Land Conflict in Amazonia

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1. Why Land Conflict and Violence?


2. DALR Social Processes, and Development and Environment Impacts?


Struggle for Land

- **Historical Manifestation – Land Inequality and Conflict**
  - Sao Paulo 19thc; W. Parana 1940; Amazon in the 20th c

- **Land Conflict - across Brazil**
  - Greater than 4 + million landless families
  - In Amazonia
    - 161,575 families, 69.2 million hectares affected since 1988 (DataLuta 2011).
Agrarian Reform in Brazil

1. **State Agrarian Reform (SAR)**
   - **Agrarian reform laws** – Lei 601 in 1850, 1964, 1988;
     - Land appropriation for social purpose
     - função social, productive use (1964 land statute, 1988 Constitution)

   - **Colonization** - Post WWII – Amazon – PIN 1970s;
     - National Institute Colonization & Agrarian Reform (INCRA)
     - Remedy land inequality via resettlement

   - **Novo Mundo Rural – New Rural World**
     - Formalize, informal agrarian settlements
     - PA - Settlement Projects
     - PAS – Projeto de Assentamento Sustentável
     - PAE – Projeto de Assentamento Extrativista
     - PAF – Projeto de Assentamento Florestal
Government Inaction

2. **Direct Action Land Reform (DALR)**
   Populist political expression and action to resolve land inequality, outside government process

*Smos* invading and **occupying land** deemed not productive, or in violation of the **social function** clause or some **environmental** or **labor laws** as stipulated by the constitution... And by doing so, force the government to follow through on agrarian reform processes.

In Contemporary Amazonia,
DALR is the precursor to New Rural World Program
Contemporary Land Conflict Dynamic

- Organized Landless Movement
  - Pastoral Land Commission - CPT
  - Rural Workers Syndicate - STRs
  - Federation of Rural Agricultural Workers of Pará and Amapá - FETAGRI

- Movement of the Landless Rural Workers - MST
- Movement of Workers without Roofs – MTST
- Movement of the Struggle for Land - MLT
• Despite the multitude of movements, the strategy of direct action and ultimate goal are similar.

• Three Phases in the land occupation process
  1. Mobilization
  2. Selection of Target Property
  3. The “Occupation”
     • Encampamento – Camp
     • Assentamento – Settlement
The Outcome???

- Violent Land Conflict

- 1,547 Land Conflict-related deaths 1988-2008;

- Amazon region most violent with ~50%
Map of Study Region

- Pará – Most Violent
- Land Conflict is Complex
  - Rural Landless & Large Landowners
  - Military Police, Syndicate leaders, Catholic Church
  - Landless movements

Focus – Opening of Amazon Frontier
  - Goals: Integrate the Amazon – Roads; Economic Growth – cattle & mining; alleviate poverty via colonization
  - Outcome: Cattle Economy Strong; Population 4 to 24 million; Poverty and Landlessness persist.
Contemporary Land Struggle
Opening of Amazon Frontier

Phase 1 - Luta Posseira – pre 1985
Homen-Arma-Lote

Phase 2 - DALR – post 1985
Democratic Reform
1. Why Land Conflict and Violence?


Analytical Framework

• Integrates Resource Scarcity and Abundance, which interacted creating conditions ripe for conflict
  – Early discovery of abundant valuable resources
  – Misdistribution of land in other parts of Brazil
  – Relative Land Scarcity

• Building on foundations of Amazonian Frontier literature
  – Institutional failures interacted with social forces and conditions creating land tenure insecurity and resource deprivation

• Situates Land Conflict within a Political Economy Perspective
  – Massey 1984a, 1984b, 1994; Kodras 1997; Cooke 1989; Cox 1997; Swyngedouw 1997
Conceptual Design
1966-2000

Global Level
- Economic Development (i.e., livestock, mining)
- Indigenous Rights
- Environmental Concerns

National Level
- Agro-Industrial Programs
- Land Reform
- Conservation/Indigenous Policy

Region Level
- Large landholdings Economic Reserves
- Spontaneous In-migration/Small farmer settlement
- Conservation/Indigenous Reserves

Local Level
- Resource Scarcity/Competition
- Social and Political Mobilization

Intra-regional Level
- Agricultural Modernization
- Draught in the NE

Annals of AAG 2004
Amazon Land War
South of Para, AAG 2007

Frontier Movement

violence Stationary

Legend
- Centers of Gravity
- City
- State Capital
- Major Roads
- State Boundary
- South of Pará

