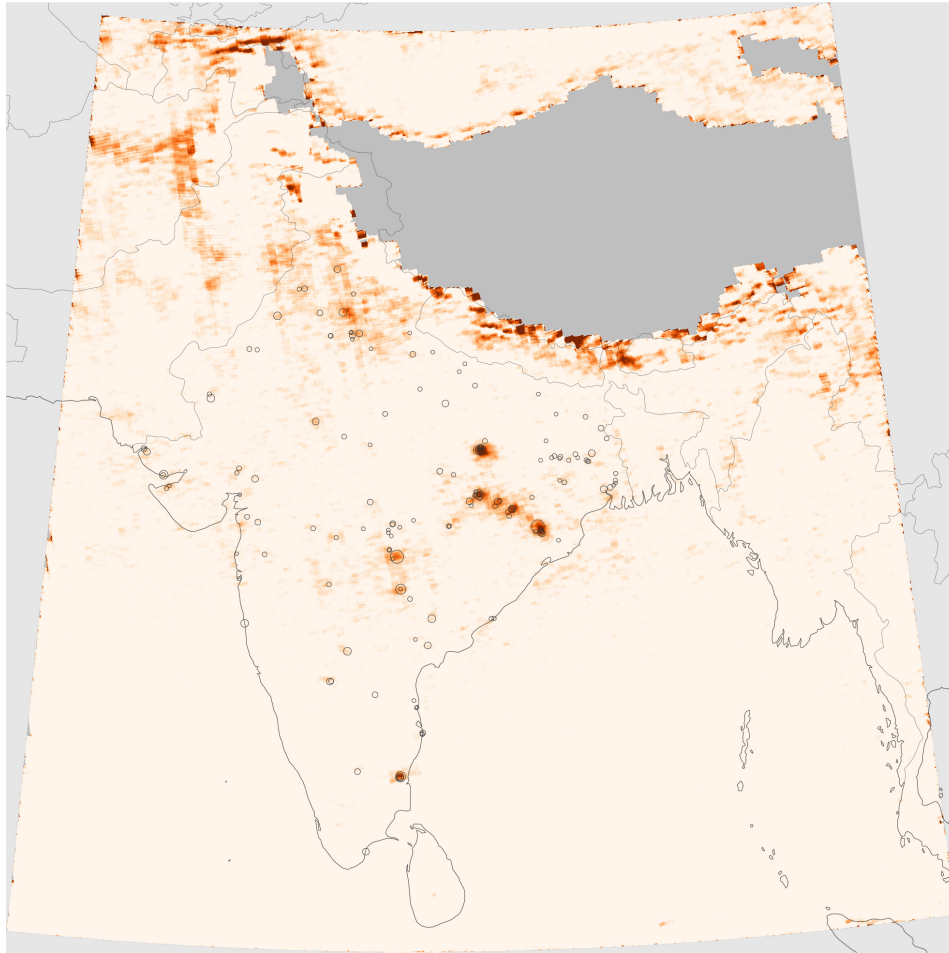


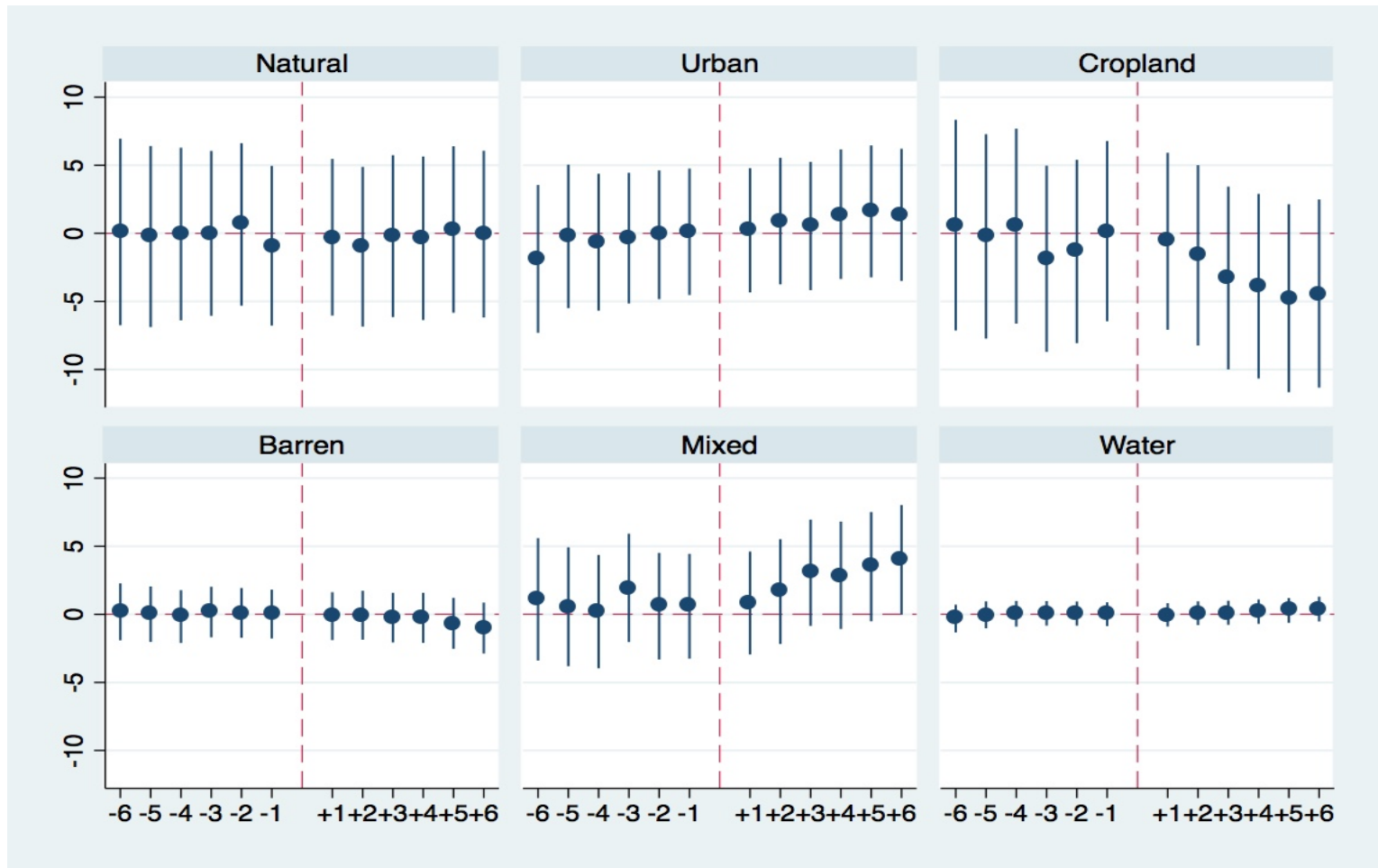
Audits From Space

Anant Sudarshan, EPIC, U. Chicago

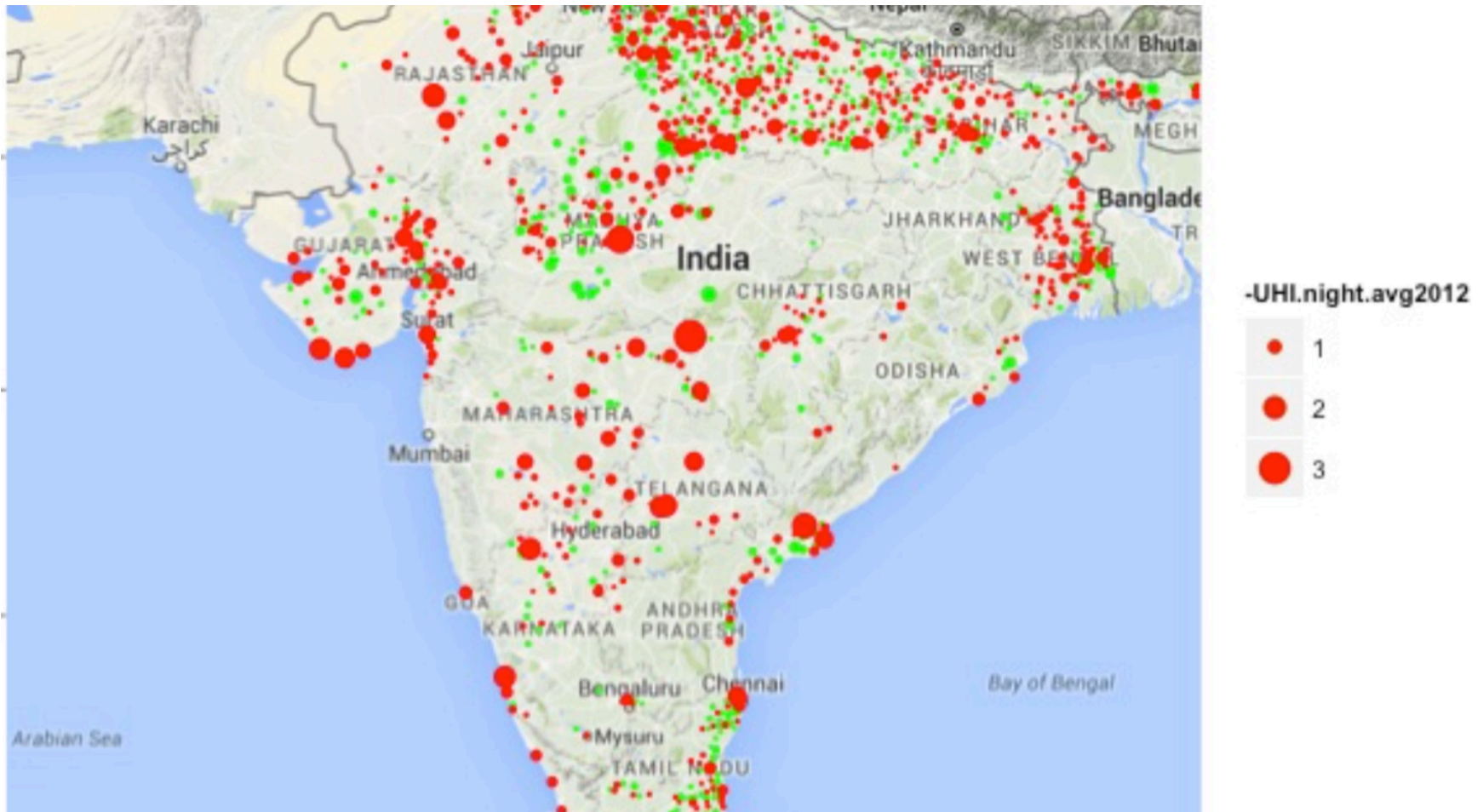
Variables Beyond Nightlights: SO₂



Using Remote Sensing Data to Estimate Environmental Compliance



Estimated Urban Heat Islands

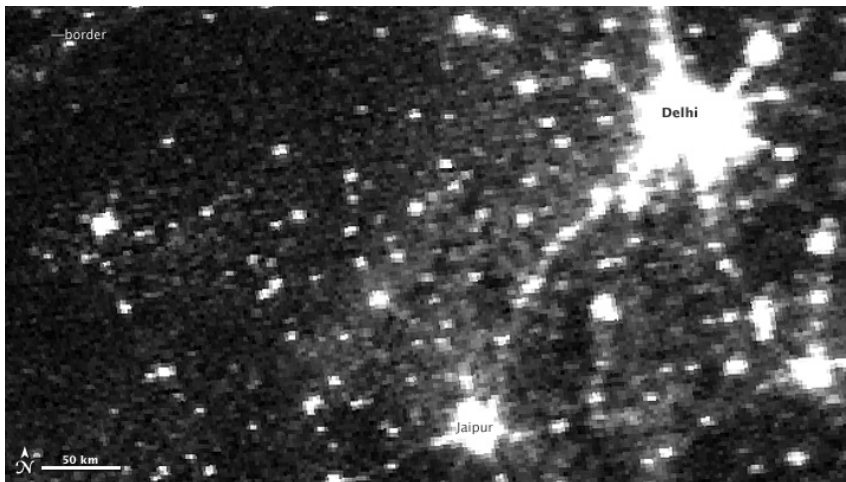


Caveats

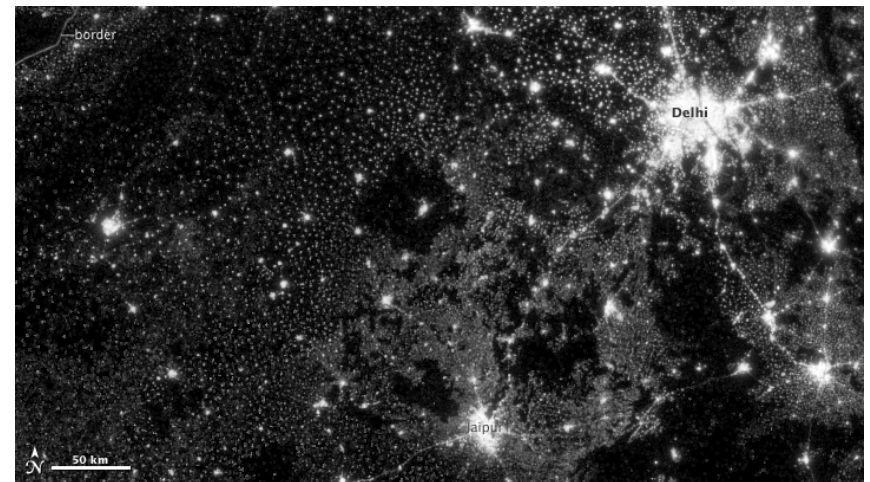
- This data is not plug and play – need to build institutional capacity within government
- Researchers are most likely to use this data well in cross-disciplinary teams
- Satellites not necessarily substitute for on-ground investments
- Metering Transformers: <http://www.watchyourpower.org/>

Are Villages Brighter After Electrification?

DMSP OLS Instrument



VIIRS Instrument on Suomi



- Some concerns about calibration across long time periods (Hsu et al 2015 2015, Stathakis et al 2015)
- Using night-lights data to estimate energy consumption is tricky owing to saturation concerns. Thus can we go beyond detecting the presence of grid and grid connections alone?
- Definition of electrification has changed over time – In 2004 in India, the definition changed to **require** a certain percentage of connected homes