Relevance and feasibility of international alert systems

A case study of earthquakes in central Asia
» International relief
  » Is time-sensitive

» Alerting
  » Initiates intelligence gathering
  » Supports the “entry decision”

» Current alert systems
  » Focus on mortality
  » Not correlated with international response

INTRODUCTION
» Entry decision
  » Evaluate suitability of information sources

» Response prediction
  » Non-sequential
  » Feasibility
» Information source evaluation
  » Determine the **relevance** of information sources for “entry decisions”

» Response prediction
  » Develop **descriptive** and **predictive** models of international response behaviour
  » Determine subjects for which **additional proxy indicators** are required
» 58 Case studies in Central Asia
  » Afghanistan, China, Iran, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan
  » 1992-2005

» Content analysis
  » NEIC, ReliefWeb, Virtual OSOCC, EMM

» User interviews

METHODOLOGY
accuracy
- requirement time-dependent
- should be known

timeliness
1. Seismic data (minutes)
2. Tele-assessment of loss (<hr)
3. On the ground reports (hr - days)
4. Image remote sensing (days)
» Tele-assessment of loss
  » Relevant
  » Room for improvement

» Image remote sensing useful if:
  » Delivery reduced to hours
  » Area of interest is so remote or widespread that the time required for on-site reports exceeds that of delivery
» **International response/attention**
  » Frequency of UNOCHA situation reports

» **Predict** using
  » Indicators of hazard & vulnerability
  » Indicators of Political relations & International presence
    » Proxies: WPFI, Composite vulnerability

» **Ordinal regression** using
  » Three-tier output (None, Intermediate, High)
  » Categorised input
» Results promising
  » 12 misclassifications
» Patterns in misclassification
  » Iran and China
» Missing indicators
  » Inclination to request aid
  » Bilateral relations

RESPONSE PREDICTION (2)
» **Relevance** of alert tools
  » Important
  » Room for improvement

» **Feasibility** of response prediction
  » Has potential
  » Indicators of political relations
  » Descriptive vs. Normative approach
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