

CHANGES ON THE TRADITIONAL LIVELIHOOD
STRATEGIES AND THE OUTCOMES TO PASTORAL
MAASAI COMMUNITY

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ABSTRACT

This study attempted to investigate the changes of traditional livelihood strategies and their outcomes of the pastoral Maasai. The study was conducted in Monduli District. A cross-sectional design was adopted where by structured questionnaire was administered to collect primary data. A representative sample of 140 was drawn and interviewed. The Statistical Package for Social Sciences software was employed for data analysis. From the findings it was observed that pastoralist Maasai had a traditional knowledge and experience which they used to withstand a number of shocks and stresses. Through traditional strategies they managed the ecology which supported their livelihoods on sustainable basis. The traditional livelihood strategies have changed over time due to the diminishing water resources, pastoral land, prevalence of animal diseases and population pressure. These factors have pushed the pastoralist Maasai towards new alternative strategies. It is recommended that development activists should intervene for other tribal people particularly the Barbaig and Hadzabe. Their livelihood patterns need to be changed because of the changing environment.

Keywords: Pastoral Massai, livelihood strategies, changing environment, livelihood assets

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INTRODUCTION

Background Information

Pastoralists can be defined as those communities who derive their living primarily from the management of livestock in rangelands and engage in transhumance practices as a consistent means of existence. Rangelands are those areas where limitations such as climate restrict the use of land to extensive grazing of natural pastures rather than cultivation of crops (Alkire, 2004).

Maasai livelihoods encompass not only income generating activities pursued by a household and its individuals but the social institutions, intra household relations and mechanisms of access to resources through the life cycle (King, 1983). Maasai rural livelihood strategies are shaped by several factors including climate which is very important for both production and consumption. Other factors affecting rural household decisions are access and control of human, natural, productive and social capital (Ellis, 2000). Adapting to shock and stress is one dimension of Maasai livelihoods. Stress is understood as an event that imposes difficulties on strategies such as drought, while a shock is more difficult event, and an example may be death in the family (Sahil, 1997).

Maasai pastoralists have been characterized by highly developed herd and rangeland management techniques, social and cultural institutions at the community level that provide security against shocks such as drought, crop failure and epidemic diseases. While some of their areas are conducive to other forms of land use such as agriculture, hunting and gathering, the Maasai have essentially remained pastoralist by choice. Livestock is very central within the Maasai economy as evidenced by the functions it plays. Besides providing food, they mediate as storage of value, act as medium of exchange, confer status and they are used to establish and cement relationships. Livestock, especially cattle, have material as well as a symbolic value. "Pastoralism is their heritage" (Homewood, 2004), that is, their language, rituals and ceremonies centre on livestock.

Maasai livelihood strategies focus on different value resources within their pastoral areas. The livelihood strategies are profoundly embedded in their culture and mode of living. The relation between organization of production and livelihood strategies implies that any modifications in the system will have impact on their culture. The Maasai pastoralists have been able to maintain their self confidence, their self sufficiency and the integrity of their community only by sticking

to pastoral economy, though attempts have been made by the government to develop and modernize the Maasai (Cost, 2003).

At the same time policies (forest reserves, wildlife conservation, government land policies), recent changes and processes are affecting the Maasai livelihood patterns, trends of migration and food security. Population increase, declining resource base and impact of economic policies have negatively affected their livelihoods. Maasai pastoralists are now increasingly relying on constructing a diverse portfolio of activities and income sources in order to survive and improve their standard of living through coping or adapting new strategies (Cost, 2003). Development activists express the need for better integration of the Maasai into the modern world.

Hall (1975) contended that the level of illiteracy was very high among the Maasai and this affected the ability to have access to information which is critical to empowerment. They remain unaware of local issues concerning politics, government, markets and this makes them vulnerable, isolated and weaker politically and socially. This in turn tends to have negative impact on their livelihood.

The pastoral Maasai are confronted with deteriorating livelihoods due to a declining resource base and the negative impact of economic policies. Protecting and promoting their livelihood systems and strategies needs different initiatives suitable for mainstreaming their society. It is a critical factor in civil society support for development priorities. Pastoral livelihoods depend critically on relationships with other social groups' in terms of resource, services and options for livelihood diversification (Kijanga, 1977).