Legend
- 500 - 1,000 Kilometers

1968

1980

1995

Belém
Uruará
Altamira

1975-1984
1964-1974

1985-1994
1995-2004

Eldorado dos Carajás
Conceição do Araguaia

Santarém
Contentious Politics

- ENVIRONMENTAL MECHANISMS:
  - Relative Land Scarcity
  - **Brazilian land law**, which in effect institutionalizes ambiguity and condones violence as a means to acquire and protect property rights
Amazon Land War
Luta Posseira - Long History
• THE COGNITIVE MECHANISM

leading to intentional actions comprises perceptions of the region’s history and a resulting ontology of violence that assumes material form in murderous conflict.
Table 4. Price list for assassinations in $US 2006

<table>
<thead>
<tr>
<th>Role</th>
<th>Price Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posseiros (squatter)</td>
<td>$83 to $165</td>
</tr>
<tr>
<td>Agente pastoral (pastoral agent)</td>
<td>$165 to $826</td>
</tr>
<tr>
<td>Advogado (lawyer)</td>
<td>$826 to $8,264</td>
</tr>
<tr>
<td>Padre (priest)</td>
<td>$8,264 to $165,289</td>
</tr>
<tr>
<td>Bispo (bishop)</td>
<td>$16,529 to $165,289</td>
</tr>
<tr>
<td>Politicos (politician)</td>
<td>$3,260 to $16,074</td>
</tr>
</tbody>
</table>


Note: Prices adjusted for inflation and converted from $Cruziéros to $Reais and then to U.S. dollars using July 2006 exchange rates.
Relation Mechanism
Part I. Direct Action Land Reform: Social Processes and Development Impacts


Narrative:

1. Exogenous SMO (e.g., MST)

2. State as Adversary

3. Central Strategy
   Precipitate Occupation of Private Holding pursuant to agenda
Field Research Campaign

Key Informant Interviews
Ethnographic approach, chain or snowball sampling design.
National, Regional, local level
Fall 2005, Spring and Fall 2006, Spring 2007

26 DALR Settlements
Household Surveys
Data for Qualitative and quantitative Analysis.
Summer and Fall 2006

751 Household Surveys
Spontaneous DALR

- Origin = original Colonization
- Target = vacant public land
- Timing & Organization = in accordance with SAR policies
Objective 1: DALR Organizational Structure and Agency

How well does reality fit with the narrative?

<table>
<thead>
<tr>
<th>Role of State (INCRA)</th>
<th>SMO-Led DALR (The Narrative)</th>
<th>Spontaneous DALR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiator</td>
<td>Singular, Exotic SMO (i.e., MST)</td>
<td>Multiple Participants</td>
</tr>
<tr>
<td>Precipitating Event</td>
<td>Neutral or Adversarial The Occupation</td>
<td>Neutral, or Adversarial Or Helpful Settlement over time</td>
</tr>
</tbody>
</table>
Findings:

**SMO:**

Singularity → **Multiplicity**
- Across Amazonia (MST not most important)
- At the Settlement (PA) - (i.e., Primeiro do Março)

**Exogeneity** → **Endogeneity**
(i.e. Movement of the Peasants of Curumbiara - MCC; Asa de Avião)

**INDIVIDUALS:**

**Multiple Roles**
- landless, employee of the State, community leader
Findings:

THE STATE:

Singularity ➔ Multiplicity
  • INCRA, Municipal Government; ITERPA
Neutral ➔ Activist

Static ➔ Dynamic
  • Cycles of Contention – Under FHC versus Lula
  • Spaces of Contention – Para versus Rondonia

Bureaucratic Agency
Findings:

Precipitating Event → Contingency

- DALR action ≠ New settlement (PA).
- Temporal – Geographical
- 17 of April, Massacre at Eldorado de Carajás
  - After 1996, settlements doubled in Brazil, tripled in Pará.

Hybridity – Organizational Structure and Agency

- Multiple Actors, endogenous leadership, and active State agency.
  - SMO-led versus Spontaneous DALR not so clear (i.e., PA Tutui 'North)
Objective 2: Development and Environment Impacts
Mixed Results from Statistical Analyses:

SMO-led DALR:
- promotes relative wealth accumulation, in terms of acquisition of durable goods
- farming systems are somewhat “greener” than spontaneous DALR.
  (+) greater access to credit
  (-) residents use more fertilizers and pesticides.
  (-) experience more wildfire.

