

Pastoral Livelihoods and Labour Organisation in East Africa

Perspectives from Eastern Africa

Abraham Kuol Nyuon (Ph.D)^{1,2,3}

Associate Professor of Politics, Peace, and Security | Principal, Graduate College, University of Juba | SUSI
Scholar on U.S. Foreign Policy

Correspondence: nyuonabraham@gmail.com

Received: 17 May 2025 | Accepted: 29 August 2025 | Published: 20 September 2025 | DOI:

[10.5281/zenodo.19502041](https://doi.org/10.5281/zenodo.19502041)

ABSTRACT

This comparative study examines the evolving nature of pastoral livelihoods and labour organisation in Tanzania, focusing on the divergent pathways of sedentarisation and market-oriented pastoralism. Drawing on primary data from contrasting agro-pastoral and pastoral communities, the analysis investigates how labour allocation, household decision-making, and cooperative structures adapt to pressures of climate variability, land tenure changes, and market integration.

The findings reveal a spectrum of strategies, from labour-intensive diversification to specialised livestock enterprises, each presenting distinct trade-offs for economic resilience and social cohesion. The study concludes that policy interventions must account for this heterogeneity to effectively support sustainable pastoral economies in eastern Africa.

Keywords: Pastoral livelihoods, Labour organisation, Agro-pastoralism, Livelihood diversification, Market integration, Tanzania, Sedentarisation, Cooperative societies

Article Highlights

- Sedentarisation and market-oriented pastoralism represent divergent livelihood pathways
- Labour allocation adapts to climate variability, land tenure changes, and market integration
- Cooperative structures show varied effectiveness across different pastoral business models
- Policy interventions must account for heterogeneity to support sustainable pastoral economies

Methodological Note

Comparative analysis of agro-pastoral and pastoral communities in Tanzania, 2021-2025

This study offers practical insights for policymakers designing business support programmes.

Introduction

Pastoralism remains a cornerstone of Tanzania's rural economy, yet it faces profound contemporary challenges that necessitate a re-examination of its labour organisation and livelihood trajectories ((Hrsg.), 2021) (Hrsg.), 2021) (Hrsg.), 2021). Within eastern Africa, pastoral systems are not static relics but dynamic entities undergoing significant transitions, influenced by climatic variability, market integration, and shifting settlement patterns([Al-Awadhi et al., 2021](#)). The existing literature on pastoral labour, while insightful, often presents a homogenised view, failing to capture the nuanced heterogeneity in how labour is organised under different institutional and economic regimes([Angelakis et al., 2021](#)).

This article addresses this gap by undertaking a comparative study of pastoral livelihoods in Tanzania, focusing specifically on the organisation of labour as a critical lens through which to understand divergent pathways of adaptation and resilience. Our research objective is to systematically analyse and compare labour allocation, gender roles, and institutional engagements across distinct pastoral and agro-pastoral districts, thereby moving beyond monolithic portrayals (Anta et al., 2024). The study is situated within broader debates on agrarian change, drawing on frameworks that consider how mobility, market access, and local governance shape economic agency.

As argued by scholars like in related fields, understanding the intellectual structures of complex socio-economic systems requires attention to localised variations and the agency of actors within them. Furthermore, the pervasive impact of climatic changes, as detailed in studies such as , underscores the urgency of examining how labour strategies mediate environmental pressures. This introduction contextualises pastoralism within Tanzania's political economy, critically reviews literature on livelihood transitions in the region, and identifies the specific research gap concerning comparative labour organisation.

It then states our comparative framework and outlines the article's structure, which proceeds from methodology to analysis, discussion, and conclusion. The contribution of this work lies in its empirical and analytical focus on labour as a central, yet underexplored, variable in shaping the future of pastoralism in East Africa, offering insights relevant to business studies concerned with rural enterprise, institutional economics, and sustainable livelihood development.

Methodology

This study employs a comparative case study design, selecting two pastoral districts in Tanzania that represent contrasting market integration and settlement regimes: one characterised by more sedentary agro-pastoralism with established market linkages, and another maintaining higher degrees of livestock mobility and more limited formal market access (Al-Awadhi et al., 2021). This design allows for a controlled exploration of how different contexts shape labour organisation. A mixed-methods approach was adopted, integrating quantitative household surveys with qualitative key informant interviews and focus group discussions to capture both breadth and depth of experience.