This paper was set for filling the knowledge gap on the changes of traditional livelihood strategies among Maasai pastoral communities by identifying the changes on the livelihood strategies occurring over time and the outcomes.

Livelihood Assets of the Pastoralist Maasai

Assets are resources of different types and people can make use of assets in two ways. They can own them or directly control them i.e., have decision making power about how they are used and they can have access to resources that do not belong to them. These assets are sources of livelihoods, and they are affected by historical trends and seasonality (Satge, 2002). Chambers and Conway (1992) grouped assets into social assets (key institutions) or social networks and material assets (land, natural resources, infrastructure, livestock and equipment). The DFID and Oxfam frameworks break assets into five types of "capital":

- (a) **Human capital:** This includes skills, knowledge, the ability to labour, the education and health status of household members and the community, and the ability to find and use information to cope, adopt, organize and innovate.
- (b) **Social capital:** These are social resources which people draw upon in pursuit of their livelihood objectives. Social assets include social networks or families and the support provided by religious, cultural and informal organizations.
- (c) **Natural capital:** Refers to land and natural resource base, including marine resources (woodland and forest products), building and wearing materials (fuel and wood for carving), wildlife, honey, medicinal herbs and grazing and climate, soils, land, minerals, wetlands, ground water sources and biodiversity.
- (d) **Physical capital:** This includes farm equipment, shelter, clinics, schools, roads dams, water and sanitation services, electric supply, communication and information sources. Physical assets are essential for people to be able carry out livelihood activities.
- (e) **Financial capital:** That is, assets and entitlements that have a cash value. They include income, remittances from family members working away from home, sources of credit, pension, savings, cattle, crops and foods.

Among the most important assets to the pastoralist Maasai includes skills, knowledge and ability to labour (human capital), organizations, the relations of trust and reciprocity (social capital), land and natural resources (natural capital), shelter, dams, water (physical capital) and cattle, crops and food (financial capital). Some economic resources like livestock have many assets value to the pastoralist Maasai. For example, livestock has important cultural significance, it can be exchanged or sold for cash, and it provides milk and meat. By products like manure contribute to agriculture and household cultivation and can be used for fuel (Satge, 2002).

Pastoralists' Transforming Structures and Processes

The process of generating a livelihood takes place at a local level, but it can be influenced (positively or negatively) by a range of factors in the external environment. Household livelihood security can be enhanced or undermined by a wide range of external influences at all levels of the external environment. These factors can be grouped into the physical environment, the social environment, the institutional environment and the economic environment (Ellis, 2000). These

external environments have an effect on livelihood security through structures and processes. There are many structures in the external environment that have direct influence on local livelihoods of the pastoralist Maasai.

METHODOLOGY

Study Area and Justification for Its Selection

Monduli District has been chosen because of the presence of a great number of actors involved in socio-economic activities that facilitate development of the pastoralists (Maasai) through different approaches. Among these, include church based-groups which are playing a key role such as provision of assistance in education.

Research Design

A cross sectional research design was used. This research design enabled the researcher to collect data from different households at a single point of time. The design was useful for this study given limited resources (time, finance and resources available). In addition, the method gave room to make comparisons of the responses among different groups of respondents to see how dependent variables relate to independent variables (Bailey, 1994).

Data for the Study

This study has benefited for both primary (own survey data) and secondary data. The details on the methods and types of data are presented in the subsequent subsections.

Semi-structured interviews

At the household level, a detailed questionnaire was administered to a total number of 70 households. The questionnaire sought to elicit a set of information that would help in analyzing the different programmes and projects aiming at changing the livelihood systems (i.e. increase income, increase well-being, reduce vulnerability, improve food security, improve health, more schools and more sustainable use of natural resources). The questionnaire constructed encompassed issues of livelihood household data such as assets (physical, financial, social, human and natural assets), housing conditions, source of water, number of meals per day, type of toilet, access to social services (health, education) and household sources of energy.

