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**DROUGHT RESILIENCE AND SUSTAINABLE LIVELIHOODS PROGRAMME
IN THE HORN OF AFRICA (DRSLP) KENYA PROJECT**

FINAL GENDER REPORT FOR SIMAILELE IRRIGATION SCHEME

IN

TURKANA COUNTY

AUGUST, 2015

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BBC	British Broadcasting Corporation
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
CLMC	County Livestock Marketing Council
DRSLP	Drought Resilience and Sustainable Livelihoods Project
FAO	Food and Agriculture Organization of the United Nations
FGD	Focus Group Discussions
FGM	Female Genital Mutilation
FMD	Food and Mouth Disease
HH	Household
HIV	Human Immuno-deficiency Virus
IFAD	International Fund for Agricultural Development
ITDG	Intermediate Technology Development Group
KARI	Kenya Agricultural Research Institute
KII	Key Informant Interviews
KLMC	Kenya Livestock Marketing Council
KNBS	Kenya National Bureau of Statistics
LAPSSET	Lamu Port Southern Sudan-Ethiopia Transport
LMA	Livestock Marketing Association
MCA	Member of County Assembly
NGO	Non-governmental Organisation
NLC	National Land Commission
NORAD	Norwegian Agency for Development
PCU	Project Co-ordination Unit
PPR	Peste des Petits Ruminants
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WISP	World Initiative for Sustainable Pastoralism

1.0 INTRODUCTION

This is a gender report for Simailele Irrigation Scheme in Turkana County. It is one of the twenty (20) reports that constitute the Anthropological and Gender Study Report. The study was undertaken in six counties, namely: Baringo, Marsabit, Turkana, Isiolo, West Pokot and Samburu and is supported by the State Department of Agriculture; Ministry of Agriculture, Livestock and Fisheries through the Drought Resilience and Sustainable Livelihoods in the Horn of Africa Project (DRSLP) – Kenya Project. The project implementation period is 2013-2017. The project is funded by the African Development Bank. Acacia Consultants Ltd was contracted to undertake the study in December, 2014 through to May, 2015.

1.1 Background to Turkana County

Turkana County is located in Kenya's north-western region within Rift Valley region. With an area of nearly 77,000 square kilometres, Turkana is the largest county in Kenya. Its capital and largest town is Lodwar. The county borders Uganda to the west, Sudan to the northwest and Ethiopia to the northeast. The county also borders West Pokot to the southwest, Samburu to the southeast and Lake Turkana to the east. The greater Turkana County has 855,399 people (male - 52.03% and female - 47.97%), according to the 2009 National Census and is divided into six sub-counties in line with the 2010 constitution. The Turkana people are the dominant community in the county, although several other tribes such as El Molo have settled there over the years. The Turkana are nomadic pastoralists who mainly keep cattle, donkeys, camels and goats. The livestock keeping is the main source of food and wealth. The Turkana are the second largest pastoral community in Kenya after the Maasai. On the other hand, the El-Molo people - who live on the southern shores of Lake Turkana - are the smallest ethnic group in Kenya with a population of about 300 people. They are said to have originated from either Somalia or Ethiopia and are renowned for their fishing and basket weaving skills. Turkana has been host to refugees for many years, mainly from South Sudan, Uganda, Democratic Republic of Congo and Ethiopia.

Close to 95% of the people living in Turkana County adhere to traditional beliefs while 5-10% was Christians. Livestock, especially zebu (humped) cattle, are very important in the Turkana culture. They serve both as a source of food (milk, meat and blood) and as a form of traditional currency used to pay for brides. Due to the high value placed on livestock, it is common for the Turkana to raid their neighbouring communities - especially the Samburu and the Pokot - in efforts to enlarge their herds. The Turkana have maintained their traditional way of life, including dressing and religion. The majority of Turkana believe in the god of the skies, Akuj, whom they call upon during calamities such as droughts and disease outbreaks.

Turkana is one of the driest counties of Kenya. It experiences very high temperatures during the day and moderate temperatures during the night all year round. The temperatures are estimated to be 25-35°C. The county experiences bimodal rainfall pattern ranging from 120mm-450mm annually with an average precipitation of 250mm. Long rains occur in March-May and short rains in October–December. The rainfall pattern is unpredictable and at times Turkana receives no rain in a whole year. As a result, the residents are faced with a persistent threat of starvation due to drought. Typically, Turkana is well known for experiencing annual cycles of alternate floods and drought disasters. However, in 2013, it was announced by the United Nations Educational, Scientific and Cultural Organisation that large reserves of groundwater had been discovered in the county. The extraction began in 2014 and water is being piped to Lodwar for irrigation and domestic use.¹

The county has the highest poverty index in Kenya and very low participation in schooling at all levels. Only 18.1% of the population can read and write (*Kenya Country Fact Sheets, December 2010*). According to the Kenya Open Data Survey 2014 Turkana County was rated as the poorest county in Kenya². The poverty rates in Turkana County stood at 92.9%. Assessment reports from government and partners indicate that 50-70% of the population in the county continue to rely on humanitarian assistance. The county is characterised by poor road network and limited infrastructure, making access to interior regions a challenge.

¹ http://en.wikipedia.org/wiki/Turkana_County

² (www.opendata.go.ke).

The county has the lowest human development index of 0.333, compared to Nairobi with 0.653 and the national index of 0.561. The literacy rate stands at 16.9% compared to national rate of 71.4%. School enrolment stands at 39.3% compared to Nairobi's 71.3%. Nationally, life expectancy stands at 56 years while in Turkana it is 42 years (Kenya National Human Development Report 2009). According to the Turkana Development Plan 2002-08, 59% of the population do not have access to safe drinking water, 75% of the population do not have access to basic health facilities and global acute malnutrition rates for children fewer than five exceeds 20% in most areas, which is way above World Health Organisation standards of 15%.

The main livelihood in the county is pastoralism, which caters for 60% of the population³. Cattle, camels, donkeys, sheep and goats are a major source of income. Most pastoralists sell their animals to the Kenya Meat Commission particularly during severe drought. Other livelihood zones include agro-pastoralism, mainly in the riverine areas of Turkwell and Kerio, which cater for 20% of the population; fisher folks, situated along the shores of Lake Turkana account for 12% and the formal/casual waged labour/business and trade located in the major towns including Lodwar, Lokichar, Kakuma and Lokichoggio, account for the remaining 8%. Fishing is practised in Lake Turkana, mainly by the El Molo people, with Nile Perch and Tilapia being the main fish species. Most fish are dried in the sun before being sold to brokers who come to the lake shores from Kalokol and Lodwar. Basket weaving is also a major income generating activity in the county, especially among women in Lodwar and other urban centres. Turkana is poised to become an oil-rich county due to the recent discovery of commercially viable oil by the British firm, Tullow Oil. This discovery is expected to attract all sorts of businesses and investments into the county.

Turkana County and the neighbouring Baringo, Laikipia, Marsabit, Samburu and West Pokot counties historically suffer from violent conflicts, including cattle raids (Pragya, 2012). For Turkana County, these conflicts are clan or ethnic-based, international cross border and intra-communal (Krätli & Swift, 1999). The northern and southern portions of the county are the worst affected, particularly Kibbish and Todonyang in Turkana North, Oropoi, and Lokichoggio in Turkana West, Lomirai and Kotaruk in Loima, Lochakula and Kapedo in Turkana East and Kainuk and Norumoru in Turkana South.

The four main contributing sources of conflict and/or stability in Turkana are (1) environmental stressors including climate change, (2) the Ilemi Triangle boundary dispute, (3) dams and their ecological impacts on the waters of Lake Turkana, and (4) the recent interest in Turkana County by international and local actors attracted by the discovery of oil, plus the recently launched Lamu Port and New Transport Corridor Development to Southern Sudan and Ethiopia.

Conflicts over livestock rustling/raids between the Turkana and other groups found in the area have been common over the years. The disputed Ilemi Triangle is home to diverse ethnic groups such as the Didinga and Topasa in South Sudan, and the Inyangatom who move between South Sudan and Ethiopia, and the Dassanech who live east of the triangle in Ethiopia. These pastoral people have historically engaged in raids for each other's livestock with the Turkana (see McCabe, 2004). In the past, traditional weapons such as spears were used in raids but in modern times the groups have been armed with firearms such as AK47 rifles.

