Monitoring Developments from Space: Bringing Remote Sensing to Social Sciences

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Spatiotemporal Aspects of Data

- Data is necessary for evidence-based policy making

- Data: (1) Accuracy, (2) Spatial resolution, (3) Temporal frequency

(2) Spatial resolution
   - World, region, country, province, district, village, ...; sq. km, ...

(3) Temporal frequency
   - Last decades, last year, last month, last week, yesterday, ...; last hour, ...
What Socio-Economic Data Lack

Two major problems of socio-economic data

• Low spatial resolution
  Misleading, less relevant, ...

• Low temporal frequency
  Less relevant, too late to act, ...

Remote sensing data can be used to address these problems.
Indochinese Peninsula at Night in 1992 and 2010

source: Author based on DMSP and GAUL.
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An Example of What It Can Do

- Sierra Leone
- Ethiopia
- Togo
- Nepal
- Cambodia
- Papua New Guinea
- Burundi
- Lao PDR
- Mozambique
- Ghana
- Vietnam
- Gambia, The
A Way Forward

Relate remote sensing data to socio-economic data

Spatiotemporal interpolation of socio-economic data
Recommendations

• Surveys should pay more attention to and preserve geographical information.
• More openness of administrative/survey data.
• More openness of remote-sensing data.