Selection of sample villages

For the household survey, ten sample villages were purposively selected covering the two major zones: the highlands and the lowlands. The sample villages were purposely selected to cover a

wide range of activities and interventions done by different stakeholders on the livelihoods and production systems. The villages selected include Emirete, Mfereji, Losirwa, Enguiki and Mlimani A (highland zone). Others were Silalei, Ngarashi, Mingombani, Kigongoni and Mbuganni (lowland).

Selection of sample households and sample size

A range of sampling methods including livelihood analysis was applied as a footing step to the study. These helped to identify wealth groups and livelihood typologies that acted as a sampling frame. The exercise was conducted in all ten sample villages and 10% of the total households were chosen in each village using village registers in order to provide a sampling frame. The final result was the identification of three wealth groups (“rich”, “medium” ad “poor”) using wealth ranking. The purpose of wealth ranking was to ensure that the sample drawn represent the full range of livelihood circumstances in the study area.

The rich households were relatively a small group, covering about 12% of the total households. The medium constituted about 36% of the households, with few assets to draw and the poor households made up more than half of the total population (52%).

Livestock possession was listed as the most important determinant of wealth. The Maasai are regarded a “poor” when they own below 100 cattle or “medium” when they own between 100 and 500 cattle. Those owning more than 500 cattle are regarded as rich. Possession of grazing land and crop production land was also considered as the most important determining factor of the well being. The sample households for this study were therefore, taken randomly from the list of households under each group resulting in a sample size of 140 villagers.

Methods of data analysis

Both qualitative and quantitative techniques were used to analyze the data. For more precise analysis, computer-based Statistical Package for Social Sciences (SPSS) was used. Descriptive statistics were employed to present the results.

Conceptual Framework

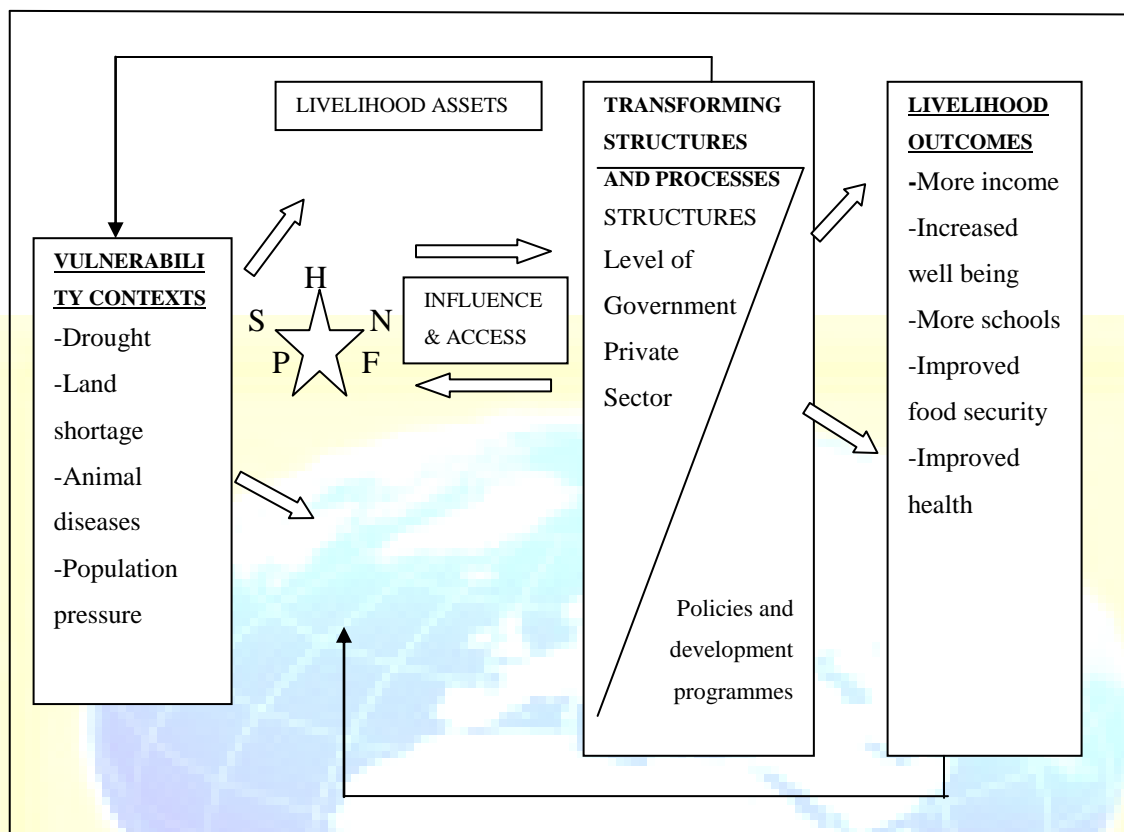
The study used the Sustainable Livelihood framework. Chambers and Conway (1992), define livelihood as comprising the capabilities and activities required for a means of living. This framework help us to identify and value what people are doing to cope with risk and uncertainty, make the connection factors that constrain or enhance their livelihoods on the one hand and policies and institutions in the wider environment and identify measures that can strengthen