The conflicts result in tremendous loss of human life, livestock and other property, and the displacement of communities. Conflict areas experience general disruption of socio-economic activities and livelihoods, increased economic hardship, high levels of starvation, and increasing dependency on relief food (<http://www.tandfonline.com>). Reports of loss of life are quite common in Kenyan newspapers and in the media. The Turkana and the Pokot, for instance, have a record of near-weekly violent clashes, particularly in Kainuk, Lokichar and Katilu areas of South Turkana (BBC, 2013; Bush, 1995; Fratkin, Roth, & Nathan 2004; Pragya, 2012). During the month of September, 2014, two incidences occurred in Kainuk and Lokori Division where unknown goats and sheep were taken by alleged raiders from West Pokot and East Pokot. On November 1, 2014, nineteen police officers were killed and 22 firearms stolen by suspected armed Pokot bandits in Kapedo area of Baringo County. Due to this wave of insecurity, Kenya Defence Forces were deployed in joint disarmament operation with police to recover stolen firearms and quell the conflicts (<http://www.crisisgroup.org>).

³Turkana County 2013 Long Rains Food Security Assessment Report

Irrigation has been practised for more than 500 years in Turkana County. Before the arrival of the British colonialists, the Turkana practiced opportunistic flood cultivation along the rivers. The colonial government initiated small-scale irrigation schemes to mainly feed Mau Mau prisoners. Development partners particularly NORAD, the Kenyan government and United Nations agencies such as Food and Agriculture Organisation and United Nations Development Programme initiated small-scale irrigation schemes along River Turkwell to deal with increased food insecurity. In the 1960s, the government settled drought-ravaged Turkana pastoralists in the Turkwell Irrigation Scheme. Later many other schemes including Kaputir, Katilu and Morulem were started.

Currently, irrigated agriculture is practised in more than 30 irrigation schemes. Examples of areas with irrigation schemes are Katilu, Turkwell, Kalemunyang, Nakwamoru, Juluk Lokori and Kaptir along the River Turkwell and Lotubai, Elelea and Morulem irrigation schemes along River Kerio. Some limited irrigation is carried along seasonal rivers such as Tarach. Crops grown under irrigation include cassava, maize, cowpeas, sorghum, green grams, bananas, mangoes, kales, pumpkins, watermelons, tomatoes, sweet potato, carrots, oranges and guavas. Maize and sorghum constitute 80% of irrigated crops. Most schemes employ flat basin techniques to irrigate farms. Farmers have found that burning trash in saline fields reduces soil salinity.

Irrigated area in Turkana County is estimated to be 2,663 ha, but the irrigation potential is 16,600 hectares. Each household cultivates about 0.4 acres, which is not adequate for farmers' food needs. The schemes produce over 12,000 tonnes of grain per year. There is high demand for irrigated land particularly by persons dispossessed of animals by drought, disease outbreaks or cattle rustling.

The DRSLP area of focus in Turkana County is Turkana South and Loima sub-counties. Simailele Irrigation Scheme is located in Turkana South Sub-county.

1.2 Background of the Scheme

Simailele Irrigation Scheme was a relatively recent intervention located in Turkana South, although the community had for a long time practised small-scale irrigation along the permanent River Turkwell for food crops such as sorghum and maize. The scheme was started in February 2009 by the Anglican Church of Kenya. The church developed permanent intake and established a 2km earth canal. The Turkana Rehabilitation Programme thereafter lined the canal to reduce loss of irrigation water through seepage. The community donated land for irrigation and built an intake in 2013. Each farmer had 0.25 acres under irrigation at the time of the study. The total land under irrigation was 100 acres, covering 400 households. There are plans to open up another 700 acres for irrigation. Households from polygamous families were treated as separate units.

The scheme had a water users' association committee of 15 (10 men, 5 women). The functions of the association included: clearing of bushes; repair and maintenance of canals; and water conflicts resolution. The committee did not charge membership fee because the Turkana considered water a free commodity and would resist any levies. The committee met once a month when the scheme was active. It had a constitution but by-laws had not been implemented.

1.3 Objectives of the Study

1. To identify the roles of men, women and youth with respect to crop and livestock production, reproductive and community activities.
2. To provide information on the household composition and how division of labour affects men's, women's and youth's contribution to productive work.
3. To investigate and provide information on how resources are accessed and controlled with respect to ownership, decision making on the use and distribution of benefits among men and women at household level.
4. To identify the sources of incomes and livelihoods for the different gender groups and the challenges faced.

5. To identify the various gender differentials, including women's access to land, livestock, labour, education, market, credit and information and provide benchmarks from where to measure the changes in differentials (give guidelines for forming gender sensitive marketing and credit organisations).
6. To identify and document all the female headed households and challenges they face in accessing the productive resources (for irrigated agriculture and livestock production).
7. Based on the findings, give conclusions, recommendations and interventions that can be used to address the gender issues that will allow men, women and other gender groups participate, contribute and benefit from the project equally.
8. To enhance the capacity of staff in the relevant gender issues and data collection (both Project Coordination Unit and field staff), and identify the training needs for staff and farmers in gender.

1.4 Scope of the Study

This is a gender study for Simailele Irrigation Scheme in Turkana County. It looks at gender division of labour, household composition, resources and benefits, sources of income and livelihoods, female headed households and potential for credit and marketing organisations. The study makes recommendations on interventions that can be put in place to ensure all gender groups participate in, contribute to and benefit from the project.

2.0 STUDY FINDINGS

The study used both qualitative and quantitative data gathering tools. A total of 91 members of households were interviewed (54.5% male, 45.5% female). The male headed households interviewed were 89.7%, while 10.3% were female headed households. All respondents interviewed were beneficiaries of the scheme. Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) were also conducted and triangulated with the statistical data obtained from the household survey.

2.1 Gender Division of Labour

The Turkana people are the dominant community in the county, although several other tribes such as El Molo have settled there over the years. The ethnic composition of the Simailele irrigation scheme is largely dominated by the Turkana with Borana as minority community.

The gender division of labour with regard to productive (crop and livestock), reproductive and community management activities are discussed in this section. The following are typical activity profiles of crop and livestock production, reproductive activities and community management activities in the scheme area.

2.1.1 Productive Activity Profile

The main livelihood in the county is pastoralism, which caters for 60% of the population⁴. Cattle, camels, donkeys, sheep and goats are a major source of income. Most pastoralists sell their animals to the Kenya Meat Commission particularly during severe drought. Other livelihood zones include agro-pastoralism, mainly in the riverine areas of Turkwell and Kerio, which cater for 20% of the population. This section discusses livestock crop and crop livelihood that constitute the productive livelihoods.

a) Livestock Production Activity Profile

Figure 1 summarises the distribution labour for livestock based activities. The activities were: herding (men only 42.6%, boys 40.1%, men and women 8.5%, women 4.3%, women and girls (4.3%); watering (women and girls 66%, women 14.9%, boys 8.5%, men and women 6.4% and men 4.3%); milking (women 21.3%, women and girls 76.6%, men and women 2.1%); and selling (men only 63.6%, men and women 27.3%, women only 6.8% and women and girls 2.3%).

From foregoing, women participated significantly in productive activities. Boys and men mainly handled herding, animal health, slaughtering of cattle, camels and donkeys and sale of livestock. Women were responsible for livestock watering, construction of livestock pens, milking of animals, slaughtering shoats, sale of milk and land preparation. As depicted in **Table 1**, women were not completely excluded from the activities meant for men the way men were excluded from the domestic care activities that were carried out by women and girls.