Spontaneous DALR settlers greater tenure security,
  (-) more settlements in primary forest.
In general, our research thus far shows:

DALR in Amazonia is a collection of processes, involving a multiplicity of SMOs, diverse individual actors, and unexpected interactions between the State and civil society that culminate in the creation of a landscape of human settlements.

DALR appears to improve their life circumstances, which probably explains the growth of DALR in terms of families participating and expansion of land occupied.

Are DALR processes and the PAs sustainable, today and in the future?
DALR may be effective in improving livelihoods, but at what cost?
Part II. Contentious Land Change: DALR Processes and Land Change


Driver of Land Cover Change

1. Infrastructure *(roads)*
2. Logging
3. Small farmers
4. Pasture for Ranching $\rightarrow$ 80% of deforestation
5. Direct Action Land Reform – Land Conflict?
Scatterplot $z$-scores and you get weak positive correlation, $R^2 = 0.4356$
Brazilnut Polygon in Southeastern Pará

**Extractive Economy**
- Rubber
- Brazilnut

**Amazon Development Gateway**
- Global Cattle Supply

**State Aforamento System**
- 190 properties
- 4000-5000 ha
History of Violence

- Little War of Araguaia
- Luta Posseira
- War of the Brazilnut Groves
- DALR

Total Forest Area of Poligono Properties

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area of Poligono Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1773</td>
<td>97%</td>
</tr>
<tr>
<td>1774</td>
<td>51%</td>
</tr>
<tr>
<td>1775</td>
<td>42%</td>
</tr>
<tr>
<td>1776</td>
<td>42%</td>
</tr>
<tr>
<td>1777</td>
<td>26%</td>
</tr>
<tr>
<td>1778</td>
<td>24%</td>
</tr>
<tr>
<td>1779</td>
<td>17%</td>
</tr>
<tr>
<td>1780</td>
<td>14%</td>
</tr>
</tbody>
</table>

Deforestation

- 97% 1973
- 14% Today
Brazil Nut Polygon
South of Pará

1980 – 2003:

• **1800** conflict events.
• 36% of properties occupied, 34% expropriated for Agrarian Reform
Data Collection – Recreate Occupation Characteristics

- **Newspaper archive:**
  - More than 3,700 news accounts from 3 local newspapers

- **Remote Sensing:**
  - Forest cover Change

- **Interviews:**
  - Ranchers, SMO leaders, SMO members, Government Agents
    (also academic literature review)
Land Change Science – unitary land manager pursuing Agronomic Interests.

In CLC, Multiple land managers on one lot...who is responsible for deforestation and why?

Shifts of property control and land change due to land conflict in southeastern Pará. DALR = Direct Action Land Reform.
The story of "Bala do Sul" Ranch.

But... this is just anecdote, right?

“Uncertainty increases deforestation”
Agronomic LC or C-LC
### Difference of Means Test on Hectares of Forest Change between 1980 and 2003

<table>
<thead>
<tr>
<th></th>
<th>Mean (Standard Deviation)</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contentious Properties (n = 79)</td>
<td>-3124.481 (2865.015)</td>
<td>322.3394</td>
</tr>
<tr>
<td>Properties with No Reported Contention (n = 101)</td>
<td>-1891.485 (1579.443)</td>
<td>157.1595</td>
</tr>
<tr>
<td>Combined (n = 180)</td>
<td>-2432.633 (2312.342)</td>
<td>172.3518</td>
</tr>
<tr>
<td>Difference</td>
<td>1232.995***</td>
<td>358.6109</td>
</tr>
</tbody>
</table>

*** - two-sample, unequal variances t-test, significant at 1% level

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Findings

- Deforestation increased on properties targeted for DALR supporting C-LC
  - Contention increases deforestation
  - On properties still under private ownership (non-PAs), DALR was not significant contributor to deforestation.
  - Supported by spatial regression models
Dalr Contradictions

Expectations - Policy
- Small Family Farming – Agriculture
- Diversified production
- Agroforestry

Reality Quite Different:
- 2006 Simmons et al. 74% Cattle
  (26 settlements (PAs); 751 households)
DALR effective in improving livelihoods, but at what cost?
DALR is complex, understanding processes at work important for effective policy.

 Millions of Brazilians interpret the world and their place in it through the optic of the DALR struggles they have endured, and the leaders who have inspired their efforts.

Thus, SMO-led DALR, and DALR in general, must be recognized as a preeminent post-development phenomenon, a social welfare quest with its own philosophy, culture, and agenda, and with minimal governmental input.

Because the Brazilian state never managed to create a life of dignity for the rural poor, it must now follow the lead of those who are doing it for themselves.