assets enhance capabilities and reduce vulnerability. The starting point is the vulnerability context within which people operate. Attention is next given to assets people can draw upon for their livelihoods. Assets interact with policies, institutions and processes to shape the choice of livelihood strategies. These in turn, shape the livelihood outcomes, which are often the type of the impact people are interested in. However, these outcomes are not necessarily the end point, as they feed back into the future asset base.

The analysis of vulnerability context considered the shocks and trends (animal diseases, population pressure, drought and shortage of land) in pastoralist production system, emergence of new livelihood strategies (example farming, trading activities, formal employment) and the benefit in changing the pastoralist livelihood systems.

At the village level, the vulnerability indicators included lack of infrastructure (example year passable roads) lack of schools, lack of health facilities and underprivileged access to water sources. Household income levels; access to livelihood assets; household structure (construction materials), toilet facilities, energy used by the households and food security were used as indicators for the household vulnerability.

The analysis of livelihood assets involved measurement of basic social assets that people in the study area have in their possession. These assets were considered as “capital” base from which livelihood is constructed. The study considered a wide range of asset portfolio (including water, land, livestock holding, economic and financial assets) which is essential for the pursuit of any livelihood strategy. Access to financial capital was assessed from the ability of the household to save and borrow from formal organizations (example banks) and informal structures (example relatives) and ownership of liquid assets such as livestock.



Source: Modified from Carney, D. et al (1999: 9).

Figure 1: Conceptual framework

Access to social capital was measured using indicators such as membership to organizations, social relations and associations and reciprocity. The access to human capital was measured from the number of illiterate people, education level and number of people with formal employment. Among others, livelihood strategies of the pastoralists – natural resources, diversification and intensification were considered to be key livelihood strategies in the study area.

The livelihood outcomes were measured using different indicators, including secured access to water, increased schools, improved health facilities, improved food security, increased income, good housing and even maintenance of cultural assets, and thus have a feedback effect on the vulnerability status and asset base.

Key:

H = Human Capital (skills, knowledge, ability to labour and good health to pursue

different livelihood strategies)

F = Financial Capital (financial resources which are available)

P = Physical Capital (infrastructure and production equipment to enable people to pursue livelihoods)

S = Social capital (social resources upon which draw in pursuit of livelihoods)

N = Natural capital (natural resource stocks from which resources are available)

RESULTS AND DISCUSSION

Characteristics of Respondents

Age and sex composition

Age and sex are important variables in examining the characteristics of population because the life of the pastoralist Maasai is well ordered through a series of life stages which are determined by age and sex. The age set is marked by specific duties and privileges (Hollis, 1976). Age and sex provide chances to compete in labour force and determine entry into schools (Shylocks and Siegel, 1976:13). Age also serves as a base in population growth (Kpedekpo, 1998).

The Maasai males are rigidly separated into five groups: child (Ileyiok), junior (Isipalio), warrior (Irbarnot), junior elder (Irmuran) and senior elder (Irmorwak). Maasai females are categorized in four age groups which are ndoiye, ndito, sangiki and yeyo or kokoo. Maasai also follow a strict division of labour that is organized on age group and gender line (Kpedekpo, 1982).

