Land Tenure and Financial Risk

*September 3rd, 2015 – NCAER*
Rising Rate of Conflict

- Frequency of conflict
- Mobile cellular subscriptions (per 100 people)
The Land Risk Tool (LRT)

Open-source, global, geospatial database

- 25 large datasets in three categories (social, environmental, governance)
- Formal release on September 30th at the Interlaken Conference, Bern

<table>
<thead>
<tr>
<th>Social (sub-national)</th>
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<tbody>
<tr>
<td>Demographic</td>
<td>Population count/density per 30-seconds cell; presence of IPs</td>
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<tr>
<td>Conflict</td>
<td>Incidence of civil unrest; time-series of displacement</td>
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<tr>
<td>Welfare</td>
<td>Access to sanitation; child mortality; asset ownership</td>
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<th>Environmental (sub-national)</th>
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<td>Land use</td>
<td>Anthropogenic land use; soil health</td>
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<tr>
<td>Climate</td>
<td>Temperature; forecasted climate impacts</td>
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<td>Water</td>
<td>Baseline water stress, watershed boundaries</td>
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<th>Governance (national)</th>
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<td>Corruption</td>
<td>Perceptions of corruption; control of corruption</td>
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<td>Effectiveness</td>
<td>Regulatory quality</td>
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Tenure Risk: Almost Ubiquitous

- “Clean” or uninhabited concessions are a myth
  - 93-99% of concessions are inhabited
  - Based on study of Brazil, Cambodia, Colombia, Indonesia, Liberia, Mozambique, Peru and the Philippines

- Significant impairments on the horizon
  - Study of INR 152248.5 crore of assets across 12 countries
  - Impairment of INR 33077.7 crore (21.7%)
Disputes Over Land: Global View

Legend
- Agriculture
- Mining
- Hydropower
Drivers of Conflict

**Compensation:** Sufficient, timely and reliable

**Displacement:** Physical/economic; voluntary/forced

**Destruction of the Environment:** Ecosystem services

**Shortage of Resources:** Food, water and basic services

**Cultural Infringement:** Lack of respect

**Other:** Everything else (just 2% of cases overall)
Not a Matter of Money

Compensation: Primary OR Secondary driver

- 12.6% Driven by compensation
- 87.4% Driven by other factors
Drivers of conflict: Mining

Secondary Drivers of Conflict

- Compensation
- Cultural infringement
- Destruction of the environment
- Displacement
- Regulatory problems
- Shortage of resources
- Other
- None

Primary Drivers of Dispute:
- Mining
- Destruction of the environment
- Displacement
- Shortage of resources
- Cultural infringement
- Other

Number of cases
Drivers of Conflict: Hydropower

Primary Drivers of Dispute:
- Compensation
- Cultural infringement
- Destruction of the environment
- Displacement
- Shortage of resources
- Other
- None

Secondary Drivers of Dispute:
- Compensation
- Cultural infringement
- Destruction of the environment
- Displacement
- Shortage of resources
- Other
- None

Number of cases
Drivers of Conflict: Agriculture

Secondary Drivers of Dispute

- Displacement
- Destruction of the environment
- Shortage of resources
- Compensation
- Cultural infringement
- Regulatory problems
- Displacement
- None

Number of cases
Tenure Risk: Materially Significant

- What do we mean by materially significant?
  - Valuable equipment or property damaged by an invasion or arson
  - Production stoppages lasting more than 2.5% of annual working days
  - Significant regulatory intervention, which we rated as a fine in excess of $500,000

- Do many projects suffer from materially significant impacts?
  - Mining – 63%
  - Hydropower – 76%
  - Agriculture – 49%
Key Messages

1) Rural real assets inherently involve engagement with local populations

2) The pre-existing claims of these populations suggest strongly that the value of assets is impaired – although we don’t yet know to what degree

3) Most of the conflicts these operations encounter are not because of failure to pay just compensation

4) Rather, they are about a grab bag of different environmental and social issues

5) These conflicts have some level of material impact across different sectors
Thank you

We appreciate your time

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