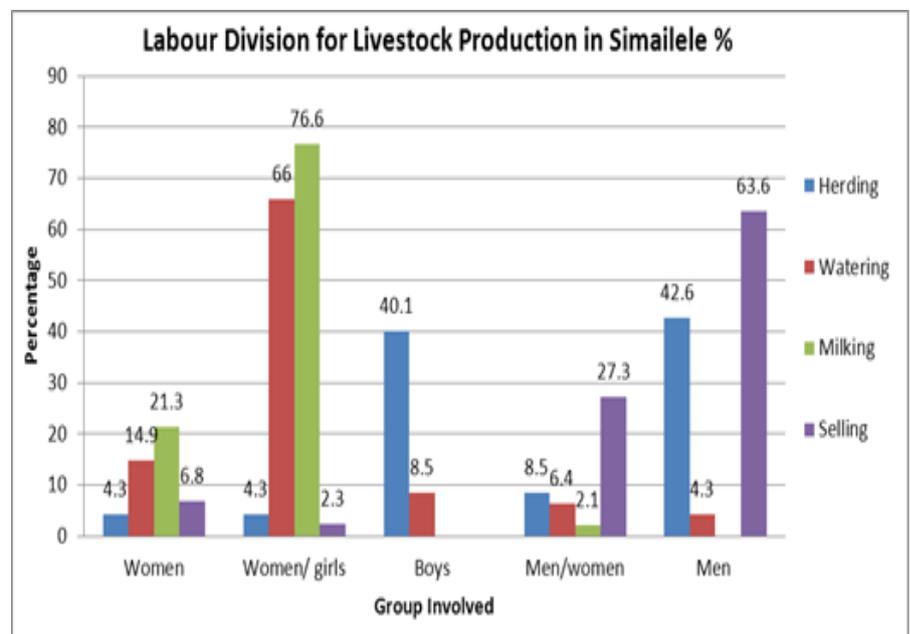


Figure 1 : Division of Labour- Livestock Production

⁴Turkana County 2013 Long Rains Food Security Assessment Report

Table 1: Activity Livestock Activity Profile

Activity	Who	When	Where	How
Herding	Men and boys mainly but also women and girls if the man had no sons.	Daily.	Neighborhood or far off during dry spells.	Free range.
Livestock watering	Women assisted by girls and boys.	Daily.	Neighborhood or far off during dry spells when animals are moved to lagers. Others take their livestock to the Turkwell River, about 15km away	Trekking to water points. Women drew the water if animals could not drink directly from source. Men and male youth dug wells (up to 15-20 ft. depth).
Dipping and other forms of health care.	Men	Occasionally.	Neighbourhood	Trekking to dips and use of drugs from agro vet shops.
Construction of livestock pens	Women	Seasonal.	Homestead.	Manually using local materials.
Milking animals	Women assisted by girls	Daily during wet seasons	Homestead.	Manual.
Slaughtering of sheep and goats	Women under husbands' instructions	Occasionally.	Homestead.	Manual.
Slaughtering cattle, camels and donkeys	Men	Occasionally.	Homestead.	Manual.
Sale of livestock	Men	Occasionally.	Local livestock markets.	Trekking and individual negotiations.
Sale of milk	Women	Seasonal.	Neighbourhood or local markets.	Manual.

b) Crop Production

This was an agro-pastoralist community that had for a long time practised small-scale irrigation along the River Turkwell for food crops such as maize, sorghum, millet and cowpeas. Crop production was the main source of livelihood as indicated by 90.1% of respondents. **Figure 2** depicts labour distribution in crop production activities. Land cultivation was done by both men and women in 51.9% of households, women only in 38% cases, men 8.8% and boys and girls 1.3% making it a shared activity but with a greater input by women. Planting was done by men only in 43.6% households, women 33.3%, both women and men in 21.8% of the cases and volunteer workers with 1.3%. Planting was a shared activity but dominated by men. Weeding was done by both women and men in 53.2% of households, by women alone in 45.5% households and by boys and girls 1.3% making it a women

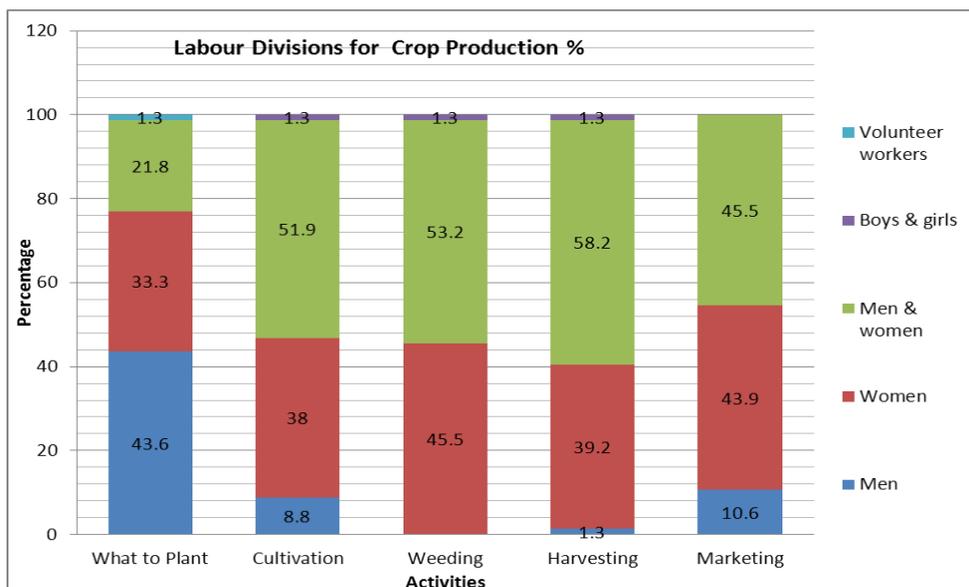


Figure 2: Division of Labour - Crop Production

Planting was done by men only in 43.6% households, women 33.3%, both women and men in 21.8% of the cases and volunteer workers with 1.3%. Planting was a shared activity but dominated by men. Weeding was done by both women and men in 53.2% of households, by women alone in 45.5% households and by boys and girls 1.3% making it a women

activity. Harvesting was done by both men and women in 58.2% households, by women only in 39.2%, men 1.3% and boys and girls 1.3% making women the major contributors to this activity. In 45.5% of households, crop marketing was done by men and women, women 43.9% and men 10.6% making women the principal actors in this activity. **Table 2** presents a typical activity profiles for crop production.

Table 2: Activity Profile - Crop Production

Activity	Who	When	Where	How
Fencing of farming plots	Women	Seasonal	River side on plots about 3km away	Manual using branches.
Tilling	All family members	From 9.00 am to 12.00 noon	River side on plots about 3km away	Manual using jembes.
Planting	All family members	Seasonal	River side on plots about 3km away	Manual using jembes.
Weeding	All family members	Seasonal	River side on plots about 3km away	Manual using jembes.
Watering crops	All family members	Mornings and evenings	River side on plots about 3km away	Manual using buckets.
Security for crops during the day	Women & children	Whole day	River side on plots about 3km away	Manual.
Canal excavation	All family members	Occasional	River side on plots about 3km away	Manual using jembes and spades.
De-silting canals	Men & women working together	Occasional	Canal sites 3km away in Konoo & 7km in Lojokobuo	Manual using jembes and spades.
Clearing bushes	Men & women working together	Occasional	Canal sites 3 km away in Konoo & 7km in Lojokobuo	Manual using pangas and rakes.
Repair of canals using sand bags	Men & boys working together	Occasional	7km in Lojokobuo	Manual.
Harvesting and processing produce	Women	Seasonal	River side on plots about 3km away	Manual.
Ferrying produce home	Women	During harvesting season	River side on plots about 3km away	Manual.
Sale of farm produce	Women	Post-harvest	Village	Trekked to markets.

2.1.2 Reproductive Activity Profile

The reproductive activities were largely the responsibility of women, who woke up much earlier than men, usually 4.00 a.m. to start their chores and were the last to go to bed. Their day was packed with sequential and overlapping activities some which were combined in the same space of time e.g. going to the garden and fetching water. It is instructive to note that men were in charge of looking for food and that this sometimes included begging, an indication of inadequate household food security. **Table 2** presents the reproductive activities.