Table 1: Distribution of male respondents by age (n=70)

Age (years)	Frequency	Percentage
18 – 20	10	14.7
20 – 39	15	35.7
39 – 49	17	24.7
49 – 59	11	15.7
59 - 69	7	10.0
Total	70	100.0

Table 1 show that most of respondents are middle age between 20-39(35.7%) and 39-49 (24.7%). From the findings obtained, this age group is comprised of those pastoralists who are energetic and are active in productive activities including looking after cattle. Like men, women

are also categorized in age groups, but not as strict as those of males. About four groups can be identified and these are ndoiye, ndito, sangiki, yeyo/koko.

Table 2: Distribution of female respondents by age (n=70)

Age (years)	Frequency	Percentage
15 - 20	18	25.7
20 - 39	28	40.0
40 - 60	16	22.9
70 - 100	8	11.4
Total	70	100.0

Table 2 shows female respondents by age. Again most female respondents (40%) had their age between 20-30 years, a group which is also active in production activities. Tables 2 and 3 show that equal representations of both genders were taken into consideration during sampling procedure. Gender is central for livelihood analysis in the household because gender relations show how household members play different roles within the household.

Marital Status

Another important aspect in analyzing the characteristics of respondents is marital status. In Maasai community again, apart from age, labour force is dictated by marital status. In this study marital status is classified into four categories: married, single, divorced and widowed. Married refers to legal union between two or more partners, whether religious, civil or traditional. Single refers to all those who are permanently separated and widow refers to a woman or man whose permanent sexual partner has died.

Table 3: Distribution of respondents by marital status (n=140)

Marital status	No. of respondents	Percentage
Married	117	83.6
Single	14	10.0
Widowed	8	5.7
Divorce	1	0.7
Total	140	100.0

Table 3 shows that majority (83.6%) of the respondents were married. Marriage in Maasai community has a significant role. While the Maasai men are responsible for looking after cattle, water and grazing lands, women form a very important labour force for household activities. The study observed that women have the responsibility of collecting water for domestic use and for calves. Also, it is the duty of a Maasai woman to construct clusters of huts or *bomas*. Until recently, divorce was not part of the Maasai culture.

Educational level

Education whether formal or informal is the most important means to obtain equal access to knowledge, skill, jobs and participation in wider society (Murphy, 1976). The findings on Maasai's level of education reveal that their level of education is low to the extent that most of them (64 %) do not know how to read and write. Illiteracy is higher among females. Due to the low level of education among the pastoralist Maasai, a very insignificant number of them are employed in public service. As a result non pastoral outsiders make most of the decisions at district level.

From Table 4 one can conclude that the low level of education among the pastoralists Maasai is due to the Maasai tradition which does not allow children to attend to school because of pastoralist economy. Girls were supposed to be married while boys were looking after cattle. Parents have to shift from one place to another looking for water and pastoral lands. The findings concur with that of Figholi (1992) who contended that education sector among pastoral communities in Africa has been neglected completely.

Table 4: Distribution of respondents by sex and level of education (n=140)

Level of education	No. of respondents	Male	Female	Male percentage	Female percentage
No education at all	94	20	74	13.3	49.3
Primary education	23	17	6	11.3	4.3
Secondary education	12	8	4	5.3	2.6
Tertiary education	9	6	3	4.0	2.0
Adult education	7	5	2	3.3	1.3
University level	5	3	2	2.0	1.3
Total	150	59	91	89.5	60.5

Livelihood Analysis

Livelihood assets

The results of quantitative analysis of the available key livelihood assets as revealed from the household surveys are summarized in Table 5.

Table 5: Household major assets (capitals) (n=140)

Asset ownership	Frequency	Percentage
Livestock	101	72.1
Agricultural land	21	15.0
Both pastoral and agricultural land	7	5.0
Other assets	11	7.9
Total	140	100.0

As can be seen from Table 5, there is a variation in terms of number of dominant asset owned in the households. In other words, access to livestock (72.1%) is the major determinant of household livelihood in the villages studied. Often the access to livestock and grazing land are inseparable: Livestock keeping requires grazing land. This suggests high value of land in terms of its contribution to household wealth.

