A comparative perspective on the evolution and sustainability of pastoralist production systems

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Background

- Pastoralism – extensive livestock production system – main production systems in rangelands and drylands
  - Rangelands & drylands cover about 40% of total land surface (FAO, 2011)
  - Estimated 200-500 million pastoralists - majority live in developing countries
Economic value of pastoralism

- **Finishing**
  - 3-5 large feedlots focused on weight gain & quality
  - Crosses local & specialized breeds
  - Targets high-end local niche & export markets.
  - Raising own calves for fattening

- **Fattening**
  - 15-25 facilities focused on weight gain, rather than quality (**no real age / weight indication**)

- **34% of farms (40% of cattle)**
  - Average herd size is between 10-12 cattle
  - Mainly crossbreeds & pure exotic breeds
  - Grazing on communal & private areas with crop residues as feed supplements

- **54% of farms (27% of cattle)**
  - <100 ranches (mostly privately owned)
  - Average herd size is 150
  - Mainly improved Boran & other exotic breeds

- **11% of farms (4% of cattle)**
  - Average herd size is 10-15 cattle
  - Mainly native species

- **1% of farms (0.4% of cattle)**
  - Average herd size is 2-5 cattle
  - Mainly indigenous species

- **Pastoralism**
  - 34% of farms (40% of cattle)
  - Average nomadic herd size is around 50 cattle
  - Most farmers keep indigenous breeds (Zebu, Boran, Sahiwal)
Pastoralists lands unsuitable for ‘traditional agriculture’

Arid & semi arid climatic conditions characterized by low rainfall and high/low temperatures
Similar characteristics in different contexts

Kenya
- Low land areas
- Low rainfall
- High temperatures
- Keep cattle, sheep, goats, camels
- Low market orientation

Peru
- High land areas
- Low rainfall
- Extreme cool temperatures
- Keep Alpacas, Llama
- High market orientation
Land management is critical for sustaining pastoralists productive systems.

Pastoralists have relied on customary institutions and practices to manage their lands.

Communal land systems guarantees access & utilization of land, but have suffered CPR challenges.

Indigenous ecological knowledge & customary practices have enabled pastoralist thrive.
Pastoralists facing increasing pressure over their lands

- Five key drivers
  1. Unfavourable public policy
  2. Population growth
  3. Economic activities
  4. Urbanisation
  5. Climate change
Evolution of land tenure regimes in pastoralist communities
Public policies biased towards pastoralism

• Govts & development agencies favoured land liberalisation policies
  • Increase access to land
  • Increased investments
  • Improve livelihoods
Public policies biased towards pastoralism

- Govts & development agencies favoured land liberalisation policies
  - land concentration and fostered social inequalities (Jansen & Roquas, 1998; Ghimire, 2001; Zoomers & van der Haar, 2001; Lohr, 2012)
  - Did not lead to increased investment in land (Atwood, 1990; Deininger & Binswanger, 1999; De Janvry & Sadoulet, 2001; Zoomers & van der Haar, 2001; Place, 2009; Obeng-Odoom, 2012)
Public policies biased towards pastoralism

• Communities with collective land access benefit from economies of scale in production, spread the risks and avoid costs of enforcing individual property rights (Nugent & Sanchez, 1998; De Janvry & Sadoulet, 2001).

• Collective land access can ensure greater access to resources for the poor (De Janvry & Sadoulet, 2001; Zoomers & van der Haar, 2001).