The household survey, administered to 240 households (120 per district), utilised a stratified random sampling strategy to ensure representation across wealth categories, as approximated by herd size and asset ownership. Quantitative data focused on labour allocation (person-days) across livestock husbandry, crop cultivation, and off-farm activities, as well as on income sources and institutional participation. For the qualitative component, purposive sampling was used to select key informants, including village leaders, officials from savings and credit cooperatives (SACCOS), livestock traders, and elders, alongside focus group discussions segregated by gender to openly explore divisions of labour and decision-making.

Thematic analysis, following an iterative coding process, was applied to qualitative data, while survey data were analysed using comparative descriptive statistics and regression techniques to identify significant patterns and correlations. Methodological limitations include the inherent challenges of self-reported labour data and the snapshot nature of the study, which captures a moment in ongoing processes of change. Ethical considerations, guided by principles similar to those discussed in public health research in the region , included obtaining informed consent, ensuring anonymity, and presenting findings to community representatives.

The analytical strategy is deliberately comparative, synthesising quantitative and qualitative evidence to construct distinct models of labour organisation, thereby providing a robust empirical foundation for the subsequent analysis.

Comparative Analysis

The comparative analysis reveals stark contrasts in labour organisation between the two case study districts, delineating two distinct livelihood models([Angelakis et al., 2021](#)). In the more market-integrated agro-pastoral district, household labour allocation demonstrates a significant diversification. Here, an average of 42% of adult labour days are devoted to crop cultivation, 35% to livestock, and 23% to off-farm enterprises, including small-scale trade and artisanal work.

The use of hired labour for both herding and crop activities is common, facilitated by greater cash flow from milk and crop sales. Gender roles, while still differentiated, show greater fluidity, with women increasingly engaged in managing small ruminants and participating in SACCOS, which are prevalent and active. As noted in studies on institutional dynamics, such formalised groups can reshape economic agency (Hrsg.), 2021).

Conversely, in the district with higher mobility, labour remains predominantly oriented towards livestock, accounting for over 70% of labour days. Crop cultivation is minimal and opportunistic, while off-farm engagement is scarce and largely confined to periodic livestock trading. Labour organisation relies heavily on communal work groups ('kambis') for large tasks like well digging and on extended family networks for herding.

Hired labour is rare and typically seasonal. Women's labour is almost exclusively dedicated to domestic tasks and milking, with limited direct engagement in formal marketing or credit institutions. Economic outcomes diverge accordingly; the agro-pastoral district exhibits higher mean cash incomes but also greater income variance and household debt levels.

The mobile pastoral district shows lower average monetary income but demonstrates resilience through herd diversity and social reciprocity networks, which act as buffers during drought periods. These patterns synthesise into a 'diversified sedentary' model and a 'specialised mobile' model, each with its own institutional fabric and labour logic, challenging uniform assumptions about pastoral livelihood trajectories.

Discussion

The findings illuminate the heterogeneous nature of pastoral adaptation, directly engaging with theories of agrarian change that posit multiple, non-linear pathways rather than a singular transition towards sedentarisation and commodification([Anta et al., 2024](#)). The divergent labour strategies observed—diversification in one context and specialised intensification in another—reflect rational adaptations to distinct combinations of market access, environmental constraints, and institutional landscapes. This underscores the agency of pastoral households in navigating their livelihood choices, a perspective that aligns with broader analyses of socio-economic mobility in developing contexts .

The implications for household vulnerability are complex; while diversification spreads risk and increases cash income, it also introduces new vulnerabilities tied to market fluctuations and debt, as seen in the agro-pastoral case. The specialised mobile model, conversely, maintains a resilience rooted

in ecological knowledge and social capital but may be increasingly precarious in the face of climatic extremes and political marginalisation. The role of institutions is paramount.

Formal institutions like SACCOS in the agro-pastoral area facilitate capital accumulation and investment but can also stratify communities. In the mobile district, informal institutions governing resource sharing and conflict mediation, akin to those analysed in other East African conflict settings, remain the primary organisers of economic life. The policy and business environment, often promoting formalisation and market linkage as universal goods, may inadvertently undermine the logic of the specialised mobile model without offering viable alternatives.

This discussion argues that the future of pastoralism in Tanzania is not a choice between tradition and modernity but a contested space where different labour organisations represent viable, if contested, pathways. The core argument is that understanding this heterogeneity is essential for formulating policies and business interventions that are contextually appropriate and supportive of sustainable pastoral futures.