About 72.1% of the households in the sample villages engage in livestock keeping (cattle, goats, sheep, and donkeys). Livestock numbers are quite high, hence livestock keeping is an important source of livelihoods. Livelihood platform of the poor households is less favourable in comparison to the medium households. The study revealed that the poor had limited access to natural resources such as land, human capital and labour, physical production capital such as livestock, and social capital such as membership of local societies and associations.

The limitations in the livelihood platforms mean that the poor are thus most likely to be hit by production problems such as labour shortages, animal diseases and droughts. In addition, when such problems occur, the poor households are also the ones that are most likely to be hit hardest, as they do not have the resource base to cope with shocks or to overcome short periods of crisis. Poor households often experience a critical period at the peak of rainy season, when they have fully exhausted their household reserves, food shortages, disease prevalence and cash demands are high.

Access to grazing land is an important constraint in livestock keeping. Livestock keeping is fully dependent on access to grazing land. As a result access to grazing land is one of the major determinants of household wealth in the studied villages. The income of most households' throughout the year depends on cattle. The higher strata households are those with access to livestock.

Lending and borrowing mechanisms were also ranked as another important form of social capital. In the villages studied for example, social interactions are primarily dependent in collective action; income generating groups some of which the membership of which is dominated by middle income households. In the villages visited kin arrangements and drawing on social networks were strongly stressed. Collective action, good social relationships, mutual support and traditional ceremonies are important mechanisms to support the local livelihood strategies. Collective action, traditional ceremonies and kin arrangements crosscut social strata and result in higher levels of social capital for poor households (Table 6).

Table 6: Weighted percentages for the common social assets (n=140)

Type	Percentage
Traditional ceremonies	35.0
Collective action	31.0
Kin arrangements	12.0
Lending and borrowing	10.0
Village meetings	8.0
Religious meetings	4.0
Total	100.0

In general, vulnerability in terms of access to physical resources increases from the rich to the poor. Some villages like Esilaei for example suffer the most droughts for livestock and have less favourable conditions for crop production. Likewise, livelihoods in villages in Monduli Juu are less vulnerable as the households in this area own more livestock and some pieces of land for crop production.

Traditional livelihood strategies and outcomes

Ninety percent of respondents said that traditionally pastoralist Maasai depended on livestock to survive. Maasai used their livestock for subsistence, cash income, storage of wealth and security. Livestock keeping was a very demanding strategy that called for an ability to withstand a number

of shocks and stresses which included physical hardships, trekking long distances, and venturing into new lands without fear. Predication of weather changes was another traditional livelihood strategy. For example pastoralist use of rangeland was based on traditional knowledge of environmental variables, such as rainfall patterns, soil systems, animal characteristics and types of vegetation and their potential in different seasons. It was due to this the Maasai moved from one area to another to avoid losing their animal through drought and diseases.

Maasai had a tradition of supporting each other. This strategy was used to support the livelihood of the poor household. This is a culturally determined coping strategy and is socially designed subsistence strategy based on natural support. It was further noted that under this system, poor families were granted cattle or paid kind after having herded cattle of other households. Furthermore, it was noted that the Maasai were knowledgeable on traditional food storage techniques. In order to meet family needs in the future, meat was dried and preserved in animal fat. Blood was also dried and stored. It was observed that animal diseases were treated using traditional herbs (Sokonoi, Olchari Onyike and Ormilo). It was the responsibility of husbands to educate their wives on how to mix these herbs for various treatments. It was also noted that traditionally there was a close relationship between the pastoral activities and nature.

Outcomes of traditional livelihood strategies

Through the traditional strategies, the Maasai managed the ecology that supported their livelihood on a sustainable basis because ecological uncertainty and the spread of risks were reduced. For example mobility of herds was aimed at proper utilization of pastoralist resources such as grazing areas and water. In this manner, the livelihood of the pastoralist was secured. This strategy ensured availability of food throughout the year and made the livelihoods sustainable.

Coping Strategies

The different livelihood platforms and institutional contexts lead to different strategies and coping mechanisms. In the villages visited the coping pattern is typically diversified, permitting households to engage in multiple strategies. In general the livelihood strategies and coping mechanisms for the pastoralist households in the study area have changed over time, due to several factors. Most of the interviewed Maasai pastoralists in the villages (more than 80%), for example attributed this change to the trend of diminishing water resources (drought),

diminishing pastoral land, livestock diseases and rapid increase of people (population pressure). The diminishing of water resources, grazing land and high prevalence of livestock diseases are the most important factors that have pushed the pastoralist Maasai in the studied villages towards alternative livelihood strategies.