• So why has public policy not shifted to support pastoralism?
Changes in land tenure regimes
## Land tenure regime identification & description

### Bundle of Rights

<table>
<thead>
<tr>
<th>Operational Level (OL)</th>
<th>Access (A)</th>
<th>The right to enter a defined physical property</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Withdrawal (W)</td>
<td>The right to obtain ‘products’ from a resource</td>
</tr>
<tr>
<td>Collective-Choice Level (CCL)</td>
<td>Management (M)</td>
<td>The right to regulate internal use patterns and transform the resource by making improvements</td>
</tr>
<tr>
<td></td>
<td>Exclusion (E)</td>
<td>The right to determine who will have access right, and how that right might be transferred</td>
</tr>
<tr>
<td></td>
<td>Alienation (Al)</td>
<td>The right to sell or lease either or both of the above collective-choice rights</td>
</tr>
</tbody>
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## Characterizing land tenure changes in East Africa

<table>
<thead>
<tr>
<th></th>
<th>Kenya</th>
<th>Uganda</th>
<th>Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-colonial period:</strong></td>
<td><strong>Collective land tenure by communities</strong></td>
<td>Similar</td>
<td>Similar</td>
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<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Colonial Era land laws</strong></td>
<td>Similar</td>
<td>Similar</td>
<td>Similar</td>
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<tr>
<td><strong>Post independence land laws</strong></td>
<td>Followed colonial era land laws</td>
<td>Followed colonial laws interrupted by civil strife in 70s &amp; early 80s</td>
<td>Adopted Ujamma policy</td>
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<td></td>
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<tr>
<td><strong>Structural adjustment period:</strong></td>
<td><strong>Promotion of individual land tenure</strong></td>
<td>Similar</td>
<td>Similar (ujamma abolished in 1985)</td>
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</table>
Public policy failed to address CPR challenges and ended up marginalizing pastoralist communities

- Confined territories for pastoralists
- Promoted privatization of land tenure
- Upset customary norms e.g. land resettlement programs

- Introduced formal laws to govern land
- ‘Modernize pastoralism’ through private tenure, extension, movement restriction
- Communities maintain customary norms

- Pressure of privatization of land tenure (urbanization, elite capture, deviation from customary norms for land mgt, population growth)

- Extractive industry intensify pressure for privatization
- Pastoralists marginalized due to low supply of public goods
- Fight over resources intensify
Changes in State land policies

• From State led policies for communal land protection to avoid land concentration and promote internal markets
  • Group ranch formation and peasant communities
  • State led marketing boards

• To State liberal policies for promoting land market & individual privatisation
  • New land laws
  • Promotion of private investment & infrastructure development
# Land access regime typology for East Africa: Kenyan Case

<table>
<thead>
<tr>
<th>Operational-Choice Action (ownership and control)</th>
<th>Individual</th>
<th>Collective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Private tenure</td>
<td>Group Ranch A</td>
</tr>
<tr>
<td>Collective</td>
<td>Group Ranch B</td>
<td>Un-adjudicated communal land</td>
</tr>
</tbody>
</table>
## Land access regime typology: Andean Case

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<tr>
<th>Collective-Choice Action (ownership and control)</th>
<th>Operational-Choice Action (access and withdrawal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Individual, Private tenure</td>
</tr>
<tr>
<td>Family</td>
<td>Family, Family condominiums</td>
</tr>
<tr>
<td>Collective</td>
<td>Collective, Communal condominiums, Communal lands</td>
</tr>
<tr>
<td>External</td>
<td>External condominums</td>
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Current trend

- Increasing trends individualisation of tenure in pastoral areas
- What does this mean for the sustainability of pastoral areas?
  - Access to productive resources
  - Implication for pastoral livelihoods
Key drivers of changes in land tenure
Misconceptions about pastoralism

Kedong ranch dispute poses threat to key railway project

SGR’s Naivasha leg is challenged as locals claim disputed land

BY GEORGE MAYEDE AND ERIC MATARA

The proposed meeting of the Mandera Gauge Railway

They will also stop the planned interconnection with a railhead in the near 35,00-acre area.

The SGR’s Naivasha leg is challenged as locals claim disputed land.

Led by Nairob East Member of Parliament, Kivumbi, the National Land Commission

To investigate how the community lost the 7,200-acre ranch.

...have continued to be viewed as aggressors in our own land.

The government should change its narrative and resolve the issue on the land as a measure towards addressing historical injustices.