Table 3: Activity Profile - Reproductive Activities

Activity	Who	When	Where	How
Fetching firewood	Women assisted by girls	Three to four times a week.	Nearby bushes.	Manual.
Fetching water	Women; it takes six hours a day in most deprived places.	Daily.	River or lagaars. During drought, mainly river about 15km away	Trekking.
Cooking	Women assisted by girls.	Daily.	Home.	Manual.
Making family hut	Women assisted by girls.	Seasonal.	Home.	Manual.
Washing clothes	Women assisted by girls.	Weekly.	By river side or at lagaars.	Manual.
Child care	Women assisted by girls.	Daily.	Home. Women also move around with infants.	Manual.
Cleaning house and compound	Women assisted by girls.	Daily.	Home.	Manual.
Heading the household.	Men.	Daily.	Home.	Decision making and instructions.
Arranging for children of 10 years and above (usually boys, girls if there are no boys in the family) to take animals for grazing	Men.	Daily.	Home.	Decision making and instructions.
Security around the home	Men assisted by boys.	Daily.	Home.	Physically using local weapons and guns. Involves staying out of huts at night.
Planning grazing and monitoring animals	Men.	Daily.	Home.	Physical counting and communication.
Looking for food (includes begging)	Men.	Daily.	Home, neighbourhood and local markets.	Trekking to food sources.

2.1.3 Community Management Activity Profile

The main convention for community management activities was the “tree of men” where male elders met daily to collect and exchange important information on issues affecting the community e.g. climate, security and migration of livestock. During the sessions, the *Emuron* (prophet) revealed his predictions regarding important matters/events (e.g. advent of drought or imminent onset of rains and potential or impeding invasion. **Table 3** shows the community management activities.

Table 4: Activity Profile - Community Management Activities

Activity	Who	When	Where	How
Community leadership	Mostly men. There was a female chief in Nakuakua	Continuous.	At community forums.	Decision making, directions and administration guided by tradition.
Decisions on security issues	Male elders	Continuous.	At elder’s forums (tree of men).	Discussion and reliance on available intelligence.
Directions on pasture, grazing, migration and	Male elders including the <i>Emuron</i> (seer), the	Continuous.	At elder’s forums (tree of men).	Discussion and reliance on available

justice	chief and other specialists			intelligence.
Presiding over traditional religious activities.	Men who inherit the role	Occasional.	Within community.	Using traditional protocol.
Scheme leadership	Dominated by men. It is considered that men are more respected	Occasional.	Within scheme context	Functions outlined for scheme officials.

2.2 Household Composition

2.2.1 Marital Patterns

Both polygamy and monogamy were practised. Majority of the respondents (49.4%) came from male headed monogamous marriages, followed by male headed polygamous marriages (37.6%), female headed households (9.41%), while male headed but female managed households accounted for 3.5%). Reasons for polygamy included: to checkmate a defiant wife; barrenness (although this is not common); search for male children when wife keeps on getting only girls (boys were required for security and inheritance); production of family labour; qualification for community leadership (a polygamist was regarded as having better management skills learnt from managing his wives and children); and prestige for men. **Figure 3** highlights the different types of families found in Simailele.

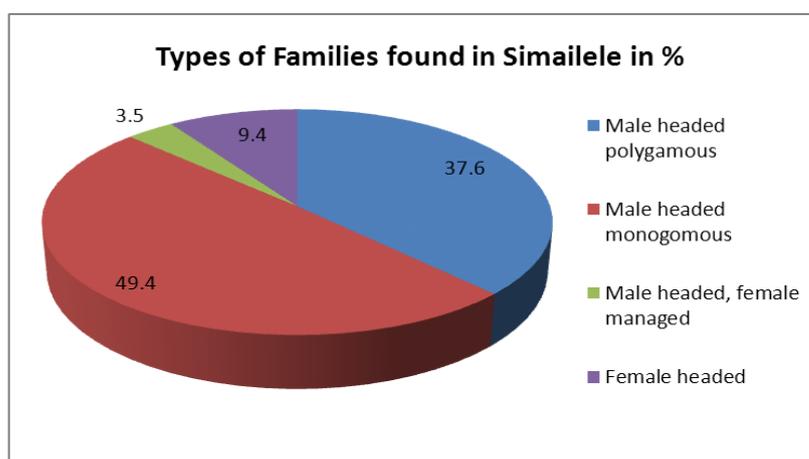


Figure 3: Types of Families in Simailele

If a polygamous husband died, the son of the first wife took care of the family. Widow inheritance was practised but was declining. Polygamy was seen to confer status on men and was also a way of generating family labour. Essentially, productive labour was derived from the family members following a defined gendered pattern on who does what as shown in foregoing profiles.

2.2.2 Gender and Status in the Family

Household Headship: Traditionally, men were the heads of households and were succeeded by their sons on death. The principle sign of male authority was the traditional stool (*Ekicholong*) which women were not allowed to sit on. One who did so was considered to be bent on estranging her husband. In Simailele, the marital status was as follow: 91% married, 7% widowed, 1% single and 1% separated/divorced. Men had one to five wives (majority had two wives) and seven to eight children per wife.

In practice, women were technically the heads of households, as men normally migrated for substantial periods of time with livestock. They were accompanied by male youth. This means that only elders, young boys, girls and women are permanently available in the household. The unit for mobilising productive labour is the household in all types of marriage.

Sons and Daughters: Boys and girls were given equal opportunities to attend school. Boys who did not go to school as well as the brave ones were allocated grazing duties. Fathers decided on one son to look after livestock. They normally looked for the quick and aggressive one who could protect the animals.

For marriage, an eligible bachelor reported to his father who, with the mother and their age mates, visited the girl's family to discuss the matter, including the bride wealth over a feast of meat. Once an agreement was reached, the prospective groom and bride were encouraged by their respective parents

to talk to each other and agree to marry. On agreement, the groom's parents took sugar, tobacco and six sheep to seal the agreement. Increasingly, young men and women could also start a friendship and then seek consent for marriage from parents. Elderly suitors sought consent directly from the woman's father.

The bride wealth in the past consisted of up to 100 head of cattle; this later reduced to 10-20 head of cattle (even five for poor people). One could use other types of livestock such as goats, sheep, camels or donkeys to achieve the equivalent of 100 head of cattle at the following "exchange" rates: 1 bull equalled 11 goats, 1 cow equalled 20 goats and 1 camel equalled 40 goats. These animals were shared among the bride's family members.

When the bride moved to the home of the husband, all her good beads and clothes were removed by the mother-in-law, sisters-in-law and other close female relatives of her husband and she was given old ones. She was then given a stick and taken to fetch water and firewood, accompanied by a woman. She was smeared with oil (from sheep fat) and then sent to milk camels first, then cows.

Rites of Passage: The rite of passage for boys to be recognized as responsible men was called "*Asapan*" meaning "re-birth". The young men were taken to an area with trees; a ram or a he-goat was speared ceremoniously to death and then roasted without skinning and eaten by those being initiated and their mentors. The initiates were sprinkled with intestinal contents. Each of the mentors (men) took a boy home where the initiate changed all the clothes, the head was shaved, mud smeared on the head and a feather (usually from an ostrich) was put on the head. The young men stay with their mentors for about three days and then go home. The "new father" gives the initiate some livestock (3-4 goats) depending on his wealth rank. The initiate starts renaming items and people anew as if he is meeting them for the first time.

There was no equivalent rite of passage for girls. Normally, a girl was said to be growing into a woman when the breasts develop, actively works with the mother, interacts frequently with boys and menstruates. But the community removed the girls' two lower front teeth at around age 15 for aesthetic purposes.

When death occurred, adults (male and female) had their heads shaved followed by the slaughter of a bull which the deceased man used to sing in praise of during traditional dances (*Edong`a*). Three goats were then slaughtered at the time of moving from the area where the death occurred. For youth, slaughtering took place only once. A memorial (for men only) was held one to three years after death. A big bull was slaughtered during the occasion.

Food Habits: Typical food in Turkana included sorghum *ugali* eaten with vegetables and occasionally meat. Breakfast consisted of porridge or tea; lunch was sorghum *ugali* with either milk or vegetables but not both; and dinner consisted of sorghum with green grams or meat. Normally, households could stay for more than two weeks before eating meat.

Parts of a slaughtered animal were apportioned as follows: neck, stomach, intestines, hooves, hind-legs and sheep tail (women although in some clans they did not eat intestines when pregnant as it was believed that they would experience complicated delivery or become barren); back, one fore-leg, shoulder, hump, liver and tongue (men); head, right fore-leg and head (male elders); testicles (male youth); chest, heart and intestines (young boys); one fore-leg, kidneys and stomach (girls but they did not eat the large intestines otherwise it was believed that they will fail to develop properly). In some clans (e.g. *Nimeturana*) women who had gone through a traditional wedding could not drink millet porridge until they have given birth.

