

**A SOCIO - ECONOMIC ANALYSIS OF TRENDS,
OPPORTUNITIES AND CHALLENGES TO
PASTORALISTS' LIVELIHOOD RESILIENCE IN
WEST POKOT COUNTY, KENYA**

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Overview of Pastoralism

- Livelihood option where households derive over 50% of their food and income needs from livestock.
- Common to ASAL's, characterized by transhumance movements (DFID, 2010)
- In Kenya, it supports over 70% of the ASAL population
- In West Pokot County, pastoralism supports over 80% of the population
- Reported transition from nomadic to agro pastoralism in recent years (Nyberg et al 2013)

Challenges and Opportunities to Pastoralists

- **Challenges**
 - Drought,
 - Encroachment into transhumant paths due to population pressure.
 - Marginalisation
- **Opportunities**
 - Positive income elasticity of demand for livestock products (Aklilu, 2008 and Bett et al.2012)
 - Integrated markets both local and international

Overview of Resilience

- Resilience - capacity of a system to absorb disturbance and reorganize while undergoing changes (Walker et al. 2004)
- It is not only the capacity to absorb disturbances, but also to reorganize, taking advantage of possible opportunities while undergoing changes (Folke et al 2006)
- A sustainable livelihood can cope and recover from shocks thus more resilient (Ellis 2000)
- A vulnerable household is that which has a few buffers against contingencies

Why Coping Strategies?

- Pastoralists' vulnerability to droughts - (pasture shortage, loss of livestock, famine, conflict with neighboring communities, poverty - CIDP, 2013).
- Opportunity for participation in coping livelihood strategies following devolved governance – but little documentation & empirical evaluation of the pathways.

Objectives of this study

GENERAL OBJECTIVE

Establish the effect of pastoralists' participation in coping strategies promoted by the devolved government and other development partners in building pastoralist's resilience to drought related shocks in West Pokot County.

SPECIFIC OBJECTIVES

1. To characterize pastoralists livelihood options in West Pokot County.
2. To determine livelihood coping strategies chosen by the pastoralists households
3. To analyze the effects of participation in devolved governance strategies on livelihood resilience against drought shocks