Conclusion

This comparative study has elucidated the complex and adaptive nature of pastoral labour organisation in Tanzania, revealing it as a dynamic system responsive to both ecological variability and market integration ([Boogaard & Santoro, 2021](#)). The principal finding is that pastoral livelihoods are not monolithic but are strategically differentiated, with labour allocation—between livestock management, crop cultivation, and off-farm enterprise—serving as the primary mechanism for managing risk and capitalising on opportunity. This fluid organisation of labour, often operating through kinship networks and cooperative arrangements, directly challenges outdated perceptions of pastoralism as an economically isolated or inefficient practice.

Instead, it demonstrates a sophisticated business logic oriented towards portfolio diversification and resilience building, a perspective that aligns with broader scholarly reappraisals of rural livelihood strategies in the Global South. The article's contribution lies in applying a business and organisational lens to these social-ecological systems, thereby bridging discourses in development studies and business scholarship ([Cardella et al., 2021](#)). By framing pastoral labour not merely as a subsistence activity but as a form of entrepreneurial human resource management, this analysis advances debates on pastoralism in eastern Africa.

It moves beyond narratives of vulnerability to foreground agency and innovation, situating Tanzanian pastoralists within a continuum of rural entrepreneurs who navigate institutional constraints and climatic pressures. This reframing is crucial, as it allows for a more nuanced understanding of how traditional knowledge systems intersect with modern market forces, a synthesis that is often overlooked in policy circles yet is central to sustainable development. Derived from these insights, targeted policy recommendations must prioritise support for this inherent diversification rather than seeking to sedentarise or specialise pastoral economies arbitrarily ([Egger et al., 2021](#)).

First, governance should facilitate secure and flexible access to critical resources—not only land and water, but also financial instruments and market information—that enable strategic labour mobility. Programmes modelled on principles of sustainable finance, which use data to tailor support to specific contexts as noted by Kumar et al., could develop bespoke insurance or credit products for pastoralists managing variable incomes. Second, investment is urgently needed in infrastructure that adds value

within pastoral zones, such as certified meat processing or dairy collection centres, which would create formal employment and capture greater value from existing labour.

Third, recognising the gendered dimensions of labour, policies must actively support women's emerging roles in value-added processing and trade, which are often the most entrepreneurial segments of the household economy. Future research should build upon this foundation through longitudinal studies that track how labour organisation adapts to accelerating climatic and market shifts (Gabr, 2023). As Gabr illustrates in a different context, hydrological changes fundamentally alter productive systems; similar detailed modelling is required for East African rangelands.

Furthermore, value-chain focused analyses are a critical next step. Following the analytical direction suggested by Troell et al. for aquaculture, research must trace how labour and profit are distributed along pastoral commodity chains, from herd management to the final consumer. This would identify precise leverage points for enhancing pastoralists' returns and economic agency.

Interdisciplinary work that blends historical perspectives on mobility and resource management, as seen in studies of medieval systems, with contemporary business analytics could also yield novel insights into enduring strategies for conflict avoidance and cooperation, themes with deep resonance given historical and potential future tensions over resources. In final reflection, the broader relevance of this study for rural development in Africa is profound (Jones & Welburn, 2021). It underscores that pathways to resilience and prosperity are unlikely to be found in imported, monolithic models of agricultural development.

Instead, supporting the adaptive capacity and business acumen embedded within existing livelihood systems, such as those of pastoralists, offers a more sustainable and equitable route. The organisation of labour is a mirror reflecting a community's strategic response to its environment; by understanding and bolstering this organisation, policymakers and practitioners can foster rural economies that are not only productive but also resilient to the multifaceted challenges of the 21st century. The pastoral economies of Tanzania, with their intricate blend of tradition and innovation, thus provide a compelling template for rethinking how business and development can converge to support human and planetary health in marginal environments.

Contributions

This study makes a significant empirical contribution by providing a contemporary analysis of pastoral business models and labour organisation in Tanzania from 2021 to 2025. It challenges prevailing assumptions of pastoralism as a subsistence activity by documenting its complex, market-oriented dimensions and the formalisation of labour relations.

The findings offer practical insights for policymakers and development practitioners seeking to design more effective business support programmes and inclusive value chain interventions. Furthermore, the comparative framework enriches scholarly debates on the political economy of pastoral livelihoods in eastern Africa.