Education Levels: Figure 4 depicts the education status in Simailele. From the respondents, 92% had no formal education and only 3.4% had reached primary school level. University graduates constituted 3.4% and post-secondary respondents were 1.2%.

According to the national census of 2009, Turkana County had the lowest percentage of people with both primary and secondary education in the whole country. It had 15.3% of the population from male headed households having primary education compared to 13.7% from female headed households. On secondary school, it had 4.2% in male headed households and 2.4% in female headed households (KNBS & SID, 2013). The low levels of formal education among both men and women indicated a low capacity for engagement in any other work beyond those in the traditional economy and that required primarily physical labour.

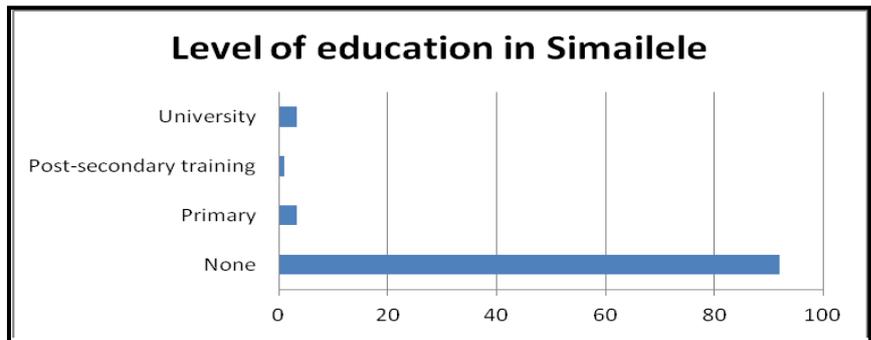


Figure 4: Level of Education in Simailele

2.3 Resources and Benefits Analysis

The resource profile shows male control of resources such as livestock, pastureland, farming plots, family labour and water resources.

Figure 5 shows that in 82% of households, men controlled the means of production while female adults controlled 14.6%, elders (who are also men) controlled 2.2% and male youths controlled 1.1%. Men also controlled major benefits like family inheritance and income from sale of livestock while women controlled subsistence related benefits such as milk, meat and eggs.

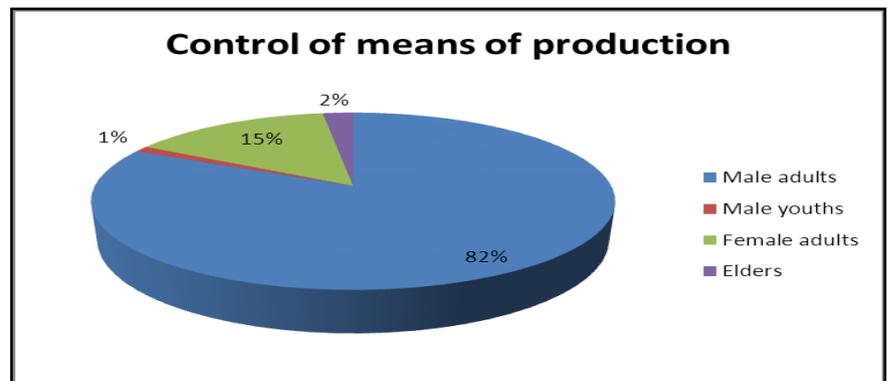


Figure 5: Control of Means of Production

The resources and benefits available to the community and their distribution are depicted in Table 5.

Table 5: Access and Control

Resources	Who Had Access				Who Controlled			
	women	men	Female youth	Male youth	women	men	Female youth	Male youth
Cattle, goats, sheep, donkeys and camels	√√	√√	√√	√√		√√		
Chicken	√√	√	√√	√	√√		√√	
Pastureland	√√	√√	√√	√√		√√		
Farming plots	√√	√√	√	√		√√		
Family labour.	√√	√√	√	√		√√		
Water resources	√√	√√	√√	√√		√√		
Benefits	Who Had Access				Who Controlled			
	women	men	Female youth	Male youth	women	men	Female youth	Male youth
Milk	√√	√√	√√	√√	√√			
Meat for subsistence	√√	√√	√√	√√	√√			
Eggs	√√	√√	√√	√√	√√			
Income from sale of livestock	√√	√√				√√		
Bride wealth	√√	√√	√√	√√		√√		
Hides and skins (sold to traders or used for beddings, thatch,	√√	√√	√√	√√	√√			

sheaths and local shoes)								
Inherited family wealth	√√	√√	√√	√√		√√		
More livestock from re-invested income	√√	√√	√√	√√		√√		

Key: √√- Full control: √- Limited control

2.4 Livelihoods and Sources of Income

The main source of income and livelihood in Simailele Irrigation Scheme was crop production contributing 90.1% compared to 9.9% from pastoralism.

2.4.1 Crop Production

The main crops grown included maize (55.6%), sorghum, (41%), green grams, cowpeas, kales, cabbages, pumpkins, bananas, watermelon, tomatoes, sweet potato, carrots and oranges currently under rain-fed agriculture. The Ministry of Agriculture introduced improved bananas and freely gave out seeds for maize, sorghum and tomato. There was minimal use of fertilizer and organic manure to increase crop yield. However, this was countered by planting drought resistant crops and use of certified seeds to promote crop yields.

The crop produce for sale was disposed of at the farm. Members of the scheme planned to continue growing all the listed crops as well as forage for livestock. Water will be obtained from Turkwell River. The Irrigation Committee had 15 members (5 female, 10 male). The officials, by gender, were: chair (male), vice-chair (male), secretary (male), vice-secretary (female), treasurer (female), foreman (male) and vice-foreman (male). The foreman managed activities of the scheme. Women were preferred for the position of Treasurer because they were considered less likely to embezzle funds as they mind about their reputation. On the other hand, the position of chair was seen as suitable for a man because it requires authority and assertiveness. Respondents indicated that a female chair is more likely to be ignored by men because of the Turkana culture which places women lower than men in the pecking order. The scheme also had a foreman and a deputy.

Challenges related to crop farming were: erosion; uneven land surface in some places; invasion by warthogs, locusts and stalk borer; shortage of farming implements; lack of familiarity with irrigated crop production and handling of crops; lack of fertilizers and other inputs; flooding; poor distribution of irrigation water due to high elevation; and reluctance to pay scheme membership fees. The following were other general challenges pointed out by key informants:

- a) **Delay in Implementation:** The time lag in rolling out the project had led to loss of interest which will take time to re-build. The opportunity cost is that two other donors were kept at bay from the sites. This created the feeling that the community had been misled into expecting what is not being delivered. The loss of trust did not augur well for the project. Some informants felt that the project approach was top-down, as it was being run from Nairobi without adequate linkage with the devolved government.
- b) **Conflicting Approaches:** The many organisations in the county were using different approaches in dealing with the community. Some were giving farmers incentives and hence creating expectations that other projects could not meet.
- c) **Unreliable Supply of Water:** The supply of water was unreliable given that rivers Turkwell and Kerio depend on rainfall from the highlands. If rains failed, the schemes automatically failed unless serious measures were taken to stabilise supply by, for instance, damming. River Kerio sometimes dried up for a whole year. At the time of the study, it had been dry for three months continuously. Turkwell was more stable because of damming. Wells dried up during drought due to the lower water table. Most water pans dried up before the next rains were small in size and did not hold significant amounts of water. The rivers also changed course hence scarcity of water in areas that received it before.
- d) **Flooding:** The flash floods led to siltation of water sources hence overconcentration of livestock in a few places which contributed to erosion and overgrazing.

- e) **Water Quality:** The quality of boreholes was sometimes compromised by salty output. The water sources were also polluted due to multiple uses.
- f) **Soil Type:** The type of soil in the county was highly unstable. The structures developed by the scheme could have easily been destroyed by erosion.

