Where science meets food policy: 
Four decades of research and policy advising in Indonesia

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Two Sub-Texts from The Indonesian Experience

The Compatibility of Research, Teaching, and Advising Within a Major Research University

The Importance of Substantive Research Findings for Sound Policy Advising
Why Indonesia?

- World’s 4th most populous country
- Country with largest number of Muslims (yet a secular nation)
- 9000 inhabited islands and 400 language groups
- 50% of population live under $2/day
- Large ENSO signal
Recurring Themes

- Walking among silos
- Honoring confidences
- Involving graduate students/teaching
- Promoting competition
- Saying “Don’t”
- Working on the “next problem”
- Designing sequences of policies
Climate Variability

Nino 3.4
Sea-Surface Temperature Anomalies

El Nino event

La Nina event
ENSO - Sea Surface Temperature (Nino 3.4)

website: http://www.cpc.ncep.noaa.gov/data/indices/
Power of a Simple Model

ENSO → Rainfall → Agriculture
Can ENSO explain variation around production trend?
Crop-Year Equation, All Indonesia

Year \( t \) to \( t + 1 \)

\[ \Delta \text{ Paddy Production} = 839 - 1,400 \Delta \text{ SSTA} \]

\text{t-values} \hspace{2cm} (1.91) \hspace{1cm} (-4.79)

Adj. \( R^2 = 0.61 \)
Who Cares?

**Ministry of Agriculture**: Advising farmers on planting dates and cropping systems

**Ministry of Food (BULOG)**: Procuring and distributing food to poor households affected by ENSO events

**Ministry of Finance**: Determining whether budget requests “in the name of ENSO events” are legitimate

**Foreign Aid Agencies**: Determining the timing and amounts of food aid
Assessing Longer-Run Risks of Climate Variability and Change
What will happen to the mean state under future climate?
The Vegetable Oil Revolution

The political economy of palm oil vs. the political economy of rice.
Recent Palm Oil Price Trends

Source: Global Financial Data
Paupua-- oil palm concession
# A Tale of Two Countries

Per Capita Vegetable Oil Consumption, Kgs. Per Year

<table>
<thead>
<tr>
<th></th>
<th>Total veg. oil</th>
<th>Palm oil</th>
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<tbody>
<tr>
<td>China</td>
<td>4.3</td>
<td>11.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7.4</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Source: USDA
Per Capita Palm Oil Consumption Growth in Indonesia, 1985 - 2010

- Due to substitution, Predicted
- Due to palm oil price, Predicted
- Due to urbanization, Predicted
- Due to income growth, Predicted
- Total increase, Actual

Baseline (1985) 2010

Increase in palm oil consumption (kg/capita)
Percent of total vegetable oil used for food in Indonesia

Source: USDA FAS
# A Tale of Two Countries

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<td>1986</td>
<td>4.3</td>
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<tr>
<td>Indonesia</td>
<td>7.4</td>
<td>3.8</td>
<td>16.1</td>
</tr>
</tbody>
</table>

*Source: USDA*
Next Steps

• Shaping views on land-use that are consistent with demand
• Working at the Presidential level on concessions policy and property rights
• Reconciling Provincial views on deforestation
• Protecting small-holder and Irian Jaya in the development process
Influencing Policy

- Good Research (and Facts!)
- Good Students
- Long-term Involvement
- Concern With Impact Rather Than Output/Publicity
- Capacity and Credibility to Walk Among the Silos
Thank You!

Questions?