Privatisation of land in Samburu County a boon to local community

For decades, the nomadic Samburu used their land mostly as pastureland. However, with the advent of devolution, huge chunks of what were previously

Turkana wind project title deeds nullified in land row

Ruling Titles for land on which Sh70 billion project sits acquired irregularly

BY CHARLES WANDORO

The High Court in Isiolo has nullified the title deeds for the land on which the Sh70 billion Turkana Wind Power project sits, saying it was acquired irregularly.

Judges Peter Mochiisa, Victor Ganda and George Rotich said the Constitution was not followed when land was alienated on the lake.

The court ruled that if the process is not completed by the end of the 5th month, the title deeds will be returned to the landowner.

But the landowner has already transferred the land to the government.

The court further ruled that the president can only acquire land under regulations that require him to publish the land on gazette notice.

The court said the president can only acquire land under regulations that require him to publish the land on gazette notice.

The government should change its narrative and resolve the issue on the land as a measure towards addressing historical injustices.

10 killed as armed herders fight over grazing land in Isiolo

Conservancies to save Maasai Mara ecosystem

For decades, the nomadic Samburu used their land mostly as pastureland. However, with the advent of devolution, huge chunks of what were previously

The government should change its narrative and resolve the issue on the land as a measure towards addressing historical injustices.
Economic development: Mega projects
Urbanization & population growth

% urban

Population Growth (annual, %)

- East Asia & Pacific
- European Union
- Kenya
- Latin America & Caribbean
- Middle East & North Africa
- North America
- World
Consequences of changes in land tenure
Emergence of individual based land tenure regimes that does not support sustainable pastoralism

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<thead>
<tr>
<th></th>
<th>Institutional Crisis</th>
<th>Land Policy/Law</th>
<th>Urbanisation</th>
</tr>
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<tbody>
<tr>
<td>LA</td>
<td>✔️</td>
<td>✔️</td>
<td>✗</td>
</tr>
<tr>
<td>SSA</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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Adverse effects

• Individualisation made pastoralists worse off
  • Economically
  • Socially

• Community Institutions & mechanisms to manage land under collective access have been weakened
  • Recognition in legal framework
  • Formalisation vs security of land tenure
Individualization of land tenure in pastoral areas means less grazing land, tension over access to resources, essentially leave pastoralists worse off.
Exacerbated environmental degradation

Overgrazing not only issue, but environmental degradation also higher when mobility is hampered
Key lessons
Lessons on sustainability of pastoralists productive systems

• Collective land tenure supports strategies that improve productive systems such as
  • Mobility & mosaic grazing
  • Split herding
  • Genetic improvement
  • Herd size management
Collective land tenure enhances sustainable practices

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<th>Land Tenure Regime</th>
<th>Sustainable Productive Strategies</th>
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<tr>
<td></td>
<td>Mobility and mosaic grazing</td>
</tr>
<tr>
<td><strong>Collective</strong></td>
<td><strong>Supported</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Kenya: Practised</strong></td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td><strong>Inhibited</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Kenya: Not supported</strong></td>
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Policy Lessons

• Pastoralism recognised as the best possible use of arid environments
  • Specialised system in marginal ecological environments (harsh & unpredictable conditions)
  • Considering climate change, pastoralists have indigenous knowledge & institutions to cope with variability

• Improve sustainable institutional arrangements for pastoralist production systems
  • Strengthening governance systems for communal lands
  • Recognition of customary laws
  • Formal property rights including transitory & temporary rights
Conclusion

• **Reorient** public policy to support pastoralism
  • Political engagement by pastoral communities
  • Governance matters for enhancing access to resources
• **Strengthen** community management of communal land
  • Recognition & enforcement of community laws
• **Encourage** multiple use of sustainable practices
  • Rangeland's ecology to rationalize land use
• **Emphasize** herd size management
  • Breeds improvement to improve margins & productivity
  • Market orientation