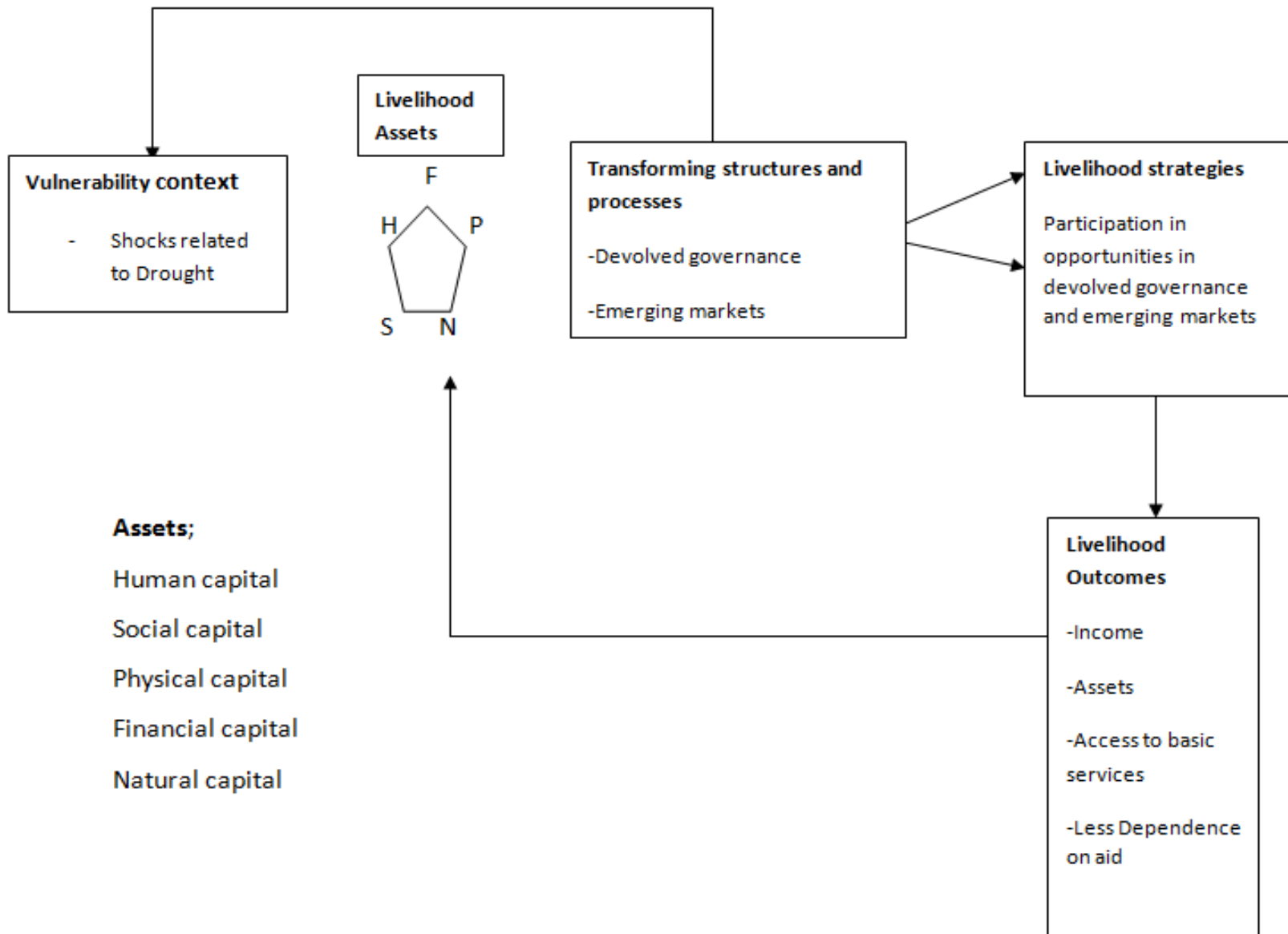
Literature Review

- Huang et al (2014) studied how rice farmers respond to weather events by adjusting their farm practices in China. Used a switching regression. Found out that good practices increase yield and reduce losses due to climate variability.
- Mulwa et al (2015) used a MVP model to assess the determinants of farmer adaptation behavior to climatic risks in Malawi ex ante.
- Ngigi et al (2015) studied the role of livestock portfolios and group-based approaches for building resilience in Kenya using a MVP ex post.
- Alinovi (2010) studied Kenyan livelihoods strategies and household resilience to food insecurity by stratifying different livelihood strategies and computing indexes for comparison

Theoretical Framework- Induced Innovation and RUM

- Theory of Induced Innovation Change – A change in the pastoralists domain motivates decision to adopt coping strategies (Chetri et al, 2004).
- The coping strategy should maximize utility given constraints given by $U_{ij} = V_{ij} + \epsilon_{ij}$
- Where , V_{ij} the deterministic part t captures the *observable* components and ϵ_{ij} a random error term, that captures *unobservable* components of the utility function.

Conceptual Framework



Methodology

- A Paired Combinatorial Logit will be used to estimate the pastoralist's probability of choosing a given coping strategy given the socio economic characteristics.
- PCL allows an alternative i to belong to more than one nest and relaxes IIA assumption. With J alternatives, each alternative is a member of $J-1$ nests and correlation of its unobserved utility with each other alternative is estimated.
- Unlike the Multivariate Probit used in previous studies (Mulwa et al, 2015 and Ngigi et al 2015), PCL relaxes the normality distribution assumption of the Probit and will yield more efficient estimates.

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Methodology....cont

- Coping strategies - breed of cattle kept, use of enclosures on farms, use of fodder crops and participation in markets will be combined into nests
- Each nest will be studied as the dependent variable against household demographic, socio economic characteristics and specific attributes of a given coping strategy.
- Following the Random Utility Model $U_{ij} = V_{ij} + \xi_{ij}$
Given the internal and external factors, a pastoralist will choose a nest that will maximize their utility.

Methodology....cont

- Principal Component Analysis and Propensity Scores will be used to generate resilience indices to be matched for participants and non participants.
- Resilience being a latent variable is given by the following function (FAO – RIMA, 2016) :
- $R_i = f(I_i, ABS_i, AA_i, NAA_i, TL_i, SSN_i, AC_i, PC_i, EC_i, HHD_i)$
- Where income (I), access to basic services (ABS), agricultural assets (AA), non-agricultural assets (NAA), production technological level (TL), social safety nets (SSN), adaptive capacity (AC), physical connectivity (PC), economic connectivity (EC) and household demographic characteristics (HHD)

Study Area

- The study will be carried out in West Pokot County, in Kongelai and Chepareria wards.
- Data will be collected from Focused Group Discussions, Key Informant Interviews and Household surveys.
- Sampling will be purposive from the beneficiaries of devolved government projects and random with the non beneficiaries.
- Data from previous studies in TRIPLE L will be analyzed to compare changes in resilience against drought over 3 years.