Alternative livelihood strategies and outcomes

The analysis of the newly emerging livelihood strategies of the sample households showed that though all the pastoralist Maasai keep livestock some of them (particularly the “poor”) are more relying on alternatives sources of income (non-pastoral activities) than the “medium” and “rich” households. Given their limited access to livestock resources, they are not able to generate sufficient income from pastoralism and therefore they have to supplement their household income from other sources as shown in Table 7.

Table 7: Respondents’ new sources of livelihood in the study area (n=140)

Source of income	Male respondents			Female respondents			Total
	Poor	Medium	Rich	Poor	Medium	Rich	
Crop farming	9	4	2	16	12	2	45
Trading	3	2	5	5	8	6	29
Wage employment	3	6	4	7	4	1	25
Fishing	2	2	-	1	-	-	5
Self employment	5	3	1	4	2	1	16
Beekeeping	2	1	1	1	-	-	5
Tourism	3	4	1	4	2	1	15
Total	26	22	15	38	28	11	140

As shown in Table 7 crop farming has emerged as a major source of income apart from livestock keeping. Most of the household in the study area are now engaged in small scale farming mainly for subsistence. Major crops cultivated include beans, maize, paddy/rice, wheat and coffee. The study found that maize, beans, banana, wheat, coffee and rice are among the crops grown for sale. Wheat, beans, tomatoes are mainly grown in Mfereji village in Monduli Juu ward while rice and banana are grown in Esilalei and Mto wa Mbu wards.

Furthermore, pastoralists in the villages are being involved in trading activities both retail and wholesale business. Some of the villagers were engaging in livestock trading, selling of livestock products (milk, meat and hides) operating retail shops and selling food items (beans, maize, rice, and vegetables). Both men and women are involved in one way or another in business undertakings. Items sold mostly include traditional medicines, herbs and Maasai cultural items such as beads, ear-rings, and other hand made items.

Again, study findings show that with the decline in natural resource base and livestock population, wage employment has begun to be a significant livelihood alternative strategy among pastoralists. The study found that some few respondents interviewed were wage earners and some were self employed. One respondent in Mbugani village said although it is a taboo in the Maasai community to touch women's head, many Morans work as hair dressers and they are very popular among city women. Maasai also sell their elaborate beadwork, for which they are well known.

Tourism activities also are the new source of livelihood among the villagers. The contribution of wildlife though not significant at the level of individual, incomes accrued from it supplements the losses from livestock keeping. A small number of the villagers interviewed were employed as hunter guides and watchmen in this sector. Hence, wildlife resources contribute to the income of the pastoralist Maasai in the studied villages. Other new sources of income in the study area are fishing and beekeeping.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results from the study show that the pastoralist Maasai had a traditional knowledge and experience which they used to withstand a number of shocks and stresses. Through the traditional strategies, they managed the ecology that supported their livelihoods on a sustainable basis. Mobility of herds was aimed at proper utilization of pastoralist resources such as grazing land and water. In this manner, the livelihood of the pastoralist was secured and made sustainable.

The traditional livelihood strategies of the pastoralist have changed over time due to the diminishing water resources, diminishing pastoral land, prevalence of animal diseases and population pressure. These factors have pushed the pastoralist towards new alternative strategies.

Given their limited access to resources, they are not able to generate sufficient income from pastoralism and therefore they have to supplement their household income from non-pastoral activities such as crop farming, trading, wage employment, tourism and self employment.

Recommendations

Basing on the obtained findings, the following are the recommendations:

- a) Pastoralist Maasai are moving from one place to another because of certain reasons that largely centre along their livelihoods. District planners and plans should address these carefully as they have rights to enjoy natural resources in the country.
- b) Pastoralists are engaging in new forms of livelihoods particularly crop farming, at the same time population is increasing and hence, demand for more land. In order to avoid land conflicts, District Councils should carry out detailed land surveys to demarcate land for use by different stakeholders including pastoralist.

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