2.4.2 Livestock Production

Livestock keeping was a secondary source of livelihood. The situation had been occasioned by frequent raids by the Pokot and livestock diseases. The animals kept, ranked by their descending order of significance, were goats, sheep, cattle and camels. But ranked by significance in payment of bride wealth, the camel came first followed by cattle, goats/sheep and donkeys. Goats are considered handy because they could easily be sold or slaughtered. Camels were valued because they produced milk for a long time. These two animals also survive well in harsh environments. Chicken were ranked last among the livestock. However, the potential of chicken as a source of income for women was evident as demonstrated by Neema Women’s Group with about 800 layers at Nalemsekon.

Traditionally, goats/sheep, cattle, donkeys and camels were owned by men while women kept and owned chicken. Wives could take custody of sheep and goats but they had no control and had to consult their husbands whenever they wished to do anything with the animals. But women could slaughter the chicken for home consumption or sell in the market without the husband’s express permission. Men with large livestock herds were perceived to be rich while those without were perceived to be poor. In terms of wealth ranking, a rich man had 60 goats/sheep, 10 camels and five donkeys. A poor one had five goats/sheep, one camel and one to three donkeys.

Photo 1 shows goats in Lodwar market. Men normally consulted their wives when they wanted to sell animals and also on how to use income from the sales. Main uses of income were: school fees; starting/expanding business; hiring farm labour; animal health; family health; and buying more livestock.



Photo 1: Lodwar Livestock Market

When a male household head dies, the livestock was managed by his eldest son, his mother and a brother. In some cases, the brother took all the livestock. In polygamous families, the first wife (widow) got more animals than her co-wives/widows. Women whose marriage was not formalised traditionally (piercing a bull with a spear) did not inherit anything and were sent away. At the time of the study, disputes on all matters of property inheritance were taken to the chief.

There were sale yards at Lokichar and Katilu and a small slaughter house/slab at Lokichar that handled up to 20 goats/sheep per day. **Photo 2** shows a slaughter slab in Lodwar. Brokers (men) bought livestock from homesteads and took them to the market. Livestock prices are depicted in **Table 6**.



Photo 2: Slaughter House in Lodwar

Table 6: Prices of Livestock

Stock	Price in Kshs
Cattle	Big (28,000-30,000), medium (20,000-25,000), small (10,000)
Heifer	16,000
Goat	Big (7,000-8,000), medium (5,000-5,500), small (2,000-3,000).
Sheep	Big (5,000-6,000), medium (2,500-4,000), small (2,000). At Katilu, sheep fetched double these prices
Camel	17,000-30,000
Donkey	15,000
Chicken	500-1,000

The Lokichar market operated daily although Tuesday was the designated market day. Average weekly sales were as follows: cattle (30), sheep/goats (400), camels (7) and donkeys (30-40). There was another sale yard at Kalemng'orok. Animals bought were taken to Tullow Oil Company, Chepareria in West Pokot and Lomidat slaughterhouse in Lokichoggio. Hides and skins derived from home slaughter were sold to traders. Those not sold were used for beddings, thatching huts and making sheaths for swords and local shoes.

The sale yard at Katilu was established in 2004 by 30 members. The membership at the time of the study was 110 (62 men and 48 women) as from 2007. There were 11 committee members (6 men, 5 women) distributed as follows: chair (male), vice-chair (female), secretary (male), vice-secretary (female) and treasurer (male). The sale yard at the time of fieldwork was small. Members intended to establish a bigger one on a new site. It operated daily. Goats, sheep and donkeys, in that order, were most frequently sold in the following approximate numbers: sheep/goats (100), cattle (10-25), donkeys (2-4) and camels (2-5). The facility did not have an auction yard, water, offices and toilets. The Livestock Marketing Association (LMA) that managed it was formed in 1997. It had a membership of 62 (5 women, 57 men). The Water Users Committee had 11 members (2 women, 9 men). **Photo 3** shows the offices of Livestock Marketing Council in Lodwar.



Photo 3: Livestock Marketing Council

Challenges of livestock production and marketing were: droughts which occasioned movement of livestock to areas with pasture and water; inadequate market for goats; and diseases. The common livestock diseases by species were: cattle (trypanosomosis, Foot and Mouth Disease, anthrax); sheep/goats (PPR, CCPP, mange); camels (trypanosomosis, haemorrhagic septicemia, mange); and donkeys (trypanosomosis and plant poisoning from prosopis seeds).

Access to government veterinary drugs was rare. Livestock keepers bought drugs from agro-vet shops in Katilu, Lokichar or Lodwar and administered treatment themselves. Only in cases of serious cases do they seek professional veterinary assistance from Lodwar. The quality of some drugs used was poor, but prices were generally affordable. Livestock owners' preferred to use animal health services provided by qualified professionals, but these were only available in Lodwar. Vaccinations were carried out by government veterinarians. There were few community-based animal health workers rendering services to the community. At Simailele, there were two of them (one male, one female). Ethno-veterinary medicine was used to some extent e.g. herbs to treat retained placenta. Aloe vera and Neem were used for non-specific treatment.

The main constraint women faced with regard to livestock resources was the culture which barred them from owning and controlling animals. That they could not make decisions over livestock meant they were unable to liquidate, dispose of or individually utilise them as assets beyond subsistence. The window of opportunity lied, however, in the fact that husbands normally consulted wives before disposal and on use of incomes generated, which meant that the wives may influence decisions. Particularly disadvantaged were the widows, especially those whose marriages were not formalised traditionally, who were completely disinherited of the deceased husband's property.

For men, the main challenge lied in vulnerability caused by attacks by raiders and potential loss from livestock diseases. That they self-treated animals and only sought professional assistance in serious cases meant that it was sometimes too late and livestock die. Cattle were the prime target of cattle raiders and losses worsened economic vulnerability. The attacks occasioned loss of lives, destruction of infrastructure and inability to go to markets, all which contributed to minimizing the economic value of the livestock as well as the sustenance of production. Other challenges were: lack of market information; inadequate transport; poor road conditions; theft en-route to the market by fellow Turkana and raids by the Pokot; low prices at the Lomidat slaughterhouse; lack of grass under irrigation; and no access to credit.

2.4.3 Alternative Sources of Livelihood

Other sources of income apart from crops and livestock included formal employment (1.6%), casual labour (29.4%), small scale business off-farm (11.9%), charcoal trading (51.6%), livestock and their products (4.8%) and bee keeping (0.8). **Table 7** depicts alternative sources of income.

Table 7: Other Sources of Income

Alternative Source of livelihoods	Beneficiary	Percentage (%)
Employment	Men and women	1.6
Casual labour	Men and women	29.4
Small scale business (off-farm)	Men and women	11.9
Charcoal trading	Men and women	51.6
Livestock and their products	Men and women	4.8
Bee keeping/ honey trade	men	0.8
Total		100

Most the households interviewed preferred small scale business (35.7%), Charcoal (25%), employment (21.6%), and bee keeping (7.1%). A brief discussion each is presented below.

Small-scale Business: Both male and female headed houses relied on small scale business as an alternative source of livelihood. The household survey showed this activity was the most preferred by 35.7% of the respondents. It was estimated 24.1% of respondents from male headed households relied on small scale business compared to 28.6% from female headed households. For women, this included brewing of alcoholic drinks *Kaada* (from baking powder fermented with sugar), *chang'aa* and *busaa*. The alcohol is consumed by men, women and children in the afternoons. Several drinking points were cited long the canal and within the village. There were also a few groceries run by men.

Charcoal: This was a major source of income for women. Household data revealed that 51.6% of respondents had charcoal selling as an alternative source of livelihoods and was the most preferred by 25% of the respondents. The 57% of the female headed households relied on charcoal trade compared to 37.9% from male headed households. Even though charcoal was a source of income for the households, it is major environmental challenge for the scheme. The project can promote production of "environmental friendly charcoals" by promoting growing of quick maturing trees that can be harvested for charcoal production.

2.4.4 Coping Mechanisms during Droughts and Food Shortages

Drought was also a major source of vulnerability that compromises availability of food.

- The community relied on relief food distribution by the government and NGOs during shortages. A family usually received 6kg of maize, 2kg of beans and 40ml of oil for three days.
- Households also sold livestock, particularly goats, to buy grains.