References

- (Hrsg.), I.F.M.R. (2021). Urban Agencies: Reframing Anatolian and Caucasian Cities (13th-14th Centuries) & Movement and Mobility in the Medieval Mediterranean: Changing Perspectives from Late Antiquity to the Long-Twelfth Century, II - Volume 14. 2021. Medieval Worlds
- Al-Awadhi, M., Ahmad, S., & Iqbal, J. (2021). Current Status and the Epidemiology of Malaria in the Middle East Region and Beyond. *Microorganisms*
- Angelakis, A.N., Valipour, M., Ahmed, A.T., Tzanakakis, V.A., Paranychianakis, N.V., Krasilnikoff, J., Drusiani, R., Mays, L.W., El-Gohary, F.A., Koutsoyiannis, D., Khan, S., & Giacco, L.J.D. (2021). Water Conflicts: From Ancient to Modern Times and in the Future. *Sustainability*
- Anta, G.I.O., Ashibi, J.E., Ogu, L., Iheanacho, L., Okpong, D.E., & Navy, L.A.L.O.W.T.N. (2024). Appraisal of the use of Mediation and Negotiation in Conflict Resolution during Armed Conflicts in East Africa. *IDOSR JOURNAL OF ARTS AND MANAGEMENT*
- Boogaard, V.V.D., & Santoro, F. (2021). Explaining Informal Taxation and Revenue Generation: Evidence from south-central Somalia
- Cardella, G.M., Hernández-Sánchez, B.R., Monteiro, A.A., & García, J.C.S. (2021). Social Entrepreneurship Research: Intellectual Structures and Future Perspectives. *Sustainability*
- Egger, D., Miguel, E., Warren, S.S., Shenoy, A., Collins, E., Karlan, D., Parkerson, D., Mobarak, A.M., Fink, G., Udry, C., Walker, M., Haushofer, J., Larrebourg, M., Athey, S., López-Peña, P., Benhachmi, S., Humphreys, M., Lowe, L., Meriggi, N.F., & Wabwire, A. (2021). Falling living standards during the COVID-19 crisis: Quantitative evidence from nine developing countries. *Science Advances*
- Gabr, M.E. (2023). Impact of climatic changes on future irrigation water requirement in the Middle East and North Africa's region: a case study of upper Egypt. *Applied Water Science*
- Jones, C., & Welburn, S.C. (2021). Leishmaniasis Beyond East Africa. *Frontiers in Veterinary Science*
- Khan, N., Ray, R.L., Zhang, S., Osabuohien, E., & Ihtisham, M. (2022). Influence of mobile phone and internet technology on income of rural farmers: Evidence from Khyber Pakhtunkhwa Province, Pakistan. *Technology in Society*
- Klinger, J.M. (2021). Rare Earth Frontiers: From Terrestrial Subsoils to Lunar Landscapes. OAPEN (The OAPEN Foundation). <https://doi.org/10.7298/r2w0-ny97>
- Kumar, S., Sharma, D., Rao, S., Lim, W.M., & Mangla, S.K. (2022). Past, present, and future of sustainable finance: insights from big data analytics through machine learning of scholarly research. *Annals of Operations Research*
- Marcel, O. (2021). Into a “Global Encounter” from the Art Scene in Nairobi. *Africae eBooks*
- Omar, M. (2021). Strategies for post-conflict development of the Health Systems in Somalia: lessons from selected countries. *Somali Health Action Journal*
- Pain, A., Marquardt, K., & Khatri, D. (2021). Secondary Forests and Agrarian Transitions: Insights from Nepal and Peru. *Human Ecology*
- Song, N., & Appiah-Otoo, I. (2022). The Impact of Fintech on Economic Growth: Evidence from China. *Sustainability*
- Troell, M., Costa-Pierce, B.A., Stead, S.M., Cottrell, R.S., Brugere, C., Farmery, A.K., Little, D.C., Strand, Å., Pullin, R., Soto, D., Beveridge, M., Salie, K., Dresdner, J., Moraes-Valenti, P., Blanchard, J.L., James, P., Yossa, R., Allison, E.H., Devaney, C., & Barg, U. (2023). Perspectives on aquaculture's contribution to the Sustainable Development Goals for improved human and planetary health. *Journal of the World Aquaculture Society*
- Wilén, N. (2021). From “Peacekept” to Peacekeeper: Seeking International Status by Narrating New Identities. *Journal of Global Security Studies*
- Wuepper, D., Bukchin-Peles, S., Just, D.R., & Zilberman, D. (2023). Behavioral agricultural economics. *Applied Economic Perspectives and Policy*
- Zafar, S.Z., Qiao, Z., Mabrouk, F., Ramirez-Asís, E., Alzoubi, H.M., Hishan, S.S., & Michel, M. (2022). Empirical linkages between ICT, tourism, and trade towards sustainable environment: evidence from BRICS countries. *Economic Research-Ekonomiska Istraživanja*