- Families reduced the number and size of meals. For example they took only one meal a day (supper) and the husband was served food first followed by children with the mother coming last.
- Clan members and family helped each other when problems arise e.g. by donating livestock to meet a needy family, giving food, and consuming food on credit
- Eating wild fruits was common

2.4.5 Conflict and Conflict Resolution

The conflict was common in the border areas especially with the Toposa, Merile, Karamojong, Tepes Tong'iro and Pokots. Turkana shared grazing fields with communities and conflicts revolved around livestock raids, retaliatory attacks and boundary disputes. The raids had seasonal trends and appeared to have been commercialised especially along Turkana/Pokot border. The Turkana claimed that the Pokot raided their livestock and loaded the stolen livestock on trucks at Sigor for sale in Nairobi among others.

Cattle rustling had a major impact to community livelihoods including loss of livestock, lives and insecurity. Many women had lost their husbands through the raids and as a result female headed households or women inheritance by brothers-in-law. In *The Standard* of April 7, 2015, one widow had summarised that she had lost a father, husband, protector and breadwinner. For men and boys, the raids led to loss of life, injury and over-concentration on security matters. Because of insecurity, education for both boys and girls was compromised as schools got closed for long periods of time. Girls and women also got kidnapped by the raiders and were raped.

The community was categorical that without security, the scheme would not succeed. They indicated that even then, they spent so much time having to protect the women going to the farms for fear of attacks by Picots who they accused of constant harassment and even of harvesting their crops at night. Peace meetings spearheaded by leaders/elders and government officials to resolve such matters had not been successful going by the recurrence of the attacks.

Conflict also occurred between pastoralists and agro-pastoralists when the livestock belonging to the herders raided farms and destroy crops. This discouraged the uptake of crop farming.

Water conflict was evolving in Nalemsekon water pan development. The location of the proposed water pan at Nalemsekon Centre in Kapese Sub-Location was being questioned. The area had about 1,000 people and a high livestock population. The natural water pan in the area provided water about two months after rains. The pan was earmarked for desilting and expansion to increase its capacity. The area occupied by the water pan belonged to the community. However, there were individually owned parcels of land (plots) adjacent to the pan. Some male youth who claimed ownership of some of these plots were unhappy with the proposed expansion of the pan and claimed that no adequate consultation with the community had taken place. The community anticipated that after desilting and expansion of the water pan, there would be permanent water but no adequate forage. This could lead to environmental degradation and would not solve the problem of migrating to search for pasture. There was a borehole around but the water was said to be inadequate and a bit saline.

Nalemsekon Centre had a 6-member village committee of six elders and the chief. The executive committee has the following members: chair (male), vice-chair (male), secretary (female) and treasurer (male).

2.5 Institutional Analysis

There were no co-operatives in Simailele Irrigation Scheme. However, there were 89 women groups in the county, mainly in Loima and Central sub-counties. The only group cited as coming from the study area was the Neema Women's Group which was involved in poultry production at Nalemsekon. These groups were facilitated by the Catholic Diocese of Lodwar to grow high value crops such as vegetables, tomatoes, capsicum, spinach, cowpeas, onions and kales. The diocese oversaw the management of the groups and trained them on investments and business management. The groups sold their livestock during the dry season and saved the money with the groups' table banking programme. The group's members were allowed to borrow to undertake small scale businesses at an interest rate of 2-3 per cent. At the end of the year, the profit was shared and members could recover their deposits plus

dividends and had an option to plough the savings back or use the same buy livestock if season had improved. The programme reduced the risks of livestock loss during periods of severe drought and allowed the community to restock easily.

2.6 Female Headed Households

There were female headed households in the scheme. According to household data, 9% of respondents came from such households. Most female heads of households were widows who lost their husbands from cattle raids. Some stayed alone while others had been inherited by brothers-in-law or elder sons of first wife. But even for those who stayed alone, important matters were decided by the surviving brother-in-law or the eldest son in the household (the elder son of the first wife/widow). For instance, a widow must consult a man (e.g. brother-in-law or a grown-up son) if she intended to sell livestock. There were no child-headed households as vulnerable children were taken care of by extended family members.

The female headed households faced constraints with regard to crop and livestock resources mainly due to patriarchal ownership and inheritance patterns. Shortage of water was a challenge in both crop farming and livestock. The other constraint was insecurity due to cattle raids that lead to loss of livestock and inaccessibility to farms. The absence of co-operatives and credit organisations also meant they had no alternative sources of resources apart from land and livestock.

3.1 Conclusions

3.1.1 Gender Division of Labour

1. Women participated significantly in both productive and reproductive activities. Boys and men mainly handled herding and animal health. In essence women had a higher workload and time constraints. Community management was completely dominated by men (male elders). This implies that women will be constrained by time to take on extra activities while most decisions on project matters will be taken by men. At the same time, the regular absence of men during migration meant that the bulk of labour for the project will come from women.

3.1.2 Household Composition

1. Polygamy conferred status on men and was also a way of generating family labour. Men exercised control over households since they were the traditional heads. They controlled the family labour and hence determined how household members were deployed for production.
2. The pattern of retaining active boys to herd cattle was a constraint to their education.
3. Assigning brides immediate manual work on wedding day constituted a psychological preparation for domestic labour and a predetermination of the bride's career path in the household. It required her to internalize hard labour from the beginning.
4. The process of male initiation into adulthood reinforced male precedence in community affairs as it officially conferred on them status that was publicly bestowed and acknowledged. This imbued in them a sense of pride and confidence. That girls did not go through similar rites denied them the sense of personality that comes with the rite. Male status was again evident in the fact they are the ones that attract memorial ceremonies after death.

3.1.3 Resources and Benefits Analysis

1. Men controlled resources and major benefits while women controlled subsistence related benefits. This implied that decisions on resources for use by the project would be principally made by men.

3.1.4 Livelihoods and Sources of Income

1. The main constraint women faced with regard to livestock resources is the culture which bars them from owning and controlling livestock. That they cannot make decisions over livestock means they cannot liquidate, dispose of or individually utilise them as production assets. The window of opportunity lied, however, in the fact that husbands normally consulted wives before disposal and on use of incomes generated. Particularly disadvantaged were widows, especially those whose marriages were not formalised traditionally, who were completely disinherited of the deceased husband's property.
2. For men, the main challenge lied in vulnerability caused by attacks by raiders and potential loss from livestock diseases. The raids occasion loss of lives, destruction of infrastructure and inability to go to markets, all which contribute to minimising the economic value of the livestock as well as the sustenance of production. Other challenges are: lack of market information; inadequate transport; poor road conditions; theft en-route to the market by fellow Turkana and through raids by the Pokot; low prices at the Lomidat slaughterhouse; lack of grass under irrigation; and no access to credit.
3. The fact that animals were treated by owners and professional assistance only sought in serious cases could mean that it was sometimes too late and livestock were lost.

4. The leadership of the scheme committee was male dominated and did not adhere to the one-third gender principle. The same applied to leadership of other structures such as water pan and livestock associations.
5. Challenges related to crop farming were: erosion; uneven land surface in some places; raiding by warthogs, locusts and stalk borer; shortage of farming implements; lack of familiarity with irrigated crop production and handling of crops; lack of fertilizers and other inputs; flooding; poor distribution of irrigation water due to high elevation; and reluctance to pay scheme membership fees. The reduced productivity that resulted had major impact on women's ability to produce enough for families as they were the major participants in crop farming. This meant that they had to look for alternative sources of food.
6. The practice of women eating last nutritionally disadvantaged them.
7. The water pan dispute at Nalemsekon was a potential conflict once implementation begins as it was clear that the siting was disputed. The fact that some male youth claimed ownership of the plots means that unless the matter was resolved, these youth were likely to sabotage the project. It could very well be that the youth's claims were based on false expectations of financial compensation for the land.

3.1.5 Institutional Analysis

1. There were no co-operative societies in the scheme area.

3.1.6 Female Headed Households

1. The many female headed households faced constraints with regard to crop and livestock resources mainly due to patriarchal ownership and inheritance patterns. Shortage of water was a challenge in both crop farming and livestock. The other constraint was insecurity due to cattle raids that led to loss of livestock and inaccessibility to farms. The absence of co-operatives and credit organisations also meant the women had no alternative sources of resources apart from land and livestock.
2. The practice in the scheme of treating households from polygamous families as separate units was positive as it ensured inclusion of more women in activities and allocation of resources and benefits.

3.2 Recommendations

3.2.1 Gender Division of Labour

1. Measures to reduce domestic workload for women and girls should be put in place.
2. Male elders are imperative reference points on matters of community management, security and livestock, including pasture and water resources. But opportunities should be created to provide space for women in community management activities.
3. While men will be entry points for livestock issues, women will be for cropping and reproductive issues.
4. The absence of men due to migration with livestock should be taken into account, as it will mean most labour will come from women. This is likely to increase women's workload. But their higher participation is also likely to empower them, which will most likely create new gender relations dynamics at household level.

3.2.2 Household Composition

1. The project should consider supporting social campaign issues that would enhance school attendance for boys and discourage traditional role assignment of lower status to women and dietary practices that disadvantage women.
2. While men should be the automatic entry points for mobilising family labour, in reality women will play the role be due to men's migration with livestock so the project should target both and bear in mind that many households in the scheme are female headed.

3.2.3 Resources and Benefits Analysis

1. Measures that can improve women's ownership and control of resources should be explored. This suggests economic empowerment programmes and advocacy for change in succession patterns. Such advocacy should be anchored on constitutional protection of women's and girls' rights to property

3.2.4 Livelihoods and Sources of Income

1. Traditional restrictions to women's decision making on livestock should be addressed through social campaigns and advocacy.
2. The practice of spousal consultation on use of resources should be encouraged.
3. Particular emphasis should be given to the rights of widows to automatically succeed their deceased spouses.
4. The project should address challenges that create vulnerability among livestock keepers. Main ones are diseases, lack of market information, inadequate marketing infrastructure and insecurity. While the first three require direct inputs from the project, the latter requires advocacy and lobbying with relevant security agencies and the administration as well as promotion of peace among neighbouring communities. The recurrence of attacks seems to indicate that current conflict management methods are not working. This calls for new sustainable methods.
5. The leadership of the scheme committees and other structures should be obliged to adhere to the one-third gender principle at the minimum. Measures should be put in place to ensure that women elevated to positions are not mere tokens. The practice of reserving the treasurer position for women should also be discouraged, as it is basically a stereotype that does not assign the women any real power since key decisions are made by the other officials.
6. For crop farming, direct inputs from the project are necessary on capacity building on irrigated farming, soil and water conservation, disease and pest management and improved access to inputs. The community is of course looking forward to the scheme as a regular source of water. Beyond stimulating production, the project should also enhance food security through improving knowledge and skills on post-harvest management of farm produce. Women should be primary targets in all these activities since they are the primary farmers.
7. The project should consider a repeat and inclusive consultation at Nalemsekon to forestall the potential conflict arising from claims by some male youth of the plots where the pan is sited.
8. The project should collaborate with the National Irrigation Board on infrastructure issues in the irrigation scheme and the Turkana Rehabilitation Programme that has prior experience working in the area.

3.2.5 Institutional Analysis

1. The project provide support to table banking programme and expand the same to other groups
2. Carry out capacity building of both men and women in leadership to perform adequately in the roles to which they are elected.

3. Conduct training targeting both men and women on how to manage the groups, basic technical skills related to the value chain and entrepreneurship to enable both participate equally.

3.2.6 Female Headed Households

1. Female headed households should be primary targets for all project activities, resources and opportunities. They should particularly be targeted for inclusion in the envisaged income generating activities.

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5.0 ANNEXES

Annex 1: List of People interviewed

1. FDGs at Simailele Irrigation Scheme

	Men		Women
1	Aruto Ebeyo	1	ManjarutaSamal
2	Nakanokan Esekon	2	Teresiahllare
3	Yohana Aleper	3	EtanEdabal
4	Asekon Lomuria	4	Margaret Ekamais
5	Nawoto Mukura	5	EkitelaEsron
6	Samal Etengan	6	NaluuNgabalia
7	Ebungan Koloe	7	NasuroiNabus
8	Josphar Lokapel	8	EmutonoBethep
9	Longolia Arunya	9	EpetetEkile
10	Sitipin Lokatoe	10	Anna Ngarechan
11	Emili Ngolem	11	ApuaNameremia
12	Samuel Erengae	12	AuriongoEkile
13	Peter Petoo	13	EsekonAwuet
14	Lodung Namasi	14	Akal Nolengemoe
15	Samual Ekale	15	HellenEkadoli
16	Echua Namasi	16	Margaret Atir
17	Esuron Lemuya	17	PriscilaAmaria
18	Nayangan Lokidor	18	Regina Emani
19	Lotot Lotongole	19	Esther Ekuam
20	Lokolak Napokoe	20	Christine Edukan
21	Nawoe Apalir	21	MartnaEkidori
22	Ikalale Ewiren	22	Rebecca Atoot
23	Lotir Lowok	23	Elizabeth Angashuro
24	David Edapal	24	AmoteEken
25	Pitir Enyas	25	NgebeyokPeto
26	Ngikwagoe Lochom	26	LotokoiLongolin
27	Lomeyana Loriu	27	EchotoKatir
28	Johnson Esuron	28	Agnes Nakoe
29	Gabriel Lomuria	29	AbenyoAroot
30	Ekeno Ekulan	30	EmanatEkeno
31	Peter Lotore	31	Margaret Etabo
32	Inok Nangolol	32	Christine Ngolem
33	Esekon Lokalei	33	Regina Napeyok
		34	Jacinta Akiro
		35	LemuyangEkalan
		36	EyanaeChipale
		37	KaileLokwawi
		38	AdukanEkooli
		39	EbuyaLookom
		40	EyanaeEnea
		41	EkisMoru
		42	AtaboLochuch
		43	Mary Asinyan
		44	Stellar Naperit

2. FGD with Katilu Sale Yard Committee

	Name	Sex
1	John Ekai	Male
2	Christopher Ekai Nawalan	Male
3	Moses Eduki	Male
4	Benson Lomodu	Male
5	Hamed Ismael	Male
6	Joseph Aite Eryo	Male
7	Agnes Akiya Marko	Female
8	Aumolem Erupe	Female
9	Elizabeth Nasum	Female
10	Esther Lokidor	Female

3. Men's FGD at Kalemng`orok Sale Yard

	Name
1	Samuel Lomuria
2	James Lopai
3	Ekai Esekon
4	Ekeno Elipan
5	Emoru Lowoi
6	Sammy Lochomin
7	Ekalale James
8	Lomukuny Ekalale
9	Ewolan Lokope
10	Ekitela Eporon
11	Nanok Akusi
12	James Turkan
13	Apus Long`ora
14	Loboki Ekai
15	James Nanuki
16	Ebei Ekomwa
17	Elim Kerio

4. Key Informant Interviews

SN	Name	Sex	Designation/Organisation
1	Anthony Kiprop	Male	DSDO, Department of Gender and Social Development,
2	Asena Sefalia	Male	Assistant Livestock Production Officer, Turkana Central
3	Ernest Mugodhi	Male	Chief Livestock Health Assistant, Turkana Central
4	Sarah Arukudi	Female	Cooperative Officer
5	Dr. Dallington Akabuae	Male	Veterinary Doctor
6	David Tanui	Male	Irrigation Engineer, Turkana Central
7	David Kosgey	Male	Water Officer, Turkana North
8	James Kipkan	Male	Programme Manager, Turkana Rehabilitation Programme
9	Akbwai Darlington,	Male	Veterinarian, Central Turkana
10	Benedict Owila	Male	Research Officer- NIB at Katilu Irrigation Scheme.
11	Alice Edome	Female	Administrative Assistant, Department of Agriculture
12	Paul Ekai Beiber	Male	Senior Subordinate Staff, Department of Agriculture
13	Menela Romolo	Male	Driver, Department of Agriculture

Annex 2: List of Staff Trained

No.	Name	Designation	Gender
1	L.O. Obino	CDA	M
2	Taiy M. K. Wilson	SADLP	M
3	Vitalis Juma N	AAO	M
4	Patrick O. Manyoya	WAO	M
5	Vincent Morara	DAO	M
6	Wilfred Wafula	PLRO	M
7	Joshua Manwari	CDDMS - MENR	M
8	Elisha Talam	CAA	F
9	Wilson Silah	CAA	M
10	David Koskei	SCWO	M